18-009

ORIGINAL SIGNATURES

ILLINDIS HEALTH FACILITIES AND SERVICES REVIEW BOARD

LTC APPLICATION FOR PERMIT
July 2012 Edition

LONG-TERM CARE APPLICATION FOR PERMIT

[ORIGINAL]

SECTION I. IDENTIFICATION, GENERAL INFORMATION, AND CERTIFICATION

This Section must be completed for all projects.

DESCRIPTION OF PROJECT

RECEIVED
FEB 20 2018
HEALTH FACILITIES & SERVICES REVIEW BOARD

Project Type

[Check one]		[check one]	
☒	General Long-term Care	☒	Establishment of a new LTC facility
☐	Specialized Long-term Care	☐	Establishment of
		☐	Expansion of service
		☐	Modernization of an existing facility

Narrative Description

Provide in the space below, a brief narrative description of the project. Explain **WHAT** is to be done, **NOT WHY** it is being done. If the project site does NOT have a street address, include a legal description of the site. Include the rationale regarding the project's classification as substantive or non-substantive.
Include: the number and type of beds involved; the actions proposed (establishment, expansion and/or modernization); the ESTIMATED total project cost and the funding source(s) for the project.

The Applicants to the project are **The Alden Group, Ltd.** (Parent), **Alden New Lenox, LLC** (owner) and **Alden Estates-Courts of New Lenox, Inc.** (operator) and co-Applicant, **New Lenox Investments I, LLC.** The Applicants are proposing the establishment of Alden Estates of New Lenox (Estates) and Alden Courts of New Lenox (Courts), collectively a single 166-bed nursing facility. Alden Estates of New Lenox will house the 114 general long-term nursing beds (80,100 GSF) and it will be connected to Alden Courts of New Lenox, a 52-bed Skilled memory care facility (29,300 GSF) treating residents suffering with Alzheimer's Disease and Related Disorders (ADRD) for a total of 109,400 gross square feet. The Board had previously approved Project No. 15-051 authorizing Alden to establish a 140-bed facility on this site. Alden now proposes that the project instead be a 166-bed facility. Because the change is larger than permissible through a permit alteration, Alden has filed this application for a new permit and, as a condition to approval, would withdraw the permit approved for Project No. 15-051.

The Estates will be a three-story brick and masonry structure with a "main street commons" on the first floor and residents' rooms on the second and third floors. The first floor will offer ancillary services and common area amenities for residents, to include an old fashion ice cream parlor, a beauty salon and barber shop, a non-denominational chapel, private dining room for residents and their guests and a club room. An out-patient therapy is also being contemplated to meet the needs of discharged Estates' residents who are still in need of additional therapy. In addition to the general long-term care services to be provided, the Estates will provide sub-acute services to include pulmonary and ventilator care as well as orthopedic rehabilitation services.

The Courts will be a separate, distinct, and IDPH Licensure disclosed memory care facility in a single-story structure. The physical layout will be provided with separate wings that will specialize in the different stages of dementia.

It should be noted that both the Estates and the Courts will offer separate and distinct common areas. However, the Applicant will have efficiencies built in through the shared use of a single kitchen and laundry facility. Furthermore, the proposed nursing beds are two components located on a 6.64 acres site adjacent to Silver Cross Hospital.

LTC 0000055 00

Facility/Project Identification

Facility Name: **Alden Estates-Courts of New Lenox**
Street Address: **Cedar Crossing Drive adjacent to Silver Cross Hospital, New Lenox**
City and Zip Code: **New Lenox, Illinois 60451**
County: **Will County** Health Service Area: **009** Health Planning Area: **197 Will**

Applicant /Co-Applicant Identification

[Provide for each co-applicant [refer to Part 1130.220]. 05590

Exact Legal Name: **New Lenox Investments I, LLC**
Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Name of Registered Agent: **Mary Chelotti-Smith**
Name of Chief Executive Officer: **Randi Schullo, Manager**
CEO Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Telephone Number: **(773) 724-6324**

Type of Ownership (Applicant/Co-Applicants)

- ☐ Non-profit Corporation
- ☐ For-profit Corporation
- ☒ Limited Liability Company
- ☐ Partnership
- ☐ Governmental
- ☐ Sole Proprietorship
- ☐ Other

- Corporations and limited liability companies must provide an **Illinois certificate of good standing.**
- Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.

APPEND DOCUMENTATION AS ATTACHMENT-1 IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Primary Contact

[Person to receive ALL correspondence or inquiries]

Name: **John P. Kniery**
Title: **Health Care Consultant**
Company Name: **Foley & Associates, Inc.**
Address: **133 South 4th Street, Suite 200, Springfield, Illinois 62701**
Telephone Number: **(217) 544-1551**
E-mail Address: **jkniery@foleyandassociates.com**
Fax Number: **(217) 544-3615**

Additional Contact

[Person who is also authorized to discuss the application for permit]

Name: **Charles H. Foley, MHSA**
Title: **Health Care Consultant**
Company Name: **Foley and Associates, Inc.**
Address: **133 South 4th Street, Suite 200, Springfield, Illinois 62701**
Telephone Number: **(217) 544-1551**
E-mail Address: **cfoley@foleyandassociates.com**
Fax Number: **(217) 544-3615**

Facility/Project Identification

Facility Name: **Alden Estates-Courts of New Lenox**
Street Address: **Cedar Crossing Drive adjacent to Silver Cross Hospital, New Lenox**
City and Zip Code: **New Lenox, Illinois 60451**
County: **Will County** Health Service Area: **009** Health Planning Area: **197 Will**

Applicant /Co-Applicant Identification

[Provide for each co-applicant [refer to Part 1130.220]. 05591

Exact Legal Name: **Alden Estates-Courts of New Lenox, Inc.**
Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Name of Registered Agent: **Mary Chelotti-Smith**
Name of Chief Executive Officer: **Randi Schullo, Vice President**
CEO Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Telephone Number: **(773) 724-6324**

Type of Ownership (Applicant/Co-Applicants)

☐ Non-profit Corporation ☐ Partnership
☒ For-profit Corporation ☐ Governmental
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Primary Contact

[Person to receive ALL correspondence or inquiries]

Name: **John P. Kniery**
Title: **Health Care Consultant**
Company Name: **Foley & Associates, Inc.**
Address: **133 South 4th Street, Suite 200, Springfield, Illinois 62701**
Telephone Number: **(217) 544-1551**
E-mail Address: **jkniery@foleyandassociates.com**
Fax Number: **(217) 544-3615**

Additional Contact

[Person who is also authorized to discuss the application for permit]

Name: **Joe Ourth**
Title: **Attorney at Law**
Company Name: **Arnstein & Lehr, LLP**
Address: **120 South Riverside Plaza, Suite 1200, Chicago, Illinois 60606**
Telephone Number: **(312) 876-7815**
E-mail Address: **jourth@arnstein.com**
Fax Number: **(312) 876-0288**

Facility/Project Identification

Facility Name: **Alden Estates-Courts of New Lenox**
Street Address: **Cedar Crossing Drive adjacent to Silver Cross Hospital, New Lenox**
City and Zip Code: **New Lenox, Illinois 60451**
County: **Will County** Health Service Area: **009** Health Planning Area: **197 Will**

Applicant /Co-Applicant Identification

[Provide for each co-applicant [refer to Part 1130.220]. 05093

Exact Legal Name: **The Alden Group, Ltd.**
Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Name of Registered Agent: **Mary Chelotti-Smith**
Name of Chief Executive Officer: **Floyd A. Schlossberg, President**
CEO Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Telephone Number: **(773) 724-6324**

Type of Ownership (Applicant/Co-Applicants)

☐ Non-profit Corporation ☐ Partnership
☒ For-profit Corporation ☐ Governmental
☐ Limited Liability Company ☐ Sole Proprietorship ☐ Other

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Primary Contact

[Person to receive ALL correspondence or inquiries]

Name: **John P. Kniery**
Title: **Health Care Consultant**
Company Name: **Foley & Associates, Inc.**
Address: **133 South 4th Street, Suite 200, Springfield, Illinois 62701**
Telephone Number: **(217) 544-1551**
E-mail Address: **jkniery@foleyandassociates.com**
Fax Number: **(217) 544-3615**

Additional Contact

[Person who is also authorized to discuss the application for permit]

Name: **Randi Schullo**
Title: **President**
Company Name: **Alden Realty Services, Inc.**
Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Telephone Number: **(773) 724-6324**
E-mail Address: **Randi.schullo@thealdennetwork.com**
Fax Number: **(773) 286-1562**

Facility/Project Identification

Facility Name: **Alden Estates-Courts of New Lenox**
Street Address: **Cedar Crossing Drive adjacent to Silver Cross Hospital, New Lenox**
City and Zip Code: **New Lenox, Illinois 60451**
County: **Will County** Health Service Area: **009** Health Planning Area: **197 Will**

Applicant /Co-Applicant Identification

[Provide for each co-applicant [refer to Part 1130.220]. 05592

Exact Legal Name: **Alden New Lenox, LLC**
Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Name of Registered Agent: **Mary Chelotti-Smith**
Name of Chief Executive Officer: **Randi Schullo, Manager**
CEO Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Telephone Number: **(773) 724-6324**

Type of Ownership (Applicant/Co-Applicants)

☐	Non-profit Corporation	☐	Partnership		
☐	For-profit Corporation	☐	Governmental		
☒	Limited Liability Company	☐	Sole Proprietorship	☐	Other

- Corporations and limited liability companies must provide an **Illinois certificate of good standing.**
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Primary Contact

[Person to receive ALL correspondence or inquiries]

Name: **John P. Kniery**
Title: **Health Care Consultant**
Company Name: **Foley & Associates, Inc.**
Address: **133 South 4th Street, Suite 200, Springfield, Illinois 62701**
Telephone Number: **(217) 544-1551**
E-mail Address: **jkniery@foleyandassociates.com**
Fax Number: **(217) 544-3615**

Additional Contact

[Person who is also authorized to discuss the application for permit]

Name: **Joseph R. Schullo**
Title: **Project Manager**
Company Name: **Alden Realty Services, Inc.**
Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Telephone Number: **(773) 724-6406**
E-mail Address: Joseph.schullo@thealdennetwork.com
Fax Number: **(773) 286-6146**

Post Permit Contact

[Person to receive all correspondence subsequent to permit issuance. **This person must be an employee of the applicant.**]

Name: **Joseph R. Schullo**
Title: **Project Manager**
Company Name: **Alden Realty Services, Inc.**
Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Telephone Number: **(773) 724-6406**
E-mail Address: Joseph.schullo@thealdennetwork.com
Fax Number: **(773) 286-6146**

Site Ownership

[Provide this information for each applicable site]

Exact Legal Name of Site Owner: **Alden New Lenox, LLC**
Address of Site Owner: **4200 West Peterson Avenue, Chicago, Illinois 60646**
Street Address or Legal Description of Site: **See legal description appended as ATTACHMENT-2A**
Proof of ownership or control of the site is to be provided as. Examples of proof of ownership are property tax statement, tax assessor's documentation, deed, notarized statement of the corporation attesting to ownership, an option to lease, a letter of intent to lease or a lease.
APPEND DOCUMENTATION AS ATTACHMENT-2, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Operating Identity/Licensee

[Provide this information for each applicable facility, and insert after this page.]

Exact Legal Name: **Alden Estates-Courts of New Lenox, Inc.**
Address: **4200 West Peterson Avenue, Chicago, Illinois 60646**

☐	Non-profit Corporation	☐	Partnership		
☒	For-profit Corporation	☐	Governmental		
☐	Limited Liability Company	☐	Sole Proprietorship	☐	Other

- Corporations and limited liability companies must provide an Illinois Certificate of Good Standing.
- Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.
- **Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.**

APPEND DOCUMENTATION AS ATTACHMENT-3, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Organizational Relationships

Provide (for each co-applicant) an organizational chart containing the name and relationship of any person or entity who is related (as defined in Part 1130.140). If the related person or entity is participating in the development or funding of the project, describe the interest and the amount and type of any financial contribution.

APPEND DOCUMENTATION AS ATTACHMENT-4, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Flood Plain Requirements

[Refer to application instructions.]

Provide documentation that the project complies with the requirements of Illinois Executive Order #2005-5 pertaining to construction activities in special flood hazard areas. As part of the flood plain requirements please provide a map of the proposed project location showing any identified floodplain areas. Floodplain maps can be printed at **www.FEMA.gov** or **www.illinoisfloodmaps.org**. **This map must be in a readable format**. In addition please provide a statement attesting that the project complies with the requirements of Illinois Executive Order #2005-5 (**http://www.hfsrb.illinois.gov**).

APPEND DOCUMENTATION AS ATTACHMENT -5, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Historic Resources Preservation Act Requirements

[Refer to application instructions.]

Provide documentation regarding compliance with the requirements of the Historic Resources Preservation Act.

APPEND DOCUMENTATION AS ATTACHMENT-6, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

State Agency Submittals

The following submittals are up- to- date, as applicable:

☒ All formal document requests such as IDPH Questionnaires and Annual Bed Reports been submitted

☒ All reports regarding outstanding permits

If the applicant fails to submit updated information for the requirements listed above, the application for permit will be deemed incomplete.

CERTIFICATION

The application must be signed by the authorized representative(s) of the applicant entity. The authorized representative(s) are:

- in the case of a corporation, any two of its officers or members of its Board of Directors;
- in the case of a limited liability company, any two of its managers or members (or the sole manger or member when two or more managers or members do not exist);
- in the case of a partnership, two of its general partners (or the sole general partner, when two or more general partners do not exist);
- in the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and
- in the case of a sole proprietor, the individual that is the proprietor.

**This Application for Permit is filed on the behalf of New Lenox Investments I, LLC *
in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this application for permit on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the permit application fee required for this application is sent herewith or will be paid upon request.**

SIGNATURE

Randi Schullo

PRINTED NAME

Co-manager

PRINTED TITLE

Notarization:
Subscribed and sworn to before me
this 8 day of December 2017

Signature of Notary

OFFICIAL SEAL
JOSEPH SCHULLO
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires August 30, 2020

Seal

SIGNATURE

Joan Carl

PRINTED NAME

Co-manager

PRINTED TITLE

Notarization:
Subscribed and sworn to before me
this 8 day of December 2017

Signature of Notary

OFFICIAL SEAL
JOSEPH SCHULLO
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires August 30, 2020

Seal

*Insert EXACT legal name of the applicant

CERTIFICATION

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- in the case of a partnership, two of its general partners (or the sole general partner, when two or more general partners do not exist);
- in the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and
- in the case of a sole proprietor, the individual that is the proprietor.

This Application for Permit is filed on the behalf of Alden Estates-Courts of New Lenox, Inc. * in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this application for permit on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the permit application fee required for this application is sent herewith or will be paid upon request.

SIGNATURE

Randi Schullo

PRINTED NAME

Vice President

PRINTED TITLE

Notarization:
Subscribed and sworn to before me
this 8 day of December 2017

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SIGNATURE

Joan Carl

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Vice President

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My Commission Expires August 30, 2020

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*Insert EXACT legal name of the applicant

CERTIFICATION

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- in the case of a limited liability company, any two of its managers or members (or the sole manger or member when two or more managers or members do not exist);
- in the case of a partnership, two of its general partners (or the sole general partner, when two or more general partners do not exist);
- in the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and
- in the case of a sole proprietor, the individual that is the proprietor.

**This Application for Permit is filed on the behalf of The Alden Group, LTD *
in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this application for permit on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the permit application fee required for this application is sent herewith or will be paid upon request.**

SIGNATURE
Randi Schullo
PRINTED NAME
Vice President
PRINTED TITLE

Notarization:
Subscribed and sworn to before me
this 8 day of December 2017

Signature of Notary

OFFICIAL SEAL
JOSEPH SCHULLO
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires August 30, 2020
Seal

SIGNATURE
Joan Carl
PRINTED NAME
Vice President
PRINTED TITLE

Notarization:
Subscribed and sworn to before me
this 8 day of December 2017

Signature of Notary

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My Commission Expires August 30, 2020
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*Insert EXACT legal name of the applicant

CERTIFICATION

The application must be signed by the authorized representative(s) of the applicant entity. The authorized representative(s) are:

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- in the case of a limited liability company, any two of its managers or members (or the sole manger or member when two or more managers or members do not exist);
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- in the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and
- in the case of a sole proprietor, the individual that is the proprietor.

**This Application for Permit is filed on the behalf of Alden New Lenox, LLC *
in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this application for permit on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the permit application fee required for this application is sent herewith or will be paid upon request.**

SIGNATURE

Randi Schullo

PRINTED NAME

Co-manager

PRINTED TITLE

Notarization:
Subscribed and sworn to before me
this 8 day of December 2017

Signature of Notary

OFFICIAL SEAL
JOSEPH SCHULLO
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires August 30, 2020

Seal

SIGNATURE

Joan Carl

PRINTED NAME

Co-manager

PRINTED TITLE

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Signature of Notary

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Seal

*Insert EXACT legal name of the applicant

SECTION II – PURPOSE OF THE PROJECT, AND ALTERNATIVES – INFORMATION REQUIREMENTS

This Section is applicable to ALL projects.

Criterion 1125.320 – Purpose of the Project

READ THE REVIEW CRITERION and provide the following required information:

PURPOSE OF PROJECT

1. Document that the project will provide health services that improve the health care or well-being of the market area population to be served.
2. Define the planning area or market area, or other, per the applicant's definition.
3. Identify the existing problems or issues that need to be addressed, as applicable and appropriate for the project.
4. Cite the sources of the information provided as documentation.
5. Detail how the project will address or improve the previously referenced issues, as well as the population's health status and well-being.
6. Provide goals with quantified and measurable objectives, with specific timeframes that relate to achieving the stated goals **as appropriate**.

For projects involving modernization, describe the conditions being upgraded if any. For facility projects, include statements of age and condition and regulatory citations if any. For equipment being replaced, include repair and maintenance records.

NOTE: Information regarding the "Purpose of the Project" will be included in the State Board Report. APPEND DOCUMENTATION AS ATTACHMENT-10, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM. Each item (1-6) must be identified in Attachment 10.

Criterion 1125.330 – Alternatives

READ THE REVIEW CRITERION and provide the following required information:

ALTERNATIVES

1. Identify **ALL** of the alternatives to the proposed project:

   Alternative options **must** include:

   a. Proposing a project of greater or lesser scope and cost;

   b. Pursuing a joint venture or similar arrangement with one or more providers or entities to meet all or a portion of the project's intended purposes; developing alternative settings to meet all or a portion of the project's intended purposes;

   c. Utilizing other health care resources that are available to serve all or a portion of the population proposed to be served by the project; and

   d. Provide the reasons why the chosen alternative was selected.

2. Documentation shall consist of a comparison of the project to alternative options. The comparison shall address issues of total costs, patient access, quality and financial benefits in both the short term (within one to three years after project completion) and long

term. This may vary by project or situation. **FOR EVERY ALTERNATIVE IDENTIFIED THE TOTAL PROJECT COST AND THE REASONS WHY THE ALTERNATIVE WAS REJECTED MUST BE PROVIDED.**

3. The applicant shall provide empirical evidence, including quantified outcome data that verifies improved quality of care, as available.

APPEND DOCUMENTATION AS ATTACHMENT-11, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE DF THE APPLICATION FORM.

SECTION III – BED CAPACITY, UTILIZATION AND APPLICABLE REVIEW CRITERIA

This Section is applicable to all projects proposing establishment, expansion or modernization of LTC categories of service that are subject to CON review, as provided in the Illinois Health Facilities Planning Act [20 ILCS 3960]. It is comprised of information requirements for each LTC category of service, as well as charts for each service, indicating the review criteria that must be addressed for each action (establishment, expansion and modernization). After identifying the applicable review criteria for each category of service involved , read the criteria and provide the required information, AS APPLICABLE TO THE CRITERIA THAT MUST BE ADDRESSED:

Criterion 1125.510 – Introduction

Bed Capacity

Applicants proposing to establish, expand and/or modernize General Long Term Care must submit the following information:

Indicate bed capacity changes by Service:

Category of Service	Total # Existing Beds*	Total # Beds After Project Completion
☒ General Long-Term Care	0	166
☐ Specialized Long-Term Care		
☐		

***Existing number of beds as authorized by IDPH and posted in the "LTC Bed Inventory" on the HFSRB website (www.hrfsb.illinois.gov). PLEASE NOTE:** ANY bed capacity discrepancy from the Inventory will result in the application being deemed **incomplete**.

Utilization

Utilization for the most current CALENDAR YEAR:

Category of Service	Year	Admissions	Patient Days
☒ General Long Term Care	2023	1201.2*	54,531
☐ Specialized Long-Term Care			

*Potential admissions available. However, based on the ALOS of the State's identified listing of facilities within 30-minutes, only 611 referrals necessary to reach optimal utilization.

Applicable Review Criteria - Guide
The review criteria listed below must be addressed, per the LTC rules contained in 77 Ill. Adm. Code 1125. See HFSRB's website to view the subject criteria for each project type - (http://hfsrb.illinois.gov). To view LTC rules, click on "Board Administrative Rules" and then click on "77 Ill. Adm. Code 1125".

READ THE APPLICABLE REVIEW CRITERIA OUTLINED BELOW and **submit the required documentation for the criteria, as described in SECTIONS IV and V:**

GENERAL LONG-TERM CARE

PROJECT TYPE	REQUIRED REVIEW CRITERIA	
	Section	**Subject**
Establishment of Services or Facility	.520	Background of the Applicant
	.530(a)	Bed Need Determination
	.530(b)	Service to Planning Area Residents
	.540(a) or (b) + (c) + (d) or (e)	Service Demand – Establishment of General Long Term Care
	.570(a) & (b)	Service Accessibility
	.580(a) & (b)	Unnecessary Duplication & Maldistribution
	.580(c)	Impact of Project on Other Area Providers
	.590	Staffing Availability
	.600	Bed Capacity
	.610	Community Related Functions
	.620	Project Size
	.630	Zoning
	.640	Assurances
	.800	Estimated Total Project Cost
	Appendix A	Project Costs and Sources of Funds
	Appendix B	Related Project Costs
	Appendix C	Project Status and Completion Schedule
	Appendix D	Project Status and Completion Schedule

Expansion of Existing Services	.520	Background of the Applicant
	.530(b)	Service to Planning Area Residents
	.550(a) + (b) or (c)	Service Demand – Expansion of General Long-Term Care
	.590	Staffing Availability
	.600	Bed Capacity
	.620	Project Size
	.640	Assurances
	.560(a)(1) through (3)	Continuum of Care Components
	.590	Staffing Availability
	.600	Bed Capacity

	.610	Community Related Functions
	.630	Zoning
	.640	Assurances
	.800	Estimated Total Project Cost
	Appendix A	Project Costs and Sources of Funds
	Appendix B	Related Project Costs
	Appendix C	Project Status and Completion Schedule
	Appendix D	Project Status and Completion Schedule

Continuum of Care – Establishment or Expansion	.520	Background of the Applicant
	.560(a)(1) through (3)	Continuum of Care Components
	.590	Staffing Availability
	.600	Bed Capacity
	.610	Community Related Functions
	.630	Zoning
	.640	Assurances
	.800	Estimated Total Project Cost
	Appendix A	Project Costs and Sources of Funds
	Appendix B	Related Project Costs
	Appendix C	Project Status and Completion Schedule
	Appendix D	Project Status and Completion Schedule

Defined Population – Establishment or Expansion	.520	Background of the Applicant
	.560(b)(1) & (2)	Defined Population to be Served
	.590	Staffing Availability
	.600	Bed Capacity
	.610	Community Related Functions
	.630	Zoning
	.640	Assurances
	.800	Estimated Total Project Cost
	Appendix A	Project Costs and Sources of Funds
	Appendix B	Related Project Costs
	Appendix C	Project Status and Completion Schedule
	Appendix D	Project Status and Completion Schedule

Modernization	.650(a)	Deteriorated Facilities
	.650(b) & (c)	Documentation
	.650(d)	Utilization
	.600	Bed Capacity
	.610	Community Related Functions
	.620	Project Size
	.630	Zoning
	.800	Estimated Total Project Cost
	Appendix A	Project Costs and Sources of Funds
	Appendix B	Related Project Costs
	Appendix C	Project Status and Completion Schedule
	Appendix D	Project Status and Completion Schedule

SPECIALIZED LONG-TERM CARE

PROJECT TYPE	REQUIRED REVIEW CRITERIA	
	Section	**Subject**
Establishment of LTC Developmentally Disabled – (Adult)	.720(a)	Facility Size
	.720(b)	Community Related Functions
	.720(c)	Availability of Ancillary and Support Programs
	.720(d)	Recommendations from State Departments
	.720(f)	Zoning
	.720(g)	Establishment of Beds – Developmentally Disable -Adult
	.720(j)	State Board Consideration of Public Hearing Testimony
	.800	Estimated Total Project Cost
	Appendix A	Project Costs and Sources of Funds
	Appendix B	Related Project Costs
	Appendix C	Project Status and Completion Schedule
	Appendix D	Project Status and Completion Schedule

Establishment of LTC Developmentally Disabled - Children	.720(a)	Facility Size
	.720(b)	Community Related Functions
	.720(c)	Availability of Ancillary and Support Programs
	.720(d)	Recommendations from State Departments
	.720(f)	Zoning
	.720(j)	State Board Consideration of Public Hearing Testimony
	.800	Estimated Total Project Cost
	Appendix A	Project Costs and Sources of Funds
	Appendix B	Related Project Costs
	Appendix C	Project Status and Completion Schedule
	Appendix D	Project Status and Completion Schedule

Establishment of Chronic Mental Illness	.720(a)	Facility Size
	.720(b)	Community Related Functions
	.720(c)	Availability of Ancillary and Support Programs
	.720(f)	Zoning
	.720(g)	Establishment of Chronic Mental Illness
	.720(j)	State Board Consideration of Public Hearing Testimony

	.800	Estimated Total Project Cost
	Appendix A	Project Costs and Sources of Funds
	Appendix B	Related Project Costs
	Appendix C	Project Status and Completion Schedule
	Appendix D	Project Status and Completion Schedule

Establishment of Long Term Medical Care for Children	.720(a)	Facility Size
	.720(b)	Community Related Functions
	.720(c)	Availability of Ancillary and Support Programs
	.720(e)	Long-Term Medical Care for Children-Category of Service
	.720(f)	Zoning
	.720(j)	State Board Consideration of Public Hearing Testimony
	.800	Estimated Total Project Cost
	Appendix A	Project Costs and Sources of Funds
	Appendix B	Related Project Costs
	Appendix C	Project Status and Completion Schedule
	Appendix D	Project Status and Completion Schedule

SECTION IV - SERVICE SPECIFIC REVIEW CRITERIA

GENERAL LONG-TERM CARE

Criterion 1125.520 – Background of the Applicant

BACKGROUND OF APPLICANT

The applicant shall provide:

1. A listing of all health care facilities owned or operated by the applicant, including licensing, and certification if applicable.
2. A certified listing of any adverse action taken against any facility owned and/or operated by the applicant during the three years prior to the filing of the application.
3. Authorization permitting HFSRB and DPH access to any documents necessary to verify the information submitted, including, but not limited to: official records of DPH or other State agencies; the licensing or certification records of other states, when applicable; and the records of nationally recognized accreditation organizations. **Failure to provide such authorization shall constitute an abandonment or withdrawal of the application without any further action by HFSRB.**
4. If, during a given calendar year, an applicant submits more than one application for permit, the documentation provided with the prior applications may be utilized to fulfill the information requirements of this criterion. In such instances, the applicant shall attest the information has been previously provided, cite the project number of the prior application, and certify that no changes have occurred regarding the information that has been previously provided. The applicant is able to submit amendments to previously submitted information, as needed, to update and/or clarify data.

APPEND DOCUMENTATION AS ATTACHMENT-12, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM. EACH ITEM (1-4) MUST BE IDENTIFIED IN ATTACHMENT 11.

Criterion 1125.530 - Planning Area Need

1. Identify the calculated number of beds needed (excess) in the planning area. See HFSRB website (http://hfsrb.illinois.gov) and click on "Health Facilities Inventories & Data".
2. Attest that the primary purpose of the project is to serve residents of the planning area and that at least 50% of the patients will come from within the planning area.
3. Provide letters from referral sources (hospitals, physicians, social services and others) that attest to total number of prospective residents (by zip code of residence) who have received care at existing LTC facilities located in the area during the 12-month period prior to submission of the application. Referral sources shall verify their projections and the methodology used, as described in Section 1125.540.

APPEND OCCUMENTATION AS ATTACHMENT-13, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.540 - Service Demand – Establishment of General Long Term Care

- **If the applicant is an existing facility wishing to establish this category of service or a new facility, #1 – 4 must be addressed. Requirements under #5 must also be addressed if applicable.**
- **If the applicant is not an existing facility and proposes to establish a new general LTC facility, the applicant shall submit the number of annual projected referrals.**

1. Document the number of referrals to other facilities, for each proposed category of service, for each of the latest two years. Documentation of the referrals shall include: resident/patient origin by zip code; name and specialty of referring physician or identification of another referral source; and name and location of the recipient LTC facility.

2. Provide letters from referral sources (hospitals, physicians, social services and others) that attest to total number of prospective residents (by zip code of residence) who have received care at existing LTC facilities located in the area during the 12-month period prior to submission of the application. Referral sources shall verify their projections and the methodology used.

3. Estimate the number of prospective residents whom the referral sources will refer annually to the applicant's facility within a 24-month period after project completion. Please note:

    - The anticipated number of referrals cannot exceed the referral sources' documented historical LTC caseload.

    - The percentage of project referrals used to justify the proposed expansion cannot exceed the historical percentage of applicant market share, within a 24-month period after project completion

    - Each referral letter shall contain the referral source's Chief Executive Officer's notarized signature, the typed or printed name of the referral source, and the referral source's address

4. Provide verification by the referral sources that the prospective resident referrals have not been used to support another pending or approved Certificate of Need (CON) application for the subject services.

5. **If a projected demand for service is based upon rapid population growth in the applicant facility's existing market area** (as experienced annually within the latest 24-month period), the projected service demand shall be determined as follows:

    a. The applicant shall define the facility's market area based upon historical resident/patient origin data by zip code or census tract;

    b. Population projections shall be produced, using, as a base, the population census or estimate for the most recent year, for county, incorporated place, township or community area,by the U.S. Bureau of the Census or IDPH;

    c. Projections shall be for a maximum period of 10 years from the date the application is submitted;

    d. Historical data used to calculate projections shall be for a number of years no less than the number of years projected;

e. Projections shall contain documentation of population changes in terms of births, deaths and net migration for a period of time equal to or in excess of the projection horizon;

f. Projections shall be for total population and specified age groups for the applicant's market area, as defined by HFSRB, for each category of service in the application (see the HFSRB Inventory); and

g. Documentation on projection methodology, data sources, assumptions and special adjustments shall be submitted to HFSRB.

APPEND DOCUMENTATION AS ATTACHMENT- 14, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.550 - Service Demand – Expansion of General Long-Term Care THIS ITEM IS NOT APPLICABLE

The applicant shall document #1 **and** either #2 or #3:

1. Historical Service Demand

   a. An average annual occupancy rate that has equaled or exceeded occupancy standards for general LTC, as specified in Section 1125.210(c), for each of the latest two years.

   b. If prospective residents have been referred to other facilities in order to receive the subject services, the applicant shall provide documentation of the referrals, including completed applications that could not be accepted due to lack of the subject service and documentation from referral sources, with identification of those patients by initials and date.

2. Projected Referrals
   The applicant shall provide documentation as described in Section 1125.540(d).

3. **If a projected demand for service is based upon rapid population growth in the applicant facility's existing market area** (as experienced annually within the latest 24-month period), the projected service demand shall be determined as described in Section 1125.540 (e).

APPEND DOCUMENTATION AS ATTACHMENT- 15, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.560 - Variances to Computed Bed Need THIS ITEM IS NOT APPLICABLE

Continuum of Care:

The applicant proposing a continuum of care project shall demonstrate the following:

1. The project will provide a continuum of care for a geriatric population that includes independent living and/or congregate housing (such as unlicensed apartments, high rises for the elderly and retirement villages) and related health and social services. The housing complex shall be on the same site as the health facility component of the project.

2. The proposal shall be for the purposes of and serve only the residents of the housing complex and shall be developed either after the housing complex has been established or as a part of a

total housing construction program, provided that the entire complex is one inseparable project, that there is a documented demand for the housing, and that the licensed beds will not be built first, but will be built concurrently with or after the residential units.

3. The applicant shall demonstrate that:

   a. The proposed number of beds is needed. Documentation shall consist of a list of available patients/residents needing the proposed project. The proposed number of beds shall not exceed one licensed LTC bed for every five apartments or independent living units;

   b. There is a provision in the facility's written operational policies assuring that a resident of the retirement community who is transferred to the LTC facility will not lose his/her apartment unit or be transferred to another LTC facility solely because of the resident's altered financial status or medical indigency; and

   c. Admissions to the LTC unit will be limited to current residents of the independent living units and/or congregate housing.

Defined Population:

The applicant proposing a project for a defined population shall provide the following:

1. The applicant shall document that the proposed project will serve a defined population group of a religious, fraternal or ethnic nature from throughout the entire health service area or from a larger geographic service area (GSA) proposed to be served and that includes, at a minimum, the entire health service area in which the facility is or will be physically located.

2. The applicant shall document each of the following:

   a. A description of the proposed religious, fraternal or ethnic group proposed to be served;

   b. The boundaries of the GSA;

   c. The number of individuals in the defined population who live within the proposed GSA, including the source of the figures;

   d. That the proposed services do not exist in the GSA where the facility is or will be located;

   e. That the services cannot be instituted at existing facilities within the GSA in sufficient numbers to accommodate the group's needs. The applicant shall specify each proposed service that is not available in the GSA's existing facilities and the basis for determining why that service could not be provided.

   f. That at least 85% of the residents of the facility will be members of the defined population group. Documentation shall consist of a written admission policy insuring that the requirements of this subsection (b)(2)(F) will be met.

   g. That the proposed project is either directly owned or sponsored by, or affiliated with, the religious, fraternal or ethnic group that has been defined as the population to be served by the project. The applicant shall provide legally binding documents that prove ownership, sponsorship or affiliation.

APPEND DOCUMENTATION AS ATTACHMENT- 16, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.570 - Service Accessibility

1. Service Restrictions

   The applicant shall document that **at least one** of the following factors exists in the planning area, as applicable:

   - The absence of the proposed service within the planning area;
   - Access limitations due to payor status of patients/residents, including, but not limited to, individuals with LTC coverage through Medicare, Medicaid, managed care or charity care;
   - Restrictive admission policies of existing providers; or
   - The area population and existing care system exhibit indicators of medical care problems, such as an average family income level below the State average poverty level, or designation by the Secretary of Health and Human Services as a Health Professional Shortage Area, a Medically Underserved Area, or a Medically Underserved Population.

2. Additional documentation required:

   The applicant shall provide the following documentation, as applicable, concerning existing restrictions to service access:

   a. The location and utilization of other planning area service providers;

   b. Patient/resident location information by zip code;

   c. Independent time-travel studies;

   d. Certification of a waiting list;

   e. Admission restrictions that exist in area providers;

   f. An assessment of area population characteristics that document that access problems exist;

   g. Most recently published IDPH Long Term Care Facilities Inventory and Data (see www.hfsrb.illinois.gov).

APPEND DOCUMENTATION AS ATTACHMENT- 17, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.580 - Unnecessary Duplication/Maldistribution

1. The applicant shall provide the following information:
   a. A list of all zip code areas that are located, in total or in part, within 30 minutes normal travel time of the project's site;
   b. The total population of the identified zip code areas (based upon the most recent population numbers available for the State of Illinois); and
   c. The names and locations of all existing or approved LTC facilities located within 30 minutes normal travel time from the project site that provide the categories of bed service that are proposed by the project.
2. The applicant shall document that the project will not result in maldistribution of services.
3. The applicant shall document that, within 24 months after project completion, the proposed project:
   a. Will not lower the utilization of other area providers below the occupancy standards specified in Section 1125.210(c); and
   b. Will not lower, to a further extent, the utilization of other area facilities that are currently (during the latest 12-month period) operating below the occupancy standards.

APPEND DOCUMENTATION AS ATTACHMENT- 18, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.590 - Staffing Availability

1. For each category of service, document that relevant clinical and professional staffing needs for the proposed project were considered and that licensure and JCAHO staffing requirements can be met.
2. Provide the following documentation:
   a. The name and qualification of the person currently filling the position, if applicable; and
   b. Letters of interest from potential employees; and
   c. Applications filed for each position; and
   d. Signed contracts with the required staff; or
   e. A narrative explanation of how the proposed staffing will be achieved.

APPEND DOCUMENTATION AS ATTACHMENT- 19, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.600 Bed Capacity

The maximum bed capacity of a general LTC facility is 250 beds, unless the applicant documents that a larger facility would provide personalization of patient/resident care and documents provision of quality care based on the experience of the applicant and compliance with IDPH's licensure standards (77 Ill. Adm. Code: Chapter I, Subchapter c (Long-Term Care Facilities)) over a two-year period.

APPEND DOCUMENTATION AS ATTACHMENT- 20, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.610 - Community Related Functions

The applicant shall document cooperation with and the receipt of the endorsement of community groups in the town or municipality where the facility is or is proposed to be located, such as, but not limited to, social, economic or governmental organizations or other concerned parties or groups. Documentation shall consist of copies of all letters of support from those organizations.

APPEND DOCUMENTATION AS ATTACHMENT- 21, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.620 - Project Size

The applicant shall document that the amount of physical space proposed for the project is necessary and not excessive. The proposed gross square footage (GSF) cannot exceed the GSF standards as stated in Appendix A of 77 Ill. Adm. Code 1125 (LTC rules), unless the additional GSF can be justified by documenting one of the following:

1. Additional space is needed due to the scope of services provided, justified by clinical or operational needs, as supported by published data or studies;
2. The existing facility's physical configuration has constraints or impediments and requires an architectural design that results in a size exceeding the standards of Appendix A;
3. The project involves the conversion of existing bed space that results in excess square footage.

APPEND DOCUMENTATION AS ATTACHMENT- 22, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.630 - Zoning

The applicant shall document **one** of the following:

1. The property to be utilized has been zoned for the type of facility to be developed;
2. Zoning approval has been received; or
3. A variance in zoning for the project is to be sought.

APPEND DOCUMENTATION AS ATTACHMENT- 23, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.640 - Assurances

1. The applicant representative who signs the CON application shall submit a signed and dated statement attesting to the applicant's understanding that, by the second year of operation after the project completion, the applicant will achieve and maintain the occupancy standards specified in Section 1125.210(c) for each category of service involved in the proposal.

2. For beds that have been approved based upon representations for continuum of care (Section 1125.560(a)) or defined population (Section 1125.560(b)), the facility shall provide assurance that it will maintain admissions limitations as specified in those Sections for the life of the facility. To eliminate or modify the admissions limitations, prior approval of HFSRB will be required.

APPEND DOCUMENTATION AS ATTACHMENT- 24, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Criterion 1125.650 - Modernization THIS ITEM IS NOT APPLICABLE

1. If the project involves modernization of a category of LTC bed service, the applicant shall document that the bed areas to be modernized are deteriorated or functionally obsolete and need to be replaced or modernized, due to such factors as, but not limited to:

   a. High cost of maintenance;

   b. non-compliance with licensing or life safety codes;

   c. Changes in standards of care (e.g., private versus multiple bed rooms); or

   d. Additional space for diagnostic or therapeutic purposes.

2. Documentation shall include the most recent:

   a. IDPH and CMMS inspection reports; and

   b. Accrediting agency reports.

3. Other documentation shall include the following, as applicable to the factors cited in the application:

   a. Copies of maintenance reports;

   b. Copies of citations for life safety code violations; and

   c. Other pertinent reports and data.

4. Projects involving the replacement or modernization of a category of service or facility shall meet or exceed the occupancy standards for the categories of service, as specified in Section 1125.210(c).

APPEND DOCUMENTATION AS ATTACHMENT- 25, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SPECIALIZED LONG-TERM CARE

Criterion 1125.720 - Specialized Long-Term Care – Review Criteria THIS ITEM IS NOT APPLICABLE

This section is applicable to all projects proposing specialized long-term care services or beds.

1. **Community Related Functions**

   Read the criterion and submit the following information:

   a. a description of the process used to inform and receive input from the public including those residents living in close proximity to the proposed facility's location;

   b. letters of support from social, social service and economic groups in the community;

   c. letters of support from municipal/elected officials who represent the area where the project is located.

2. **Availability of Ancillary and Support Services**

   Read the criterion, which applies only to ICF/DD 16 beds and fewer facilities, and submit the following:

   a. a copy of the letter, sent by certified mail return receipt requested, to each of the day programs in the area requesting their comments regarding the impact of the project upon their programs and any response letters;

   b. a description of the public transportation services available to the proposed residents;

   c. a description of the specialized services (other than day programming) available to the residents;

   d. a description of the availability of community activities available to the facility's residents.

   e. documentation of the availability of community workshops.

3. **Recommendation from State Departments**

   Read the criterion and submit a copy of the letters sent, including the date when the letters were sent, to the Departments of Human Services and Healthcare and Family Services requesting these departments to indicate if the proposed project meets the department's planning objectives regarding the size, type, and number of beds proposed, whether the project conforms or does not conform to the department's plan, and how the project assists or hinders the department in achieving its planning objectives.

4. **Long-term Medical Care for Children Category of Service**

Read the criterion and submit the following information:

   a. a map outlining the target area proposed to be served;

   b. the number of individuals age 0-18 in the target area and the number of individuals in the target area that require the type of care proposed, include the source documents for this estimate;

   c. any reports/studies that show the points of origin of past patients/residents admissions to the facility;

   d. describe the special programs or services proposed and explain the relationship of these programs to the needs of the specialized population proposed to be served.

e. indicate why the services in the area are insufficient to meet the needs of the area population;

f. documentation that the 90% occupancy target will be achieved within the first full year of

5. **Zoning**

Read the criterion and provide a letter from an authorized zoning official that verifies appropriate zoning.

6. **Establishment of Chronic Mental Illness**

Read the criterion and provide the following:

a. documentation of how the resident population has changed making the proposed project necessary.

b. indicate which beds will be closed to accommodate these additional beds.

c. the number of admissions for this type of care for each of the last two years.

7. **Variance to Computed Bed Need for Establishment of Beds for Developmentally Disabled Placement of Residents from DHS State Operated Beds**

Read this criterion and submit the following information:

a. documentation that all of the residents proposed to be served are now residents of a DHS facility;

b. documentation that each of the proposed residents has at least one interested family member who resides in the planning area or at least one interested family member that lives out of state but within 15 miles of the planning area boundary where the facility is or will be located;

c. if the above is not the case then you must document that the proposed resident has lived in a DHS operated facility within the planning area in which the proposed facility is to be located for more than 2 years and that the consent of the legal guardian has been obtained;

d. a letter from DHS indicating which facilities in the planning area have refused to accept referrals from the department and the dates of any refusals and the reasons cited for each refusal;

e. a copy of the letter (sent certified--return receipt requested) to each of the underutilized facilities in the planning area asking if they accept referrals from DHS-operated facilities, listing the dates of each past refusal of a referral, and requesting an explanation of the basis for each refusal;

f. documentation that each of the proposed relocations will save the State money;

g. a statement that the facility will only accept future referrals from an area DHS facility if a bed is available;

h. an explanation of how the proposed facility conforms with or deviates from the DHS comprehensive long range development plan for developmental disabilities services.

APPEND DOCUMENTATION AS ATTACHMENT-26, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION V – FINANCIAL AND ECONOMIC FEASIBILITY REVIEW

Criterion 1125.800 Estimated Total Project Cost

The following Sections DO NOT need to be addressed by the applicants or co-applicants responsible for funding or guaranteeing the funding of the project if the applicant has a bond rating of A- or better from Fitch's or Standard and Poor's rating agencies, or A3 or better from Moody's (the rating shall be affirmed within the latest 18 month period prior to the submittal of the application):

- **Availability of Funds – Review Criteria**
- **Financial Viability – Review Criteria**
- **Economic Feasibility – Review Criteria, subsection (a)**

Availability of Funds

The applicant shall document that financial resources shall be available and be equal to or exceed the estimated total project cost plus any related project costs by providing evidence of sufficient financial resources from the following sources, as applicable: **Indicate the dollar amount to be provided from the following sources:**

$ 6,115,616	a.	Cash and Securities – statements (e.g., audited financial statements, letters from financial institutions, board resolutions) as to: 1) the amount of cash and securities available for the project, including the identification of any security, its value and availability of such funds; and 2) interest to be earned on depreciation account funds or to be earned on any asset from the date of applicant's submission through project completion;
_____	b.	Pledges – for anticipated pledges, a summary of the anticipated pledges showing anticipated receipts and discounted value, estimated time table of gross receipts and related fundraising expenses, and a discussion of past fundraising experience.
_____	c.	Gifts and Bequests – verification of the dollar amount, identification of any conditions of use, and the estimated time table of receipts;
$33,500,000	d.	Debt – a statement of the estimated terms and conditions (including the debt time period, variable or permanent interest rates over the debt time period, and the anticipated repayment schedule) for any interim and for the permanent financing proposed to fund the project, including: 1. For general obligation bonds, proof of passage of the required referendum or evidence that the governmental unit has the authority to issue the bonds and evidence of the dollar amount of the issue, including any discounting anticipated; 2. For revenue bonds, proof of the feasibility of securing the specified amount and interest rate; 3. For mortgages, a letter from the prospective lender attesting to the expectation of making the loan in the amount and time indicated, including the anticipated interest rate and any conditions associated with the mortgage, such as, but not limited to, adjustable interest rates, balloon payments, etc.; 4. For any lease, a copy of the lease, including all the terms and conditions, including any purchase options, any capital improvements to the property and provision of capital equipment; 5. For any option to lease, a copy of the option, including all terms and conditions.
_____	e.	Governmental Appropriations – a copy of the appropriation Act or ordinance accompanied

	by a statement of funding availability from an official of the governmental unit. If funds are to be made available from subsequent fiscal years, a copy of a resolution or other action of the governmental unit attesting to this intent;
_____	f. Grants – a letter from the granting agency as to the availability of funds in terms of the amount and time of receipt;
_____	g. All Other Funds and Sources – verification of the amount and type of any other funds that will be used for the project.
$39,615,616	TOTAL FUNDS AVAILABLE

APPEND DOCUMENTATION AS ATTACHMENT-27, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Financial Viability

All the applicants and co-applicants shall be identified, specifying their roles in the project funding or guaranteeing the funding (sole responsibility or shared) and percentage of participation in that funding.

Financial Viability Waiver

The applicant is not required to submit financial viability ratios if:

1. **"A" Bond rating or better**
2. **All of the projects capital expenditures are completely funded through internal sources**
3. **The applicant's current debt financing or projected debt financing is insured or anticipated to be insured by MBIA (Municipal Bond Insurance Association Inc.) or equivalent**
4. **The applicant provides a third party surety bond or performance bond letter of credit from an A rated guarantor.**

See Section 1120.130 Financial Waiver for information to be provided

APPEND DOCUMENTATION AS ATTACHMENT-28, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

1. The applicant or co-applicant that is responsible for funding or guaranteeing funding of the project shall provide viability ratios for the latest three years for which **audited financial statements are available and for the first full fiscal year at target utilization, but no more than two years following project completion.** When the applicant's facility does not have facility specific financial statements and the facility is a member of a health care system that has combined or consolidated financial statements, the system's viability ratios shall be provided. If the health care system includes one or more hospitals, the system's viability ratios shall be evaluated for conformance with the applicable hospital standards.

Provide Data for Projects Classified as:	**Category A or Category B (last three years)**			**Category B (Projected)**
Enter Historical and/or Projected Years:	**NO HISTORICAL YEARS**	**OWNER 2023**	**OPERATOR 2023**	**COMBINED 2023**
Current Ratio	**N/A**	**0.69**	**8.31**	**3.45**
Net Margin Percentage	**N/A**	**(30.49)**	**5.15**	**13.90**
Percent Debt to Total Capitalization	**N/A**	**83.74**	**19.12**	**79.96**
Projected Debt Service Coverage	**N/A**	**1.49**	**4.93**	**10.06**
Days Cash on Hand	**N/A**	**6,138**	**8.50**	**12.94**
Cushion Ratio	**N/A**	**0.13**	**1.25**	**0.97**

Provide the methodology and worksheets utilized in determining the ratios detailing the calculation and applicable line item amounts from the financial statements. Complete a separate table for each co-

applicant and provide worksheets for each.

2. Variance

Applicants not in compliance with any of the viability ratios shall document that another organization, public or private, shall assume the legal responsibility to meet the debt obligations should the applicant default.

APPEND DOCUMENTATION AS ATTACHMENT 29, IN NUMERICAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Economic Feasibility

This section is applicable to all projects

A. Reasonableness of Financing Arrangements

The applicant shall document the reasonableness of financing arrangements by submitting a notarized statement signed by an authorized representative that attests to one of the following:

1. That the total estimated project costs and related costs will be funded in total with cash and equivalents, including investment securities, unrestricted funds, received pledge receipts and funded depreciation; or

2. That the total estimated project costs and related costs will be funded in total or in part by borrowing because:

   A. A portion or all of the cash and equivalents must be retained in the balance sheet asset accounts in order to maintain a current ratio of at least 1.5 times for LTC facilities; or

   B. Borrowing is less costly than the liquidation of existing investments, and the existing investments being retained may be converted to cash or used to retire debt within a 60-day period.

B. Conditions of Debt Financing

This criterion is applicable only to projects that involve debt financing. The applicant shall document that the conditions of debt financing are reasonable by submitting a notarized statement signed by an authorized representative that attests to the following, as applicable:

1. That the selected form of debt financing for the project will be at the lowest net cost available;

2. That the selected form of debt financing will not be at the lowest net cost available, but is more advantageous due to such terms as prepayment privileges, no required mortgage, access to additional indebtedness, term (years), financing costs and other factors;

3. That the project involves (in total or in part) the leasing of equipment or facilities and that the expenses incurred with leasing a facility or equipment are less costly than constructing a new facility or purchasing new equipment.

C. Reasonableness of Project and Related Costs

Read the criterion and provide the following:

Identify each area impacted by the proposed project and provide a cost and square footage allocation for new construction and/or modernization using the following format (insert after this page).

COST AND GROSS SQUARE FEET BY SERVICE

Area (list below)	A	B	C	D	E	F	G	H	Total Cost (G + H)
	Cost/Square Foot New	Mod.	Gross Sq. Ft. New	Circ.*	Gross Sq. Ft. Mod.	Circ.*	Const. $ (A x C)	Mod. $ (B x E)	
Nursing	$261.98		67,101				$17,579,309		$17,579,309
Contingency	$13.84		67,101				$928,954		$928,954
TOTALS	$275.83		67,101				$18,508,263		$8,508,263

* Include the percentage (%) of space for circulation

D. Projected Operating Costs

The applicant shall provide the projected direct annual operating costs (in current dollars per equivalent patient day or unit of service) for the first full fiscal year at target utilization but no more than two years following project completion. Direct cost means the fully allocated costs of salaries, benefits and supplies for the service.

E. Total Effect of the Project on Capital Costs

The applicant shall provide the total projected annual capital costs (in current dollars per equivalent patient day) for the first full fiscal year at target utilization but no more than two years following project completion.

APPEND DOCUMENTATION AS ATTACHMENT - 30, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

APPENDIX A

Project Costs and Sources of Funds

Complete the following table listing all costs associated with the project. When a project or any component of a project is to be accomplished by lease, donation, gift, or other means, the fair market or dollar value (refer to Part 1130.140) of the component must be included in the estimated project cost. If the project contains non-reviewable components that are not related to the provision of health care, complete the second column of the table below. Note, the use and sources of funds must equal.

Use of Funds	Clinical	Non-Clinical	Amount
Preplanning Costs	$175,563	$110,670	$286,233
Site Survey and Soil Investigation	$24,534	$15,466	$40,000
Site Preparation	$444,684	$280,316	$725,000
Off Site Work	$73,603	$46,397	$120,000
New Construction Contracts	$17,579,309	$11,081,491	$28,660,800
Modernization Contracts	$0	$0	$0
Contingencies	$928,954	$585,586	$1,514,540
Architectural/Engineering Fees	$1,308,864	$825,070	$2,133,934
Consulting and Other Fees	$471,672	$297,328	$769,000
Movable or Other Equipment	$1,489,947	$939,220	$2,429,167
Bond Issuance Expense	$0	$0	$0
Net Interest Expense During Construction	$944,995	$595,697	$1,540,692
Fair Market Value of Leased Space or Equipment	$0	$0	$0
Other Costs to be Capitalized	$856,400	$539,850	$1,396,250
Acquisition of Building or Other Property	$0	$0	$0
Total IDPH Regulated Uses of Funds	**$24,298,525**	**$15,317,091**	**$39,615,616**
Source of Funds			**Total**
Cash and Securities	$3,751,057	$2,364,559	$6,115,616
Pledges	$0	$0	$0
Gifts and Bequests	$0	$0	$0
Bond Issues	$0	$0	$0
Mortgages	$ 20,547,467	$12,952,533	$33,500,000
Leases	$0	$0	$0
Governmental Appropriations	$0	$0	$0
Grants	$0	$0	$0
Other Funds and Sources	$0	$0	$0
Total Sources of Funds	**$24,298,525**	**$15,317,091**	**$39,615,616**

*** Appended as APPENDIX-A1, is a further breakdown of project cost to include FF&E costs specifically.**

Alden Estates-Courts of New Lenox
Support for Project Costs

Preplanning Costs			
Preliminary drawings & renderings		$	217,830
Architectural Cost Analysis		$	46,063
Phase-one Environmental Study		$	5,000
Preliminary Engineering		$	17,340
	Total	**$**	**286,233**
Site Survey & Soil Investigation			
Surveyor costs		$	25,000
Soil boring and testing		$	15,000
	Total	**$**	**40,000**
Architectural	**Total**	**$**	**2,133,934**
Construction Contract		$	28,660,800
Contingencies		$	1,514,540
	Total	**$**	**30,175,340**
Offiste Work-Curbs and sidewalks	**Total**	**$**	**120,000**
Site Preparation			
Utilities, sewers, grading, sitework & other improvements	**Total**	**$**	**725,000**
Consulting & Other fees			
Building and other permits		$	400,000
Appraisal		$	16,000
CON consultant/Legal/Market Research		$	115,000
Illinois Health Facility Planning Board Fees		$	88,000
Illinois Department of Public Health Plan Review		$	20,000
Zoning and other regulatory		$	15,000
Legal-other		$	70,000
Title and Recording fees		$	35,000
Audit fees		$	10,000
	Total	**$**	**769,000**
Other Costs to be capitalized			
Real estate taxes		$	20,000
Minor Moveables (linens, hsking equip, appliances, silverware, etc.)		$	175,000
Miscellaneous administative and clerical costs		$	26,000
Insurance		$	15,000
Mortgage Insurance		$	245,172
FHA Exam Fees		$	97,508
FHA Inspection Fees		$	162,514
Financing Fees		$	655,056
	Total	**$**	**1,396,250**
Moveable and other equipment			
Major moveable equipment (see list)	**Total**	**$**	**2,429,167**
Financing			
Construction period interest	**Total**	$	1,540,692
		$	**39,615,616**

APPENDIX-A1

APPENDIX B

Related Project Costs

Provide the following information, as applicable, with respect to any land related to the project that will be or has been acquired during the last two calendar years:

Land acquisition is related to project ☒ Yes ☐ No
Purchase Price: $ **1,755,092**
Fair Market Value: $_____

The project involves the establishment of a new facility or a new category of service
☒ Yes ☐ No

If yes, provide the dollar amount of all **non-capitalized** operating start-up costs (including operating deficits through the first full fiscal year when the project achieves or exceeds the target utilization specified in Part 1100.

Estimated start-up costs and operating deficit cost is $ 1,973,241.63.

APPENDIX C

Project Status and Completion Schedules

Indicate the stage of the project's architectural drawings:

- ☐ None or not applicable
- ☐ Preliminary
- ☒ Schematics
- ☐ Final Working

Anticipated project completion date (refer to Part 1130.140): **March, 2021**

Indicate the following with respect to project expenditures or to obligation (refer to Part 1130.140):

- ☐ Purchase orders, leases or contracts pertaining to the project have been executed.
- ☐ Project obligation is contingent upon permit issuance. Provide a copy of the contingent "certification of obligation" document, highlighting any language related to CON Contingencies
- ☒ Project obligation will occur after permit issuance.

APPENDIX D

Cost/Space Requirements

Provide in the following format, the department/area **DGSF** or the building/area **BGSF** and cost. The type of gross square footage either **DGSF** or **BGSF** must be identified. The sum of the department costs **MUST** equal the total estimated project costs. Indicate if any space is being reallocated for a different purpose. Include outside wall measurements plus the department's or area's portion of the surrounding circulation space. **Explain the use of any vacated space.**

Department/Area	Cost	Gross Square Feet		Amount of Proposed Total Gross Square Feet That Is:			
		Existing	Proposed	New Const.	Modernized	As Is	Vacated Space
CLINICAL							
Nursing	$15,240,221	0	42,086	42,086	0	0	0
Living/Dining/Activity	$4,375,527	0	12,083	12,083	0	0	0
Kitchen/Food Service	$1,452,888	0	4,012	4,012	0	0	0
P.T./O.T.	$2,139,071	0	5,907	5,907	0	0	0
Laundry	$526,110	0	1,453	1,453	0	0	0
Janitor Closets	$76,559	0	211	211	0	0	0
Clean/Soiled Utility	$275,383	0	760	760	0	0	0
Beauty/Barber	$212,766	0	588	588	0	0	0
Total Clinical	$24,298,525	0	**67,101**	**67,101**	0	0	0
NON-CLINICAL							
Office/Administration	$1,401,912	0	3,871	3,871	0	0	0
Employee Lounge/ Locker/Training	$684,355	0	1,890	1,890	0	0	0
Mechanical/Electrical	$1,735,242	0	4,792	4,792	0	0	0
Lobby	$669,972	0	1,850	1,850	0	0	0
Storage/Maintenance	$746,085	0	2,060	2,060	0	0	0
Corridor/Public Toilets	$8,142,476	0	22,486	22,486	0	0	0
Stair/Elevators	$1,644,926	0	4,543	4,543	0	0	0
Housekeeping	$292,124	0	807	807	0	0	0
Total Non-clinical	$15,317,091	0	**42,299**	**42,299**	0	0	0
TOTAL	**$39,615,616**	**0**	**109,400**	**109,400**	**0**	**0**	**0**

After paginating the entire, completed application, indicate in the chart below, the page numbers for the attachments included as part of the project's application for permit:

INDEX OF ATTACHMENTS

Applicant /Co-Applicant Identification
[Provide for each co-applicant [refer to Part 1130.220].

- Corporations and limited liability companies must provide an **Illinois certificate of good standing.**

The Applicants for the proposed project, Alden Estates-Courts of New Lenox, are **Alden New Lenox, LLC** (Owner) and **Alden Estates-Courts of New Lenox, Inc.** (Operator/Licensee). The owner of both the ownership and operating entities is **New Lenox Investments I, LLC**, with the parent entity being **The Alden Group, Ltd.** Collectively, these entities are the Applicant. The entities' Illinois Certificates of Good Standing are appended as **ATTACHMENT-1A.**

ATTACHMENT-1

File Number 0545473-5

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

ALDEN NEW LENOX, L.L.C., HAVING ORGANIZED IN THE STATE OF ILLINOIS ON SEPTEMBER 28, 2015, APPEARS TO HAVE COMPLIED WITH ALL PROVISIONS OF THE LIMITED LIABILITY COMPANY ACT OF THIS STATE, AND AS OF THIS DATE IS IN GOOD STANDING AS A DOMESTIC LIMITED LIABILITY COMPANY IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 16TH *day of* NOVEMBER *A.D.* 2017 .

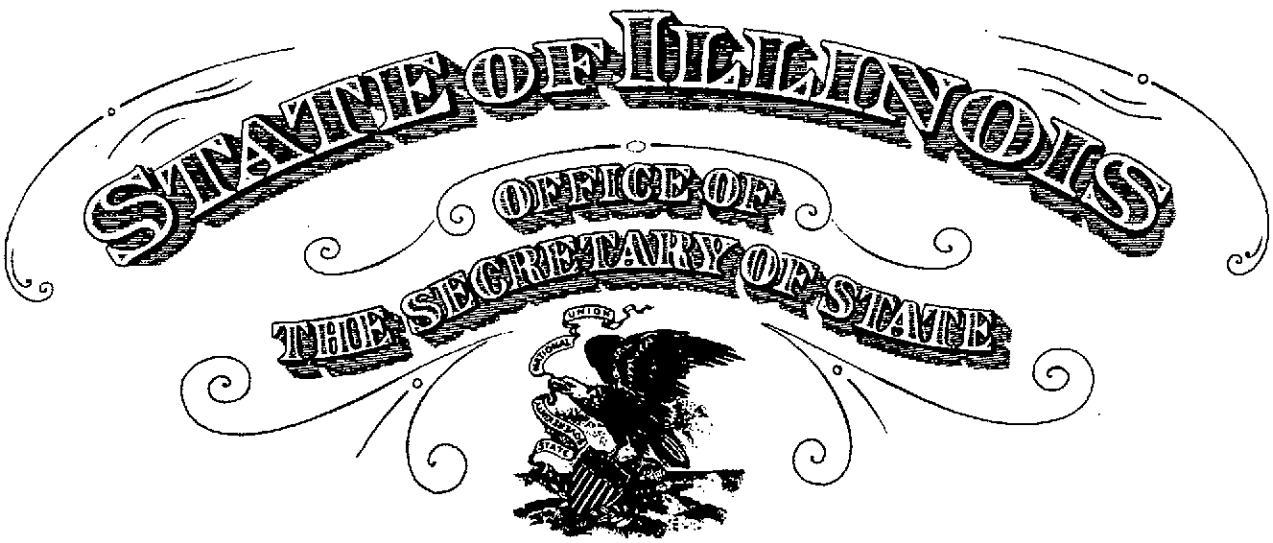
Authentication #: 1732002314 verifiable until 11/16/2018
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

ATTACHMENT-1A

File Number 7037-106-5



To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

ALDEN ESTATES-COURTS OF NEW LENOX, INC., A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON SEPTEMBER 28, 2015, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE BUSINESS CORPORATION ACT OF THIS STATE RELATING TO THE PAYMENT OF FRANCHISE TAXES, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 16TH *day of* NOVEMBER *A.D.* 2017 .

Authentication #: 1732002356 verifiable until 11/16/2018
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

ATTACHMENT-1A

File Number 0545471-9

STATE OF ILLINOIS

OFFICE OF THE SECRETARY OF STATE

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

NEW LENOX INVESTMENTS I, L.L.C., HAVING ORGANIZED IN THE STATE OF ILLINOIS ON SEPTEMBER 28, 2015, APPEARS TO HAVE COMPLIED WITH ALL PROVISIONS OF THE LIMITED LIABILITY COMPANY ACT OF THIS STATE, AND AS OF THIS DATE IS IN GOOD STANDING AS A DOMESTIC LIMITED LIABILITY COMPANY IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 16TH *day of* NOVEMBER *A.D.* 2017 .

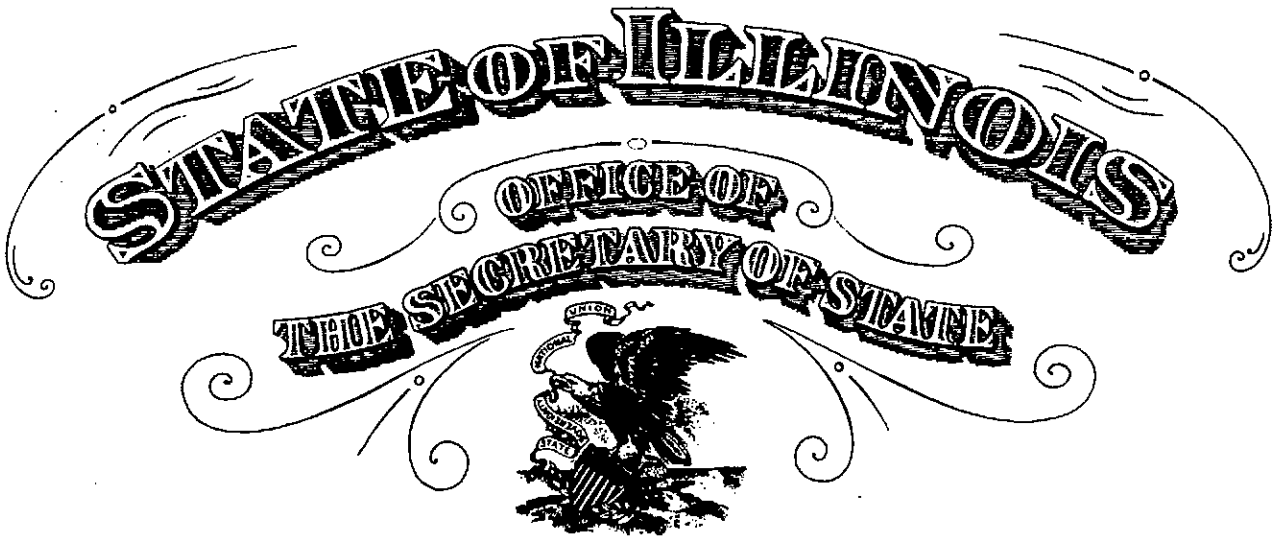
Authentication #: 1732002366 verifiable until 11/16/2018
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

ATTACHMENT-1A

File Number 5206-055-9



To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

THE ALDEN GROUP, LTD., A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON MAY 20, 1980, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE BUSINESS CORPORATION ACT OF THIS STATE RELATING TO THE PAYMENT OF FRANCHISE TAXES, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 16TH *day of* NOVEMBER *A.D.* 2017 .

Authentication #: 1732002384 verifiable until 11/16/2018
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

ATTACHMENT-1A

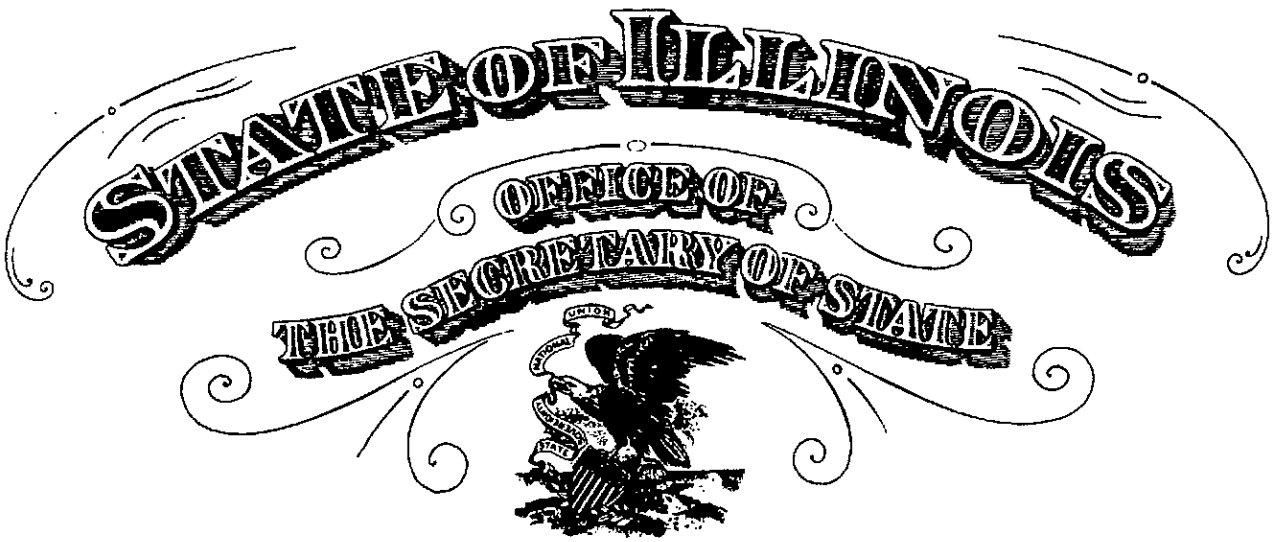
Site Ownership

Proof of ownership or control of the site is to be provided as Attachment 2. Examples of proof of ownership are property tax statement, tax assessor's documentation, deed, notarized statement of the corporation attesting to ownership, an option to lease, a letter of intent to lease or a lease.

The ownership entity for the proposed project is **Alden New Lenox, LLC**. An Illinois Certificate of Good Standing for this entity is appended as **ATTACHMENT-2A**. The Real Estate Purchase Agreement documenting site control is appended as **ATTACHMENT-2B**.

ATTACHMENT-2

File Number 0545473-5



To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

ALDEN NEW LENOX, L.L.C., HAVING ORGANIZED IN THE STATE OF ILLINOIS ON SEPTEMBER 28, 2015, APPEARS TO HAVE COMPLIED WITH ALL PROVISIONS OF THE LIMITED LIABILITY COMPANY ACT OF THIS STATE, AND AS OF THIS DATE IS IN GOOD STANDING AS A DOMESTIC LIMITED LIABILITY COMPANY IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 16TH *day of* NOVEMBER *A.D.* 2017 .

Authentication #: 1732002314 verifiable until 11/16/2018
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

ATTACHMENT-2A

Execution Version

REAL ESTATE PURCHASE AGREEMENT

THIS REAL ESTATE PURCHASE AGREEMENT ("Agreement") is entered into as of the Effective Date (defined in Section 2) by and between CENTURY OAKS LLC, an Ohio limited liability company ("Seller"), and ALDEN REALTY SERVICES, INC., an Illinois corporation ("Buyer").

1. PROPERTY

Seller owns and desires to sell to Buyer, and Buyer desires to purchase from Seller, approximately 6.64 acres of real property located on proposed Cedar Crossings Drive in New Lenox, Will County, Illinois, more or less as identified as part of the Cedar Crossings commercial development (the "Development") outlined on the site plan attached hereto as Exhibit "A" and made a part hereof, together with any improvements now located on or in such real property and all rights, privileges, and easements appurtenant to such real property (collectively, the "Property") for the sum of ONE MILLION SEVEN HUNDRED FIFTY-FIVE THOUSAND AND 92/100 DOLLARS ($1,755,092) (the "Purchase Price"). During the Inspection Period (as defined below), Buyer and Seller will act in good faith to agree on the boundaries of the Property. Upon reaching agreement on the boundaries the parties shall execute an amendment to this Agreement setting forth the final configuration and legal description of the Property. Buyer will obtain, at Buyer's cost, a current ALTA survey of the Property in its final configuration ("Survey") prepared by a registered land surveyor, and the Purchase Price will be adjusted at Closing (defined below) based on the actual square footage of the Property, as determined in the Survey, at $5.95 per net square foot or fraction thereof. For purposes of this Agreement, Buyer's proposed development on the Property shall be a skilled nursing and memory care facility (the "Project").

2. PAYMENT OF PURCHASE PRICE

The Purchase Price shall be payable as follows:

(a) Within five (5) business days after the Effective Date, Buyer will deliver into an escrow account with Title Services, Inc., 610 E. Roosevelt Road, Suite 100, Wheaton, IL 60187 (630-690-9130) ("Escrow Agent" or "Title Company"), an earnest money deposit of TWENTY-FIVE THOUSAND AND 00/100 DOLLARS ($25,000) (the "First Deposit") which shall entitle Buyer, for a period of six (6) months after the Effective Date (the "Inspection Period"), to inspect, evaluate and make tests of the Property, review title to the Property, survey the Property, make inquiries of applicable governmental authorities, determine the acceptability of the soil conditions and environmental condition of the Property, and (with Seller's cooperation as needed, at Buyer's expense) obtain all third party approvals and consents, all as Buyer may deem appropriate (collectively, "Buyer's Inspections"), in order that Buyer may determine whether, in Buyer's sole discretion, the Property is suitable for the development of the Project and the contingencies set forth in Section 7 can be satisfied. If Buyer shall determine during the Inspection Period not to proceed to Closing under this Agreement, then Buyer shall be entitled to terminate the Agreement, for any reason or no reason, in which event the Deposit shall be returned to Buyer, and thereafter Buyer shall have no further obligation or liability hereunder.

For purposes of this Agreement, the "Effective Date" shall be that day upon which this Agreement has been both (a) fully executed by Buyer and Seller, and (b delivered to Buyer.

(b) Prior to the expiration of the Inspection Period, by sending written notice to Seller, Buyer shall be entitled to extend the Inspection Period for an additional seven (7) months (the "Initial Due Diligence Period"). Upon Buyer's election to extend the Inspection Period for the Initial Due Diligence Period, the First Deposit shall be rendered nonrefundable except as otherwise specifically set forth in this Agreement, provided that the First Deposit shall be applicable to the Purchase Price at Closing. Provided, however, if Buyer has not received final zoning approval for the Project prior to the expiration of the Inspection Period and Buyer shall not receive such final zoning approval during the first 60 days of the Initial Due Diligence Period, and Buyer shall terminate the Agreement on or before such 60 day period, the Deposit shall be returned to Buyer, and thereafter Buyer shall have no further obligation or liability hereunder. Buyer shall be responsible for the completion of any required zoning provided that Seller agrees to cooperate with Buyer, at no material cost to Seller, in Buyer's request for zoning entitlements.

(c) Prior to the expiration of the Initial Due Diligence Period, by sending written notice to Seller, Buyer shall be entitled to extend the Initial Due Diligence Period for an additional seven (7) months (the "Extended Due Diligence Period", together with the Initial Due Diligence Period, the "Due Diligence Period") by depositing with Escrow Agent prior to the expiration of the Initial Due Diligence Period an additional TWENTY-FIVE THOUSAND DOLLARS ($25,000) (the "Second Deposit", together with the First Deposit, the "Deposits"). Except as otherwise specifically set forth in this Agreement, the Second Deposit shall be nonrefundable except as otherwise specifically set forth in this Agreement, provided that the Second Deposit shall be applicable to the Purchase Price at Closing.

(d) In the event that Buyer shall have determined that the Buyer's Contingencies (defined below) are satisfied or otherwise waived and given Seller the Purchase Notice, the Deposits shall be applied to the Purchase Price. If, after exercising its option to utilize the Due Diligence Period, Buyer does not terminate this Agreement prior to the end of the Due Diligence Period and does not provide a Purchase Notice (defined below) to Seller, Buyer shall be deemed to waive Buyer's Contingencies and the Deposits shall be nonrefundable except as otherwise specifically set forth in this Agreement, provided the Deposits shall be applied to the Purchase Price at Closing and the Closing shall occur on the 30th day after the end of the Due Diligence Period.

(e) Seller and Buyer shall execute Escrow Agent's standard form joint order escrow agreement. Escrow Agent shall promptly deposit the Deposits in a segregated, federally-insured, interest-bearing account, subject to immediate withdrawal. Seller and Buyer shall cooperate with Escrow Agent to obtain all necessary authorizations or directions to open such an account. All interest earned on the Deposits shall accrue for the benefit of Buyer.

3. CLOSING; LIKE-KIND EXCHANGE

The closing of the purchase of the Property (the "Closing") shall occur in escrow on or before thirty (30) days after Buyer delivers the Purchase Notice, but in no event shall the

Purchase Notice be delivered later than the last day of the Due Diligence Period. Buyer shall specify in the Purchase Notice the date of Closing (the "Closing Date").

Each party agrees to cooperate with the other, at the other's election, in effecting a tax-deferred, like-kind exchange with respect to the Property, pursuant to Section 1031 of the Internal Revenue Code of 1986, as amended. The party electing an exchange of the Property shall provide the other with written notice thereof at least two (2) business days prior to Closing. Either party's election to exchange the Property shall be at no cost or liability to the other. In no event shall this Section obligate a party not effectuating an exchange to take title to any real property (other than the Property in Buyer's case).

4. DEED AND TITLE

Seller shall not lease, contract to sell, sell or encumber the Property while this Agreement remains in effect. At Closing, Seller shall deliver to Buyer a Special Warranty Deed conveying to Buyer or Buyer's nominee fee simple title to the Property, free and clear of all encumbrances except Permitted Exceptions, as defined below. Seller, for itself and its successors and assigns agrees that, so long as Buyer is operating a skilled nursing and memory care facility on the Property, then Seller agrees that the Remainder Parcel (defined below) shall be restricted against use for the purpose of a skilled nursing and memory care facility. Seller agrees to record a declaration at Closing, in a form reasonably acceptable to Buyer, against the Remainder Parcel confirming such use restriction. The "Remainder Parcel" is defined as the land which comprises the Development (but not including the Property) and is owned by Seller as of the Effective Date.

Within fifteen (15) days after the Effective Date, Buyer shall order an ALTA extended coverage owner's commitment for title insurance for the Property (or, if necessary, the greater parcel of which the Property is a part) (the "Preliminary Title Report"), issued by the Title Services Inc. (the "Title Company"), including legible copies of all exceptions to title set forth in the Preliminary Title Report. Buyer shall have until the expiration of the Inspection Period to approve of or object to any matters referenced in the Preliminary Title Report and the Survey and any amendments or updates thereto. If Buyer's examination of title or survey discloses any defects in title or matters of survey then Buyer shall so notify Seller by the end of the Inspection Period ("Buyer's Objection Notice"). Seller, within thirty (30) days of receipt of Buyer's Objection Notice, shall notify Buyer in writing ("Seller's Cure Notice") of any actions Seller intends to take and the anticipated effect on the matters to which Buyer has objected. In the event Seller informs Buyer in Seller's Cure Notice that Seller is unable or unwilling to cure any objections raised in Buyer's Objection Notice, or in the event Seller does not deliver Seller's Cure Notice, Buyer shall be entitled to, prior to a date that is ten (10) days after Buyer's receipt of Seller's Cure Notice, or if Seller does not give Buyer a Seller's Cure Notice, a date that is thirty (30) days after Seller's receipt of Buyer's Objection Notice, either (i) terminate this Agreement and receive the return of the Deposits, including all interest and income earned thereon, or (ii) waive such objection and proceed to close the transaction contemplated by this Agreement. Similarly, if Seller elects to cure the defects raised by Buyer, but is unable to do so within thirty (30) days after the conclusion of the Inspection Period, Buyer shall be entitled to, either (x) terminate the Agreement and receive a return of the Deposits, including all interest and income earned thereon; (y) delay the Closing Date by a certain number days to allow Seller

additional time to cure such defects; or (z) waive such uncured objections and proceed to close the transaction. If Buyer does not give Seller notice within the foregoing period that it elects to terminate this Agreement as aforesaid, Buyer shall be deemed to have elected to accept title and waive its objections.

With respect to matters first brought to Buyer's attention in a revised title commitment or survey delivered on or after the expiration of the Inspection Period, Buyer shall have five (5) business days following receipt of such revised title commitment or survey to notify Seller of any objections thereto; otherwise such new matters shall also be deemed to be approved by Buyer.

As used herein, the term "Permitted Exceptions" shall be comprised of (a) legal highways, zoning and building ordinances and taxes and assessments which are a lien on the Closing Date, but not yet due and payable, (b) those exceptions to title disclosed in the Preliminary Title Report which are not included in Buyer's Objection Notice, and (c) those title exceptions in Buyer's Objection Notice which Buyer subsequently waives pursuant to the terms of this Section 4. Notwithstanding anything to the contrary in Section 4, at or before the Closing Date, Seller shall cause to be discharged (or remedy by waiver or special title endorsement acceptable to Buyer) all financing encumbrances; mechanics', materialmen's and supplier's liens; judgment liens; lis pendens; income and sales tax liens; and UCC security interests, financing statements, and liens encumbering Seller's interest in the Property. If Seller fails or is unable to do so, Buyer may terminate this Agreement and receive a refund of all Deposits or may accept title subject to such matters and deduct the amount of the indebtedness secured by such liens from the Purchase Price.

5. CONDEMNATION; CASUALTY

If condemnation proceedings are commenced against the Property or any portion thereof, or if any governmental authority notifies Seller of its intent to acquire the Property or any portion thereof prior to Closing, Buyer shall have the right to (a) negotiate and sell to the appropriating authority or contest the appropriation, in which event Buyer shall be entitled to all proceeds thereof, and Seller shall convey subject to such proceedings and receive the Purchase Price (without deduction for condemnation proceeds) at Closing (subject to the credits provided for herein); (b) allow Seller to negotiate and sell to the appropriating authority or to contest the appropriation and be entitled to all proceeds thereof, in which event Buyer shall be entitled to a reduction in the Purchase Price equal to such proceeds; or (c) terminate this Agreement, in which event Buyer shall receive a return of the Deposits and each party shall be released from all further obligations and liability hereunder. Buyer's election shall be exercised by written notice given to Seller and Escrow Agent within thirty (30) days after Buyer has received written notice of such governmental action from Seller. Buyer's failure to deliver such notice shall constitute an election of clause (c) above.

6. SURVEY AND INVESTIGATIONS; AS IS

After the Effective Date, Buyer and its employees, designated agents, lenders, prospective or actual tenants, and investors (collectively, "Entrants") may enter the Property, at reasonable times, for the purpose of satisfying Buyer's Contingencies (as defined in Section 7),

provided that such operations are at Buyer's sole expense and do not damage the Property. Seller agrees to cooperate with Buyer in its investigations and applications to governmental authorities and in its efforts to satisfy any contingencies with respect to its development of the Project, including the execution of related documentation. Seller will also assist Buyer with all required site plan and design approvals. Buyer hereby indemnifies Seller and holds it harmless from and against any damage or injury that may result from Buyer's Inspections; provided, however, that Buyer's obligation to indemnify Seller hereunder shall not apply to situations involving the negligence or willful misconduct by Seller or its agents, and/or the presence of preexisting environmental contaminants on the Property.

EXCEPT AS OTHERWISE EXPRESSLY STATED IN THIS AGREEMENT, BUYER AGREES TO ACCEPT THE PROPERTY AND ACKNOWLEDGES THAT THE SALE OF THE PROPERTY AS PROVIDED FOR IN THIS AGREEMENT IS MADE BY SELLER ON AN "AS IS, WHERE IS AND WITH ALL FAULTS" BASIS. BUYER EXPRESSLY ACKNOWLEDGES THAT, IN CONSIDERATION OF THE AGREEMENTS OF SELLER HEREIN, EXCEPT AS OTHERWISE EXPRESSLY STATED IN THIS AGREEMENT, SELLER MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, OR ARISING BY OPERATION OF LAW, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF CONDITION, HABITABILITY, MERCHANTABILITY, TENANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, WITH RESPECT TO THE PROPERTY. BUYER ACKNOWLEDGES AND AGREES THAT, EXCEPT AS OTHERWISE EXPRESSLY STATED IN THIS AGREEMENT, SELLER HAS NOT MADE, AND SELLER HEREBY SPECIFICALLY DISCLAIMS, ANY WARRANTY, GUARANTY OR REPRESENTATION, ORAL OR WRITTEN, PAST, PRESENT OR FUTURE, OF, AS TO, OR CONCERNING (I) THE NATURE AND CONDITION OF THE PROPERTY, INCLUDING, WITHOUT LIMITATION, THE WATER, SOIL AND GEOLOGY AND THE SUITABILITY THEREOF AND THE PROPERTY FOR ANY AND ALL ACTIVITIES AND USES WHICH BUYER MAY ELECT TO CONDUCT THEREON; AND (II) THE COMPLIANCE OF THE PROPERTY OR ITS OPERATION WITH ANY LEGAL REQUIREMENTS. EXCEPT AS OTHERWISE EXPRESSLY STATED IN THIS AGREEMENT, BUYER ACKNOWLEDGES THAT BUYER IS RELYING SOLELY ON ITS OWN INVESTIGATION OF THE PROPERTY AND NOT ON ANY INFORMATION PROVIDED OR TO BE PROVIDED BY SELLER. BUYER FURTHER ACKNOWLEDGES THAT ANY INFORMATION PROVIDED OR TO BE PROVIDED WITH RESPECT TO THE PROPERTY WAS OBTAINED FROM A VARIETY OF SOURCES AND THAT, EXCEPT AS OTHERWISE EXPRESSLY STATED IN THIS AGREEMENT, SELLER (X) HAS NOT MADE ANY INDEPENDENT INVESTIGATION OR VERIFICATION OF SUCH INFORMATION AND (Y) MAKES NO REPRESENTATIONS OR WARRANTIES AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION.

7. CONTINGENCIES

Notwithstanding anything to the contrary contained in this Agreement, if the following items (collectively, the "Buyer's Contingencies") have not been satisfied in favor of and to Buyer's complete satisfaction, as determined by Buyer at any time prior to the Closing, Buyer

shall be entitled to terminate this Agreement, whereupon all refundable monies deposited by Buyer pursuant to this Agreement shall be returned to Buyer and monies rendered non-refundable shall be remitted to Seller. During the Due Diligence Period, Buyer shall evaluate the Property and the Project, in its sole and absolute discretion, which shall include the following assessments in addition to any other matters determined necessary by Buyer:

(a) Evaluate the feasibility and desirability of the Property for the Project, and whether the Property is suitable for the Project;

(b) Evaluate the development potential for the Property, including without limitation the results of an environmental assessment and geotechnical investigation of the Property;

(c) Evaluate whether the existing storm water management system has sufficient capacity to service the Project, and otherwise evaluate the costs associated with improving the Property with any necessary and/or supplemental stormwater retention areas or other storage mechanisms;

(d) Evaluate the scope and timing of the construction of the infrastructure that will serve the Property and the Development, including public roadways, sidewalks, utilities, lighting, storm water detention and management improvements, and other similar features, and otherwise evaluate the costs associated with improving the Property with any necessary and/or supplemental roadways and other infrastructure improvements;

(e) Evaluate the viability of constructing the Project, and otherwise evaluate all matters related to the acquisition, usage, valuation, development, financing and marketability of the Property;

(f) Evaluate the likelihood of obtaining all necessary zoning, development, subdivision and municipal approvals relating to the Project, and approvals for use as a skilled nursing and memory care facility, including without limitation, any corresponding agreements or approvals to re-plat the Property into a separate tax parcel or tax parcels, and any obligations to pay impact fees or recapture payments, special service areas or special assessment areas, utility service agreements, and the availability of such other approvals, assurances, permits, easements, agreements and licenses as Buyer, in its sole discretion, deems necessary to zone, subdivide and/or develop the Property for the Project, and Seller acknowledges that, in order for Buyer to satisfy this contingency, Buyer, with Seller's reasonable cooperation and consent and at Buyer's cost, shall have the right to take the following affirmative actions (provided, however, that Seller's failure to reasonably cooperate with or consent to Buyer's proposed actions may result in Buyer's refusal to waive Buyer's Contingencies pursuant to this Section 7): to petition for and obtain amendments to existing comprehensive plans and comprehensive zoning maps, to grant easements over the Property to governmental bodies and utilities, to petition for and obtain the passage of ordinances relating to the Property, including but not limited to zoning, land use, classification of the Property within a special assessment area or special service area, preliminary and final subdivision approvals for the Buyer's intended use, to obtain delineation of wetlands by all appropriate governmental bodies, to jointly petition with Seller for and obtain municipal approvals re-platting the Property as a separate tax parcel or parcels pursuant to Section 23(b), to make site plan and building permit applications to the Village (Seller will consent to or otherwise

authorize such applications as the registered owner of the Property), to negotiate and execute service agreements with public and private utilities pertaining to the Property, to request utility service to the Property and to engage in other similar petitions, negotiations and actions relating to the Property, all on terms and conditions Buyer deems acceptable;

(g) Evaluate the Property Documents (described in Section 23(a));

(h) Determine that no potential recapture payments, impact fees or special assessments will render the Project economically unfeasible;

(i) Secure appropriate Certificate of Need ("CON") from Health Facilities and Services Review Board (Buyer shall make application for CON within the Inspection Period);

(j) Secure a financing commitment for the acquisition of the Property and construction of the Project; and

(k) Evaluate the condition of title to the Property.

Seller agrees to cooperate with Buyer in any efforts to satisfy the contingencies described above, including the execution of related documentation.

8. TAXES AND ASSESSMENTS: PRORATIONS: CLOSING COSTS

Seller and Buyer acknowledge that the Property is assessed for tax purposes with other real estate owned or controlled by Seller (such larger parcel referred to as the "Tax Parcel"). Until the Tax Parcel is divided such that the Property is assessed as a separate parcel, Seller shall pay all real estate taxes and assessments for the Tax Parcel when due and Buyer shall pay Seller Buyer's Proportionate Share (as defined below) of all real estate taxes and assessments which become due and payable subsequent to the Closing Date for the Property. Buyer's "Proportionate Share" shall be equal to the product of the real estate taxes due and owning for the Tax Parcel multiplied by a fraction, the numerator of which is the total square footage of the Property and the denominator of which is the total square footage of the Tax Parcel. Notwithstanding the foregoing, Seller shall pay all real estate taxes related to any improvements on the Tax Parcel. Buyer shall pay its Proportionate Share of taxes to Seller within 15 days of Seller's delivery to Buyer of a final tax bill for the Tax Parcel.

Buyer shall pay for the cost of the owner's title insurance premium for a standard form of policy in the amount of the Purchase Price with extended coverage and a gap endorsement. State and County transfer taxes shall be paid by Seller. The parties acknowledge that the Village does not have a transfer tax.

Seller shall pay all accrued water, sewer and other utility charges, if any, as of the Closing Date. Seller and Buyer shall each pay one-half (1/2) of any escrow and/or closing fees. Buyer shall pay for recording the deed, and any mortgage arranged by Buyer. Seller shall pay for recording any documents to clear Seller's title. All other Closing costs shall be apportioned in accordance with usual and customary practice in Will County, Illinois.

9. POSSESSION

Seller shall deliver vacant and exclusive possession of the Property on the Closing Date.

10. COMMISSIONS

Each of Seller and Buyer represents that it has not dealt with any brokers with respect to the Property and each hereby agrees to indemnify and hold the other harmless with respect to any claim made by any real estate broker in connection herewith.

11. REPRESENTATIONS AND WARRANTIES

(a) In order to induce Buyer to enter into this Agreement (and with the understanding that Buyer is relying upon said representations and warranties), Seller represents and warrants to Buyer that:

(i) Fee simple ownership of the Property is vested solely in Seller, Seller has full right and authority to convey the Property, and no other person or entity has any right, title or interest (including possessory rights) in or to the Property;

(ii) The Property is not subject to any: (A) leases, (B) unrecorded easements, (C) options to purchase, (D) rights of first purchase or refusal, (E) other agreements or contracts to use, lease, or purchase the Property, or (F) mortgages, other than those which shall be satisfied at Closing;

(iii) The entry by Seller into this Agreement and the performance by Seller of all of its obligations in connection herewith have been duly and validly authorized by all necessary action, and are not in violation of Seller's organizational documents or the organizational documents of any of its constituent members. Any natural persons executing this Agreement on behalf of Seller are authorized to do so;

(iv) Other than the Special Service Area 1 assessment, Seller has no knowledge of any special assessments levied against or threatened to be levied against the Property; and

(v) Storm water basins of sufficient capacity and/or quantity for the Project are available at the perimeter of the Property, and Buyer will have the full right to tie into otherwise connect with the storm water basins. Buyer shall have the right to connect to such storm water basins without paying any recapture or connection fee to Seller or any other party.

(vi) Seller and each person or entity owning an interest in Seller is (a) (i) not currently identified on the Specially Designated Nationals and Blocked Persons List maintained by the Office of Foreign Assets Control, Department of the Treasury ("OFAC") and/or on any other similar list maintained by OFAC pursuant to any authorizing statute, executive order or regulation (collectively, the "List"), and (ii) not a person or entity with whom a citizen of the United States is prohibited to engage in transactions by any trade embargo, economic sanction, or other prohibition of United States law, regulation, or Executive Order of the President of the United States, (b) none of the funds or other assets of Seller constitute property of, or are beneficially owned, directly or indirectly, by any Embargoed Person (as hereinafter defined), (c) no Embargoed Person has any interest of any nature whatsoever in Seller (whether directly or indirectly), and (d) Seller has implemented procedures, and will consistently apply those

procedures, to ensure the foregoing representations and warranties remain true and correct at all times.

(b) In order to induce Seller to enter into this Agreement, Buyer represents and warrants to Seller that Buyer has taken all action and obtained all approvals necessary to approve and effect the transaction contemplated hereby including, without limitation, all necessary authorizations required for the execution of this Agreement by the person(s) executing this Agreement on behalf of Buyer. Buyer is not currently identified on the Specially Designated Nationals and Blocked Persons List maintained by OFAC and/or on any other similar List, and (3) is not a person or entity with whom a citizen of the United States is prohibited to engage in transactions by any trade embargo, economic sanction, or other prohibition of United States law, regulation, or Executive Order of the President of the United States. To the best of Buyer's knowledge, none of the funds or other assets of Buyer constitute property of, or are beneficially owned, directly or indirectly, by any Embargoed Person. Buyer has implemented procedures, and will consistently apply those procedures, to ensure the foregoing representations and warranties in this Section remain true and correct at all times. Buyer also shall require, and shall take reasonable measures to ensure compliance with the requirement that no person who owns any other direct equity interest in Buyer is or shall be listed on any of the Lists or is or shall be an Embargoed Person. This Section shall not apply to any person to the extent that such person's interest in Buyer is through a U.S. Publicly-Traded Entity.

(c) All representations and warranties contained in this Section 11 or elsewhere in this Agreement shall be deemed remade as of Closing and shall survive Closing for a period of six months. From the Effective Date to the Closing Date, if Seller and/or Buyer, as appropriate, learns or has a reason to believe that any of the representations and warranties in this Section 11 may cease to be true, Seller and/or Buyer, as appropriate, shall give written notice thereof to other party within five (5) days of becoming aware of such events or circumstances.

12. REMEDIES

(a) If Seller breaches any of its material covenants, agreements, representations and warranties contained in this Agreement, or if said material representations and warranties are not true and correct on the date hereof and on the Closing Date, or if Seller fails to perform any material affirmative obligation or consummate the sale contemplated herein for any reason other than Buyer's default, then provided that Buyer is not in default hereunder and provided further that Buyer has given Seller fifteen (15) days' written notice specifying the exact nature of such breach or failure, and if such breach or failure has not been cured within fifteen (15) days after the date such notice was delivered, Buyer may, subject to Section 28 below, (i) grant Seller additional time, not to exceed fifteen (15) days to cure such breach or failure, or (ii) declare this Agreement terminated, in which event the Deposits shall be returned to Buyer and thereafter all rights and obligations of the parties hereunder shall be terminated, or (iii) bring an action for specific performance.

(b) In the event that Buyer defaults in its material obligations hereunder and provided that Seller is not in default hereunder, then after Seller has given Buyer fifteen (15) days' written notice specifying the exact nature of such default, and if such default has not been cured within such period, Seller may declare this Agreement terminated, in which event all Deposits shall be

forfeited to Seller as liquidated damages and as Seller's sole and exclusive remedy, and all other rights and obligations of the parties hereunder shall be terminated.

(c) The exercise (or failure to exercise) of any one of Buyer's or Seller's rights or remedies under this Agreement shall not be deemed to be in lieu of, or a waiver of, any other right or remedy contained herein except to the extent inconsistent therewith.

13. CONFIDENTIALITY

Each party hereby covenants to the other that it shall keep in strictest confidence all of the terms and conditions of this Agreement (but each party shall have the right to disclose the existence of this Agreement); provided that, Buyer shall be entitled to disclose such information as it deems appropriate to its prospective lenders, tenants, investors and consulting professionals.

14. NOTICES

All notices, requests, waivers, and other communications under this Agreement shall be in writing and shall be deemed properly served (a) upon delivery by hand; (b) when sent by sender to the applicable carrier if sent postage prepaid by United States Registered or Certified Mail, Return Receipt Requested; (c) when sent by sender to a nationally recognized ovemight express mail courier; or (d) when sent by email transmission (if sent before 5 p.m., recipient's time) to the following street addresses or email addresses:

(a) If intended for Seller: to Century Oaks LLC, c/o Zaremba Shopping Centers, LLC, 14600 Detroit Avenue, Suite 1500, Lakewood, Ohio 44107, Email: salbers@zarembagroup.com, Attention: Susan K. Albers, Director of Legal Services, with a copy to Escrow Agent;

(b) If intended for Buyer, to Alden Realty Services, Inc., Attention: Randi Schullo, 4200 W. Peterson Ave, Chicago, IL 60646, Email: randi.schullo@thealdennetwork.com, with a copy to Steven Friedland, Applegate & Thorne-Thomsen, 626 W. Jackson Blvd., Suite 400, Chicago, Illinois 60661; Email: sfriedland@att-law.com; or to such other addresses or facsimile numbers as Seller or Buyer shall have given notice of to the other as herein provided.

15. COUNTERPARTS; FACSIMILE/EMAIL

This Agreement may be executed by the signing in counterparts of this instrument. The execution by all of the parties hereto by each signing a counterpart of this instrument shall constitute a valid execution, and this instrument with all its counterparts so executed shall be deemed for all purposes to be a single instrument. For purposes of this Agreement and the rights of the parties to enforce it, a facsimile or email transmission of a signature shall have the same force and effect as an original signature.

16. BINDING EFFECT

This Agreement shall be binding upon and shall inure to the benefit of the heirs, successors and assigns of the parties hereto.

17. COMPLETE AGREEMENT

This Agreement constitutes the entire agreement between the parties with respect to the transaction contemplated herein and no amendment or modification shall be effective unless it is in writing and signed by Seller and Buyer.

18. SEVERABILITY.

Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be valid under applicable law, but if any provision of this Agreement shall be invalid or prohibited, such provision shall be ineffective to the extent of such prohibition or invalidation, which shall not invalidate the remainder of such provision or the remaining provisions of this Agreement.

19. GOVERNING LAW

This Agreement shall be governed by and construed in accordance with the laws of the State in which the Property is located.

20. ASSIGNMENT

Buyer shall have the right to assign its rights and privileges under this Agreement to a nominee that is owned, managed or controlled by Buyer.

21. TIME OF THE ESSENCE

The parties hereto agree that time is of the essence with respect to this Agreement.

22. CAPTIONS

The captions in this Agreement are for convenience only and shall not define or limit the scope of this Agreement or the intent hereof.

23. SELLER'S RESPONSIBILITIES

Buyer's obligation to close the transaction contemplated under this Agreement is subject to Seller's completion of the following tasks to Buyer's satisfaction (collectively, "Seller's Responsibilities"):

(a) within ten (10) business days after the Effective Date, Seller shall deliver to Buyer copies of any of the following in Seller's or any of Seller's agents' possession: surveys, maps, plans, plats, licenses, agreements, contracts, permits, approvals, site plans, reports, maintenance records, environmental reports, engineering reports, soils and geotechnical reports, wetland reports, real estate tax bills and assessment notices, covenants and restrictions (including without limitation any common area or private roadway easements or maintenance agreements), and

similar written instruments or documents relating to the Property, and any material written communications, notices, or demands to or from any governmental agency or neighboring property owners concerning the Property, and evidence of public and private utilities serving the Property (collectively, the "Property Documents"). Seller will cooperate with Buyer, at Buyer's cost, in obtaining any reliance letters, recertifications or updates of Property Documents originally prepared by third parties for Seller, including, without limitation, reliance letters with respect to any environmental assessments studies and recertification of any survey;

(b) Seller, at its sole cost, shall have caused a legal land division of the Property from the Development to occur such that the Property becomes a separate tax parcel from the rest of the parcels comprising the Development, which land division is acceptable to Buyer in its sole discretion relating to the size of the resulting parcel, the orientation of the boundary locations and any conditions imposed on the use or ownership of the Property. Seller shall arrange for the recording of all documentation necessary to effectuate the land division of the Property and creation of the separate tax parcel on or before Closing;

(c) On or before Closing, Seller, at Seller's sole cost, shall have granted all required easements and approvals necessary to provided vehicular and pedestrian access to and from the Property to a public road;

(d) on or before Closing, Seller, at Seller's sole cost, shall have granted all required easements and approvals necessary to allow the Property to utilize the stormwater management system to be constructed as part of the Site Improvements;

(e) as part of its obligation to produce the Property Documents, Seller shall provide to Buyer all information and documentation regarding the Special Service Area 1 assessment that encumbers the Development and the Property.

The terms and conditions of this Section shall survive the Closing Date, shall be binding upon Seller and its successors and assigns, shall benefit Buyer and its successors and assigns.

24. REPURCHASE OPTION

(a) Seller hereby reserves the right and option, but not the obligation, to repurchase the Property from Buyer (the "Repurchase Option") for the Repurchase Price (hereinafter defined) and on the other terms and conditions hereof if Buyer fails to Commence Construction (as defined below) on or before the expiration of the eighteenth (18th) full calendar month after the Closing Date (the "Upset Date"); provided, however, that in the event that Buyer's ability to Commence Construction is delayed due to Acts of God, strikes, terrorism, war, governmental restrictions, unavailability of materials or any other cause outside the reasonable control of Buyer, the Upset Date shall be reasonably extended to reflect the time lost due to the unexpected delay and the reasonable time to complete the same. If Seller desires to exercise the Repurchase Option, Seller shall first provide written notice to Buyer of its intent to exercise the Repurchase Option (an "Initial Repurchase Notice") within thirty (30) days after the Upset Date. Buyer, within thirty (30) days of its receipt of the Initial Repurchase Notice, shall give written notice to Seller ("Buyer's Response") that Buyer will or will not Commence Construction within sixty

(60) days following the Upset Date (such additional time shall be the "Cure Period"). If Buyer's Response provides that Buyer shall Commence Construction within the Cure Period, and Buyer fails to do so, Seller shall have thirty (30) days from the conclusion of the Cure Period to give written notice to Buyer ("Final Repurchase Notice") that Seller shall repurchase the Property. If (i) Buyer's Response provides that Buyer will not Commence Construction within the Cure Period, (ii) Buyer fails to timely provide a Buyer's Response to Seller, or (iii) Seller validly tenders a Final Repurchase Notice (collectively, a "Repurchase Event"), Seller shall repurchase the Property as provided herein. As used herein, "Commence Construction" shall mean the issuance of a building permit for the Project. If Seller fails to timely provide either an Initial Repurchase Notice or a Final Response Notice to Buyer, the Repurchase Option shall be deemed waived.

(b) The Repurchase Option shall cease and terminate in the event of a transfer to or sale of the Property by any bank or other financial institutional where title is acquired by said bank or financial institution as a result of the foreclosure of a first in priority mortgage or deed to secure debt encumbering the Property or a conveyance in lieu of such a foreclosure. The Repurchase Option set forth herein shall automatically cease and terminate when (i) Buyer or its nominee Commences Construction, (ii) if Seller tenders an Initial Repurchase Notice and Buyer Commences Construction within the Cure Period, or (iii) the Repurchase Option is deemed waived, all without any further action on any part of the parties hereto; provided, however, that Seller shall, upon the request of Buyer, at Buyer's cost, execute a termination agreement in recordable form terminating the Repurchase Option and shall deliver the same to Buyer.

(c) If Seller exercises the Repurchase Option in accordance with the terms hereof and a Repurchase Event occurs, then the consummation of such transaction (the "Re-Purchase Closing Date") will occur at the offices of the Title Company or such other title company that Seller may select, on that date which is sixty (60) days after the date of Buyer's Response or the Final Repurchase Notice, as the case may be, or such earlier date upon which Seller and Buyer agree. On or prior to the Repurchase Closing Date, Buyer shall execute and deliver to Seller all customary closing documents, including, without limitation, a special warranty deed conveying title to the Property to Seller, subject only to the Permitted Exceptions, and such other matters established against title after the Closing Date with the express written consent of Seller (except financing liens established at or after the Closing Date, which Buyer shall discharge prior to or at the time of the re-conveyance); an affidavit that Buyer is not a "foreign person" within the meaning of Section 1445 of the Internal Revenue Code of 1986, as amended; and such other documents, certificates, instruments and the like, as may be required by the Title Company to issue a policy of title insurance subject only to the Permitted Exceptions, with all standard exceptions removed.

(d) In the event that Seller elects to exercise its Repurchase Option in accordance herewith the purchase price for the Property ("Repurchase Price") shall be an amount equal to the Purchase Price paid by Buyer to Seller under this Agreement. Seller shall deliver the Repurchase Price to the Title Company in cash or other funds available for immediate credit to Buyer. Transfer taxes, deed stamps and other closing costs shall be paid as described in Section 8 with respect to Buyer's acquisition of the Property.

(e) The terms and conditions of this Section shall survive the Closing Date, shall be binding upon Buyer and its successors and assigns, and shall benefit Seller and its successors and assigns.

25. CONDITIONS PRECEDENT TO CLOSING

The Closing is subject to the satisfaction or waiver by Buyer of the following conditions on or before the Closing Date:

(a) The representations and warranties of Seller contained herein shall be true and correct as of the Closing Date.

(b) Seller shall have performed all agreements, undertakings and obligations, including Seller's Responsibilities, and complied with all conditions required by this Agreement to be performed or complied with by Seller on or before the Closing.

(c) Title Company shall be unconditionally committed to issue, prior to recording of the Deed (defined below), an ALTA extended coverage Owner's Policy of Title Insurance in the amount of the Purchase Price insuring that the fee title to the Property will be vested in Buyer subject only to Permitted Exceptions.

26. CLOSING DOCUMENTS

The following closing documents shall be prepared, executed and delivered by the parties on or before the Closing Date:

(a) Seller shall execute and deposit into escrow a properly executed and acknowledged Special Warranty Deed (the "Deed");

(b) Seller and Buyer shall execute and deposit into escrow state, county and municipal, if any, transfer tax declarations;

(c) Seller shall execute and deposit into escrow an affidavit regarding non-foreign status, in customary form;

(d) Seller shall execute an ALTA Statement, a Gap Undertaking and any other document as required by Title Company to insure over mechanics liens and rights of parties in possession, standard title exceptions and the gap;

(e) Seller shall execute and deliver to Buyer, if necessary, an easement in recordable form and otherwise acceptable to Buyer providing for unrestricted pedestrian and vehicular access to the Property, as provided in Section 23(c) above;

(f) Seller shall execute and deliver to Buyer an easement in recordable form and otherwise acceptable to Buyer providing for the Property's right to utilize and connect to the stormwater management system for the Development, as provided in Section 23(d) above;

(g) Seller shall execute an assignment to Buyer of any permit applications submitted in the name of Seller; and

(h) Any other document reasonably requested to complete this transaction.

27. MISCELLANEOUS PROVISIONS

(a) From and after the Effective Date, Buyer shall have the right, subject to Seller's approval and all state, county and local laws and ordinances, to locate marketing signs for the Project on the Development adjacent U.S. Route 6.

(b) During the period commencing upon the Effective Date and ending on the Closing or prior termination of the Agreement, Seller agrees to keep the Property off the market and to refrain from negotiating or discussing the sale of the Property with anyone other than Buyer or its nominee.

(c) Buyer agrees to keep Seller informed of Buyer's discussions and dealings with the Village and Buyer agrees that Seller shall have the right to join Buyer at any meetings with the Village staff related to the Project. Buyer shall use reasonable efforts to inform Seller at least 3 days in advance of any face to face meetings with Village staff related to zoning, provided, that Buyer's failure to inform Seller of such meetings shall not be deemed a default under this Agreement.

IN WITNESS WHEREOF, each of the parties hereto has set its hand on the date set forth below.

BUYER:

ALDEN REALTY SERVICES, INC., an Illinois corporation

By: _____

Its: President

Execution Date: 10/13/15

SELLER:

CENTURY OAKS LLC,
an Ohio limited liability company

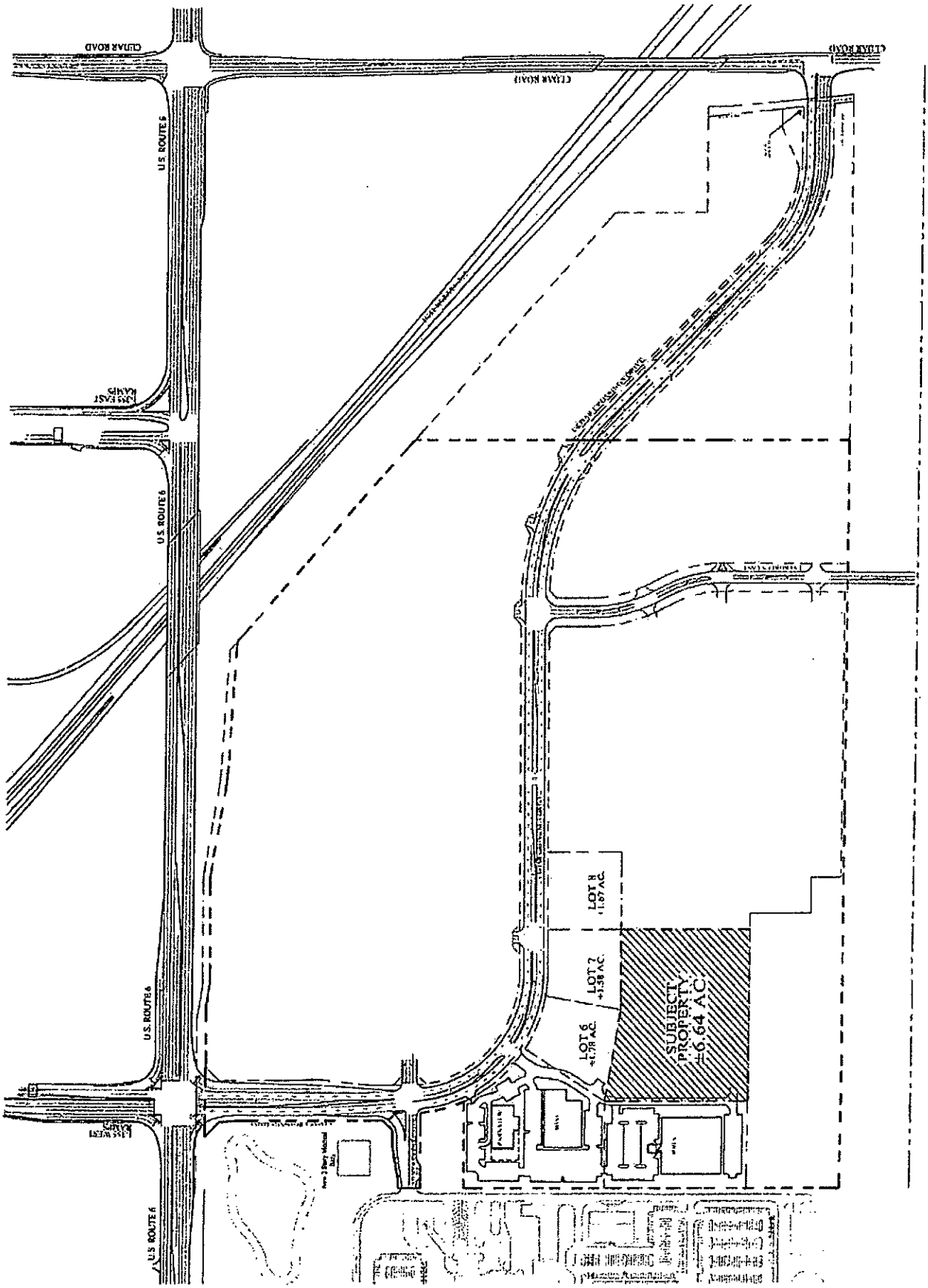
By: ZARCAL, LLC,
a Delaware limited liability company,
its Manager

By: ZAREMBA SHOPPING CENTERS, LLC, a Delaware limited liability company, its Manager

By: _____
Al Sulin, President

Execution Date: 10/14/2015

EXHIBIT A



ATTACHMENT-2B

Operating Identity/Licensee

- Corporations and limited liability companies must provide an Illinois Certificate of Good Standing.

- Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.

- **Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.**

The Operator/Licensee of the proposed Alden Estates-Courts of New Lenox will be **Alden Estates-Courts of New Lenox, Inc**. The entity's Illinois Certificate of Good Standing is appended as **ATTACHMENT-3A.** Please note that the sole shareholder is **New Lenox Investments I,** LLC. An Illinois Certificate of Good Standing is appended as **ATTACHMENT-3B**.

ATTACHMENT-3

File Number 7037-106-5

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

ALDEN ESTATES-COURTS OF NEW LENOX, INC., A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON SEPTEMBER 28, 2015, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE BUSINESS CORPORATION ACT OF THIS STATE RELATING TO THE PAYMENT OF FRANCHISE TAXES, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 16TH *day of* NOVEMBER *A.D.* 2017 .

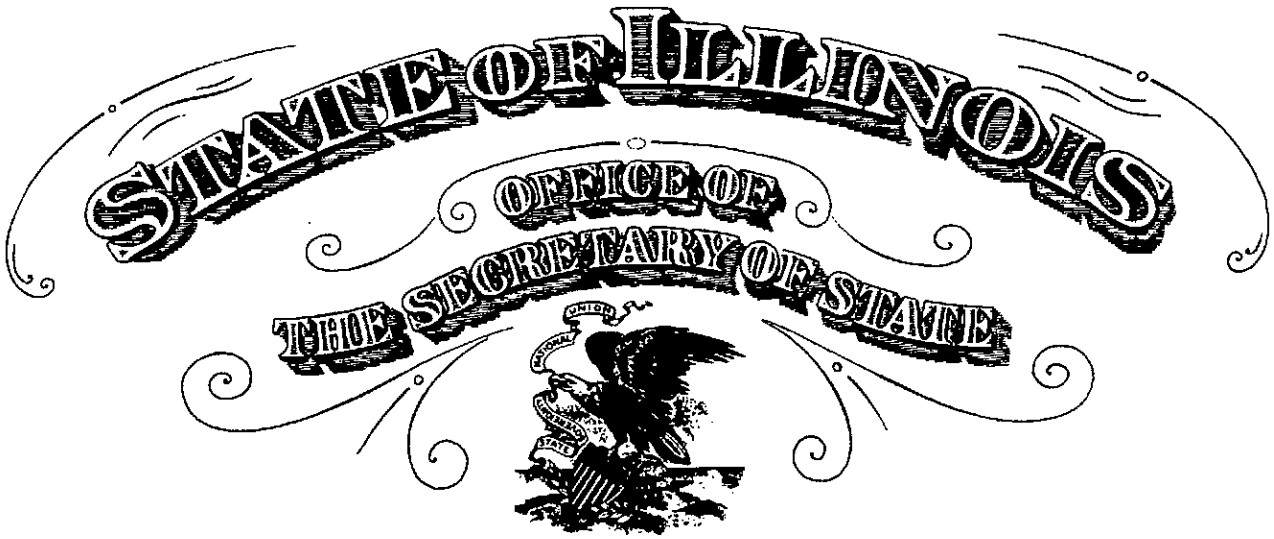
Authentication #: 1732002356 verifiable until 11/16/2018
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

ATTACHMENT-3A

File Number 0545471-9



To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

NEW LENOX INVESTMENTS I, L.L.C., HAVING ORGANIZED IN THE STATE OF ILLINOIS ON SEPTEMBER 28, 2015, APPEARS TO HAVE COMPLIED WITH ALL PROVISIONS OF THE LIMITED LIABILITY COMPANY ACT OF THIS STATE, AND AS OF THIS DATE IS IN GOOD STANDING AS A DOMESTIC LIMITED LIABILITY COMPANY IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 16TH *day of* NOVEMBER *A.D.* 2017 .

Authentication #: 1732002366 verifiable until 11/16/2018
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

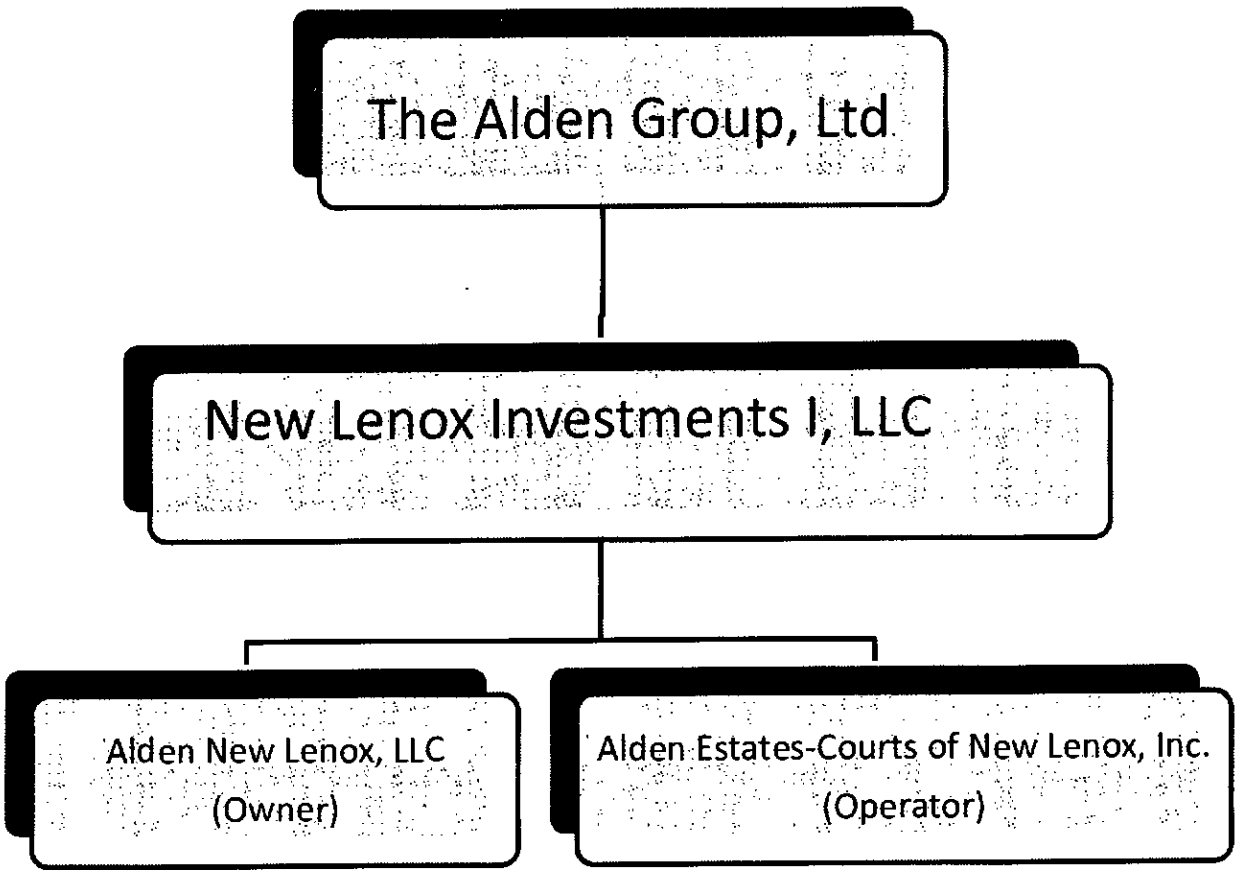
ATTACHMENT-3B

Organizational Relationships

Provide (for each co-applicant) an organizational chart containing the name and relationship of any person or entity who is related (as defined in Part 1130.140). If the related person or entity is participating in the development or funding of the project, describe the interest and the amount and type of any financial contribution.

Appended as **ATTACHMENT-4A,** is the organizational chart for this project. It should be known that the ownership and operating/licensee entities have no history; therefore, the Parent will be the sole financial contributor to the proposed project. There are other related "Alden" facilities through the parent entity that should be disclosed. Appended at **ATTACHMENT-4B** is a listing of all facilities in which **The Alden Group, Ltd.** (the ultimate parent) has interest. Appended as **ATTACHMENT-4C,** is the Illinois Certificate of Good Standing for **The Alden Group, Ltd.**, who is considered a Co-Applicant.

Alden Estates-Courts of New Lenox
Organizational Chart



ATTACHMENT-4A

Alden Estates-Courts of New Lenox
Other Related Facilities through the Ultimate Parent
The Alden Group, Ltd.

RELATED FACILITIES

Alden Alma Nelson Manor

Alden Estates of Barrington

Alden Des Plaines Rehab & HC

Alden Garden Cts of DesPlaines

Alden Estates of Evanston

Heather Health Care Center

Alden Lakeland Rehab & HCC

Alden Lincoln Rehab & H C Ctr

Alden Long Grove Rehab & HCC

Alden Terrace of McHenry Rehab

Alden Estates of Naperville

Alden Northmoor Rehab & HCC

Alden North Shore Rehab & HCC

Alden Orland Park Rehab & HCC

Alden Park Strathmoor

Alden Poplar Creek Rehab & HCC

Alden Princeton Rehab & HCC

Alden Estates of Shorewood

Alden Courts of Shorewood

Alden Estates of Skokie

Alden Town Manor Rehab & HCC

Alden Valley Ridge Rehab & HCC

Alden Village Health Facility

Alden Village North

Alden of Waterford

Alden Courts of Waterford

Alden Gardens of Waterford

Alden Wentworth Rehab & HCC

Alden of Old Town East

Alden of Old Town West

Alden Trails

Alden Springs

File Number 5206-055-9

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

THE ALDEN GROUP, LTD., A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON MAY 20, 1980, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE BUSINESS CORPORATION ACT OF THIS STATE RELATING TO THE PAYMENT OF FRANCHISE TAXES, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 16TH *day of* NOVEMBER *A.D.* 2017 .

Authentication #: 1732002384 verifiable until 11/16/2018
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

ATTACHMENT-4C

Flood Plain Requirements

Provide documentation that the project complies with the requirements of Illinois Executive Order #2005-5 pertaining to construction activities in special flood hazard areas. As part of the flood plain requirements please provide a map of the proposed project location showing any identified floodplain areas. Floodplain maps can be printed at **www.FEMA.gov** or **www.illinoisfloodmaps.org. This map must be in a readable format**. In addition please provide a statement attesting that the project complies with the requirements of Illinois Executive Order #2005-5 **(http://www.hfsrb.illinois.gov)**.

Appended as **ATTACHMENT-5A** is a letter from Alden Design Group, Inc. dated 11/28/17, as well as a FIRM Map printed from www.FEMA.gov, providing documentation that the proposed project site is not within a special flood hazard area.

ADG

ALDEN DESIGN GROUP, INC.

ARCHITECTS

November 28, 2017

Ms. Randi Schlossberg-Schullo
Alden Realty Services, Inc.
4200 West Peterson Avenue
Chicago, IL 60656

RE: Alden New Lenox – Proposed LTC Facility
Floodplain Requirements

Ms. Schlossberg-Schullo,

This letter will serve as documentation that the proposed Long-Term Care Facility in New Lenox will comply with the requirements of Illinois Executive Order #2005-5 pertaining to construction activities in special flood hazard areas. We have attached to this letter a floodplain map indicating where the proposed facility will be located.

Should you have any further questions, please do not hesitate to contact us.

Respectfully Submitted,
Alden Design Group, Inc. - *Architects*

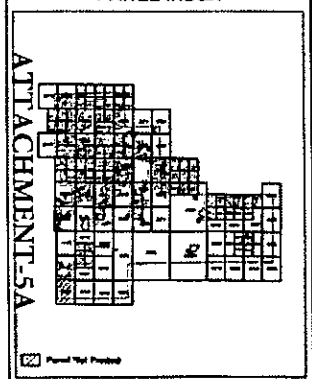
Michael J Bailey NCARB, ALA

CC: Ritchie D Schullo – Alden Bennett Construction

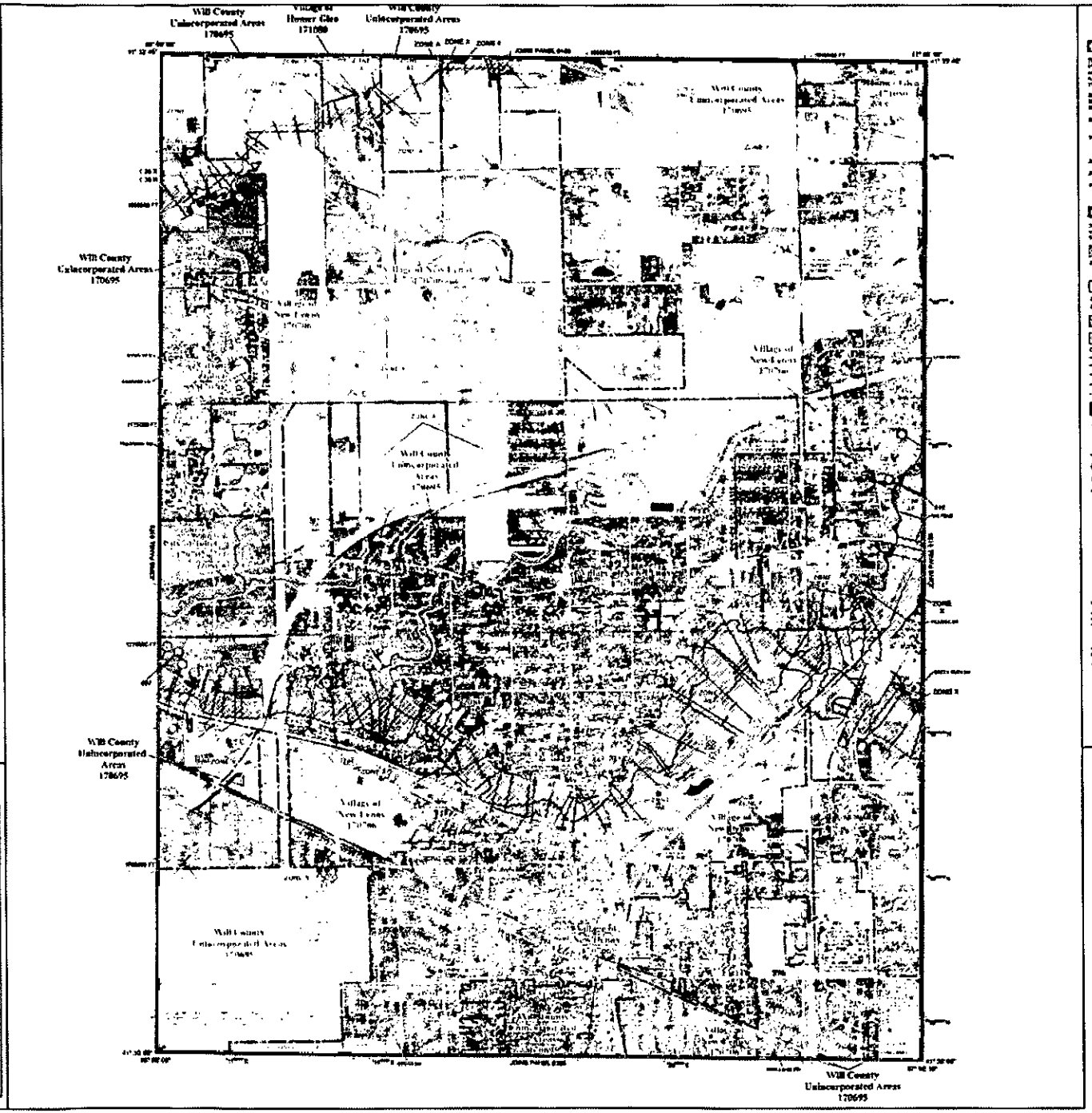
File

NOTES TO USERS

PANEL INDEX



ATTACHMENT-5A



LEGEND

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0190G

FIRM

FLOOD INSURANCE RATE MAP

WILL COUNTY, ILLINOIS AND INCORPORATED AREAS

PANEL 190 OF 585

MAP NUMBER 17197C0190G

MAP REVISED to be determined

Federal Emergency Management Agency

72

Historic Resources Preservation Act Requirements

Provide documentation regarding compliance with the requirements of the Historic Resources Preservation Act.

Appended as **ATTACHMENT-6A,** is a letter from the Illinois Historic Preservation Agency's Rachel Leibowitz, Ph.D., Deputy State Historic Preservation Officer dated December 5, 2017 stating that "no historic properties are affected".

ATTACHMENT-6

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Illinois Department of **Natural Resources**

One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Bruce Rauner, Governor
Wayne A. Rosenthal, Director

Will County PLEASE REFER TO: SHPO LOG #003102215
New Lenox
Cedar Crossing Drive, between US Route 6 & Evergreen Lane
HUD
New construction, long term care facility

December 5, 2017

Kathy Harris
Foley and Associates, Inc.
133 S. 4th St., Suite 200
Springfield, IL 62701

Dear Ms. Harris:

We have reviewed the documentation submitted for the referenced project(s) in accordance with 36 CFR Part 800.4. Based upon the information provided, no historic properties are affected. We, therefore, have no objection to the undertaking proceeding as planned.

Please retain this letter in your files as evidence of compliance with section 106 of the National Historic Preservation Act of 1966, as amended. This clearance remains in effect for two (2) years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440).

If you are an applicant, please submit a copy of this letter to the state or federal agency from which you obtain any permit, license, grant, or other assistance. If further assistance is needed contact Joe Phillippe of my office at 217/785-1279 or joe.phillippe@illinois.gov.

Sincerely,

Rachel Leibowitz, Ph.D.
Deputy State Historic
Preservation Officer

ATTACHMENT-6A

SECTION II – PURPOSE OF THE PROJECT, AND ALTERNATIVES – INFORMATION REQUIREMENTS Continued I

Criterion 1125.320 – Purpose of the Project

1. Document that the project will provide health services that improve the health care or well-being of the market area population to be served.

This application was originally filed on November 12, 2015 and approved by the Health Facilities & Services Review Board on March 29, 2016 (Project No. 15-051). At that time there was a need for 141 general long-term care beds in Health Service Area 9, Will County Planning Area. Since that time the bed need has increased by 274 additional beds which is in addition to the 140 approved beds in Project #15-051. The original project's abandonment is contingent upon the approval of this proposed project. Thus, upon approval, the net change in bed need will be only 26 beds (current need: 273 -166 proposed beds =107 + the original 140 beds returned from the existing inventory = 247). It should be noted that the previous Inventory (2015) utilized 2013 base year data and the current Inventory (2017) utilized 2015 data and projects need through 2020. Because of the strong demand and need for additional beds, this Applicant is refiling their application to increase the size of the previously approved project by 26 additional beds, which adds to the square footage of the facility by 2,400 gross square feet. This project's net effect to the bed need will only be 26 beds (248 resultant bed need).

The proposed project will establish a 166-bed nursing care facility in New Lenox, Will County, Illinois. This project's addition of 26 beds addresses the current bed need (274 beds) for Health Service Area 9, **Will County Planning Area,** as published in the January 10, 2018 Update to the 2017 Illinois Department of Public Health (hereafter known as IDPH) Inventory of Health Care Facilities and Services and Need Determinations, Volume 2, Parts VI-VII, Long-Term Care Services. This project will increase access for nursing care as all proposed nursing beds will be certified for both Medicare and Medicaid. Improved accessibility for nursing care

ATTACHMENT-10

services will be provided to residents of the market area, i.e., a 30-minute travel time from the proposed site. Specifically, this proposed 166-bed nursing care facility will include 114 general skilled care beds and 52 Alzheimer Disease & Related Dementia (ADRD) beds which will provide care under the skilled care (SNF) license. The general long-term care unit will be housed in a three-story, 114-bed building (Alden Estates of New Lenox) where the physical and occupational therapy departments will be located. The 52 ADRD beds will be housed in a separate and distinct building (although connected). This one-story memory care facility (Alden Courts of New Lenox) will provide secure courtyards as well as a separate therapy area. Three levels of care serving three stages of the disease will be provided within two wings or "neighborhoods". The first neighborhood will provide care for early stage ADRD residents, as well as those in the mid-stages of the disease; these residents typically respond the best to programming and activities. The second neighborhood will serve late-stage ADRD residents who have medical needs that outweigh their programmatic needs. Not only has it been found that separating these groups is very important for the early and mid-stage residents, allowing for greatest longevity in the earlier stages, but it is equally important to separate residents who have memory impairments from those who are physically frail.

As the proposed project is to be located in New Lenox, it should be noted that there are no long-term care facilities in New Lenox, Illinois. New Lenox Zip Code Area 60451 has a population of 34,063 according to the 2010 U.S. Census. This represents an increase of nearly 25 percent (24.6%) over the 2000 U.S. Census population of 27,338. Nearly 9 percent (2,968 persons) of the 2010 New Lenox Zip Code Area 60451 population is age 65 or older, and that statistic has grown by nearly 61 percent (60.8%) from over 1,800 people (1,846) 65 years of age and over in the 2000 U.S. Census. Therefore, by providing nursing care services to an

immediate area where none exist, and in which a population is present to more than support the proposed service, implicitly documents that health care will be improved for the market area population.

Nursing Bed Need Projected from State and Planning Area Ratio of Pop. to Nursing Beds									
	2020 Projected Population	2017 Inventory Lic. Beds	Ratio of Tot Pop: 1 Bed	2020 Projected 65+ Pop	Ratio of 65+ Pop: 1 bed	2017* Zip Code 60451 Tot Population	2017* Zip Code 60451 65+ Population	Need Based Upon Tot. Pop.	Need Based Upon 65+ Pop
Illinois	13,427,700	94,980	141.4:1	2,136,900	22.5:1	34,063	2,968	240.9	131.9

*Zip Code 60451 data based on 2010 Census.
Source: Inventory of Health Care Facilities and Services and Need Determinations 2017 LTC Services
https://www.zip-codes.com/zip-code/60451/zip-code-60451-census-comparison.asp

The above chart illustrates that based upon the State's ratio of population to nursing beds, the Village of New Lenox and the Zip Code area encompassing the Village (60451) can support up to 241 nursing care beds. Therefore, the Village of New Lenox and its associated Zip Code area have an adverse accessibility issue as they have no beds, yet they have the population to support said beds. As such, the proposed project has been strategically located not only for the care and well-being of the market area but of the immediate community of New Lenox.

The proposed site is located in Will County, just East of Joliet. The State's new Inventory (2017 IDPH Inventory of Health Care Facilities and Services and Need Determinations, Volume 2, Parts VI-VII, Long-Term Care Services) shows a path of growth in terms of need for additional nursing care services for Will County that has increases from 141 additional beds needed to the current need of 274 additional beds needed. This presumes that all beds in the existing inventory of beds approved are operating at the State's optimal rate of 90% including the Applicant's 140 already approved beds (15-051). This revised need will provide health services that will improve accessibility for nursing care services and Alzheimer's care to the residents of the market area, i.e., a 30-minute travel time from the proposed site as well as within the community of New Lenox.

ATTACHMENT-10

It is important to point out that the 166-nursing bed license covers several specific services/populations. There will be two distinct settings on this campus. The first building (not in any particular order) is Alden Estates of New Lenox. It is the three-story 114-bed general nursing bed structure. In addition to the general geriatric nursing services, the rehab unit will be located within this building near the physical and occupational therapy department.

The other building, Alden Courts of New Lenox will provide 52 nursing and rehabilitation beds to care for the specialized memory care population many of whom suffer with Alzheimer's Disease and Related Dementia (ADRD) care. The memory care building will be specifically designed around the "Alden" memory care programming and; therefore, will be in a separate and distinct building (although connected). This one-story memory care facility (Alden Courts of New Lenox) will be serving three stages of the disease, in two wings or "neighborhoods." The first neighborhood is for early to mid-stage ADRD residents who typically respond the best to programming and activities; The second neighborhood will serve late-stage ADRD residents who have medical needs that outweigh their programmatic needs. The medical needs of this later group are more prevalent, but they still do not outweigh the resident's programmatic needs. It has been found that separating these groups is very important for the early and mid-stage residents and allows for greatest longevity in the earlier stages. Equally as important as separating residents between level of care is to separate residents who have memory impairments from those who are physically frail.

As the proposed project is to be located in New Lenox, it should again be noted that there are no long-term care facilities in New Lenox, Illinois. The Subject project will be adjacent to Silver Cross Hospital offering a concentration of vertically aligned services and referrals. Therefore, by providing nursing care services to an immediate area where none exist, and in

which a population is present to support the proposed service, implicitly documents that health care will be improved.

2. Define the planning area or market area, or other, per the applicant's definition.

In accordance with the State's required travel time contour, the proposed market area is the 30-minute drive time contour per the 77 Illinois Administrative Code, Chapter II, Subchapter a, Section 1100.510(d). Moreover, the project is to be located in New Lenox, Illinois of which there are no long-term care facilities within nearly 5 miles (equivalent of 10-minute travel time contour).

3. Identify the existing problems or issues that need to be addressed, as applicable and appropriate for the project.

There is an identified need for 274 additional nursing care beds and services in Health Service Area 9, Will County Planning Area which is in addition to the 140 already permitted beds (15-051). This project addresses that existing identified need.

Ratio of Population to Nursing Beds Comparison - 2015 DATA FROM 2017 INVENTORY PUBLISHED 09/01/2017									
Market	2015 Est. Population	2020 Est. Population	Growth	Licensed Beds	Population Per 1-bed	2015 Est. 65+ Pop	2020 Est. 65+ Pop	Growth	65+ Population Per 1-bed
Illinois	12,861,200	13,427,700	4.4%	94,980	141.4	1,831,300	2,136,900	16.7%	22.5
Grundy Co.	50,900	56,100	10.2%	265	211.7	6,100	8,200	34.4%	30.9
Kendall Co.	121,500	142,800	17.5%	184	776.1	9,500	15,200	60.0%	82.6
Will Co.	688,500	795,200	15.5%	2,835	280.5	75,500	102,900	36.3%	36.3

Source: Inventory of Health Care Facilities and Services and Need Determinations 2017 Long-Term Care Services

The chart provided herein, portrays the issue that the proposed project seeks to address. Specifically, the Planning Areas of Will County, Grundy County, and Kendall County each have a ratio of population per single nursing bed that is higher than that of the State. The proposed project seeks to establish nursing beds in the New Lenox Zip Code area that has over 34,000 (34,063) people and 2,968 over the age of 65. Even with the proposed 166-bed nursing facility, the ratio of population (65+) to nursing beds is only second to Kendall County Planning Area

whose over 65 population was projected to grow by 60%, as compared to the impressive over 36% increase in the Will County Planning Area. Therefore, the issue is the lack of accessibility to nursing services in New Lenox as well as for the thirty-minute travel time contour (primary and secondary market areas).

4. Cite the sources of the information provided as documentation.

Appended as **ATTACHMENT-10A** is the Health Facilities and Services Review Board Permit letter for Project No. 15-051.

Appended as **ATTACHMENT-10B** is the Long-Term Care Facility Update (October 16, 2015) to the 2015 IDPH Inventory of Health Care Facilities and Services and Need Determinations, Volume2, Parts VI-VII, Long-Term Care Services for **Will County**.

Appended as **ATTACHMENT-10C** is the Long-Term Care Facility Update (January 10, 2018) to the 2017 IDPH Inventory of Health Care Facilities and Services and Need Determinations, Volume2, Parts VI-VII, Long-Term Care Services for **Will County**.

Appended as **ATTACHMENT-10D** is the Microsoft MapPoint North America 2009 map identifying the location of the proposed facility, the 30-minute market contour, and zip code areas.

Appended as **ATTACHMENT-10E** is the site plan for the proposed project, Alden Estates-Courts of New Lenox.

Appended as **ATTACHMENT-10F** is Alden's Memory Care Program.

Appended as **ATTACHMENT-10G** is documentation of facts on Alzheimer's Disease from the Alzheimer's Association and IDPH.

Appended as **ATTACHMENT-10H** is a summary list of nursing facilities within a 30-minute travel time as identified by the State Board Staff Report for Project #15-051, their

number of nursing beds, and travel times to the proposed site.

Appended as **ATTACHMENT-10I** is census data from the US Census Bureau for New Lenox Zip Code area 60451, Illinois.

Appended as **ATTACHMENT-10J** are five physician referral letters. These letters support the project and the Applicant's ability to appropriately utilize the proposed facility.

Appended as **ATTACHMENT-10K** is documentation from the 2017 IDPH Inventory of Health Care Facilities and Services and Need Determinations, Volume2, Parts VI-VII, Long-Term Care Services

5. Detail how the project will address or improve the previously referenced issues, as well as the population's health status and well-being.

The proposed facility, in reality, is the combination of two facilities: the first is a 114-bed general long-term care facility with a concentration in rehabilitation; and the second, a 52-bed nursing facility dedicated to ADRD care in its three levels of the disease. The proposed project also addresses the immediate need for nursing beds just with the community of New Lenox, Will County, as the issue of accessibility, as defined in the 2017 IDPH Inventory of Health Care Facilities and Services and Need Determinations, Volume2, Parts VI-VII, Long-Term Care which calculates an existing need for 274 additional nursing care beds which is in addition to the already permitted 140 beds (15-051).

Appended as **ATTACHMENT-10J**, are five (5) physician letters of support stating that it is their intent to provide referrals should openings be available. It should be noted that these letters provide that collectively in the most recent 12 months 1,320 referrals have been made to area nursing facilities. Specifically, for the proposed project, these same physicians have indicated that they could make referrals of 120 patients per month for the general geriatric

nursing beds and 10 monthly referrals to the specialized ADRD nursing unit. On an annual basis these referrals account for 1,200 and 120 referrals to the respective nursing units of the proposed Alden Estates-Courts of New Lenox. The important point is that accessibility will be greatly improved.

6. Provide goals with quantified and measurable objectives, with specific timeframes that relate to achieving the stated goals **as appropriate**.

This project's goal is to serve and provide general long-term care services and innovative (ADRD) long-term care services to the geriatric population of those within the Will County Planning Area. The goal will be measured by the Applicant's ability to continuously fill its beds and provide the proposed services.

For projects involving modernization, describe the conditions being upgraded if any. For facility projects, include statements of age and condition and regulatory citations if any. For equipment being replaced, include repair and maintenance records.

Since this proposed project is for the establishment and construction of a facility and does not involve modernization, this item is not applicable.

ATTACHMENT-10

STATE OF ILLINOIS
HEALTH FACILITIES AND SERVICES REVIEW BOARD
525 WEST JEFFERSON ST. • SPRINGFIELD, ILLINOIS 62761 • (217) 782-3516 • FAX: (217) 785-4111

March 30, 2016

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Randi Schullo, President
Alden Realty Services, Inc.
4200 West Peterson Avenue
Chicago, IL 60646

Re: Project Number: #15-051
Facility Name: Alden Estates-Courts of New Lenox
Facility Address: Cedar Crossing Drive, New Lenox, Illinois
Applicants: Alden New Lenox, LLC – Alden Estates–Courts of New Lenox, Inc. – New Lenox Investments I, LLC – The Alden Group, Ltd.
Permit Holder(s): Alden Estates–Courts of New Lenox, Inc.
Licensee/Operating: Alden Estates–Courts of New Lenox, Inc.
Owner(s) of Site: Alden New Lenox, LLC
Project Description: Construct and establish a 140 bed LTC facility in 107,000 GSF.
Permit Amount: $ 32,083,309
Permit Conditions: None
Project Obligation Date: March 29, 2018
Project Completion Date: February 28, 2019
Annual Progress Report Due Date: March 29, 2017

Dear Mr. Schullo:

On March 29, 2016, the Illinois Health Facilities and Services Review Board approved the application for permit for the above referenced project. This approval was based upon the substantial conformance with the applicable standards and criteria in the Illinois Health Facilities Planning Act (20 ILCS 3960) and 77 Illinois Administrative Codes 1110 and 1120.

*In arriving at a decision, the **State** Board adopted the **State Board staff's report and findings**, and when applicable, considered the application materials, public hearing testimony, public comments and documents, testimony presented before the Board and any additional materials requested by State Board staff.*

This permit is valid only for the defined construction or modification, site, amount and the named permit holder and **is not transferable or assignable.** In accordance with the Planning Act, the permit is valid until such time as the project has been completed, provided that all post permit requirements have been fulfilled, pursuant to the requirements of 77 Illinois Administrative Code 1130 and may result in an invalidation of the permit, sanctions, fines and/or State Board action to revoke the permit.

The permit holder is responsible for complying with the following requirements in order to maintain a valid permit. Failure to comply with the requirements may result in expiration of the permit or in State Board action to revoke the permit.

2. OBLIGATION-PART 1130.720

The project must be obligated **by the Project Obligation Date,** unless the permit holder obtains an "Extension of the Obligation Period" as provided in 77 Illinois Administrative Code 1130.730.

Obligation is to be reported as part of the first annual progress report for permits requiring obligation within 12 months after issuance. For major construction projects which require obligation within 24 months after permit issuance, obligation must be reported as part of the second annual progress report. If project completion is required prior to the respective annual progress report referenced above, obligation must be reported as part of the notice of project completion. The reporting of obligation must reference a date certain when at least 33% of total funds assigned to project cost were expended or committed to be expended by signed contracts or other legal means.

2. ANNUAL PROGRESS REPORT-PART 1130.760

An annual progress report must be submitted to HFSRB every 12th month from the permit issuance date until such time as the project is completed.

3. PROJECT COMPLETION REQUIREMENTS-PART 1130.770

The requirements for a compliant Final Realized Costs Report are defined in the State Board's regulations under 77 Ill. Adm. Code 1130.770. **Effective June 1, 2013, substantive changes to the 77 Ill. Adm. Code 1130 rules went into effect. Please be advised that permit holders should follow the direction in Section 5 of the Act regarding deadlines for submitting post-permit reporting requirements and disregard the deadline language in 77 Ill. Adm. Code 1130.770.**

This permit does not exempt the project or permit holder from licensing and certification requirements, including approval of applicable architectural plans and specifications prior to construction.

Please note that the Illinois Department of Public Health will not license the proposed beds until such time as all of the permit requirements have been satisfied.

Should you have any questions regarding the permit requirements, please contact Mike Constantino at mike.constantino@illinois.gov or 217-782-3516.

Sincerely,

Kathy J. Olson, Chairwoman
Illinois Health Facilities and Services Review Board

cc: Courtney Avery, Administrator

LONG-TERM CARE FACILITY UPDATES

10/16/2015

CALCULATED BED NEEDS

Planning Area	Calculated Beds Needed	Approved Beds	Additional Beds Needed or Excess Beds ()
HEALTH SERVICE AREA 7			
Planning Area 7-A	3783	3321	462
Planning Area 7-B	6101	6827	(726)
Planning Area 7-C	5998	5860	138
Planning Area 7-D	2462	2904	(442)
Planning Area 7-E	8026	9165	(1139)
HEALTH SERVICE AREA 8			
Kane	2705	3064	(359)
Lake	4186	4494	(308)
McHenry	1124	997	127
HEALTH SERVICE AREA 9			
Grundy	300	265	35
Kankakee	1072	1368	(296)
Kendall	336	185	151
Will	2931	2790	141
HEALTH SERVICE AREA 10			
Henry	433	500	(67)
Mercer	170	172	(2)
Rock Island	1077	1214	(137)
HEALTH SERVICE AREA 11			
Clinton	326	357	(31)
Madison	1824	2212	(388)
Monroe	304	250	54
St. Clair	1860	2251	(391)

LONG-TERM CARE ICF/DD 16 AND UNDER BED NEED

HSA 1	249	335	(86)
HSA 2	239	256	(17)
HSA 3	206	360	(154)
HSA 4	304	128	176
HSA 5	222	256	(34)
HSA 6, 7, 8, 9	3161	1021	2140
HSA 10	74	32	42
HSA 11	215	288	(73)

LONG-TERM CARE FACILITY UPDATES

1/10/2018

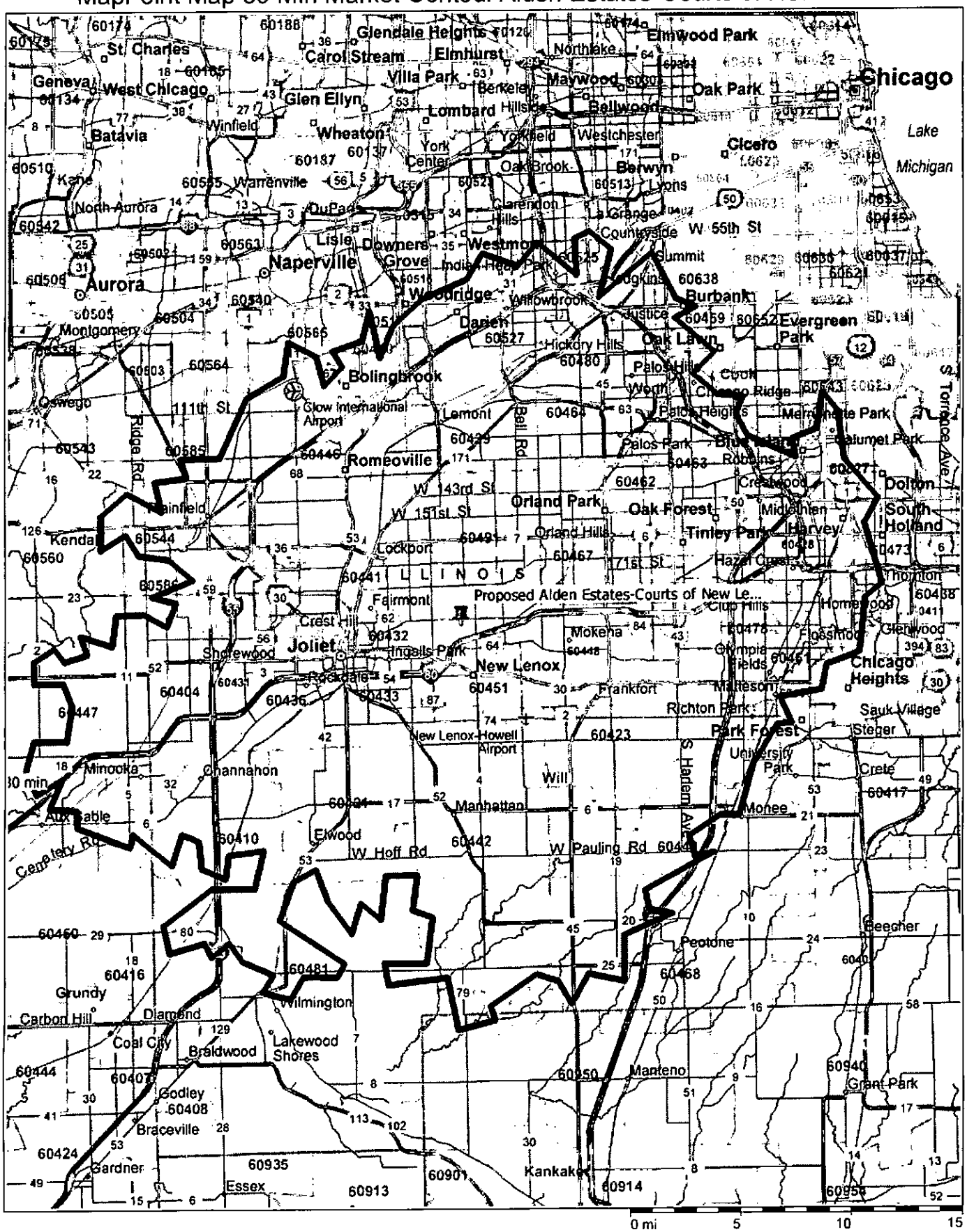
CALCULATED BED NEEDS

Planning Area	Calculated Beds Needed	Approved Beds	Additional Beds Needed or Excess Beds ()
HEALTH SERVICE AREA 7			
Planning Area 7-A	3,590	3,309	281
Planning Area 7-B	5,500	6,168	(668)
Planning Area 7-C	5,848	5,999	(151)
Planning Area 7-D	2,407	2,892	(485)
Planning Area 7-E	7,361	8,487	(1,126)
HEALTH SERVICE AREA 8			
Kane	2,826	2,934	(108)
Lake	3,804	3,909	(105)
McHenry	1,062	1,095	(33)
HEALTH SERVICE AREA 9			
Grundy	269	265	4
Kankakee	980	989	(9)
Kendall	305	184	121
Will	3,109	2,835	274
HEALTH SERVICE AREA 10			
Henry	407	495	(88)
Mercer	147	172	(25)
Rock Island	1,130	1,219	(89)
HEALTH SERVICE AREA 11			
Clinton	320	357	(37)
Madison	1,904	2,212	(308)
Monroe	293	263	30
St. Clair	1,867	2,101	(234)

LONG-TERM CARE ICF/DD 16 AND UNDER BED NEED

HSA 1	253	333	(80)
HSA 2	241	224	17
HSA 3	207	336	(129)
HSA 4	307	112	195
HSA 5	222	208	14
HSA 6, 7, 8, 9	3,167	1,065	2,102
HSA 10	74	32	42
HSA 11	217	288	(71)

MapPoint Map 30-Min Market Contour Alden Estates-Courts of New Lenox



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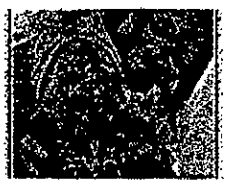
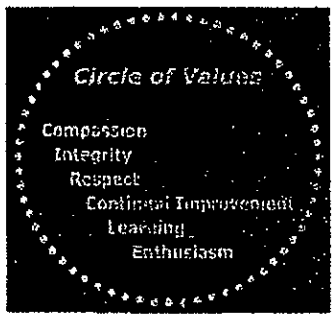
ATTACHMENT-10D

SITE PLAN
SCALE: 1"=80'-0"
GENERAL NOTES:
1. SEE CIVIL DRAWINGS FOR TYPICAL DIMENSIONS, DETAILS AND SITE ELEVATIONS.
2. SEE ELECTRICAL SITE DRAWINGS FOR SITE LIGHTING.
3. SEE LANDSCAPE DRAWINGS FOR TYPICAL LANDSCAPING AND SITE DETAILS.
NORTH
3 STORY 100 BED SKILLED NURSING REHAB FACILITY
TF=715.5
1 STORY 40 BED SKILLED MEMORY CARE TF=717.5
MONUMENT SIGN SEE DETAILS 8 & C/A02
CONCRETE CURBS SEE CIVIL DRAWINGS
SIDEWALK RAMP TYP.
PARKING BLOCK TYP.
DETACHABLE MASONRY SCREEN TYP.
CONCRETE PAVING TYP. SEE CIVIL DRAWINGS
ASPHALT PAVING TYP. MEASURES SEE CIVIL DRAWINGS TYP.
PASSIVE LOW LIGHTING SEE ELECTRICAL SITE LIGHTING TYP.
TYPICAL CONCRETE WALK. SEE CIVIL AND LANDSCAPE DRAWINGS
LANDSCAPE LIGHTING SEE ELECTRICAL SITE LIGHTING TYPICAL
6' HIGH DECORATIVE FENCING SEE LANDSCAPE DWGS
TYPICAL BENCHES SEE LANDSCAPE PLANS
GAZEBO APPROVED AND INSTALLED BY OWNER

FOSTERING A CARING, LOVING, SUPPORTIVE

PATHWAYS MEMORY CARE PROGRAM





- OUR PROGRAM IS DEDICATED TO MEETING RESIDENTS' NEEDS AT ALL STAGES OF ALZHEIMER'S DISEASE AND OTHER RELATED DEMENTIA DIAGNOSES
- WE SHAPE OUR PROGRAM ARDUND OUR RESIDENTS INDIVIDUALIZED NEEDS
- WE HAVE THREE LEVELS OF PROGRAMMING TO PROVIDE PERSON-CENTERED CARE
- THE DEVELOPMENT OF THE THREE-TIERED LEVELS: THE MEMORY STRENGTHENING, MEMORY PATH, AND EMOTIONS PATH LEVELS HELP TO PROVIDE MEMORIES, CARE AND COMFORT IN ASSISTING RESIDENTS TO FUNCTION AT THEIR HIGHEST LEVEL OF INDEPENDENCE

The Pathways Program is a Specialized Dementia-Care Program dedicated to enhance and comfort the lives of those residents living with Alzheimer's Disease and related dementias. Creating a home-like environment provides the residents with a sense of familiarity, comfort and love. Providing the residents with a pleasant, memory evoking, home-like environment can further help to decrease comorbid negative symptoms of Alzheimer's disease and dementias.

Pathways Program Locations

Alden of Lincoln Park
Alden of Wentworth
Alden Estates of Orland Park
Alden Estates of Naperville
Alden Courts of Des Plaines
Alden Courts of Waterford
Alden of McHenry
Alden of Long Grove
Alden of Town Manor
Alden of Park Strathmoor
Alden of Valley Ridge

ALDEN

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ATTACHMENT-10F

DEMENTIA MEMORY CARE PROGRAM

Purpose: The Pathways Program is a Specialized Dementia Care Program dedicated to enhance and comfort the lives of those residents living with Alzheimer's Disease and related dementias. Creating a home like-environment provides the residents with a sense of familiarity, comfort, and love. Providing the residents with a pleasant, memory evoking, home-like environment can further help to decrease symptoms of Alzheimer's disease and dementias, such as agitation, anxiety, lack of enthusiasm, and aggravation. Furthermore, this program is dedicated to providing an environment that helps to stimulate and maintain a resident's level of cognitive functioning. Furthermore, staff develop relationships with patience, compassion and love. Dementia Care Units are secure, and promote safety, health, and wellbeing.

Pathways Memory Care Program

The Pathways Program is divided into three life skills/activity programming areas to capture the variety of cognitive levels that are exhibited on the dementia care units. They are as follows:

Memory Strengthening Program

The Memory Path Program is a program dedicated to those residents who are a high level of cognitive functioning. These residents may score high on cognitive testing, alert and oriented to the unit, staff, family, and other residents; they understand the structure of the Pathways Program.

This program provides the following:

Engagement:

This part of the program places emphasis of having residents assists other residents. These residents help to run activities, such as Bingo, JackPot, trivia, exercise, etc. These residents may enjoy helping to decorate for holidays, help hand out clothing protectors at meals, etc. This part of the program gives a resident a sense of belonging and helpfulness to others.

Enhancement:

This part of the program focuses on memory enhancement. These residents participate in memory/mind games, reading, trivia, etc, that help to maintain their knowledge and stimulate the mind. They may also participate in reminiscence and life skill activities. This program may be task oriented, with supervision rather than hands on assistance.

Evoking:

This part of the program also has a resident meeting, where the residents meet and discuss what activities they would like to see the dementia care unit. These residents also are given structure, but they are encouraged to still make

choices as so what they would like to be active in and what they would like to do to participate. The purpose of this portion of the program is to bring out their talents, abilities, choices, and individuality.

Memory Path Program:

The Memory Path Program is for those residents who require support and memory evoking programming in order to find a "path: to their memories and emotions. These residents may have cognitive function varying more often; require more assistance with activities of daily living, redirection and support.

The Memory Path Program Provides the following:

Engagement: This level of the program is dedicated to providing person centered engagement. Understanding the best cues and redirection techniques are key to maximizing participation and creating a connection with the program taking place. Furthermore, staff must understand the best approaches may vary day to day or even minute to minute.

Enhancement: This level of the program is dedicated to enhancing residents' emotions and sensory stimulation. Sights, sounds, smells are incorporated into their routine. Stimulating feelings within our residents can help to access memories and emotions that require stimulation to make a connection to their memories. Types of activities include baking, reminiscing, where many senses are stimulated at once.

Evoking: The program focus is to evoke emotions, feelings, sensations. This part of the program does stress that at any time of the day, during any activity, the staff can evoke feelings of care and comfort in our residents.

The Emotion Path Program

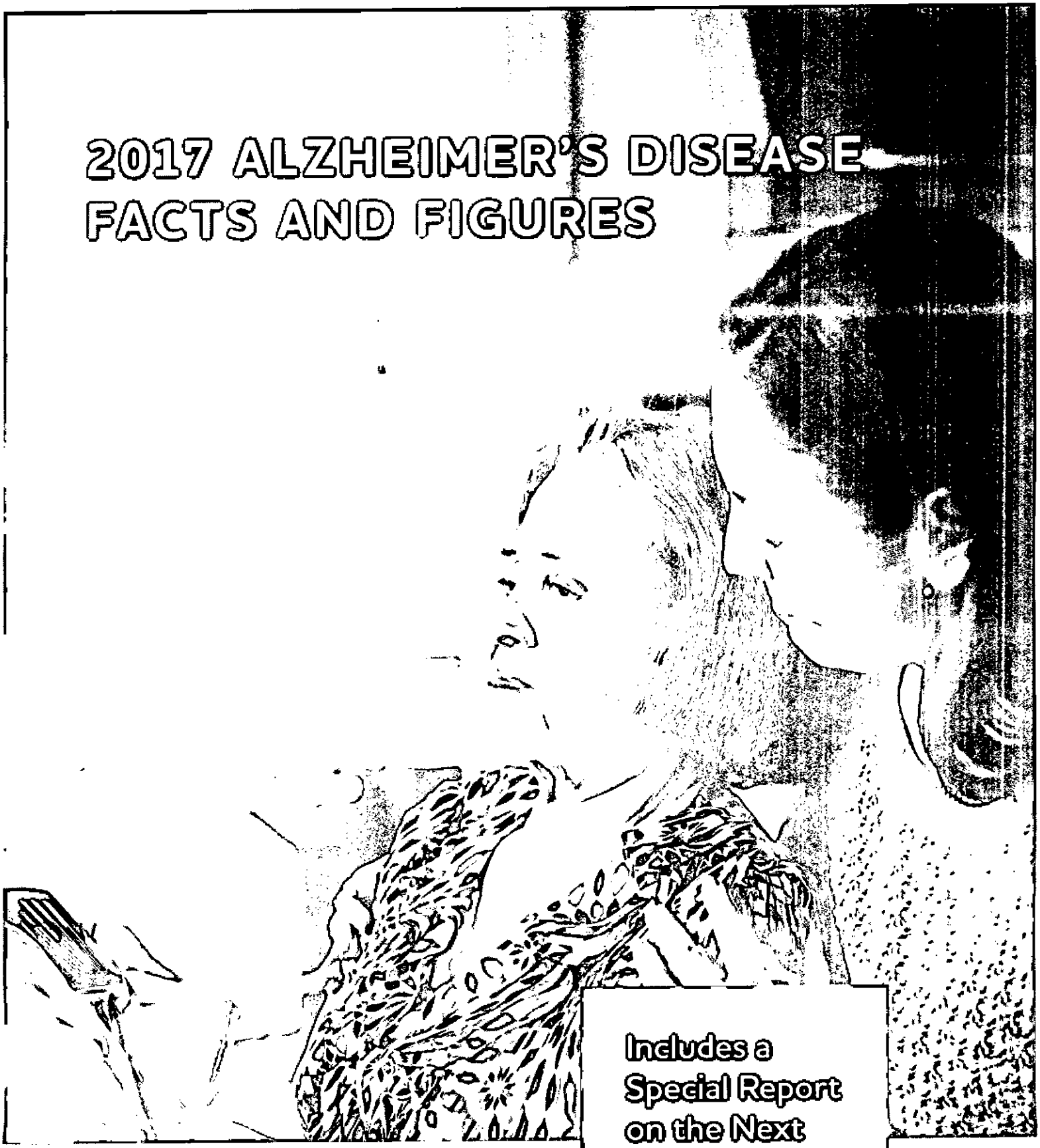
The emotions plan program is a link to emotions that stimulate feelings and/or memories. This is important throughout stages of programming for Alzheimer's; however this program emphasizes the senses, as residents abilities to demonstrate understanding and communicate their needs is limited to none in this stage.

Engagement: Resident Engagement is created by stimulating the senses. Sensory stimulation and programming is an aspect of all three programs; however in this activity program engagement is developed through response of sight, sound, touch, taste and smell. The focus is on stimulating the five senses daily; examples of these activities are taste testing, music, hand massages, etc. The use of Montessori activities are also used, to maintain abilities the residents still can maintain (for example, wrapping yarn around a soda bottle can help maintain the ability to move the hand).

Enhancement: This level of the program uses engagement of the senses to evoke memories. Feelings are not affected by the disease, and emotions/feelings are used to evoke those feelings.

Evoking: This part of the program is about providing emotional support and love to our residents. These are the "unscheduled" moments were staff provide hugs, touch, and care, to evoke pleasant moments.

2017 ALZHEIMER'S DISEASE FACTS AND FIGURES



Includes a Special Report on the Next Frontier of Alzheimer's Research

alzheimer's association®

THE BRAINS BEHIND SAVING YOURS.

ATTACHMENT-10G

About this report

2017 Alzheimer's Disease Facts and Figures is a statistical resource for U.S. data related to Alzheimer's disease, the most common cause of dementia. Background and context for interpretation of the data are contained in the overview. Additional sections address prevalence, mortality and morbidity, caregiving, and use and costs of health care, long-term care and hospice. The Special Report examines what we have learned about the diagnosis of Alzheimer's disease through research, and how we could identify and count the number of people with the disease in the future.

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Specific information in this year's *Alzheimer's Disease Facts and Figures* includes:

- Proposed guidelines for diagnosing Alzheimer's disease from the National Institute on Aging and the Alzheimer's Association (pages 15-16).
- How the diagnosis of Alzheimer's disease has evolved from 1984 to today (pages 64-65).
- Overall number of Americans with Alzheimer's dementia nationally (page 18) and for each state (pages 20-22).
- Proportion of women and men with Alzheimer's or other dementias (page 19).
- Lifetime risk for developing Alzheimer's dementia (page 23).
- Number of deaths due to Alzheimer's disease nationally (page 27) and for each state (pages 28-29), and death rates by age (page 31).
- Number of family caregivers, hours of care provided, economic value of unpaid care nationally and for each state (pages 38 and 39), and the impact of caregiving on caregivers (pages 37 and 40-43).
- Cost of care for individuals with Alzheimer's or other dementias in the United States in 2017, including costs paid by Medicare and Medicaid and costs paid out of pocket (page 47).
- Health care and long-term care payments for Medicare beneficiaries with Alzheimer's or other dementias compared with beneficiaries without dementia (page 48).
- Medicaid costs for people with Alzheimer's and other dementias, by state (page 55).

The Appendices detail sources and methods used to derive statistics in this report.

This report frequently cites statistics that apply to individuals with dementia regardless of the cause. When possible, specific information about Alzheimer's dementia is provided; in other cases, the reference may be a more general one of "Alzheimer's or other dementias."

What is "Alzheimer's Dementia"?

A Note About Terminology

As discussed in the overview (see pages 4-16), under the 1984 diagnostic guidelines, an individual with Alzheimer's disease must have symptoms of dementia. In contrast, under the proposed revised guidelines of 2011, Alzheimer's disease encompasses an entire continuum from the initial pathologic changes in the brain before symptoms appear through the dementia caused by the accumulation of brain changes. This means that Alzheimer's disease includes not only those with dementia due to the disease, but also those with mild cognitive impairment due to Alzheimer's and asymptomatic individuals who have verified biomarkers of Alzheimer's. As a result, what was "Alzheimer's disease" under the 1984 guidelines is now more accurately labeled, under the 2011 guidelines, as "dementia due to Alzheimer's" or "Alzheimer's dementia" — one stage in the continuum of the disease.

This edition of *Alzheimer's Disease Facts and Figures* reflects this change in understanding and terminology. That is, the term "Alzheimer's disease" is now used only in those instances that refer to the underlying disease and/or the entire continuum of the disease. The term "Alzheimer's dementia" is used to describe those in the dementia stage of the continuum. Thus, in most instances where past editions of the report used "Alzheimer's disease," the current edition now uses "Alzheimer's dementia." The data examined are the same and are comparable across years — only the way of describing the affected population has changed. For example, *2016 Alzheimer's Disease Facts and Figures* reported that 5.4 million individuals in the United States had "Alzheimer's disease." The 2017 edition reports that 5.5 million individuals have "Alzheimer's dementia." These prevalence estimates are comparable; they both identify the number of individuals who are in the dementia stage of Alzheimer's disease. The only thing that has changed is the term used to describe their condition.

CONTENTS

ATTACHMENT-10G

 Alzheimer's Association. 2017 Alzheimer's Disease Facts and Figures. Alzheimers Dement 2017;13:325-373.

ATTACHMENT-10G

OVERVIEW OF ALZHEIMER'S DISEASE

1

Number of diseases in the 10 leading causes of deaths in the United States that cannot be prevented, slowed or cured.

Alzheimer's disease stands alone.

ATTACHMENT-10G

Alzheimer's disease is a degenerative brain disease and the most common cause of dementia.[1-2] Dementia is a syndrome — a group of symptoms — that has a number of causes. The characteristic symptoms of dementia are difficulties with memory, language, problem-solving and other cognitive skills that affect a person's ability to perform everyday activities. These difficulties occur because nerve cells (neurons) in parts of the brain involved in cognitive function have been damaged or destroyed. In Alzheimer's disease, neurons in other parts of the brain are eventually damaged or destroyed as well, including those that enable a person to carry out basic bodily functions such as walking and swallowing. People in the final stages of the disease are bed-bound and require around-the-clock care. Alzheimer's disease is ultimately fatal.

Dementia

When an individual has symptoms of dementia, a physician will conduct tests to identify the cause. Different causes of dementia are associated with distinct symptom patterns and brain abnormalities, as described in Table 1 (see pages 6-7). Studies show that many people with dementia symptoms, especially those in the older age groups, have brain abnormalities associated with more than one cause of dementia.[3-7]

In some cases, individuals with symptoms of dementia do not actually have dementia, but instead have a condition whose symptoms mimic those of dementia. Common causes of dementia-like symptoms are depression, delirium, side effects from medications, thyroid problems, certain vitamin deficiencies and excessive use of alcohol. Unlike dementia, these conditions often may be reversed with treatment. One meta-analysis, a method of analysis in which results of multiple studies are examined, reported that 9 percent of people with dementia-like symptoms did not in fact have dementia, but had other conditions that were potentially reversible.[8]

Alzheimer's Disease

Alzheimer's disease was first described in 1906, but about 70 years passed before it was recognized as a common cause of dementia and a major cause of death.[9] Not until then did Alzheimer's disease become a significant area of research. Although the research that followed has revealed a great deal about Alzheimer's, much is yet to be discovered about the precise biological changes that cause the disease, why it progresses more quickly in some than in others, and how the disease can be prevented, slowed or stopped.

Symptoms

The differences between typical age-related cognitive changes and signs of Alzheimer's can be subtle (see Table 2, page 9). Just as individuals are different, so are the Alzheimer's symptoms they may experience. The most common initial symptom is a gradually worsening ability to remember new information. This occurs

TABLE 1

Causes of Dementia and Associated Characteristics*

Cause	Characteristics
Alzheimer's disease	Most common cause of dementia; accounts for an estimated 60 percent to 80 percent of cases. Autopsy studies show that about half of these cases involve solely Alzheimer's pathology; many of the remaining cases have evidence of additional pathologic changes related to other dementias. This is called mixed pathology, and if recognized during life is called mixed dementia. Difficulty remembering recent conversations, names or events is often an early clinical symptom; apathy and depression are also often early symptoms. Later symptoms include impaired communication, disorientation, confusion, poor judgment, behavior changes and, ultimately, difficulty speaking, swallowing and walking. Revised guidelines for diagnosing Alzheimer's were proposed and published in 2011 (see pages 15-16). They recommend that Alzheimer's be considered a slowly progressive brain disease that begins well before clinical symptoms emerge. The hallmark pathologies of Alzheimer's are the progressive accumulation of the protein fragment beta-amyloid (plaques) outside neurons in the brain and twisted strands of the protein tau (tangles) inside neurons. These changes are eventually accompanied by the damage and death of neurons.
Vascular dementia	Previously known as multi-infarct or post-stroke dementia, vascular dementia is less common as a sole cause of dementia than Alzheimer's, accounting for about 10 percent of dementia cases. However, it is very common as a mixed pathology in older individuals with Alzheimer's dementia, about 50 percent of whom have pathologic evidence of infarcts (silent strokes).[10] Impaired judgment or impaired ability to make decisions, plan or organize is more likely to be the initial symptom, as opposed to the memory loss often associated with the initial symptoms of Alzheimer's. In addition to changes in cognition, people with vascular dementia can have difficulty with motor function, especially slow gait and poor balance. Vascular dementia occurs most commonly from blood vessel blockage or damage leading to infarcts (strokes) or bleeding in the brain. The location, number and size of the brain injuries determine whether dementia will result and how the individual's thinking and physical functioning will be affected. In the past, evidence of vascular dementia was used to exclude a diagnosis of Alzheimer's (and vice versa). That practice is no longer considered consistent with the pathologic evidence, which shows that the brain changes of Alzheimer's and vascular dementia commonly coexist. When there is clinical evidence of two or more causes of dementia, the individual is considered to have mixed dementia.
Dementia with Lewy bodies (DLB)	People with DLB have some of the symptoms common in Alzheimer's, but are more likely to have initial or early symptoms of sleep disturbances, well-formed visual hallucinations, and slowness, gait imbalance or other parkinsonian movement features. These features, as well as early visuospatial impairment, may occur in the absence of significant memory impairment. Lewy bodies are abnormal aggregations (or clumps) of the protein alpha-synuclein in neurons. When they develop in a part of the brain called the cortex, dementia can result. Alpha-synuclein also aggregates in the brains of people with Parkinson's disease (PD), in which it is accompanied by severe neuronal loss in a part of the brain called the substantia nigra. While people with DLB and PD both have Lewy bodies, the onset of the disease is marked by motor impairment in PD and cognitive impairment in DLB. The brain changes of DLB alone can cause dementia, but very commonly people with DLB have coexisting Alzheimer's pathology. In people with both DLB and Alzheimer's pathology, symptoms of both diseases may emerge and lead to some confusion in diagnosis. Vascular dementia can also coexist and contribute to the dementia. When evidence of more than one dementia is recognized during life, the individual is said to have mixed dementia.

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TABLE 1 (cont.)

Causes of Dementia and Associated Characteristics*

Cause	Characteristics
Mixed dementia	Characterized by the hallmark abnormalities of more than one cause of dementia — most commonly Alzheimer's combined with vascular dementia, followed by Alzheimer's with DLB, and Alzheimer's with vascular dementia and DLB. Vascular dementia with DLB is much less common.[4-5] Recent studies suggest that mixed dementia is more common than previously recognized, with about half of older people with dementia having pathologic evidence of more than one cause of dementia.[4-5] Recent studies also show that the likelihood of having mixed dementia increases with age and is highest in the oldest-old (people age 85 or older).
Fronto-temporal lobar degeneration (FTLD)	Includes dementias such as behavioral-variant FTLD, primary progressive aphasia, Pick's disease, corticobasal degeneration and progressive supranuclear palsy. Typical early symptoms include marked changes in personality and behavior and/or difficulty with producing or comprehending language. Unlike Alzheimer's, memory is typically spared in the early stages of disease. Nerve cells in the front (frontal lobe) and side regions (temporal lobes) of the brain are especially affected, and these regions become markedly atrophied (shrunken). In addition, the upper layers of the cortex typically become soft and spongy and have abnormal protein inclusions (usually tau protein or the transactive response DNA-binding protein). The symptoms of FTLD may occur in those age 65 years and older, similar to Alzheimer's, but most people with FTLD develop symptoms at a younger age. About 60 percent of people with FTLD are ages 45 to 60. FTLD accounts for about 10 percent of dementia cases.
Parkinson's disease (PD)	Problems with movement (slowness, rigidity, tremor and changes in gait) are common symptoms of PD. In PD, alpha-synuclein aggregates appear in an area deep in the brain called the substantia nigra. The aggregates are thought to cause degeneration of the nerve cells that produce dopamine. The incidence of PD is about one-tenth that of Alzheimer's. As PD progresses, it often results in dementia secondary to the accumulation of Lewy bodies in the cortex (similar to DLB) or the accumulation of beta-amyloid clumps and tau tangles (similar to Alzheimer's).
Creutzfeldt-Jakob disease	This very rare and rapidly fatal disorder impairs memory and coordination and causes behavior changes. Results from a misfolded protein (prion) that causes other proteins throughout the brain to misfold and malfunction. May be hereditary (caused by a gene that runs in one's family), sporadic (unknown cause) or caused by a known prion infection. A specific form called variant Creutzfeldt-Jakob disease is believed to be caused by consumption of products from cattle affected by mad cow disease.
Normal pressure hydrocephalus	Symptoms include difficulty walking, memory loss and inability to control urination. Accounts for less than 5 percent of dementia cases.[11] Caused by impaired reabsorption of cerebrospinal fluid and the consequent buildup of fluid in the brain, increasing pressure in the brain. People with a history of brain hemorrhage (particularly subarachnoid hemorrhage) and meningitis are at increased risk. Can sometimes be corrected with surgical installation of a shunt in the brain to drain excess fluid.

* For more information on these and other causes of dementia, visit alz.org/dementia.

because the first neurons to be damaged and destroyed are usually in brain regions involved in forming new memories. As neurons in other parts of the brain are damaged and destroyed, individuals experience other difficulties, including neurobehavioral symptoms such as agitation, sleeplessness and delusions.

The pace at which symptoms advance from mild to moderate to severe varies from person to person. As the disease progresses, cognitive and functional abilities decline. In the more advanced stages, people need help with basic activities of daily living, such as bathing, dressing, eating and using the bathroom; lose their ability to communicate; and become bed-bound and reliant on around-the-clock care. When individuals have difficulty moving, they are more vulnerable to infections, including pneumonia (infection of the lungs). Alzheimer's-related pneumonia often contributes to the death of people with Alzheimer's disease. When Alzheimer's destroys cells in the areas of the brain that control swallowing, an individual becomes vulnerable to death by Alzheimer's-related malnutrition and dehydration.

Diagnosis

There is no single test for Alzheimer's. Instead, physicians, often with the help of specialists such as neurologists and geriatricians, use a variety of approaches and tools to help make a diagnosis. They include the following:

- Obtaining a medical and family history from the individual, including psychiatric history and history of cognitive and behavioral changes.
- Asking a family member to provide input about changes in thinking skills and behavior.
- Conducting cognitive tests and physical and neurologic examinations.
- Having the individual undergo blood tests and brain imaging to rule out other potential causes of dementia symptoms, such as a tumor or certain vitamin deficiencies.

Diagnosing Alzheimer's requires a careful and comprehensive medical evaluation. Although physicians can almost always determine if a person has dementia, it may be difficult to identify the exact cause. Several days or weeks may be needed for the individual to complete the required tests and examinations and for the physician to interpret the results and make a diagnosis.

Brain Changes Associated with Alzheimer's Disease

A healthy adult brain has about 100 billion neurons, each with long, branching extensions. These extensions enable individual neurons to form connections with other neurons. At such connections, called synapses, information flows in tiny bursts of chemicals that are released by one neuron and detected by a receiving neuron. The brain contains about 100 trillion synapses. They allow signals to travel rapidly through the brain's neuronal circuits, creating the cellular basis of memories, thoughts, sensations, emotions, movements and skills.

The accumulation of the protein fragment beta-amyloid (called beta-amyloid plaques) *outside* neurons and the accumulation of an abnormal form of the protein tau (called tau tangles) *inside* neurons are two of several brain changes associated with Alzheimer's. Beta-amyloid plaques are believed to contribute to cell death by interfering with neuron-to-neuron communication at synapses, while tau tangles block the transport of nutrients and other essential molecules inside neurons. The brains of people with advanced Alzheimer's disease show inflammation, dramatic shrinkage from cell loss, and widespread debris from dead and dying neurons.

Research suggests that the brain changes associated with Alzheimer's may begin 20 or more years before symptoms appear.[12-15] When the initial changes occur, the brain compensates for them, enabling individuals to continue to function normally. As neuronal damage increases, the brain can no longer compensate for the changes and individuals show subtle cognitive decline. Later, neuronal damage is so significant that individuals show obvious cognitive decline, including symptoms such as memory loss or confusion as to time or place. Later still, basic bodily functions such as swallowing are impaired.

While research settings have the tools and expertise to identify some of the early brain changes of Alzheimer's, additional research is needed to fine-tune the tools'

TABLE 2

Signs of Alzheimer's or Other Dementias Compared with Typical Age-Related Changes*

Signs of Alzheimer's or Other Dementias	Typical Age-Related Changes
Memory loss that disrupts daily life: One of the most common signs of Alzheimer's is memory loss, especially forgetting recently learned information. Others include forgetting important dates or events, asking for the same information over and over, and increasingly needing to rely on memory aids (e.g., reminder notes or electronic devices) or family members for things that used to be handled on one's own.	Sometimes forgetting names or appointments, but remembering them later.
Challenges in planning or solving problems: Some people experience changes in their ability to develop and follow a plan or work with numbers. They may have trouble following a familiar recipe, keeping track of monthly bills or counting change. They may have difficulty concentrating and take much longer to do things than they did before.	Making occasional errors when balancing a checkbook.
Difficulty completing familiar tasks at home, at work or at leisure: People with Alzheimer's often find it hard to complete daily tasks. Sometimes, people have trouble driving to a familiar location, managing a budget at work or remembering the rules of a favorite game.	Occasionally needing help to use the settings on a microwave or record a television show.
Confusion with time or place: People with Alzheimer's can lose track of dates, seasons and the passage of time. They may have trouble understanding something if it is not happening immediately. Sometimes they forget where they are or how they got there.	Getting confused about the day of the week but figuring it out later.
Trouble understanding visual images and spatial relationships: For some people, having vision problems is a sign of Alzheimer's. They may have difficulty reading, judging distance and determining color or contrast, which may cause problems with driving.	Vision changes related to cataracts, glaucoma or age-related macular degeneration.
New problems with words in speaking or writing: People with Alzheimer's may have trouble following or joining a conversation. They may stop in the middle of a conversation and have no idea how to continue or they may repeat themselves. They may struggle with vocabulary, have problems finding the right word or call things by the wrong name (e.g., calling a watch a "hand clock").	Sometimes having trouble finding the right word.
Misplacing things and losing the ability to retrace steps: People with Alzheimer's may put things in unusual places, and lose things and be unable to go back over their steps to find them again. Sometimes, they accuse others of stealing. This may occur more frequently over time.	Misplacing things from time to time and retracing steps to find them.
Decreased or poor judgment: People with Alzheimer's may experience changes in judgment or decision-making. For example, they may use poor judgment when dealing with money, giving large amounts to telemarketers. They may pay less attention to grooming or keeping themselves clean.	Making a bad decision once in a while.
Withdrawal from work or social activities: People with Alzheimer's may start to remove themselves from hobbies, social activities, work projects or sports. They may have trouble keeping up with a favorite sports team or remembering how to complete a favorite hobby. They may also avoid being social because of the changes they have experienced.	Sometimes feeling weary of work, family and social obligations.
Changes in mood and personality: The mood and personalities of people with Alzheimer's can change. They can become confused, suspicious, depressed, fearful or anxious. They may be easily upset at home, at work, with friends or in places where they are out of their comfort zones.	Developing very specific ways of doing things and becoming irritable when a routine is disrupted.

* For more information about the symptoms of Alzheimer's, visit alz.org/10signs.

accuracy before they become available for clinical use. In addition, treatments to prevent, slow or stop these changes are not yet available, although many are being tested in clinical trials.

Mild Cognitive Impairment (MCI): A Potential Precursor to Alzheimer's and Other Dementias

MCI is a condition in which an individual has mild but measurable changes in thinking abilities that are noticeable to the person affected and to family members and friends, but do not affect the individual's ability to carry out everyday activities. Approximately 15 percent to 20 percent of people age 65 or older have MCI.[16] People with MCI, especially MCI involving memory problems, are more likely to develop Alzheimer's or other dementias than people without MCI.[17-18] A systematic review of 32 studies found that an average of 32 percent of individuals with MCI developed Alzheimer's dementia in 5 years.[19] This is similar to a meta-analysis of 41 studies that found that among individuals with MCI who were tracked for 5 years or longer, an average of 38 percent developed dementia.[18] Identifying which individuals with MCI are more likely to develop Alzheimer's or other dementias is a major goal of current research.

Revised guidelines for diagnosing Alzheimer's disease that were published in 2011[20-23] (see pages 15-16) suggest that in some cases MCI is actually an early stage of Alzheimer's (called MCI due to Alzheimer's disease) or another form of dementia. However, MCI can develop for reasons other than Alzheimer's, and MCI does not always lead to dementia. In some individuals, MCI reverts to normal cognition or remains stable. In other cases, such as when a medication causes cognitive impairment, MCI is mistakenly diagnosed. Therefore, it's important that people experiencing cognitive impairment seek help as soon as possible for diagnosis and possible treatment.

Genetic Abnormalities Associated with Alzheimer's

Certain genetic mutations and the extra copy of chromosome 21 that characterizes Down syndrome are uncommon genetic changes that affect the risk of Alzheimer's. There are also common variations in genes that affect the risk of Alzheimer's (see APOE-e4, page 11).

Genetic Mutations

A small percentage of Alzheimer's cases (an estimated 1 percent or less)[24] develop as a result of mutations to any of three specific genes. A genetic mutation is an abnormal change in the sequence of chemical pairs that make up genes. These mutations involve the gene for the amyloid precursor protein (APP) and the genes for the presenilin 1 and presenilin 2 proteins. Those inheriting a mutation to the APP or presenilin 1 genes are guaranteed to develop Alzheimer's. Those inheriting a mutation to the presenilin 2 gene have a 95 percent chance of developing the disease.[25] Individuals with mutations in any of these three genes tend to develop Alzheimer's symptoms before age 65, sometimes as early as age 30, while the vast majority of individuals with Alzheimer's have late-onset disease, in which symptoms become apparent at age 65 or later.

Down Syndrome

About 400,000 Americans have Down syndrome.[26] In Down syndrome, an individual is born with an additional copy of chromosome 21, one of the 23 human chromosomes. Scientists are not certain why people with Down syndrome are at higher risk of developing Alzheimer's, but it may be related to the additional copy of chromosome 21. This chromosome includes a gene that encodes for the production of APP, which in people with Alzheimer's is cut into beta-amyloid fragments that accumulate into plaques. Having an extra copy of chromosome 21 may increase the amount of beta-amyloid fragments in the brain.

By age 40, most people with Down syndrome have significant levels of beta-amyloid plaques and tau tangles in their brains.[27] As with all adults, advancing age increases the likelihood that a person with Down syndrome will exhibit symptoms of Alzheimer's. According to the National Down Syndrome Society, about 30 percent of people with Down syndrome who are in their 50s have Alzheimer's dementia.[28] Fifty percent or more of people with Down syndrome will develop Alzheimer's dementia as they age.[29]

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Risk Factors for Alzheimer's

With the exception of cases of Alzheimer's caused by genetic abnormalities, experts believe that Alzheimer's, like other common chronic diseases, develops as a result of multiple factors rather than a single cause.

Age, Family History and the Apolipoprotein E (APOE)-e4 Gene

The greatest risk factors for late-onset Alzheimer's are older age,[30-31] having a family history of Alzheimer's[32-35] and carrying the APOE-e4 gene.[36-37]

Age

Age is the greatest of these three risk factors, with the vast majority of people with Alzheimer's dementia being age 65 or older. As noted in the Prevalence section (see pages 17-25), the percentage of people with Alzheimer's dementia increases dramatically with age: 3 percent of people age 65-74, 17 percent of people age 75-84, and 32 percent of people age 85 or older have Alzheimer's dementia.[31] It is important to note that Alzheimer's is not a normal part of aging, and older age alone is not sufficient to cause Alzheimer's dementia.

Family History

A family history of Alzheimer's is not necessary for an individual to develop the disease. However, individuals who have a parent, brother or sister with Alzheimer's are more likely to develop the disease than those who do not have a first-degree relative with Alzheimer's.[32,38] Those who have more than one first-degree relative with Alzheimer's are at even higher risk.[35] When diseases run in families, heredity (genetics), shared environmental and lifestyle factors (for example, access to healthy foods and level of physical activity), or both, may play a role. The increased risk associated with having a family history of Alzheimer's is not entirely explained by whether the individual has inherited the APOE-e4 risk gene.

APOE-e4 Gene

The APOE gene provides the blueprint for a protein that transports cholesterol in the bloodstream. Everyone inherits one of three forms of the APOE gene — e2, e3 or e4 — from each parent. The e3 form is the most common, with 50 percent to 90 percent of individuals having one or two copies.[39] The e4 form is the next most common, with 5 percent to 35 percent having one or two copies, and the e2 form is the least common, with 1 percent to 5 percent having one or two copies.[39] The estimated distribution of the six possible e2, e3 and e4 pairs is shown in Table 3.

Having the e4 form increases one's risk of developing Alzheimer's compared with having the e3 form, while having the e2 form may decrease one's risk compared with having the e3 form. Those who inherit one copy of the e4 form have three times the risk of developing Alzheimer's compared with those with the e3 form, while those who inherit two copies of the e4 form have an eight- to 12-fold risk.[38,41-42] In addition, those with the e4 form are more likely to develop Alzheimer's at a younger age than those with the e2 or e3 forms of the APOE gene.[43] A meta-analysis including 20 published articles describing the frequency of the e4 form among people in the United States who had been diagnosed with Alzheimer's found that 56 percent had one copy of the APOE-e4 gene, and 11 percent had two copies of the APOE-e4 gene.[44] Another study found that among 1,770 diagnosed individuals from 26 Alzheimer's disease centers, 65 percent had at least one copy of the APOE-e4 gene.[45]

TABLE 3

Estimated Percentages of the U.S. Population with the Six Possible e2, e3 and e4 Pairs of the Apolipoprotein E (APOE) Gene

APOE Pair	Percentage
e2/e2	0.5
e2/e3	11
e2/e4	2
e3/e3	61
e3/e4	23
e4/e4	2

Created from data from Rabor et al.[40]

Percentages do not total 100 due to rounding.

Unlike inheriting a genetic mutation that causes Alzheimer's, inheriting the APOE-e4 gene does not guarantee that an individual will develop Alzheimer's. This is also true for more than 20 recently identified genes that appear to affect the risk of Alzheimer's. These genes are believed to have a limited effect on the overall prevalence of Alzheimer's because they are rare or only slightly increase risk.[46]

Modifiable Risk Factors

Although risk factors such as age and family history cannot be changed, other risk factors can be changed, or modified, to reduce risk of cognitive decline and dementia. A report[47] evaluating the state of the evidence on the effects of modifiable risk factors on cognitive decline and dementia concluded that there is sufficiently strong evidence, from a population-based perspective, that regular physical activity and management of cardiovascular risk factors (especially diabetes, obesity, smoking and hypertension) reduce the risk of cognitive decline and may reduce the risk of dementia. It also concluded that there is sufficiently strong evidence that a healthy diet and lifelong learning/cognitive training may reduce the risk of cognitive decline. A report from the Institute of Medicine examined the evidence regarding modifiable risk factors for cognitive decline and reached similar conclusions.[48]

Cardiovascular Disease Risk Factors

Brain health is affected by the health of the heart and blood vessels. Although it makes up just 2 percent of body weight, the brain consumes 20 percent of the body's oxygen and energy supplies.[49] A healthy heart ensures that enough blood is pumped to the brain, while healthy blood vessels enable the oxygen- and nutrient-rich blood to reach the brain so it can function normally.

Many factors that increase the risk of cardiovascular disease are also associated with a higher risk of dementia. These factors include smoking,[50-52] obesity in midlife[53-55] and diabetes.[56-59] Some studies propose that impaired glucose processing (a precursor to diabetes) may also result in an increased risk for dementia.[53,60-61] Hypertension[53,62-64] and high cholesterol[55-66] in midlife are also implicated as risk factors for dementia.

Conversely, factors that protect the heart may also protect the brain and reduce the risk of developing Alzheimer's or other dementias. Physical activity[59,67-70] appears to be one of these factors. In addition, emerging evidence suggests that consuming a diet that benefits the heart, such as one that is lower in saturated fats, may be associated with reduced Alzheimer's and dementia risk.[59,71-75]

Researchers have begun studying combinations of health factors and lifestyle behaviors (for example, blood pressure and physical activity) to learn whether combinations of risk factors better identify Alzheimer's and dementia risk than individual risk factors, as well as whether intervening on multiple risk factors simultaneously has a greater chance of reducing risk than addressing a single risk factor.[76]

Education

People with more years of formal education are at lower risk for Alzheimer's and other dementias than those with fewer years of formal education.[77-81] Some researchers believe that having more years of education builds a "cognitive reserve" that enables individuals to better compensate for brain changes that could result in symptoms of Alzheimer's or other dementias.[80,82-83] According to the cognitive reserve hypothesis, having more years of education increases the connections between neurons, enabling the brain to use alternate routes of neuron-to-neuron communication to complete cognitive tasks when the usual routes have neuronal gaps because of Alzheimer's.

Some scientists believe other factors may contribute to or explain the increased risk of dementia among those with fewer years of formal education. These factors include an increased likelihood of having occupations that are less mentally stimulating.[84-87] In addition, having fewer years of formal education is associated with lower socioeconomic status,[88] which in turn may increase one's likelihood of experiencing poor nutrition and decrease one's ability to afford health care or medical treatments, such as treatments for cardiovascular risk factors. Finally, in the United States, people with fewer years of education tend to

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have more cardiovascular risk factors for Alzheimer's, including being less physically active[89] and having a higher risk of diabetes[90-92] and cardiovascular disease.[93]

Social and Cognitive Engagement

Additional studies suggest that remaining socially and mentally active throughout life may support brain health and possibly reduce the risk of Alzheimer's and other dementias.[94-104] Remaining socially and mentally active may help build cognitive reserve, but the exact mechanism by which this may occur is unknown. More research is needed to better understand how social and cognitive engagement may affect biological processes to reduce risk.

Traumatic Brain Injury (TBI)

TBI is the disruption of normal brain function caused by a blow or jolt to the head or penetration of the skull by a foreign object. According to the Centers for Disease Control and Prevention (CDC), an estimated 1.7 million Americans will sustain a TBI in any given year.[105] Falls and motor vehicle accidents are the leading causes of TBI.[105-106]

Two ways to classify the severity of TBI are by the duration of loss of consciousness or post-traumatic amnesia[107] and the individual's initial score on the 15-point Glasgow Coma Scale.[108] Based on these classification approaches,

- *Mild TBI* (also known as a concussion) is characterized by loss of consciousness or post-traumatic amnesia lasting 30 minutes or less, or an initial Glasgow score of 13-15; about 75 percent of TBIs are mild.[106]
- *Moderate TBI* is characterized by loss of consciousness or post-traumatic amnesia lasting more than 30 minutes but less than 24 hours, or an initial Glasgow score of 9-12.
- *Severe TBI* is characterized by loss of consciousness or post-traumatic amnesia lasting 24 hours or more, or an initial Glasgow score of 8 or less.

Solid evidence indicates that moderate and severe TBI increase the risk of developing certain forms of dementia.[107,109-112] Those who experience repeated head injuries (such as boxers, football players and combat veterans) may be at an even higher risk of dementia, cognitive impairment and neurodegenerative disease.[113-122]

Chronic traumatic encephalopathy (CTE) is a neuropathologic diagnosis (meaning it is characterized by brain changes that can only be identified at autopsy) associated with repeated blows to the head, such as those that may occur while playing contact sports. It is also associated with the development of dementia. Currently, there is no test to determine if someone has CTE-related brain changes during life. Other than repeated brain trauma, such as TBI, the causes and risk factors for CTE remain unknown. Like Alzheimer's dementia, at autopsy, CTE is characterized by tangles of an abnormal form of the protein tau in the brain. Unlike Alzheimer's, these tangles typically appear around small blood vessels, and beta-amyloid plaques are only present in certain circumstances.[123] How the brain changes associated with CTE are linked to cognitive or behavioral dysfunction is unclear. It is thought to be caused by repetitive TBI.

Individuals can decrease their risk of TBI by ensuring their living environments are well lit and free of tripping hazards, wearing seatbelts while traveling, and wearing helmets when on a bicycle, snowmobile or other open, unrestrained vehicle. Athletes and members of the military who have experienced repeated concussions may be able to prevent injury before recovery by following clinical guidelines for return to play or military duty.

Treatment of Alzheimer's Dementia

Pharmacologic Treatment

None of the pharmacologic treatments (medications) available today for Alzheimer's dementia slows or stops the damage and destruction of neurons that cause Alzheimer's symptoms and make the disease fatal. The six drugs approved by the U.S. Food and Drug Administration (FDA) for the treatment of Alzheimer's temporarily improve symptoms by increasing the amount of chemicals called neurotransmitters in the brain.[A1] The effectiveness of these drugs varies from person to person and is limited in duration.

In the decade of 2002-2012, 244 drugs for Alzheimer's were tested in clinical trials registered with clinicaltrials.gov, a National Institutes of Health registry of publicly and privately funded clinical studies.[124] Only one of the 244 drugs successfully completed clinical trials and went on to receive approval from the FDA. Many factors contribute to the difficulty of developing effective treatments for Alzheimer's. These factors include the high cost of drug development, the relatively long time needed to observe whether an investigational treatment affects disease progression, and the structure of the brain, which is protected by the blood-brain barrier, through which only very specialized small-molecule drugs can cross.

Non-Pharmacologic Therapy

Non-pharmacologic therapies are those that do not involve medication. Non-pharmacologic therapies are often used with the goal of maintaining or improving cognitive function, the ability to perform activities of daily living or overall quality of life. They also may be used with the goal of reducing behavioral symptoms such as depression, apathy, wandering, sleep disturbances, agitation and aggression. Examples include computerized memory training, listening to favorite music as a way to stir recall, and incorporating special lighting to lessen sleep disorders. As with current pharmacologic therapies, non-pharmacologic therapies have not been shown to alter the course of Alzheimer's disease.

Reviews and meta-analyses of non-pharmacologic therapies tested in randomized controlled trials (in which participants are randomly assigned to either receive or not receive a therapy, and the results of the two groups are compared) have found that some are beneficial to people with Alzheimer's dementia. Among these are exercise[125-126] and cognitive stimulation.[127] Specifically, a meta-analysis[125] found that aerobic exercise and a combination of aerobic and non-aerobic exercise can improve cognitive function, while a systematic review[126] found that exercise has a positive effect on overall cognitive function and is associated with a slower rate of cognitive decline in people with Alzheimer's. However, researchers caution that additional randomized controlled trials involving larger numbers of participants are needed to understand to what extent exercise may slow cognitive decline. A second systematic review[127] found that cognitive stimulation had beneficial effects on cognitive function and some aspects of well-being.

Living with Alzheimer's

Despite the lack of therapies that slow or stop Alzheimer's, studies have consistently shown that active management of Alzheimer's and other dementias can improve quality of life for affected individuals and their caregivers.[128-130] Active management includes:

- Appropriate use of available treatment options.
- Effective management of coexisting conditions.
- Coordination of care among physicians, other health care professionals and lay caregivers.
- Participation in activities that are meaningful and bring purpose to one's life.
- Having opportunities to connect with others living with dementia; support groups and supportive services are examples of such opportunities.

To learn more about managing Alzheimer's dementia, as well as practical information for living with Alzheimer's and being a caregiver, visit alz.org.

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A Modern Diagnosis of Alzheimer's Disease: Revised Guidelines

In 2011, the National Institute on Aging (NIA) and the Alzheimer's Association proposed revised guidelines for diagnosing Alzheimer's disease.[20-23] These guidelines updated diagnostic criteria and guidelines published in 1984 by the National Institute of Neurological and Communicative Disorders and Stroke and the Alzheimer's Association, then known as the Alzheimer's Disease and Related Disorders Association (ADRDA).[131] In 2012, the NIA and the Alzheimer's Association also developed new guidelines to help pathologists describe and categorize the brain changes associated with Alzheimer's and other dementias on autopsy.[132]

Differences Between the Original and Revised Guidelines

The 1984 diagnostic criteria and guidelines were based chiefly on a doctor's clinical judgment about the cause of an individual's symptoms, taking into account reports from the individual, family members and friends; results of cognitive tests; and general neurological assessment. The revised guidelines incorporate the same steps for diagnosis, but also incorporate biomarker tests.

A biomarker is a biological factor that can be measured to indicate the presence or absence of disease, or the risk of developing a disease. For example, blood glucose level is a biomarker of diabetes, and cholesterol level is a biomarker of heart disease risk. Among several factors being studied as possible biomarkers for Alzheimer's are the amount of beta-amyloid in the brain as shown on positron emission tomography (PET) imaging and levels of certain proteins in fluid (for example, levels of beta-amyloid and tau in the cerebrospinal fluid and levels of particular groups of proteins in blood). Finding a simple and inexpensive test, such as a blood test, to diagnose Alzheimer's would be ideal for patients, physicians and scientists. Research is underway to develop such a test, but to date, no test has shown the accuracy and reliability needed to diagnose Alzheimer's.

Another difference is that the revised guidelines identify two stages of Alzheimer's disease: mild cognitive impairment (MCI) due to Alzheimer's disease and dementia due to Alzheimer's disease. In addition, the revised guidelines propose — for research purposes — a preclinical phase of Alzheimer's that occurs before symptoms such as memory loss develop.

Dementia Due to Alzheimer's Disease: This stage is characterized by noticeable memory, thinking and behavioral symptoms that impair a person's ability to function in daily life.

MCI Due to Alzheimer's Disease: People with MCI show cognitive decline greater than expected for their age and education level, but this decline does not significantly interfere with everyday activities. Approximately 15 percent to 20 percent of people age 65 or older have MCI.[16]

Proposed for Research – Preclinical Alzheimer's Disease: In this proposed stage, individuals may have measurable changes in the brain, cerebrospinal fluid and/or blood (biomarkers) that indicate the earliest signs of disease, but they may have not yet developed noticeable symptoms such as memory loss. This proposed

preclinical or presymptomatic stage reflects current thinking that Alzheimer's-related brain changes may begin 20 years or more before symptoms occur.[12-14] Ongoing research continues to explore this possible stage of the disease.

In contrast, the 1984 criteria identify Alzheimer's as a disease that begins when symptoms of dementia such as memory loss are already present and have impaired an individual's ability to carry out daily tasks.

Looking to the Future

Many researchers believe that future treatments to slow or stop the progression of Alzheimer's disease and preserve brain function will be most effective when administered early in the disease, either at the MCI stage or during the proposed preclinical stage.

Biomarker tests will be essential to identify which individuals are in these early stages and should receive treatments that slow or stop the disease when such treatments are available. They also will be critical for monitoring the effects of treatment. Furthermore, biomarkers play an important role in developing treatments because they enable researchers to identify which individuals to enroll in clinical trials of potential new therapies. By using biomarkers, researchers can enroll only those individuals with the brain changes that treatments target.[133]

It's important to note that the most effective biomarker test or combination of tests may differ depending on the stage of the disease and other factors.[134]

For more information on the revised guidelines and their potential impact, see the Special Report (pages 61-68).

PREVALENCE

1 in 10

people age 65 and older
has Alzheimer's dementia

Millions of Americans have Alzheimer's or other dementias. As the size and proportion of the U.S. population age 65 and older continue to increase, the number of Americans with Alzheimer's or other dementias will grow. This number will escalate rapidly in coming years, as the population of Americans age 65 and older is projected to nearly double from 48 million to 88 million by 2050.[135] The baby boom generation has already begun to reach age 65 and beyond,[136] the age range of greatest risk of Alzheimer's; in fact, the first members of the baby boom generation turned 70 in 2016.

This section reports on the number and proportion of people with Alzheimer's dementia to describe the magnitude of the burden of Alzheimer's on the community and health care system. The prevalence of Alzheimer's dementia refers to the proportion of people in a population who have Alzheimer's dementia at a given point in time. Incidence, the number of new cases per year, is also provided as an estimate of the risk of developing Alzheimer's or other dementias for different age groups. Estimates from selected studies on the number and proportion of people with Alzheimer's or other dementias vary depending on how each study was conducted. Data from several studies are used in this section.

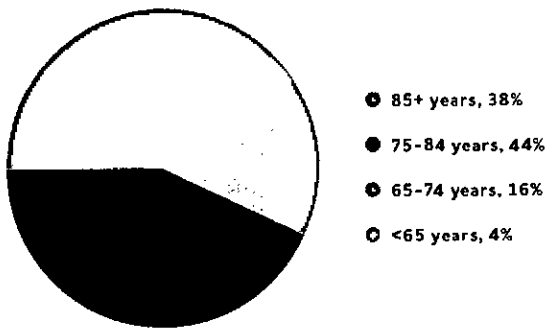
Prevalence of Alzheimer's and Other Dementias in the United States

An estimated 5.5 million Americans of all ages are living with Alzheimer's dementia in 2017. This number includes an estimated 5.3 million people age 65 and older[A2,31] and approximately 200,000 individuals under age 65 who have younger-onset Alzheimer's, though there is greater uncertainty about the younger-onset estimate.[137]

- One in 10 people age 65 and older (10 percent) has Alzheimer's dementia.[A3,31]
- The percentage of people with Alzheimer's dementia increases with age: 3 percent of people age 65-74, 17 percent of people age 75-84, and 32 percent of people age 85 and older have Alzheimer's dementia.[31]
- Of people who have Alzheimer's dementia, 82 percent are age 75 or older (Figure 1).[A4,31]

FIGURE 1

Ages of People with Alzheimer's Dementia in the United States, 2017



Created from data from Hebert et al.[A4,31]
Percentages do not total 100 because of rounding.

The estimated number of people age 65 and older with Alzheimer's dementia comes from a study using the latest data from the 2010 U.S. Census and the Chicago Health and Aging Project (CHAP), a population-based study of chronic health conditions of older people.[31]

National estimates of the prevalence of all dementias are not available from CHAP, but they are available from other population-based studies including the Aging, Demographics, and Memory Study (ADAMS), a nationally representative sample of older adults.[A5,138-139] Based on estimates from ADAMS, 14 percent of people age 71 and older in the United States have dementia.[138]

Prevalence studies such as CHAP and ADAMS are designed so that everyone in the study is tested for dementia. But outside of research settings, only about half of those who would meet the diagnostic criteria for Alzheimer's and other dementias are diagnosed with dementia by a physician.[140-142] Furthermore, as discussed in *2015 Alzheimer's Disease Facts and Figures*, fewer than half of those who have a diagnosis of Alzheimer's or another dementia in their Medicare records (or their caregiver, if the person was too impaired to respond to the survey) report being told of the diagnosis.[143-146] Because Alzheimer's dementia is underdiagnosed and underreported, a large portion of Americans with Alzheimer's may not know they have it.

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The estimates of the number and proportion of people who have Alzheimer's in this section refer to people who have Alzheimer's dementia. But as described in the Overview section (see pages 4-16) and Special Report (see pages 61-68), revised diagnostic guidelines[20-23] propose that Alzheimer's disease begins many years before the onset of dementia. More research is needed to estimate how many people may have MCI due to Alzheimer's disease and how many people may be in the preclinical stage of Alzheimer's disease. However, if Alzheimer's disease could be accurately detected before dementia develops, the number of people reported to have Alzheimer's disease would change to include more than just people who have been diagnosed with Alzheimer's dementia.

Subjective Cognitive Decline

The experience of worsening or more frequent confusion or memory loss (often referred to as subjective cognitive decline) is one of the earliest warning signs of Alzheimer's disease and may be a way to identify people who are at high risk of developing Alzheimer's or other dementias as well as MCI.[147-151] Subjective cognitive decline does not refer to someone occasionally forgetting their keys or the name of someone they recently met; it refers to more serious issues such as having trouble remembering how to do things one has always done or forgetting things that one would normally know. Not all of those who experience subjective cognitive decline go on to develop MCI or dementia, but many do.[152-154] According to a recent study, only those who over time consistently reported subjective cognitive decline that they found worrisome were at higher risk for developing Alzheimer's dementia.[155] Data from the 2015 Behavioral Risk Factor Surveillance System (BRFSS) survey, which included questions on self-perceived confusion and memory loss for people in 33 U.S. states and the District of Columbia, showed that 12 percent of Americans age 45 and older reported subjective cognitive decline, but 56 percent of those who reported it had not consulted a health care professional about it.[156] Individuals concerned about declines in memory and other cognitive abilities should consult a health care professional.

Differences Between Women and Men in the Prevalence of Alzheimer's and Other Dementias

More women than men have Alzheimer's or other dementias. Almost two-thirds of Americans with Alzheimer's are women.[A6,31] Of the 5.3 million people age 65 and older with Alzheimer's in the United States, 3.3 million are women and 2.0 million are men.[A6,31] Based on estimates from ADAMS, among people age 71 and older, 16 percent of women have Alzheimer's or other dementias compared with 11 percent of men.[138,157]

There are a number of potential biological and social reasons why more women than men have Alzheimer's or other dementias.[158] The prevailing view has been that this discrepancy is due to the fact that women live longer than men on average, and older age is the greatest risk factor for Alzheimer's.[157,159-160] Many studies of incidence (which indicates risk of developing disease) of Alzheimer's or any dementia[161] have found no significant difference between men and women in the proportion who develop Alzheimer's or other dementias at any given age. A recent study using data from the Framingham Heart Study suggests that because men in middle age have a higher rate of death from cardiovascular disease than women in middle age, men who survive beyond age 65 may have a healthier cardiovascular risk profile and thus an apparent lower risk for dementia than women of the same age.[160] Epidemiologists call this "survival bias" because the men who survive to older ages and are included in studies tend to be the healthiest men; as a result, they may have a lower risk of developing Alzheimer's and other dementia than the men who died at an earlier age from cardiovascular disease. More research is needed to support this finding.

However, researchers have recently begun to revisit the question of whether the risk of Alzheimer's could actually be higher for women at any given age due to biological or genetic variations or differences in life experiences.[162] A large study showed that the APOE-e4 genotype, the best known genetic risk factor for Alzheimer's dementia, may have a stronger association with Alzheimer's dementia in women than

in men.[163-164] It is unknown why this may be the case, but some evidence suggests that it may be due to an interaction between the APOE-e4 genotype and the sex hormone estrogen.[165-166] Finally, because low education is a risk factor for dementia,[80-83,88,161] it is possible that lower educational attainment in women than in men born in the first half of the 20th century could account for a higher risk of Alzheimer's and other dementias in women.[167]

Racial and Ethnic Differences in the Prevalence of Alzheimer's and Other Dementias

Although there are more non-Hispanic whites living with Alzheimer's and other dementias than any other racial or ethnic group in the United States, older African-Americans and Hispanics are more likely, on a per-capita basis, than older whites to have Alzheimer's or other dementias.[168-173] A review of many studies by an expert panel concluded that older African-Americans are about twice as likely to have Alzheimer's or other dementias as older whites,[174-175] and Hispanics are about one and one-half times as likely to have Alzheimer's or other dementias as older whites.[A7,175-177] Currently, there is not enough evidence from population-based cohort studies in which everyone is tested for dementia to estimate the national prevalence of Alzheimer's and other dementias in other racial and ethnic groups. However, a study examining electronic medical records for members of a large health plan in California indicated that dementia incidence — determined by the presence of a dementia diagnosis in one's medical record — was highest in African-Americans, intermediate for Latinos (the term used in the study for those who self-reported as Latino or Hispanic) and whites, and lowest for Asian-Americans.[178]

Variations in health, lifestyle and socioeconomic risk factors across racial groups likely account for most of the differences in risk of Alzheimer's and other dementias by race.[179] Despite some evidence that the influence of genetic risk factors on Alzheimer's and other dementias may differ by race,[180-181] genetic factors do not appear to account for the large prevalence differences among racial groups.[179,182] Instead, health conditions such as cardiovascular disease and diabetes, which are associated with an increased risk for Alzheimer's and other dementias, are believed to account for these differences as they are more prevalent in African-American and Hispanic people.[183-184] Indeed, vascular dementia accounts for a larger proportion of dementia in African-Americans than in whites.[181] Socioeconomic characteristics, including lower levels of education, higher rates of poverty, and greater exposure to early life adversity and discrimination, may also increase risk in African-American and Hispanic communities.[183-185] Some studies suggest that differences based on race and ethnicity do not persist in rigorous analyses that account for such factors.[78,138,179]

There is evidence that missed diagnoses of Alzheimer's and other dementias are more common among older African-Americans and Hispanics than among older whites.[186-187] Based on data for Medicare beneficiaries age 65 and older, Alzheimer's or another dementia had been diagnosed in 6.9 percent of whites, 9.4 percent of African-Americans and 11.5 percent of Hispanics.[188] Although rates of diagnosis were higher among African-Americans than among whites, according to prevalence studies that detect all people who have dementia irrespective of their use of the health care system, the rates should be higher (i.e., twice as high as 6.9 percent, which is approximately 13.8 percent).

Estimates of the Number of People with Alzheimer's Dementia by State

Table 4 lists the estimated number of people age 65 and older with Alzheimer's dementia by state for 2017, the projected number for 2025, and the projected percentage change in the number of people with Alzheimer's between 2017 and 2025.[A8,189] Comparable estimates and projections for other types of dementia are not available.

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TABLE 4

Projections of Total Numbers of Americans Age 65 and Older with Alzheimer's Dementia by State

State	Projected Number with Alzheimer's (in thousands) 2017	2025	Percentage Change 2017-2025
Alabama	90	110	22.2
Alaska	7.1	11	54.9
Arizona	130	200	53.8
Arkansas	55	67	21.8
California	630	840	33.3
Colorado	69	92	33.3
Connecticut	75	91	21.3
Delaware	18	23	27.8
District of Columbia	9	9	0.0
Florida	520	720	38.5
Georgia	140	190	35.7
Hawaii	27	35	29.6
Idaho	24	33	37.5
Illinois	220	260	18.2
Indiana	110	130	18.2
Iowa	64	73	14.1
Kansas	52	62	19.2
Kentucky	70	86	22.9
Louisiana	85	110	29.4
Maine	27	35	29.6
Maryland	100	130	30.0
Massachusetts	120	150	25.0
Michigan	180	220	22.2
Minnesota	92	120	30.4
Mississippi	53	65	22.6
Missouri	110	130	18.2
Montana	20	27	35.0
Nebraska	33	40	21.2
Nevada	43	64	48.8
New Hampshire	24	32	33.3
New Jersey	170	210	23.5
New Mexico	38	53	39.5
New York	390	460	17.9
North Carolina	160	210	31.3
North Dakota	14	16	14.3
Ohio	210	250	19.0
Oklahoma	63	76	20.6
Oregon	63	84	33.3
Pennsylvania	270	320	18.5
Rhode Island	23	27	17.4
South Carolina	86	120	39.5
South Dakota	17	20	17.6
Tennessee	110	140	27.3
Texas	360	490	36.1
Utah	30	42	40.0
Vermont	12	17	41.7
Virginia	140	190	35.7
Washington	110	140	27.3
West Virginia	37	44	18.9
Wisconsin	110	130	18.2
Wyoming	9.4	13	38.3

Created from data provided to the Alzheimer's Association by Weuve et al.[AR 189]

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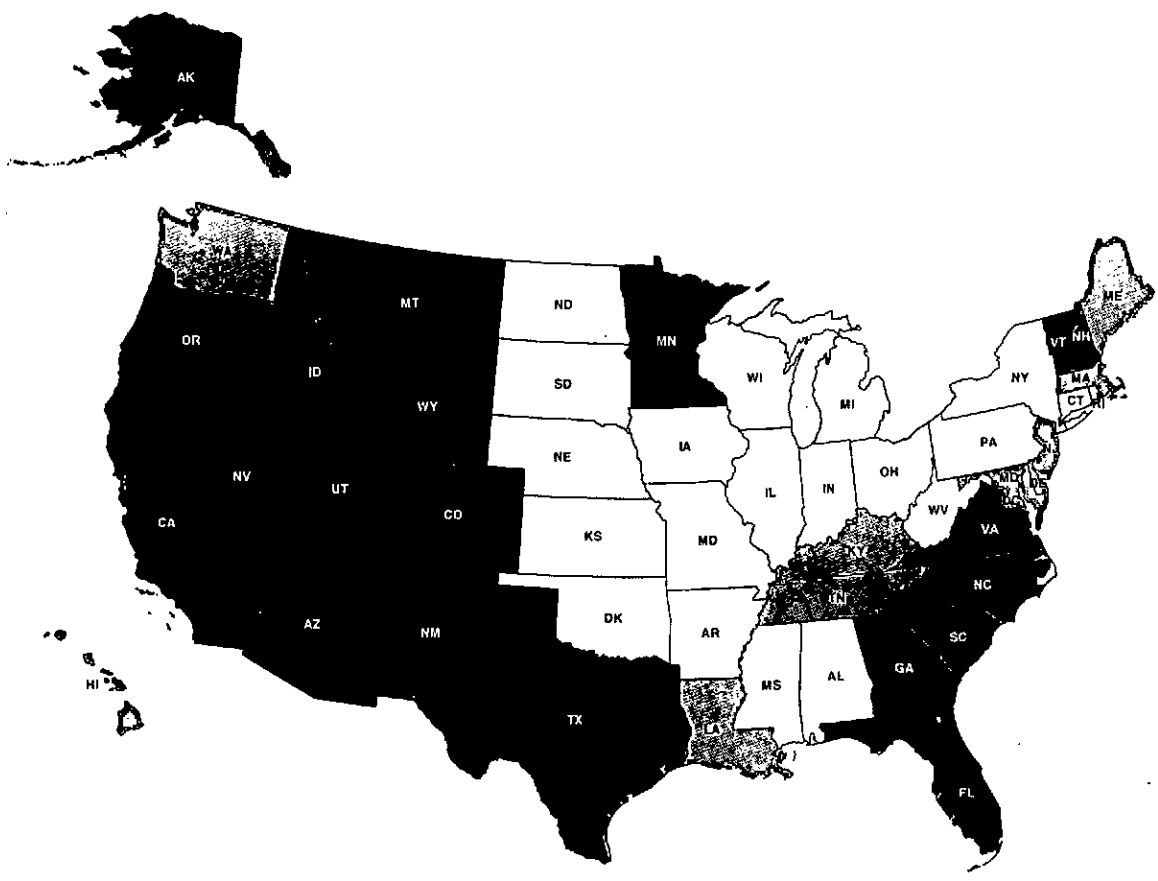
FIGURE 2

Projected Increases Between 2017 and 2025 in Alzheimer's Dementia Prevalence by State



Change from 2017 to 2025 for Washington, D.C.: 0.0%

Created from data provided to the Alzheimer's Association by Weuve et al.[68,189]

As shown in Figure 2, between 2017 and 2025 every state across the country is expected to experience an increase of at least 14 percent in the number of people with Alzheimer's due to increases in the population age 65 and older. The West and Southeast are expected to experience the largest percentage increases in people with Alzheimer's between 2017 and 2025. These increases will have a marked impact on states' health care systems, as well as the Medicaid program, which covers the costs of long-term care and support for some older residents with dementia.

Incidence of Alzheimer's Dementia

While prevalence refers to *existing* cases of a disease in a population at a given time, incidence refers to *new* cases of a disease that develop in a given period of time in a defined population — in this case, the U.S. population age 65 or older. Incidence provides a measure of *risk* for developing a disease. According to one study using data from the Established Populations for Epidemiologic Study of the Elderly (EPESE), approximately 480,000 people age 65 or older will

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develop Alzheimer's dementia in the United States in 2017.[A9] The number of new cases of Alzheimer's increases dramatically with age: in 2017, there will be approximately 64,000 new cases among people age 65 to 74, 173,000 new cases among people age 75 to 84, and 243,000 new cases among people age 85 and older (the "oldest-old").[A9,190] This translates to approximately two new cases per 1,000 people age 65 to 74, 12 new cases per 1,000 people age 75 to 84, and 37 new cases per 1,000 people age 85 and older.[A9] A more recent study using data from the Adult Changes in Thought (ACT) study, a cohort of members of the Group Health health care delivery system in the Northwest United States, reported even higher incidence rates for Alzheimer's dementia.[161] Because of the increasing number of people age 65 and older in the United States, particularly the oldest-old, the annual number of new cases of Alzheimer's and other dementias is projected to double by 2050.[190]

- Every 66 seconds, someone in the United States develops Alzheimer's dementia.[A10]
- By 2050, someone in the United States will develop Alzheimer's dementia every 33 seconds.[A10]

Lifetime Risk of Alzheimer's Dementia

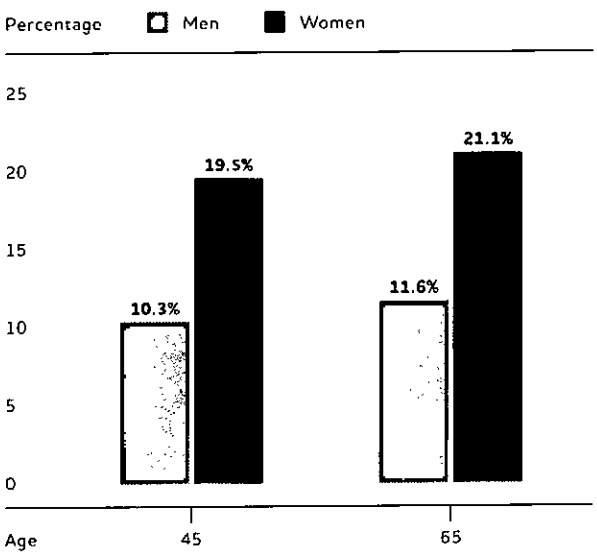
Lifetime risk is the probability that someone of a given age will develop a condition during his or her remaining life span. Data from the Framingham Heart Study were used to estimate lifetime risks of Alzheimer's dementia by age and sex.[A11,160] As shown in Figure 3, the study found that the estimated lifetime risk for Alzheimer's dementia at age 45 was approximately one in five (20 percent) for women and one in 10 (10 percent) for men. The risks for both sexes were slightly higher at age 65.[160]

Trends in the Prevalence and Incidence of Alzheimer's Dementia

A growing number of studies indicate that the age-specific risk of Alzheimer's and other dementias in the United States and other higher-income Western countries may have declined in the past 25 years,[191-202] though results are mixed.[30] These declines have been

FIGURE 3

Estimated Lifetime Risk for Alzheimer's Dementia, by Sex, at Age 45 and Age 65



Created from data from Chene et al.[160]

attributed to increasing levels of education and improved control of cardiovascular risk factors.[193,199,202] Such findings are promising and suggest that identifying and reducing risk factors for Alzheimer's and other dementias may be effective. Although these findings indicate that a person's risk of dementia at any given age may be decreasing slightly, it should be noted that the total number of Americans with Alzheimer's or other dementias is expected to continue to increase dramatically because of the population's shift to older ages. Furthermore, it is unclear whether these positive trends will continue into the future given worldwide trends showing increasing mid-life diabetes and obesity — potential risk factors for Alzheimer's dementia — which may lead to a rebound in dementia risk in coming years.[200,203-204] Thus, while recent findings are promising, the social and economic burden of Alzheimer's and other dementias will continue to grow. Moreover, 68 percent of the projected increase in the global prevalence and burden of dementia by 2050 will take place in low- and middle-income countries, where there is no evidence for a decline in the risk of Alzheimer's and other dementias.[205]

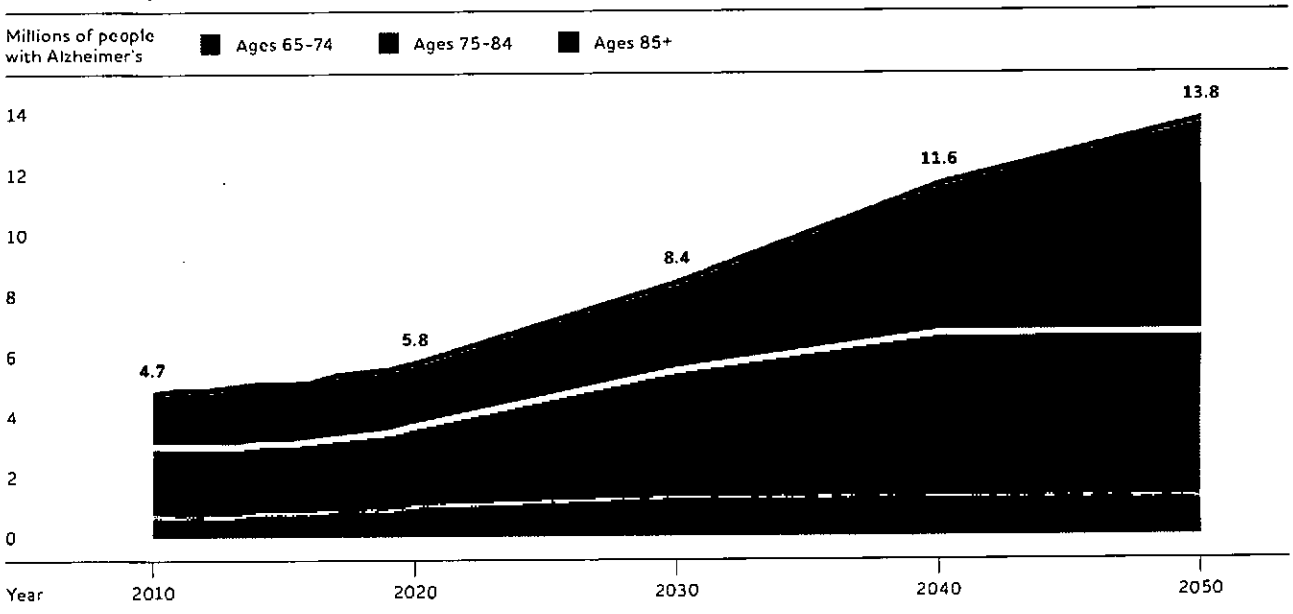
Looking to the Future

The number of Americans surviving into their 80s, 90s and beyond is expected to grow dramatically due to medical advances, as well as social and environmental conditions.[206] Additionally, a large segment of the American population — the baby boom generation — has begun to reach age 65 and older, ages when the risk for Alzheimer's and other dementias is elevated. By 2030, the segment of the U.S. population age 65 and older will increase substantially, and the projected 74 million older Americans will make up over 20 percent of the total population (up from 14 percent in 2012).[206] As the number of older Americans grows rapidly, so too will the numbers of new and existing cases of Alzheimer's dementia, as shown in Figure 4.[A12,31]

- In 2010, there were an estimated 454,000 new cases of Alzheimer's dementia. By 2030, that number is projected to be 615,000 (a 35 percent increase), and by 2050, 959,000 (a 110 percent increase from 2010).[190]
- By 2025, the number of people age 65 and older with Alzheimer's dementia is estimated to reach 7.1 million — almost a 35 percent increase from the 5.3 million age 65 and older affected in 2017.[A13,31]
- By 2050, the number of people age 65 and older with Alzheimer's dementia may nearly triple, from 5.3 million to a projected 13.8 million, barring the development of medical breakthroughs to prevent or cure Alzheimer's disease.[A12,31] Previous estimates based on high-range projections of population growth provided by the U.S. Census suggest that this number may be as high as 16 million.[A14,207]

FIGURE 4

Projected Number of People Age 65 and Older (Total and by Age Group) in the U.S. Population with Alzheimer's Dementia, 2010 to 2050



Created from data from Hebert et al.[A12,31]

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Growth of the Oldest-Old Population

Longer life expectancies and aging baby boomers will also increase the number and percentage of Americans who will be 85 and older. Between 2012 and 2050, the oldest-old are expected to increase from 14 percent of all people age 65 and older in the United States to 22 percent of all people age 65 and older.[206] This will result in an additional 12 million oldest-old people — individuals at the highest risk for developing Alzheimer's dementia.[206]

- In 2017, about 2.1 million people who have Alzheimer's dementia are age 85 or older, accounting for 38 percent of all people with Alzheimer's dementia.[31]
- When the first wave of baby boomers reaches age 85 (in 2031), it is projected that more than 3 million people age 85 and older will have Alzheimer's dementia.[31]
- By 2050, as many as 7 million people age 85 and older may have Alzheimer's dementia, accounting for half (51 percent) of all people 65 and older with Alzheimer's dementia.[31]

MORTALITY
AND MORBIDITY

89 percent

Increase in deaths due to Alzheimer's between 2000 and 2014. Deaths from Alzheimer's have nearly doubled during this period while those from heart disease — the leading cause of death — have declined.

Alzheimer's disease is officially listed as the sixth-leading cause of death in the United States.[208] It is the fifth-leading cause of death for those age 65 and older.[198] However, it may cause even more deaths than official sources recognize. Alzheimer's is also a leading cause of disability and poor health (morbidity). Before a person with Alzheimer's dies, he or she lives through years of morbidity as the disease progresses.

Deaths from Alzheimer's Disease

It is difficult to determine how many deaths are caused by Alzheimer's disease each year because of the way causes of death are recorded. According to data from the National Center for Health Statistics of the Centers for Disease Control and Prevention (CDC), 93,541 people died from Alzheimer's disease in 2014.[208] The CDC considers a person to have died *from* Alzheimer's if the death certificate lists Alzheimer's as the underlying cause of death, defined by the World Health Organization as "the disease or injury which initiated the train of events leading directly to death."[209]

Severe dementia frequently causes complications such as immobility, swallowing disorders and malnutrition that significantly increase the risk of serious acute conditions that can cause death. One such condition is pneumonia, which is the most commonly identified cause of death among elderly people with Alzheimer's or other dementias.[210-211] Death certificates for individuals with Alzheimer's often list acute conditions such as pneumonia as the primary cause of death rather than Alzheimer's.[212-214] As a result, people with Alzheimer's disease who die due to these acute conditions may not be counted among the number of people who died from Alzheimer's disease according to the World Health Organization definition, even though Alzheimer's disease may well have caused the acute condition listed on the death certificate. This difficulty in using death certificates to accurately determine the number of deaths from Alzheimer's has been referred to as a "blurred distinction between death with dementia and death from dementia."[215]

Another way to determine the number of deaths from Alzheimer's disease is through calculations that compare the estimated risk of death in those who have Alzheimer's with the estimated risk of death in those who do not have Alzheimer's. A study using data from the Rush Memory and Aging Project and the Religious Orders Study estimated that 500,000 deaths among people age 75 and older in the United States in 2010 could be attributed to Alzheimer's (estimates for people age 65 to 74 were not available), meaning that those deaths would not be expected to occur in that year if those individuals did not have Alzheimer's.[216]

The true number of deaths caused by Alzheimer's is somewhere between the number of deaths from Alzheimer's recorded on death certificates and the number of people who have Alzheimer's disease when they die. According to 2014 Medicare claims data, about one-third of all Medicare beneficiaries who die in a given year have been diagnosed with Alzheimer's or another dementia.[188] Based on data from the Chicago Health and Aging Project (CHAP) study, in 2017 an estimated 700,000 people age 65 and older in the United States will have Alzheimer's when they die.[217] Although some seniors who have Alzheimer's disease at the time of death die from causes that are unrelated to Alzheimer's, many of them die from Alzheimer's disease itself or from conditions in which Alzheimer's was a contributing cause, such as pneumonia.

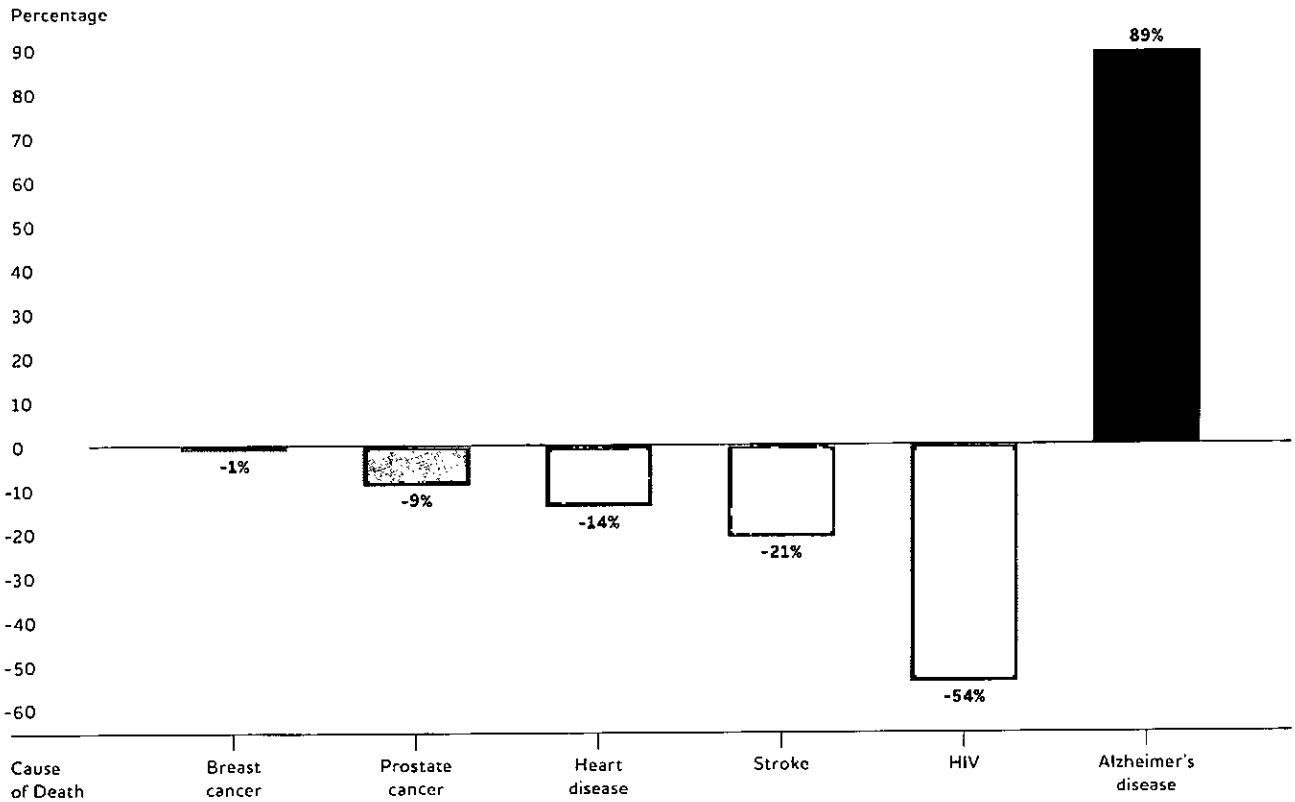
Irrespective of the cause of death, among people age 70, 61 percent of those with Alzheimer's are expected to die before age 80 compared with 30 percent of people without Alzheimer's.[218]

Public Health Impact of Deaths from Alzheimer's Disease

As the population of the United States ages, Alzheimer's is becoming a more common cause of death, and it is the only top 10 cause of death that cannot be prevented, cured or even slowed. Although deaths from other major causes have decreased significantly, official records indicate that deaths from Alzheimer's disease have increased significantly.

FIGURE 5

Percentage Changes in Selected Causes of Death (All Ages) Between 2000 and 2014



Created from data from the National Center for Health Statistics.[208,219]

Between 2000 and 2014, deaths from Alzheimer's disease as recorded on death certificates increased 89 percent, while deaths from the number one cause of death (heart disease) decreased 14 percent (Figure 5).[208] The increase in the number of death certificates listing Alzheimer's as the underlying cause of death reflects both changes in patterns of reporting deaths on death certificates over time as well as an increase in the actual number of deaths attributable to Alzheimer's.

State-by-State Deaths from Alzheimer's Disease

Table 5 provides information on the number of deaths due to Alzheimer's by state in 2014, the most recent year for which state-by-state data are available. This information was obtained from death certificates and reflects the condition identified by the physician as the underlying cause of death. The table also provides annual mortality rates by state to compare the risk of death due to Alzheimer's disease across states with varying population sizes. For the United States as a whole, in 2014, the mortality rate for Alzheimer's disease was 29 deaths per 100,000 people.[A15,208]

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TABLE 5

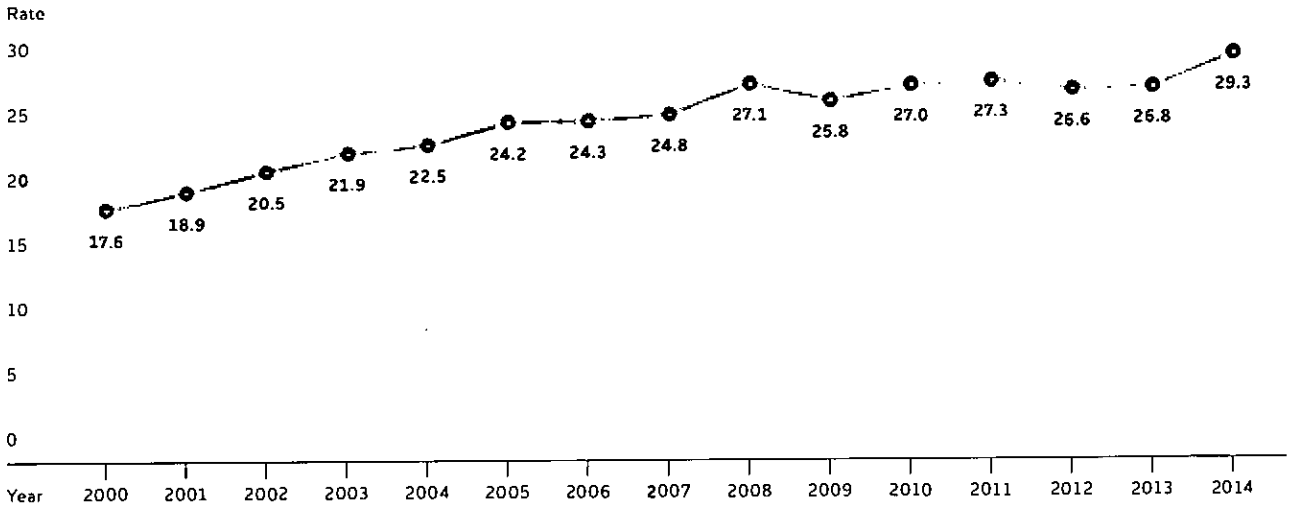
Number of Deaths and Annual Mortality Rate (per 100,000 People) Due to Alzheimer's Disease, by State, 2014

State	Number of Deaths	Mortality Rate
Alabama	1,885	38.9
Alaska	68	9.2
Arizona	2,485	36.9
Arkansas	1,193	40.2
California	12,644	32.6
Colorado	1,364	25.5
Connecticut	923	25.7
Delaware	188	20.1
District of Columbia	119	18.1
Florida	5,874	29.5
Georgia	2,670	26.4
Hawaii	326	23.0
Idaho	376	23.0
Illinois	3,266	25.4
Indiana	2,204	33.4
Iowa	1,313	42.3
Kansas	790	27.2
Kentucky	1,523	34.5
Louisiana	1,670	35.9
Maine	434	32.6
Maryland	934	15.6
Massachusetts	1,688	25.0
Michigan	3,349	33.8
Minnesota	1,628	29.8
Mississippi	1,098	36.7
Missouri	2,053	33.9
Montana	253	24.7
Nebraska	515	27.4
Nevada	606	21.3
New Hampshire	396	29.8
New Jersey	1,962	22.0
New Mexico	442	21.2
New York	2,639	13.4
North Carolina	3,246	32.6
North Dakota	364	49.2
Ohio	4,083	35.2
Oklahoma	1,227	31.6
Oregon	1,411	35.5
Pennsylvania	3,486	27.3
Rhode Island	403	38.2
South Carolina	1,938	40.1
South Dakota	434	50.9
Tennessee	2,672	40.8
Texas	6,772	25.1
Utah	584	19.8
Vermont	266	42.5
Virginia	1,775	21.3
Washington	3,344	47.4
West Virginia	620	33.5
Wisconsin	1,876	32.6
Wyoming	162	27.7
U.S. Total	**93,541**	**29.3**

Created from data from the National Center for Health Statistics.[A15,208]

FIGURE 6

U.S. Annual Alzheimer's Death Rate (per 100,000 People) by Year



Created from data from the National Center for Health Statistics.[208]

Alzheimer's Disease Death Rates

As shown in Figure 6, the rate of deaths attributed to Alzheimer's has risen substantially since 2000.[208] Table 6 shows that the rate of death from Alzheimer's increases dramatically with age, especially after age 65.[208] The increase in the Alzheimer's death rate over time has disproportionately affected the oldest-old.[220] Between 2000 and 2014, the death rate from Alzheimer's increased only slightly for people age 65 to 74, but increased 33 percent for people age 75 to 84, and 51 percent for people age 85 and older.

Duration of Illness from Diagnosis to Death

Studies indicate that people age 65 and older survive an average of 4 to 8 years after a diagnosis of Alzheimer's dementia, yet some live as long as 20 years with Alzheimer's.[161,221-228] This reflects the slow, insidious progression of Alzheimer's. Of the total number of years that they live with Alzehimer's dementia, individuals will spend an average of 40 percent of this time in dementia's most severe stage.[218] Much of the time will be spent in a nursing home. At age 80, approximately 75 percent of people living with Alzheimer's dementia are expected to be in a nursing home compared with only 4 percent of the general population at age 80.[218] In all, an estimated two-thirds of those who die of dementia do so in nursing homes, compared with 20 percent of people with cancer and 28 percent of people dying from all other conditions.[229]

Burden of Alzheimer's Disease

The long duration of illness before death contributes significantly to the public health impact of Alzheimer's disease because much of that time is spent in a state of disability and dependence. Scientists have developed methods to measure and compare the burden of different diseases on a population in a way that takes into account not only the number of people with the condition, but also both the number of years of life lost due to that disease as well as the number of healthy years of life lost by virtue of being in a state of disability. These measures indicate that Alzheimer's is a very burdensome disease and that the burden of Alzheimer's has increased more dramatically in the United States than other diseases in recent years. The primary measure of disease burden is called disability-adjusted

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TABLE 6

U.S. Annual Alzheimer's Death Rates (per 100,000 People) by Age and Year

Age	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
45-54	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
55-64	2.0	2.1	1.9	2.0	1.8	2.1	2.1	2.2	2.2	2.0	2.1	2.2	2.2	2.2	2.1
65-74	18.7	18.6	19.6	20.7	19.5	20.2	19.9	20.2	21.1	19.4	19.8	19.2	17.9	18.1	19.6
75-84	139.6	147.2	157.7	164.1	168.5	177.0	175.0	175.8	192.5	179.1	184.5	183.9	175.4	171.6	185.6
85+	667.7	725.4	790.9	846.8	875.3	935.5	923.4	928.7	1,002.2	945.3	987.1	967.1	936.1	929.5	1,006.8

Created from data from the National Center for Health Statistics.[208]

life years (DALYs), which is the sum of the number of years of life lost due to premature mortality and the number of years lived with disability, totaled across all those with the disease. Using this measure, Alzheimer's rose from the 25th most burdensome disease in the United States in 1990 to the 12th in 2010. No other disease or condition increased as much.[230] In terms of years of life lost, Alzheimer's disease rose from 32nd to 9th, the largest increase for any disease. In terms of years lived with disability, Alzheimer's disease went from ranking 17th to 12th; only kidney disease equaled Alzheimer's in as high a jump in rank.

Taken together, these statistics indicate that not only is Alzheimer's disease responsible for the deaths of more and more Americans, but also that the disease is contributing to more and more cases of poor health and disability in the United States.

CAREGIVING

More than

15 million

Americans provide unpaid care for people with Alzheimer's or other dementias.

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Caregiving refers to attending to another person's health needs. Caregiving often includes assistance with one or more activities of daily living (ADLs), such as bathing and dressing, as well as multiple instrumental activities of daily living (IADLs), such as paying bills, shopping and transportation.[231-232] Caregivers also provide emotional support to people with Alzheimer's. More than 15 million Americans provide unpaid care for people with Alzheimer's or other dementias.[A16] In addition to providing descriptive information, this section compares caregivers of people with dementia to either caregivers of people with other medical conditions, or if that comparison is not available, to non-caregivers of similar ages and other characteristics.

Unpaid Caregivers

Eighty-three percent of the help provided to older adults in the United States comes from family members, friends or other unpaid caregivers.[233] Nearly half of all caregivers (46 percent) who provide help to older adults do so for someone with Alzheimer's or another dementia.[234] In 2016, caregivers of people with Alzheimer's or other dementias provided an estimated 18.2 billion hours of informal (that is, unpaid) assistance, a contribution to the nation valued at $230.1 billion. This is approximately 48 percent of the revenue of Walmart in 2016 ($482 billion)[235] and nine times the total revenue of McDonald's in 2015 ($25.4 billion).[236] The value of informal care (not including caregivers' out-of-pocket costs) was nearly equal to the costs of direct medical and long-term care of dementia in 2010.[237]

The three primary reasons caregivers provide care and assistance to a person with Alzheimer's are (1) the desire to keep a family member or friend at home (65 percent), (2) proximity to the person with dementia (48 percent) and (3) the caregiver's perceived obligation as a spouse or partner (38 percent).[A17] Individuals with dementia living in the community are more likely than older adults without dementia to rely on multiple unpaid caregivers; 30 percent of older adults with dementia rely on three or more caregivers, whereas 23 percent of older adults without dementia rely on three or more unpaid caregivers.[238] Only a small percentage of older adults with dementia do not receive help from family members or other informal care providers (8 percent). Of these individuals, more than 40 percent live alone, perhaps making it more difficult to ask for and receive informal care.[238]

Who are the Caregivers?

Several sources have examined the demographic background of family caregivers of people with Alzheimer's or other dementias in the United States.[A17,239-242] About one in three caregivers (34 percent) is age 65 or older.[A17] Over two-thirds of caregivers are married, living with a partner or in a long-term relationship.[A17,240] More than two-thirds of caregivers are non-Hispanic white,[A17,239-240,243] while 10 percent are African-American, 8 percent are Hispanic, and 5 percent are Asian.[A17] Approximately 40 percent of dementia caregivers have a college degree or greater education.[A17,240,243] Forty-one percent of caregivers have a household income of $50,000 or less.[A17] Among primary caregivers (individuals who indicate having the most responsibility for helping their relatives) of people with dementia, over half take care of their parents.[156,242-243] Most caregivers (66 percent) live with the care recipient in the community.[238] It is estimated that 250,000 children and young adults between ages 8 and 18 provide help to someone with Alzheimer's or another dementia.[244] National surveys have found that approximately one quarter of dementia caregivers are "sandwich generation" caregivers — meaning that they care not only for an aging parent, but also for children under age 18.[A17,156,243]

Caregiving and Women

The responsibilities of caring for someone with dementia often fall to women. Approximately two-thirds of caregivers are women.[A17,239-240] More specifically, over one-third of dementia caregivers

TABLE 7

Dementia Caregiving Tasks

Helping with instrumental activities of daily living (IADLs), such as household chores, shopping, preparing meals, providing transportation, arranging for doctor's appointments, managing finances and legal affairs, and answering the telephone.
Helping the person take medications correctly, either via reminders or direct administration of medications.
Helping the person adhere to treatment recommendations for dementia or other medical conditions.
Assisting with personal activities of daily living (ADLs), such as bathing, dressing, grooming and feeding and helping the person walk, transfer from bed to chair, use the toilet and manage incontinence.
Managing behavioral symptoms of the disease such as aggressive behavior, wandering, depressive mood, agitation, anxiety, repetitive activity and nighttime disturbances.
Finding and using support services such as support groups and adult day service programs.
Making arrangements for paid in-home, nursing home or assisted living care.
Hiring and supervising others who provide care.
Assuming additional responsibilities that are not necessarily specific tasks, such as: • Providing overall management of getting through the day. • Addressing family issues related to caring for a relative with Alzheimer's disease, including communication with other family members about care plans, decision-making and arrangements for respite for the main caregiver.
Managing other health conditions (i.e., "comorbidities"), such as arthritis, diabetes or cancer.
Providing emotional support and a sense of security.

are daughters.[233,238] It is more common for wives to provide informal care for a husband than vice versa.[245] On average, female caregivers spend more time caregiving than male caregivers.[238] According to the 2014 Alzheimer's Association Women and Alzheimer's Poll, of those providing care for 21 to more than 60 hours per week, 67 percent were women and 33 percent were men.[246] The 2015 Behavioral Risk Factor Surveillance System (BRFSS) survey found that of all dementia caregivers who spend more than 40 hours per week providing care, 69 percent were women.[156] Two and a half times as many women as men reported living with the person with dementia full time.[246] Of those providing care to someone with dementia for more than 5 years, 63 percent are women and 37 percent are men.[156] Similarly, caregivers who are women may experience higher levels of burden, depression and impaired health than men, with evidence suggesting that these differences arise because female caregivers tend to spend more time caregiving, to take on more caregiving tasks, and to care for someone with more cognitive, functional and/or behavior problems.[247] Women caregivers are also more likely than men to indicate a need for individual counseling, respite care and support groups.[156]

Caregiving Tasks

The care provided to people with Alzheimer's or other dementias is wide-ranging and in some instances all-encompassing. Table 7 summarizes some of the most common types of dementia care provided.

Though the care provided by family members of people with Alzheimer's or other dementias is somewhat similar to the help provided by caregivers of people with other conditions, dementia caregivers tend to provide more extensive assistance. Family caregivers of people with dementia are more likely to monitor the health of their care recipients than are caregivers of people without dementia (79 percent versus 66 percent).[248] Data from the 2011 National Health and Aging Trends Study[239,249] indicated that

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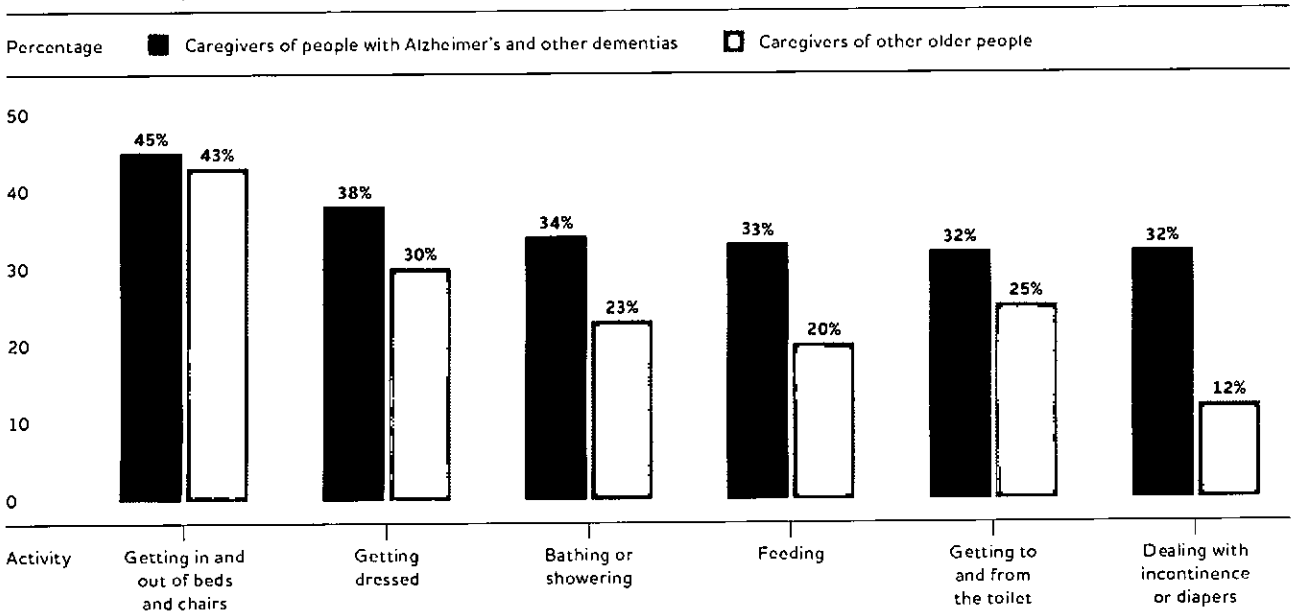
caregivers of people with dementia are more likely than caregivers of people without dementia to provide help with self-care and mobility (85 percent versus 71 percent) and health or medical care (63 percent versus 52 percent). Seventy-seven percent of older adults with dementia receive informal assistance with at least one ADL or household activity in contrast to only 20 percent of older adults without dementia: nearly 40 percent of people with dementia receive informal help with three or more ADLs compared with 14 percent of people without dementia.[238] Figure 7 illustrates how family caregivers of people with dementia are more likely than caregivers of other older people to assist with ADLs. Over half of individuals with dementia (53 percent) receive assistance from family members or other informal caregivers for ADLs compared with 11 percent of older adults without dementia.[238]

In addition to assisting with ADLs, more caregivers of people with Alzheimer's or other dementias advocate for their care recipient with community agencies and care providers (65 percent) and manage finances (68 percent) compared with caregivers of people without dementia (46 percent and 50 percent).[243] More caregivers of people with Alzheimer's or other dementias arrange for outside services (46 percent) and communicate with health care professionals (80 percent) compared with caregivers of people without dementia (27 percent and 59 percent).[243] Caregivers of people with dementia are more likely to coordinate health care for the care recipient than caregivers of people without dementia (86 percent versus 72 percent).[234,239] One in five caregivers of people with Alzheimer's or other dementias (22 percent) report problems dealing with a bank or credit union when helping with the care recipient's

FIGURE 7

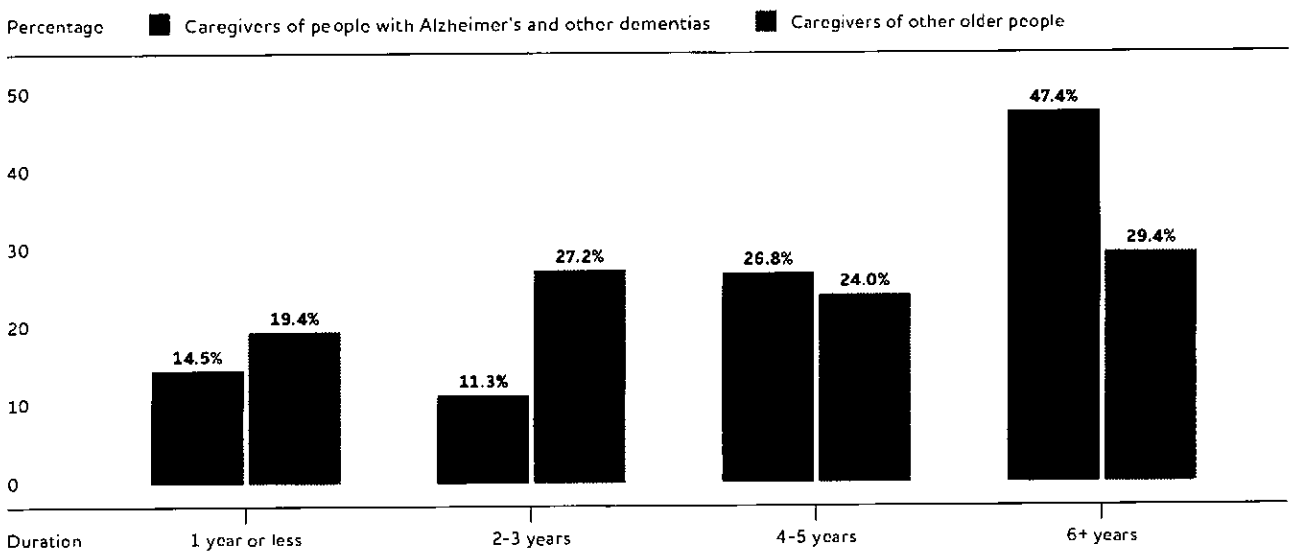
Proportion of Caregivers of People with Alzheimer's or Other Dementias Versus Caregivers of Other Older People Who Provide Help with Specific Activities of Daily Living, United States, 2015



Created from data from National Alliance for Caregiving and AARP.[243]

FIGURE 8

Proportion of Alzheimer's and Dementia Caregivers Versus Caregivers of Other Older People in Residential Care Settings by Duration of Caregiving, United States, 2011



Created from data from the National Health and Aging Trends Study.[238]

finances, compared with 9 percent of caregivers of people without dementia.[243] Caring for a person with dementia also means managing symptoms that caregivers of people with other diseases may not face, such as neuropsychiatric symptoms (for example, anxiety, apathy and lack of inhibition) and severe behavioral problems. For example, family caregivers of people with Alzheimer's or other dementias are more likely than family caregivers of people without dementia to help with emotional or mental health problems (41 percent versus 16 percent) and behavioral issues (15 percent versus 4 percent).[243]

When a person with Alzheimer's or another dementia moves to an assisted living residence or nursing home, the help provided by his or her family caregiver usually changes from the comprehensive care summarized in Table 7 (see page 34) to providing emotional support, interacting with facility staff and advocating for appropriate care. However, some family caregivers continue to help with bathing, dressing and other ADLs.[250-252]

Duration of Caregiving

Eighty-six percent of dementia caregivers have provided care and assistance for at least the past year, according to the national 2014 Alzheimer's Association Women and Alzheimer's Poll (which surveyed both men and women).[A17] Fifty-four percent of caregivers of people with Alzheimer's or other dementias have provided care for two years or more, compared with 50 percent of caregivers of older adults with other conditions.[156] Caregivers of people with Alzheimer's or other dementias provide care for a longer time, on average, than caregivers of older adults with other conditions. Well over half (57 percent) of family caregivers of people with Alzheimer's or other dementias in the community had provided care for 4 or more years. As shown in Figure 8, this percentage increases to 74 percent for family caregivers of people with dementia living in residential care settings compared with 53 percent for family caregivers of people with other conditions.[238]

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More than six in 10 (63 percent) Alzheimer's caregivers expect to continue having care responsibilities for the next 5 years compared with less than half of caregivers of people without dementia (49 percent).[243]

Hours of Unpaid Care and Economic Value of Caregiving

In 2016, the 15.9 million family and other unpaid caregivers of people with Alzheimer's or other dementias provided an estimated 18.2 billion hours of unpaid care. This number represents an average of 21.9 hours of care per caregiver per week, or 1,139 hours of care per caregiver per year.[A18] With this care valued at $12.65 per hour,[A19] the estimated economic value of care provided by family and other unpaid caregivers of people with dementia across the United States was $230.1 billion in 2016. Table 8 (see pages 38-39) shows the total hours of unpaid care as well as the value of care provided by family and other unpaid caregivers for the United States and each state. Unpaid caregivers of people with Alzheimer's or other dementias provided care valued at more than $4 billion in each of 21 states. Unpaid caregivers in each of the four most populous states — California, Florida, New York and Texas — provided care valued at more than $14 billion. A longitudinal study of the monetary value of family caregiving for people with dementia found that the overall value of daily family care increased 18 percent with each additional year of providing care, and that the value of this care increased as the care recipient's cognitive abilities declined.[253] A study based on the same data source found that the estimated economic value of daily family caregiving costs were lower in situations in which caregivers felt closer in their relationship with the person with dementia.[254] Additional research is needed to estimate the future value of family care for people with Alzheimer's as the U.S. population continues to age.

Caregivers of people with dementia report providing 27 hours more care per month on average (92 hours versus 65 hours) than caregivers of people without dementia, with 26 percent providing 41 or more hours of care per week.[239,248] Considering all sources of unpaid care (for example, help from multiple family members), individuals with dementia receive an average of 171 hours of care per month, which is over 100 hours more care per month than those without dementia (66 hours per month, on average).[233]

Impact of Alzheimer's Caregiving

Caring for a person with Alzheimer's or another dementia poses special challenges. For example, people in the middle to later stages of Alzheimer's experience losses in judgment, orientation, and the ability to understand and communicate effectively. Family caregivers must often help people with Alzheimer's manage these issues. The personality and behavior of a person with Alzheimer's are affected as well, and these changes are often among the most challenging for family caregivers.[255-257] Individuals with Alzheimer's also require increasing levels of supervision and personal care as the disease progresses. As symptoms worsen, the care required of family members can result in increased emotional stress and depression; new or exacerbated health problems; and depleted income and finances due in part to disruptions in employment and paying for health care or other services for themselves and their care recipients.[A17,258-265] Data from the 2016 Alzheimer's Association Family Impact of Alzheimer's Survey reported in *2016 Alzheimer's Disease Facts and Figures* indicated that among care contributors (a friend or relative who paid for dementia expenses and/or provided care for someone with dementia at least once a month in the prior year), 48 percent cut back on spending and 43 percent cut back on saving due to the out-of-pocket cost of providing help to someone with dementia.[265] Due to care responsibilities in the year prior to the survey, close to four in 10 care contributors indicated that the "food they bought just didn't last, and they didn't have money to get more" and three in 10 ate less because of care-related costs.[265]

TABLE 8

Number of Alzheimer's and Dementia (A/D) Caregivers, Hours of Unpaid Care, Economic Value of Unpaid Care and Higher Health Care Costs of Caregivers by State, 2016*

State	A/D Caregivers (in thousands)	Hours of Unpaid Care (in millions)	Value of Unpaid Care (in millions of dollars)	Higher Health Care Costs of Caregivers (in millions of dollars)†
Alabama	303	345	$4,359	$188
Alaska	33	38	480	30
Arizona	325	370	4,685	176
Arkansas	176	200	2,531	108
California	1,600	1,822	23,043	999
Colorado	244	277	3,510	146
Connecticut	177	201	2,548	153
Delaware	53	61	770	45
District of Columbia	28	32	405	29
Florida	1,100	1,253	15,850	785
Georgia	519	591	7,478	283
Hawaii	66	75	944	45
Idaho	81	92	1,167	46
Illinois	588	670	8,470	397
Indiana	335	382	4,831	223
Iowa	135	154	1,945	93
Kansas	150	171	2,168	102
Kentucky	271	308	3,901	177
Louisiana	232	264	3,341	157
Maine	69	78	988	58
Maryland	291	332	4,196	218
Massachusetts	333	380	4,803	309
Michigan	511	582	7,361	337
Minnesota	251	286	3,614	186
Mississippi	206	234	2,964	134
Missouri	314	358	4,530	218

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TABLE 8 (cont.)

Number of Alzheimer's and Dementia (A/D) Caregivers, Hours of Unpaid Care, Economic Value of Unpaid Care and Higher Health Care Costs of Caregivers by State, 2016*

State	A/D Caregivers (in thousands)	Hours of Unpaid Care (in millions)	Value of Unpaid Care (in millions of dollars)	Higher Health Care Costs of Caregivers (in millions of dollars)†
Montana	49	56	$708	$33
Nebraska	82	93	1,176	58
Nevada	145	165	2,093	83
New Hampshire	66	75	954	52
New Jersey	449	511	6,465	340
New Mexico	106	121	1,531	70
New York	1,020	1,161	14,691	848
North Carolina	459	523	6,614	296
North Dakota	30	35	438	24
Ohio	597	680	8,598	421
Oklahoma	223	253	3,206	145
Oregon	181	206	2,609	119
Pennsylvania	673	766	9,693	519
Rhode Island	53	61	766	44
South Carolina	304	347	4,385	191
South Dakota	38	43	542	27
Tennessee	430	489	6,191	273
Texas	1,380	1,571	19,876	815
Utah	148	169	2,138	74
Vermont	30	34	430	23
Virginia	458	521	6,591	286
Washington	335	382	4,832	227
West Virginia	107	122	1,543	82
Wisconsin	193	219	2,775	140
Wyoming	28	32	400	20
U.S. Total	15,975	18,192	$230,127	$10,852

*State totals may not add up to the U.S. total due to rounding.

†Higher health care costs are the dollar amount difference between the weighted per capita personal health care spending of caregivers and non-caregivers in each state.[A20]

Created from data from the 2009 BRFSS, U.S. Census Bureau, Centers for Medicare & Medicaid Services, National Alliance for Caregiving, AARP and U.S. Department of Labor.[A16, A18, A19, A20]

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Caregiver Emotional and Social Well-Being

The intimacy, shared experiences and memories that are often part of the relationship between a caregiver and care recipient may also be threatened due to the memory loss, functional impairment and psychiatric/behavioral disturbances that can accompany the progression of Alzheimer's. Although caregivers report positive feelings about caregiving, such as family togetherness and the satisfaction of helping others,[A17,266-269] they also report high levels of stress when providing care:

- Based on the Level of Care Index that combined the number of hours of care and the number of ADL tasks performed by the caregiver, more dementia caregivers in the 2015 NAC/AARP survey were classified as having a high level of burden than caregivers of people without dementia (46 percent versus 38 percent).[243]
- Compared with caregivers of people without dementia, twice as many caregivers of those with dementia indicate substantial emotional, financial and physical difficulties.[239]
- Fifty-nine percent of family caregivers of people with Alzheimer's or other dementias rated the emotional stress of caregiving as high to very high (Figure 9).[A17] Nearly half of dementia caregivers indicate that providing help is highly stressful (49 percent) compared with 35 percent of caregivers of people without dementia.[243]
- Many caregivers of people with Alzheimer's or other dementias provide help alone. Forty-one percent of dementia caregivers in the 2014 Alzheimer's Association poll reported that no one else provided unpaid assistance.[A17]

Depression and Mental Health

- Approximately 30 percent to 40 percent of family caregivers of people with dementia suffer from depression, compared with 5 percent to 17 percent of non-caregivers of similar ages.[270-274]
- The prevalence of depression is higher among dementia caregivers than other caregivers such as those who provide help to individuals with schizophrenia (20 percent) or stroke (19 percent).[274-276]
- Depression risk increases alongside the worsening cognitive symptoms of the person with dementia.[274,277-278]
- In a recent meta-analysis, kin relationship was the strongest predictor of caregiver depression; caregivers of spouses had two and a half times higher odds of having depression as caregivers of people who were not spouses.[274]
- The prevalence of anxiety among dementia caregivers is 44 percent, which is higher than among caregivers of people with stroke (31 percent).[274,276]
- Caregivers of individuals with Alzheimer's report more subjective cognitive problems (e.g., memory complaints) and experience greater declines in cognition over time than non-caregivers matched for age and other characteristics.[279-280]

Strain

- Twice as many caregivers of people with Alzheimer's or other dementias have difficulty with medical/nursing-related tasks (e.g., injections, tube feedings, catheter/colostomy care) as caregivers of individuals without dementia (22 percent compared with 11 percent).[248]
- Half of caregivers (51 percent) of people with Alzheimer's or other dementias indicate having no experience performing medical/nursing-related tasks,[248] and they often lack the information or resources necessary to manage complex medication regimens.[281-282]
- According to the 2014 Alzheimer's Association poll of caregivers, respondents often believed they had no choice in taking on the role of caregiver.[A17]
- The poll also found that women with children under age 18 felt that caregiving for someone with Alzheimer's was more challenging than caring for children (53 percent).[A17]
- Sandwich generation caregivers indicate lower quality of life and diminished health and health behaviors (for example, less likely to choose healthful foods and less likely to exercise) compared with non-sandwich generation caregivers or non-caregivers.[264,283-285]

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Stress of Care Transitions

- Admitting a relative to a residential care facility has mixed effects on the emotional and psychological well-being of family caregivers. Some studies suggest that distress remains unchanged or even increases after a relative is admitted to a residential care facility, but other studies have found that distress declines following admission.[252,286-287]
- The demands of caregiving may intensify as people with dementia approach the end of life.[288] In the year before a care recipient's death, 59 percent of caregivers felt they were "on duty" 24 hours a day, and many felt that caregiving during this time was extremely stressful.[289] One study of end-of-life care found that 72 percent of family caregivers experienced relief when the person with Alzheimer's or another dementia died.[289]

Caregiver Physical Health

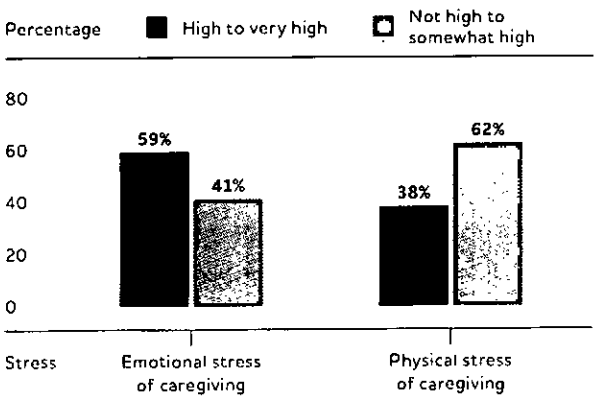
For some caregivers, the demands of caregiving may cause declines in their own health. Evidence suggests that the stress of providing dementia care increases caregivers' susceptibility to disease and health complications.[290] As shown in Figure 9, 38 percent of Alzheimer's and dementia caregivers indicate that the physical stress of caregiving is high to very high.[A17] Nearly three in 10 caregivers of people with Alzheimer's or other dementias report that providing care results in high physical strain (29 percent) compared with 17 percent of caregivers of people without dementia.[243] Sleep disturbances, which can occur frequently when caring for a relative with Alzheimer's or another dementia, have also been shown to negatively influence family caregivers' health.[291-292]

General Health

Seventy-four percent of caregivers of people with Alzheimer's or other dementias reported that they were "somewhat concerned" to "very concerned" about maintaining their own health since becoming a caregiver.[A17] Forty-two percent of caregivers of people with Alzheimer's or another dementia report that their health is excellent or very good, which is lower than caregivers of people without dementia (50 percent).[243]

FIGURE 9

Proportion of Alzheimer's and Dementia Caregivers Who Report High to Very High Emotional and Physical Stress Due to Caregiving



Created from data from the Alzheimer's Association.[A17]

In addition, over 1 in 3 caregivers of people with Alzheimer's or another dementia report that their health has gotten worse due to care responsibilities (35 percent) compared with 19 percent of caregivers of people without dementia.[243] Dementia caregivers indicated lower health-related quality of life than non-caregivers and were more likely than non-caregivers to report that their health was fair or poor.[260,264,293-294] Dementia caregivers were also more likely than caregivers of other older people to say that caregiving made their health worse.[295] Data from the Health and Retirement Study showed that dementia caregivers who provided care to spouses were much more likely (41 percent increased odds) than other spousal caregivers to become increasingly frail during the time between becoming a caregiver and their spouse's death, accounting for differences in age and additional factors.[296] Other studies, however, suggest that caregiving tasks have the positive effect of keeping older caregivers more physically active than non-caregivers.[297]

Physiological Changes

The chronic stress of caregiving is associated with physiological changes that could increase the risk of developing chronic conditions. For example, several studies found that under certain circumstances some Alzheimer's caregivers were more likely to have

elevated biomarkers of cardiovascular disease risk and impaired kidney function risk than those who were not caregivers.[298-303]

Caregivers of a spouse with Alzheimer's or another dementia are more likely than married non-caregivers to have physiological changes that may reflect declining physical health, including high levels of stress hormones,[304] reduced immune function,[258,305] slow wound healing,[306] coronary heart disease,[307] impaired function of the endothelium (the inner lining of blood vessels) and increased incidence of hypertension.[308] Some of these changes may be associated with an increased risk of cardiovascular disease.[309]

Health Care

The physical and emotional impact of dementia caregiving is estimated to have resulted in $10.9 billion in health care costs in the United States in 2016.[A20] Table 8 (see pages 38-39) shows the estimated higher health care costs for caregivers of people with Alzheimer's or other dementias in each state. In separate studies, hospitalization and emergency department visits were more likely for dementia caregivers who helped care recipients who were depressed, had low functional status or had behavioral disturbances.[264,310-311] Increased depressive symptoms among caregivers over time are also linked to more frequent doctor visits, a higher number of outpatient tests and procedures, and greater use of over-the-counter and prescription medications.[311]

Mortality

The health of a person with dementia may also affect the caregiver's risk of dying, although studies have reported mixed findings. In one study, caregivers of spouses who were hospitalized and had dementia in their medical records were more likely to die in the following year than caregivers whose spouses were hospitalized but did not have dementia, even after accounting for the age of caregivers.[312] One study found that caregivers who perceive higher strain due to care responsibilities are at higher risk for death than caregivers who perceive little or no strain.[313]

Caregiver Employment

Six in 10 caregivers of people with Alzheimer's or another dementia were employed in the past year while providing help.[243] These individuals worked an average of 35 hours per week while caregiving.[243] Among people who were employed in the past year while providing care to someone with Alzheimer's or another dementia, 15 percent quit their jobs or retired early due to their care responsibilities. Fifty-seven percent reported sometimes needing to go in late or leave early, and 16 percent had to take a leave of absence. Other work-related challenges for dementia and non-dementia caregivers who had been employed in the past year are summarized in Figure 10.[243]

Interventions Designed to Assist Caregivers

For more than 30 years, strategies to support family caregivers of people with Alzheimer's have been developed and evaluated. The types and focus of these strategies (often called "interventions") are summarized in Table 9 (see page 44).[262-263]

In general, the goal of interventions is to improve the health and well-being of dementia caregivers by relieving the negative aspects of caregiving. Some also aim to delay nursing home admission of the person with dementia by providing caregivers with skills and resources (emotional, social and psychological) to continue helping their relatives or friends at home. Specific approaches used in various interventions include providing education to caregivers, helping caregivers manage dementia-related symptoms, improving social support for caregivers and providing caregivers with respite from caregiving duties.

According to a recent publication on dementia caregiver interventions that reviewed seven meta-analyses and 17 systematic reviews of randomized controlled trials, the following characteristics distinguish interventions that are effective: family caregivers are actively involved in the intervention, in contrast to passively receiving information; the intervention is tailored and flexible to meet the changing needs of family caregivers during the course of a relative's dementia; and the intervention

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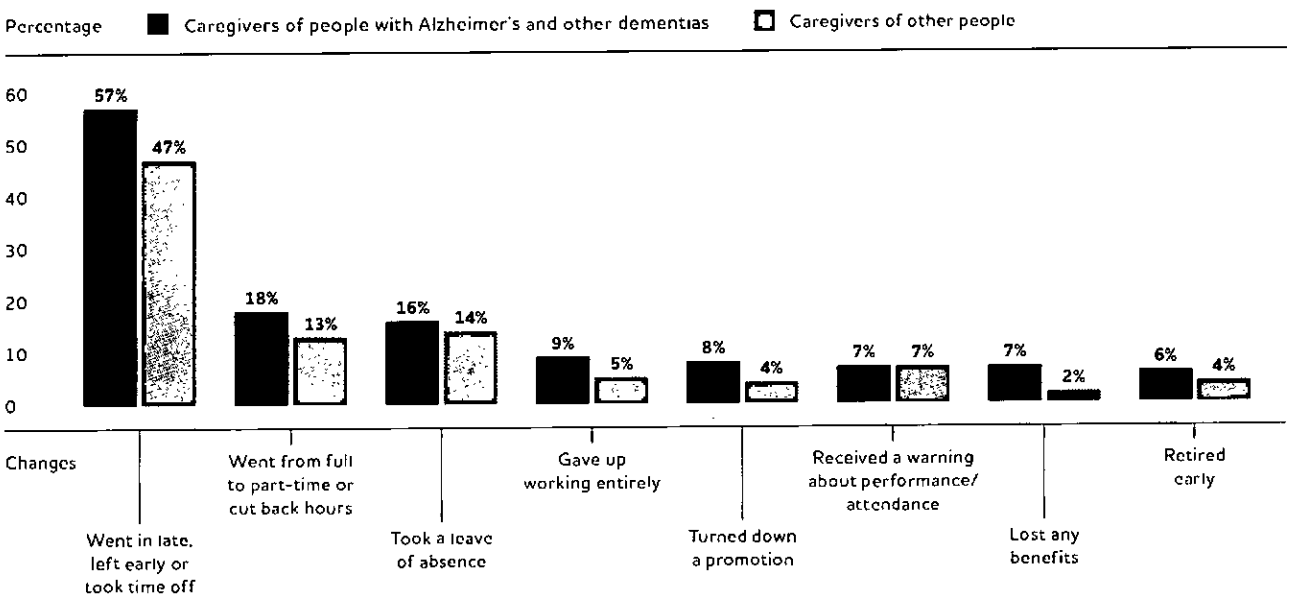
FIGURE 10

Work-Related Changes Among Caregivers of People with Alzheimer's and Other Dementias Who Had Been Employed at Any Time Since They Began Caregiving



Created from data from the National Alliance for Caregiving and AARP.[243]

meets the needs not only of caregivers, but of care recipients as well.[314] A 2012 report identified 44 interventions that have been shown by randomized controlled trials conducted in the United States to have benefits for individuals with Alzheimer's or other dementias as well as their family caregivers, and more evaluations are emerging each year.[315-316]

Interventions for dementia caregivers that have demonstrated efficacy in scientific evaluations have been gradually implemented in the community.[317-328] These implementation efforts are generally successful at improving how caregiver services are delivered, and they have the potential to reach a large number of families while also helping caregivers cope with their responsibilities. Similar efforts have attempted to broaden the reach and accessibility of interventions for dementia caregivers through the use of technologies (for instance, video-phone delivery and online training) and have shown some success.[329-331] However, more work is needed to ensure that interventions for dementia caregivers are available and accessible to those who need them. Because caregivers and the settings in which they provide care are diverse, more studies are required to define which interventions are most effective for specific situations.[332-334] Improved tools to "personalize" services for caregivers to maximize their benefits represent an emerging area of research.[335-338] More studies are also needed to explore the effectiveness of interventions in different racial, ethnic and socioeconomic groups and in various geographic settings.[330,339-345]

Paid Caregivers

Direct Care Workers for People with Alzheimer's or Other Dementias

Direct-care workers, such as nurse aides, home health aides and personal and home care aides, provide most of the paid long-term care to older adults living at home or in residential settings.[346] In nursing homes, nursing assistants make up the majority of staff who work with cognitively impaired residents.[347-349] Nursing assistants help with bathing,

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TABLE 9

Type and Focus of Caregiver Interventions

Type of Intervention	Description
Case management	Provides assessment, information, planning, referral, care coordination and/or advocacy for family caregivers.
Psychoeducational approaches	Include a structured program that provides information about the disease, resources and services, and about how to expand skills to effectively respond to symptoms of the disease (that is, cognitive impairment, behavioral symptoms and care-related needs). Include lectures, discussions and written materials and is led by professionals with specialized training.
Counseling	Aims to resolve pre-existing personal problems that complicate caregiving to reduce conflicts between caregivers and care recipients and/or improve family functioning.
Support groups	Less structured than psychoeducational or psychotherapeutic interventions, support groups provide caregivers the opportunity to share personal feelings and concerns to overcome feelings of social isolation.
Respite	Provides planned, temporary relief for the caregiver through the provision of substitute care; examples include adult day services and in-home or institutional respite for a certain number of weekly hours.
Psychotherapeutic approaches	Involve the establishment of a therapeutic relationship between the caregiver and a professional therapist (for example, cognitive-behavioral therapy for caregivers to focus on identifying and modifying beliefs related to emotional distress, developing new behaviors to deal with caregiving demands, and fostering activities that can promote caregiver well-being).
Multicomponent approaches	Are characterized by intensive support strategies that combine multiple forms of interventions, such as education, support and respite into a single, long-term service (often provided for 12 months or more).

Created from data from Pinquart et al. and Sörensen et al.[252-263]

dressing, housekeeping, food preparation and other activities. Most nursing assistants are women, and they come from increasingly diverse ethnic, racial and geographic backgrounds.

Direct-care workers have difficult jobs, and they may not receive the training necessary to provide dementia care.[348,350] One review found that direct-care workers received, on average, 75 hours of training and that this training included little focus on issues specific or pertinent to dementia care.[348] Turnover rates are high among direct-care workers, and recruitment and retention are persistent challenges.[351] Inadequate education and challenging work environments have also contributed to higher turnover rates among nursing staff across care environments.[352] Studies have shown that staff training programs to improve the quality of dementia care in nursing homes and hospitals have modest benefits.[350,353-357]

Shortage of Geriatric Health Care Professionals in the United States

Professionals who may receive special training in caring for older adults include physicians, nurse practitioners, registered nurses, social workers, pharmacists, physician assistants and case workers.[351] It is estimated that the United States has approximately half the number of certified geriatricians that it currently needs.[358] As of 2014, there were 7,428 certified geriatricians and 1,629 geriatric psychiatrists in the United States, or one geriatrician and one geriatric psychiatrist for every 2,526 and 11,526 Americans age

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75 or older, respectively.[359] The American Geriatrics Society estimates that, due to the increase in older Americans and the stagnation in the number of new geriatric professionals trained in the past decade, this differential will increase to one geriatrician and one geriatric psychiatrist for every 4,484 and 20,448 older Americans, respectively, by 2030.[359] Less than 1 percent of registered nurses, physician assistants and pharmacists identify themselves as specializing in geriatrics.[351] Similarly, although 73 percent of social workers serve clients age 55 and older, only 4 percent have formal certification in geriatric social work.[351] Furthermore, the overall aging of the long-term care workforce may affect the number of paid caregivers.[352]

Enhancing Health Care for Family Caregivers

There is a growing consensus that primary care providers of people with Alzheimer's should acknowledge the presence of caregivers and assess their well-being to improve the overall management of the person with dementia.[360-363] Recognizing that the complex care challenges of people with dementia also require interprofessional collaboration and education,[363-365] ongoing efforts have attempted to integrate innovative care management practices with traditional primary care for people with dementia.[366-369] One example involves a skilled professional who serves as the care "manager" of the person with dementia. The care manager collaborates with primary care physicians and nurse practitioners to develop personalized care plans. These plans can provide support to family caregivers, help people with dementia manage care transitions (for example, a change in care provider or site of care), and ensure the person with dementia has access to appropriate community-based services. Other models include addressing the needs of family caregivers simultaneously with comprehensive disease management of the care recipient to improve the quality of life of both family caregivers and people with dementia in the community.[370] Several evaluations have suggested that such approaches have considerable potential for improving outcomes for people with dementia and their family caregivers (for example, delayed nursing home admission and reduction in caregiver distress).[371-375] Current research is attempting to determine the feasibility of these models beyond the specialty settings in which they currently operate.[376-377]

In 2016, the National Academies of Sciences, Engineering, and Medicine released *Families Caring for an Aging America*, a seminal report that includes a number of recommendations to refocus national health care reform efforts from models of care that center on the patient (person-centered care) to models of care that also explicitly engage and support the patient's family (person- and family-centered care).[378] These service models recognize the important role family members play in providing care and incorporate family caregivers during the delivery of health care to relatives with dementia. Furthermore, these models encourage health care providers to deliver evidence-based services and support to both caregivers and care recipients.[378-379]

USE AND COSTS OF HEALTH CARE, LONG-TERM CARE AND HOSPICE

$259 billion

2017 marks the first year total annual payments for caring for individuals living with Alzheimer's or other dementias will surpass a quarter of a trillion dollars.

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The costs of health care and long-term care for individuals with Alzheimer's or other dementias are substantial, and dementia is one of the costliest conditions to society.[237] Total payments in 2017 (in 2017 dollars) for all individuals with Alzheimer's or other dementias are estimated at $259 billion (Figure 11). Medicare and Medicaid are expected to cover $175 billion, or 67 percent, of the total health care and long-term care payments for people with Alzheimer's or other dementias. Out-of-pocket spending is expected to be $56 billion, or 22 percent of total payments.[A21] Throughout the rest of this section, all costs are reported in 2016 dollars unless otherwise indicated.[A22]

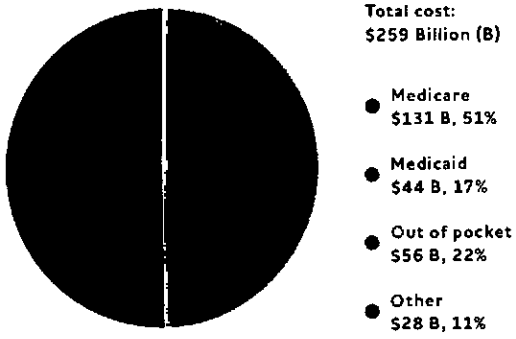
Total Cost of Health Care and Long-Term Care

Table 10 (see page 48) reports the average annual per-person payments for health care and long-term care services for Medicare beneficiaries age 65 and older with and without Alzheimer's or other dementias. Total per-person health care and long-term care payments in 2016 from all sources for Medicare beneficiaries with Alzheimer's or other dementias were over three times as great as payments for other Medicare beneficiaries in the same age group ($46,786 per person for those with dementia compared with $13,351 per person for those without dementia).[A23,380]

Twenty-seven percent of older individuals with Alzheimer's or other dementias who have Medicare also have Medicaid coverage, compared with 11 percent of individuals without dementia.[380] Medicaid pays for nursing home and other long-term care services for some people with very low income and low assets, and the high use of these services by people with dementia translates into high costs for the Medicaid program. Average annual Medicaid payments per person for Medicare beneficiaries with Alzheimer's or other dementias ($8,182) were 23 times as great as average Medicaid payments for Medicare beneficiaries without Alzheimer's or other dementias ($349) (Table 10).[380]

FIGURE 11

Aggregate Cost of Care by Payment Source for Americans Age 65 and Older with Alzheimer's and Other Dementias, 2017*



*Data are in 2017 dollars.

Created from data from the Lewin Model.[A21] "Other" payment sources include private insurance, health maintenance organizations, other managed care organizations and uncompensated care.

Despite these and other sources of financial assistance, individuals with Alzheimer's or other dementias still incur high out-of-pocket costs. These costs are for Medicare and other health insurance premiums and for deductibles, copayments and services not covered by Medicare, Medicaid or additional sources of support. On average, Medicare beneficiaries age 65 and older with Alzheimer's or other dementias paid $10,315 out of pocket annually for health care and long-term care services not covered by other sources (Table 10).[380]

Researchers have evaluated the additional or "incremental" health care, long-term care and caregiving costs of dementia (that is, the costs specifically attributed to dementia when comparing people with and without dementia who have the same coexisting medical conditions and demographic characteristics).[237,381] One group of researchers found that the incremental health care and nursing home costs for those with dementia were $28,501 per person per year in 2010 dollars ($32,924 in 2016 dollars).[A22,A24,237] Another group of researchers found that the incremental lifetime cost of

TABLE 10

Average Annual Per-Person Payments for Health Care and Long-Term Care Services, Medicare Beneficiaries Age 65 and Older, with and without Alzheimer's or Other Dementias, in 2016 Dollars

Payment Source	Beneficiaries with Alzheimer's or Other Dementias	Beneficiaries without Alzheimer's or Other Dementias
Medicare	$23,497	$7,223
Medicaid	8,182	349
Uncompensated	364	365
Health maintenance organization	1,205	1,475
Private insurance	2,152	1,358
Other payer	895	231
Out of pocket	10,315	2,232
Total*	**$46,786**	**$13,351**

*Payments from sources do not equal total payments exactly due to the effect of population weighting. Payments for all beneficiaries with Alzheimer's and other dementias include payments for community-dwelling and facility-dwelling beneficiaries.

Created from unpublished data from the Medicare Current Beneficiary Survey for 2011.[350]

Alzheimer's dementia was substantially higher for women than men, due to a greater lifetime risk of developing Alzheimer's dementia.[382] Additionally, because women are more likely to be widowed and living in poverty, the incremental Medicaid costs associated with Alzheimer's dementia were 70 percent higher for women than men.

Other researchers compared end-of-life costs for individuals with and without dementia and found that the total cost in the last 5 years of life was $287,038 per person in 2010 dollars for people with dementia and $183,001 per person without dementia but with other conditions ($341,651 and $217,820 respectively, in 2016 dollars), a difference of 57 percent.[383] Additionally, out-of-pocket costs represented a substantially larger proportion of total wealth for those with dementia than for people without dementia (32 percent versus 11 percent).

Use and Costs of Health Care Services

Use of Health Care Services

People with Alzheimer's or other dementias have twice as many hospital stays per year as other older people.[188] Moreover, the use of health care services by people with other serious medical conditions is strongly affected by the presence or absence of dementia. In particular, people with coronary artery disease, diabetes, chronic kidney disease, chronic obstructive pulmonary disease (COPD), stroke or cancer who also have Alzheimer's or other dementias have higher use and costs of health care services than people with these medical conditions but no coexisting dementia.

In addition to having more hospital stays, older people with Alzheimer's or other dementias have more skilled nursing facility stays and home health care visits than other older people.

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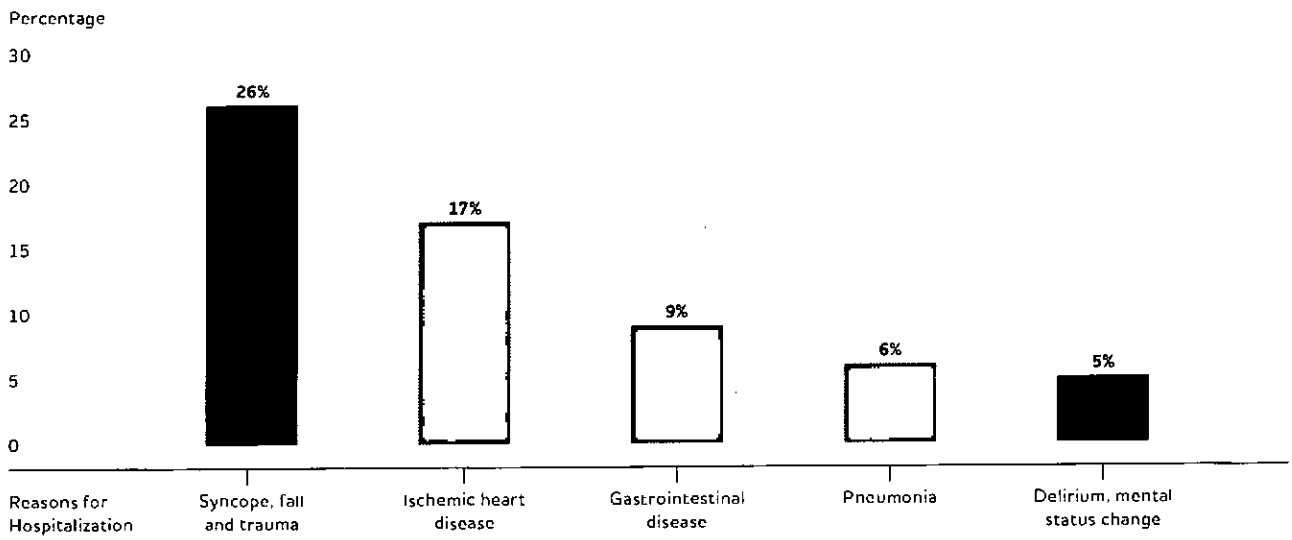
FIGURE 12

Reasons for Hospitalization of Individuals with Alzheimer's Dementia: Percentage of Hospitalized Individuals by Admitting Diagnosis*



*All hospitalizations for individuals with a clinical diagnosis of probable or possible Alzheimer's were used to calculate percentages. The remaining 37 percent of hospitalizations were due to other reasons.

Created from data from Rudolph et al.[385]

- Hospital. There are 538 hospital stays per 1,000 Medicare beneficiaries age 65 and older with Alzheimer's or other dementias compared with 266 hospital stays per 1,000 Medicare beneficiaries age 65 and older without these conditions.[188a] A person with dementia in 2012 had, on average, 22.5 inpatient days — defined as days in a hospital or skilled nursing facility — compared with 4.6 days for the Medicare population as a whole.[384] The most common reasons for hospitalization of people with Alzheimer's dementia are syncope (fainting), fall and trauma (26 percent); ischemic heart disease (17 percent); and gastrointestinal disease (9 percent) (Figure 12).[385] In a study of inpatient hospitalizations of adults age 60 and older, those with Alzheimer's were at 7 percent greater risk of dying during the hospital stay and stayed nearly a day longer than individuals without Alzheimer's dementia.[386]
- Skilled nursing facility. Skilled nursing facilities provide direct medical care that is performed or supervised by registered nurses, such as giving intravenous fluids, changing dressings and administering tube feedings.[387] There are 283 skilled nursing facility stays per 1,000 beneficiaries with Alzheimer's or other dementias compared with 73 stays per 1,000 beneficiaries for people without these conditions — a rate nearly four times as great.[188]
- Home health care. Twenty-five percent of Medicare beneficiaries age 65 and older with Alzheimer's or other dementias have at least one home health care visit during the year, compared with 10 percent of Medicare beneficiaries age 65 and older without Alzheimer's or other dementias.[188]

Costs of Health Care Services

Average per-person payments for health care services (hospital, physician and other medical provider, nursing home, skilled nursing facility, hospice and home health care) and prescription medications were higher for Medicare beneficiaries with Alzheimer's or other dementias than for other Medicare beneficiaries in the same age group (Table 11, see page 50).[380]

TABLE 11

Average Annual Per-Person Payments for Health Care and Long-Term Care Services Provided to Medicare Beneficiaries Age 65 and Older, with and without Alzheimer's or Other Dementias, in 2016 Dollars

Service	Beneficiaries with Alzheimer's or Other Dementias	Beneficiaries without Alzheimer's or Other Dementias
Inpatient hospital	$10,415	$3,364
Medical provider*	6,031	3,757
Skilled nursing facility	6,547	448
Nursing home	14,999	726
Hospice	1,966	149
Home health care	2,461	357
Prescription medications†	3,318	2,846

*"Medical provider" includes physician, other medical provider and laboratory services, and medical equipment and supplies.

†Information on payments for prescription medications is only available for people who were living in the community, that is, not in a nursing home or assisted living facility.

Created from unpublished data from the Medicare Current Beneficiary Survey for 2011.[380]

Use and Costs of Health Care Services Across the Spectrum of Cognitive Impairment

Health care costs increase with the presence of dementia. In a population-based study of adults ages 70 to 89 in Olmsted County, Minnesota, annual health care costs were significantly higher for individuals with newly diagnosed dementia and existing dementia than for those with normal cognition, and significantly higher for individuals with existing dementia than those with mild cognitive impairment (MCI).[388] Annual health care costs for individuals with MCI were not significantly different, however, from costs for individuals with normal cognition.

Several groups of researchers have found that health care and prescription drug spending is significantly higher in the year prior to diagnosis[389-391] and two years prior to diagnosis[392] compared with otherwise similar individuals not diagnosed with Alzheimer's or another dementia, although there is less agreement about the sources of increased spending. In one study, the largest differences were in inpatient and post-acute care,[390] while in another study the differences in spending were primarily due to outpatient care, home care and medical day services.[391] In a third study, the differences were due to home health care, skilled nursing care and durable medical equipment.[392] Two groups of researchers have found that spending in the year after diagnosis continued to be higher than for individuals not diagnosed with the disease, ranging from $9,333 in 2011 dollars ($10,781 in 2016 dollars)[389] to $17,852 in 2014 dollars ($18,961 in 2016 dollars).[390] One group of researchers found no difference in health care spending in the two years after diagnosis.[392] Researchers have found that time to Alzheimer's dementia diagnosis after the earliest diagnosis of cognitive decline was shorter for individuals whose cognitive impairment was diagnosed by a specialist (that is, neurologist, psychiatrist or geriatrician) than those diagnosed by a non-specialist. Additionally, individuals diagnosed with cognitive impairment by a specialist had lower Medicare costs in the year after receiving a diagnosis of Alzheimer's dementia than those diagnosed by a non-specialist.[393] While more research is needed to understand the underlying causes of increased use of health care services immediately prior to and after receiving a diagnosis of Alzheimer's dementia, it may be attributed to care for disability and injuries, such as falls, that might result from the early stage of the disease;[394] treatments related to cognitive impairment or coexisting medical conditions; the timing of receiving an Alzheimer's diagnosis; and costs of diagnostic procedures.

Impact of Alzheimer's and Other Dementias on Use and Costs of Health Care in People with Coexisting Medical Conditions

Medicare beneficiaries with Alzheimer's or other dementias are more likely than those without dementia to have other chronic conditions.[388] While 26 percent of Medicare beneficiaries age 65 and older with Alzheimer's or other dementias have five

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TABLE 12

Specific Coexisting Medical Conditions Among Medicare Beneficiaries Age 65 and Older with Alzheimer's or Other Dementias, 2013

Coexisting Condition	Percentage of Beneficiaries with Alzheimer's or Other Dementias Who Also Had a Coexisting Medical Condition
Coronary artery disease	38
Diabetes	37
Chronic kidney disease	29
Congestive heart failure	28
Chronic obstructive pulmonary disease	25
Stroke	22
Cancer	13

Created from unpublished data from the National 5% Sample Medicare Fee-for-Service Beneficiaries for 2013.[188]

or more chronic conditions (including Alzheimer's or other dementias), only 3.8 percent of Medicare beneficiaries without Alzheimer's or other dementias have five or more chronic conditions.[188] Table 12 reports the proportion of people with Alzheimer's or other dementias who have certain coexisting medical conditions. In 2013, 38 percent of Medicare beneficiaries age 65 and older with dementia also had coronary artery disease, 37 percent also had diabetes, 29 percent also had chronic kidney disease, 28 percent also had congestive heart failure and 25 percent also had chronic obstructive pulmonary disease.[188]

Medicare beneficiaries who have Alzheimer's or other dementias and a serious coexisting medical condition have higher average per-person payments for most health care services than Medicare beneficiaries who have the same medical condition without dementia. Table 13 (see page 52) shows the average per-person Medicare payments for seven specific medical conditions among beneficiaries who have Alzheimer's or other dementias and beneficiaries who do not have Alzheimer's.[188] Medicare beneficiaries with Alzheimer's or other dementias had higher average per-person payments in all categories except hospital care payments for individuals with congestive heart failure.

Use and Costs of Long-Term Care Services

An estimated 58 percent of older adults with Alzheimer's or other dementias live in the community, compared with 98 percent of older adults without Alzheimer's or other dementias.[380] Of those with dementia who live in the community, 75 percent live with someone and the remaining 25 percent live alone.[380] As their disease progresses, people with Alzheimer's or other dementias generally receive more care from family members and other unpaid caregivers. Many people with dementia also receive paid services at home; in adult day centers, assisted living facilities or nursing homes; or in more than one of these settings at different times during the often long course of the disease. The average costs of these services are high (assisted living: $43,539 per year[395] and nursing home care: $82,125 to $92,378 per year),[395] and Medicaid is the only public program that covers the long nursing home stays that most people with dementia require in the late stages of their illnesses.

Use of Long-Term Care Services by Setting

Most people with Alzheimer's or other dementias who live at home receive unpaid help from family members and friends, but some also receive paid home- and community-based services, such as personal care and adult day care. A study of older people who needed help to perform daily activities — such as dressing, bathing, shopping and managing money — found that those who also had cognitive impairment were more than twice as likely as those who did not have cognitive impairment to receive paid home care.[396] In addition, those who had cognitive impairment and received paid services used almost twice as many hours of care monthly as those who did not have cognitive impairment.[396]

People with Alzheimer's or other dementias make up a large proportion of all elderly people who receive adult day services and nursing home care.

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TABLE 13

Average Annual Per-Person Payments by Type of Service and Coexisting Medical Condition for Medicare Beneficiaries Age 65 and Older, with and without Alzheimer's or Other Dementias, in 2016 Dollars*

Medical Condition by Alzheimer's/Dementia (A/D) Status	Average Per-Person Medicare Payment					
	Total Medicare Payments	Hospital Care	Physician Care	Skilled Nursing Facility Care	Home Health Care	Hospice Care
Coronary artery disease						
With A/D	$26,223	$7,853	$2,199	$4,386	$2,343	$3,092
Without A/D	16,366	5,656	1,565	1,410	971	374
Diabetes						
With A/D	25,385	7,472	2,154	4,242	2,267	2,590
Without A/D	14,014	4,681	1,380	1,225	844	255
Congestive heart failure						
With A/D	28,773	8,825	2,310	4,794	2,455	3,452
Without A/D	24,412	8,960	2,075	2,596	1,742	807
Chronic kidney disease						
With A/D	28,002	8,457	2,255	4,666	2,319	3,075
Without A/D	20,077	6,989	1,779	1,883	1,201	473
Chronic obstructive pulmonary disease						
With A/D	27,797	8,481	2,283	4,624	2,399	3,189
Without A/D	18,962	6,792	1,725	1,749	1,201	602
Stroke						
With A/D	26,608	7,751	2,177	4,564	2,254	3,199
Without A/D	19,169	6,305	1,753	2,294	1,455	605
Cancer						
With A/D	25,207	7,352	2,109	3,934	2,074	2,862
Without A/D	15,987	4,833	1,447	1,050	692	484

*This table does not include payments for all kinds of Medicare services, and as a result the average per-person payments for specific Medicare services do not sum to the total per-person Medicare payments.

Created from unpublished data from the National 5% Sample Medicare Fee-for-Service Beneficiaries for 2014.[188]

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- Adult day services. Thirty-two percent of individuals using adult day services have Alzheimer's or other dementias,[397] and 73 percent of adult day service programs offer specific programs for individuals with Alzheimer's or other dementias.[398]
- Assisted living. Forty-two percent of residents in assisted living facilities (that is, housing that includes services to assist with everyday activities, such as medication management and meals) had Alzheimer's or other dementias in 2010.[399] Forty percent of residents in residential care facilities, including assisted living facilities, have Alzheimer's or other dementias.[400] Small residential care facilities (4 to 25 beds) have a larger proportion of residents with Alzheimer's or other dementias than larger facilities (47 percent in facilities with 4 to 25 beds compared with 42 percent in facilities with 26 to 50 beds and 37 percent in facilities with more than 50 beds).[400] Fifty-eight percent of residential care facilities offer programs for residents with Alzheimer's or other dementias.[401]
- Nursing home care. Sixty-one percent of nursing home residents in 2014 had moderate or severe cognitive impairment.[402] Nursing home admission by age 80 is expected for 75 percent of people with Alzheimer's dementia compared with only 4 percent of the general population.[218]
- Alzheimer's special care units. An Alzheimer's special care unit is a dedicated unit in a nursing home that has tailored services for individuals with Alzheimer's or other dementias. Nursing homes had a total of 73,742 beds in Alzheimer's special care units in 2014, a decrease of 3 percent from the previous year.[403-404] These Alzheimer's special care unit beds accounted for just 4 percent of all nursing home beds, despite 61 percent of nursing home residents having moderate or severe cognitive impairment.

Long-Term Care Services Provided at Home and in the Community

Nationally, state Medicaid programs are shifting long-term care services from institutional care to home- and community-based services as a means to both reduce unnecessary costs and meet the growing demand for these services by older adults. The federal and state governments share the management and funding of the program, and states differ greatly in the services covered by their Medicaid programs. Spending on home care for Medicare beneficiaries with Alzheimer's or other dementias nearly doubled between 2004 and 2011, although increases in spending may be due to a variety of factors, including more people being diagnosed with Alzheimer's dementia, more people using home care, more intensive use of home care service and an increase in Medicaid coverage by older adults.[380,405] In 2014, home- and community-based services represented the majority (53 percent) of Medicaid spending on long-term services and supports, with the remaining 47 percent for institutional care.[406] More research is needed, however, to understand the extent to which home- and community-based services meet the needs of individuals with Alzheimer's or other dementias.

Transitions Between Care Settings

A recent research study demonstrated that individuals with dementia often move between a nursing facility, hospital and home, rather than remaining solely in a nursing facility.[407] In this longitudinal study of primary care patients with dementia, researchers found that those discharged from a nursing facility were nearly equally as likely to be discharged home (39 percent) as discharged to a hospital (44 percent). Individuals with dementia may also transition between a nursing facility and hospital or between a nursing facility, home and hospital, creating challenges for caregivers and providers to ensure that care is coordinated across settings. Other research has shown that nursing home residents frequently have burdensome transitions at the end of life, including admission to an intensive care unit in the last month of life, late enrollment in hospice and receipt of a feeding tube.[408] The number of care transitions for nursing home residents with advanced cognitive impairment varies substantially across geographic regions of the United States.[409]

Costs of Long-Term Care Services

Long-term care services include home- and community-based services, assisted living and nursing home care. The following estimates are for all users of these services.

- Home care. The median cost for a paid non-medical home health aide is $20 per hour and $127 per day.[395] Home care costs have increased by 1.3 percent annually over the past 5 years.
- Adult day centers. The median cost of adult day services is $68 per day.[395] The cost of adult day services has increased by 2.5 percent annually over the past 5 years. Ninety-five percent of adult day centers provide care for people with Alzheimer's or other dementias, and 2 percent of these centers charged an additional fee for these clients in 2012.[410]
- Assisted living facilities. The median cost for care in an assisted living facility is $3,628 per month, or $43,539 per year.[395] The cost of assisted living has increased 2.2 percent annually over the past 5 years.
- Nursing homes. The average cost for a private room in a nursing home is $253 per day, or $92,378 per year. The average cost of a semi-private room in a nursing home is $225 per day, or $82,125 per year.[395] The cost of nursing home care has increased by 3.5 percent and 3.1 percent annually over the past 5 years for a private and semi-private room, respectively.

Affordability of Long-Term Care Services

Few individuals with Alzheimer's or other dementias have sufficient long-term care insurance or can afford to pay out of pocket for long-term care services for as long as the services are needed.

- Income and asset data are not available for people with Alzheimer's or other dementias specifically, but 50 percent of Medicare beneficiaries have incomes of $24,150 or less and 25 percent have incomes of $14,350 or less (in 2014 dollars).[411]
- Fifty percent of Medicare beneficiaries had total savings of $63,350 or less (in 2014 dollars), 25 percent have savings of $11,900 or less, and 8 percent had no savings or were in debt. Median savings were substantially lower for African-American and Hispanic beneficiaries than for white Medicare beneficiaries.[411]

Long-Term Care Insurance

Long-term care insurance covers costs of long-term care services and supports in the home, in the community and in residential facilities. Long-term care insurance typically covers care provided in a nursing home, assisted living facility, and Alzheimer's special care facility, as well as community-based services such as adult day care and services provided in the home, including nursing care and help with personal care.[412] The 2016 Alzheimer's Association Family Impact of Alzheimer's Survey reported in *2016 Alzheimer's Disease Facts and Figures* found that among the more than 3,500 respondents, 28 percent believed that Medicare covered the cost of nursing home care for people with Alzheimer's and 37 percent did not know whether it covered the cost of nursing home care.[265] While Medicare covers care in a long-term care hospital, skilled nursing care in a skilled nursing facility and hospice care, it does not cover long-term care in a nursing home.[413]

Industry reports estimate that approximately 7.3 to 7.5 million Americans have long-term care insurance.[414-415] Enrollment in private long-term care insurance is more common for older adults with higher-than-average incomes. While only 8.8 percent of adults age 55 and older had long-term care insurance in 2008, 19 percent of those with incomes greater than $100,000 had coverage.[416] Private health and long-term care insurance policies funded only about 8 percent of total long-term care spending in 2013, representing $24.8 billion of the $310 billion total in 2013 dollars.[417] The private long-term care insurance market has consolidated since 2010. Five major insurance carriers either exited the market or substantially increased premiums, making policies unaffordable for many individuals.[418]

Medicaid Costs

Medicaid covers nursing home care and long-term care services in the community for individuals who meet program requirements for level of care, income and assets. To receive coverage, beneficiaries must have

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TABLE 14

Total Medicaid Costs for Americans Age 65 and Older Living with Alzheimer's or Other Dementias by State

State	2017 (in millions of dollars)	2025 (in millions of dollars)	Percentage Increase
Alabama	$797	$1,092	37.0
Alaska	59	107	82.5
Arizona	332	530	59.7
Arkansas	335	440	31.2
California	3,464	5,085	46.8
Colorado	526	765	45.3
Connecticut	880	1,151	30.8
Delaware	212	303	43.1
District of Columbia	115	131	13.7
Florida	2,279	3,347	46.9
Georgia	1,038	1,544	48.7
Hawaii	196	276	40.6
Idaho	129	190	47.8
Illinois	1,565	2,134	36.4
Indiana	913	1,196	30.9
Iowa	598	768	28.4
Kansas	403	526	30.7
Kentucky	685	920	34.3
Louisiana	658	905	37.6
Maine	187	266	42.1
Maryland	1,042	1,488	42.8
Massachusetts	1,550	1,970	27.1
Michigan	1,299	1,685	29.7
Minnesota	781	1,055	35.1
Mississippi	536	707	31.8
Missouri	843	1,102	30.7
Montana	$139	$197	41.8
Nebraska	310	398	28.5
Nevada	158	269	70.6
New Hampshire	225	325	44.6
New Jersey	1,887	2,534	34.3
New Mexico	177	270	52.4
New York	4,598	6,128	33.3
North Carolina	1,112	1,580	42.1
North Dakota	166	209	25.7
Ohio	2,242	2,851	27.2
Oklahoma	440	592	34.6
Oregon	222	308	38.6
Pennsylvania	3,236	3,907	20.7
Rhode Island	416	548	31.5
South Carolina	544	793	45.8
South Dakota	157	205	30.6
Tennessee	939	1,335	42.1
Texas	2,493	3,832	53.7
Utah	152	228	50.5
Vermont	98	142	44.3
Virginia	826	1,228	48.7
Washington	461	669	45.0
West Virginia	394	505	28.3
Wisconsin	687	897	30.6
Wyoming	71	108	52.1
U.S. Total	**$43,570**	$59,739	37.1

All cost figures are reported in 2017 dollars. State totals may not add to the U.S. total due to rounding.

Created from data from the Lewin Model.[421]

low incomes. Most nursing home residents who qualify for Medicaid must spend all of their Social Security income and any other monthly income, except for a very small personal needs allowance, to pay for nursing home care. Medicaid only makes up the difference if the nursing home resident cannot pay the full cost of care or has a financially dependent spouse. There is a general lack of knowledge about Medicaid coverage and long-term care. In a survey about the financial impact of Alzheimer's and other dementias on families, 36 percent of respondents mistakenly believed that Medicaid was long-term care insurance.[265] While Medicaid covers the cost of nursing home care, its coverage of many long-term care and support services, such as assisted living care, home-based skilled nursing care and help with personal care, varies by state.

Total Medicaid spending for people with Alzheimer's or other dementias is projected to be $44 billion in 2017 (in 2017 dollars).[A21] Estimated state-by-state Medicaid spending on people with Alzheimer's or other dementias in 2017 (in 2017 dollars) is included in Table 14 (see page 55). Total per-person Medicaid payments for Medicare beneficiaries age 65 and older with Alzheimer's or other dementias were 23 times as great as Medicaid payments for other Medicare beneficiaries.[380] Much of the difference in payments for beneficiaries with Alzheimer's or other dementias and other beneficiaries is due to the costs associated with long-term care (nursing homes and other residential care facilities, such as assisted living facilities) and the greater percentage of people with dementia who are eligible for Medicaid.

Use and Costs of Care at the End of Life

Hospice care provides medical care, pain management and emotional and spiritual support for people who are dying, including people with Alzheimer's or other dementias. Hospice care also provides emotional and spiritual support and bereavement services for families of people who are dying. The main purpose of hospice is to allow individuals to die with dignity and without pain and other distressing symptoms that often accompany terminal illness. Individuals can receive hospice care in their homes, assisted living residences or nursing homes. Medicare is the primary source of payment for hospice care, but private insurance, Medicaid and other sources also pay for hospice care.

In 2014, 20 percent of Medicare beneficiaries admitted to hospice had a primary diagnosis of dementia, including Alzheimer's dementia (Table 15)[419], compared with 17 percent in 2009.[420] Dementia was the second most common primary diagnosis for Medicare beneficiaries admitted to hospice overall, with cancer being the most common primary diagnosis. For all Medicare beneficiaries admitted to hospice, the average length of stay was 69 days in 2014, with 27 percent having a stay of seven or fewer days in hospice. While average length of stay for hospice beneficiaries by primary diagnosis was not publicly reported for 2014, the average length of stay was 106 days for hospice beneficiaries with a primary diagnosis of Alzheimer's dementia and 92 days for hospice beneficiaries with non-Alzheimer's dementia in 2009.[420] The average per-person hospice payment for Medicare beneficiaries with Alzheimer's dementia was $1,966 compared with $149 for all other Medicare beneficiaries.[380]

For Medicare beneficiaries with advanced dementia who receive skilled nursing facility care in the last 90 days of life, those who are enrolled in hospice are less likely to die in the hospital.[421] Additionally those enrolled in hospice care are less likely to be hospitalized in the last 30 days of life[422] and more likely to receive regular treatment for pain.[423-424] Nearly half of individuals with dementia die in hospice care.[425] Additionally, 19 percent of individuals with dementia receive hospice care in a given year, a higher percentage than for other chronic conditions.[188] Satisfaction with patient care is higher for families of individuals with dementia who are enrolled in hospice care than for those not enrolled in hospice care.[426]

Feeding Tube Use and Care Transitions at the End of Life

Individuals with frequent transitions between health care settings are more likely to have feeding tubes at the end of life, even though feeding tube placement has little or no benefit.[384] The odds of having a

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TABLE 15

Number of Medicare Beneficiaries Admitted to Hospice and Percentage with Dementia by State, 2014

State	Number of Beneficiaries	Percentage with a Primary Diagnosis of Dementia
Alabama	28,051	21
Alaska	732	22
Arizona	34,540	20
Arkansas	14,679	20
California	120,194	22
Colorado	18,465	17
Connecticut	13,827	20
Delaware	5,051	13
District of Columbia	1,383	17
Florida	114,869	18
Georgia	42,327	22
Hawaii	4,928	24
Idaho	7,759	19
Illinois	47,766	20
Indiana	29,262	18
Iowa	17,735	16
Kansas	13,655	20
Kentucky	16,458	15
Louisiana	21,787	23
Maine	6,442	20
Maryland	19,577	18
Massachusetts	26,544	25
Michigan	50,399	17
Minnesota	21,673	21
Mississippi	15,004	22
Missouri	31,250	18
Montana	4,069	16
Nebraska	7,975	23
Nevada	10,081	18
New Hampshire	5,256	21
New Jersey	32,148	22
New Mexico	8,976	19
New York	45,817	18
North Carolina	42,538	19
North Dakota	2,337	20
Ohio	65,314	20
Oklahoma	19,950	20
Oregon	19,214	19
Pennsylvania	65,878	19
Rhode Island	5,916	26
South Carolina	27,101	24
South Dakota	2,878	15
Tennessee	28,025	20
Texas	101,161	23
Utah	11,014	18
Vermont	2,270	16
Virginia	28,224	21
Washington	23,635	21
West Virginia	9,171	18
Wisconsin	27,688	19
Wyoming	1,121	9
U.S. Total	1,322,114	20

Created from data from the U.S. Centers for Medicare & Medicaid Services.[419]

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TABLE 16

Average Annual Per-Person Payments by Type of Service and Race/Ethnicity for Medicare Beneficiaries Age 65 and Older, with Alzheimer's or Other Dementias, 2014, in 2016 Dollars

	Total Medicare Payments per Person	Hospital Care	Physician Care	Skilled Nursing Facility Care	Home Health Care	Hospice Care
White	$19,734	$5,163	$1,611	$3,367	$1,695	$3,128
African-American	26,686	8,690	2,185	4,174	2,072	2,316
Hispanic	21,151	6,986	1,900	3,209	1,787	1,724
Other	25,675	7,858	2,137	3,362	3,671	2,549

Created from unpublished data from the National 5% Sample Medicare Fee-for-Service Beneficiaries for 2014.[188]

feeding tube inserted at the end of life vary across the country and are not explained by severity of illness, restrictions on the use of artificial hydration and nutrition, ethnicity or gender. Researchers found that feeding tube use was highest for people with dementia whose care was managed by a subspecialist physician or both a subspecialist and a general practitioner. By contrast, feeding tube use was lower among people with dementia whose care was managed by a general practitioner.[427-428] With the expansion of Medicare-supported hospice care, the use of feeding tubes in the last 90 days of life has decreased for individuals with Alzheimer's or other dementias.[429] Finally, with the increased focus on the lack of evidence supporting feeding tube use for people with advanced dementia, the proportion of nursing home residents receiving a feeding tube in the prior 12 months has decreased from nearly 12 percent in 2000 to less than 6 percent in 2014.[428]

Studies have demonstrated a decrease in the proportion of individuals with Alzheimer's dementia who die in an acute care hospital, with end-of-life care shifting to home and nursing homes.[425] Additionally, more than twice as many individuals with the disease were receiving hospice care at the time of death in 2009 than in 2000 (48 percent in 2009 versus 20 percent in 2000). Similarly, expansion of hospice care is also associated with fewer individuals with dementia having more than two hospitalizations for any reason or more than one hospitalization for pneumonia, urinary tract infection, dehydration or sepsis in the last 90 days of life.[429]

Use and Costs of Health and Long-Term Care Services by Race/Ethnicity

Among Medicare beneficiaries with Alzheimer's or other dementias, African-Americans had the highest Medicare payments per person, while whites had the lowest spending ($26,686 versus $19,734) (Table 16). The largest difference in spending is for hospital care, for which African-Americans spend 1.7 times more than whites ($8,690 versus $5,163).[188]

In a study of Medicaid beneficiaries with a diagnosis of Alzheimer's dementia that included both Medicaid and Medicare claims data, researchers found significant differences in the costs of care by race/ethnicity.[430] These results demonstrated that African-Americans had significantly higher costs of care than whites or Hispanics, primarily due to more inpatient care and more comorbidities. These differences may be attributable to later-stage diagnosis, which may lead to higher levels of disability while receiving care; delays in accessing timely primary care; lack of care coordination; and duplication of services across providers. However, more research is needed to understand the reasons for this health care disparity.

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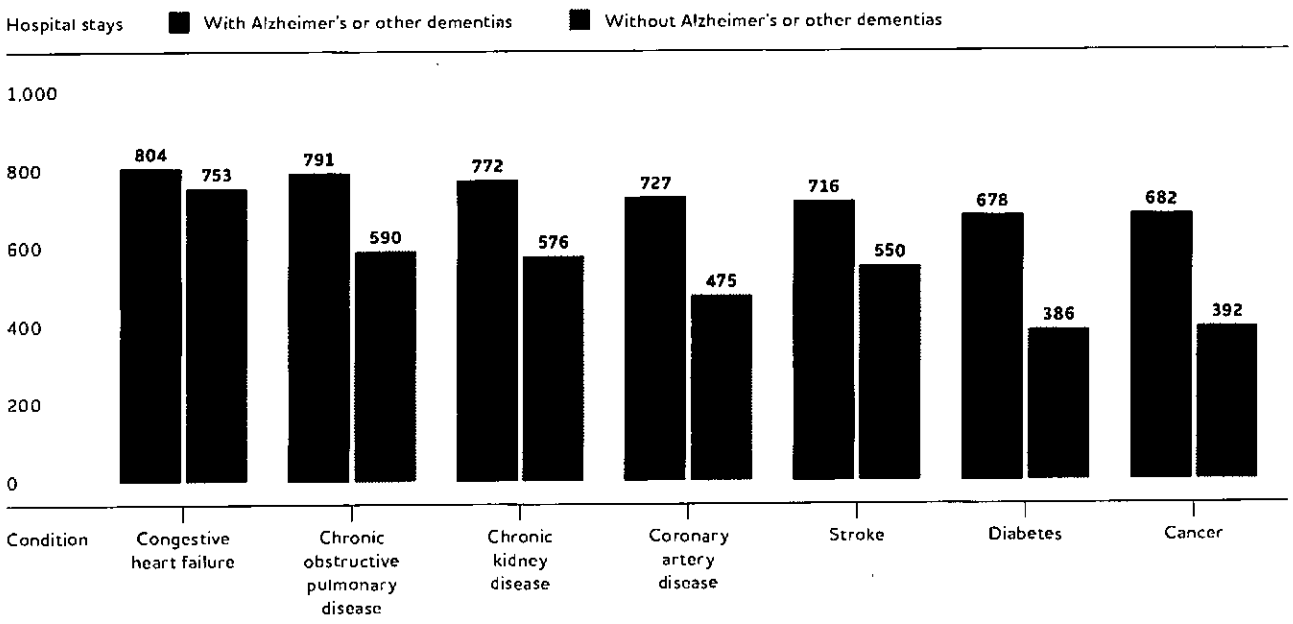
FIGURE 13

Hospital Stays per 1,000 Medicare Beneficiaries Age 65 and Older with Specified Coexisting Medical Conditions, with and without Alzheimer's or Other Dementias, 2014



Created from unpublished data from the National 5% Sample Medicare Fee-for-Service Beneficiaries for 2014.[388]

Avoidable Use of Health Care and Long-Term Care Services

Preventable Hospitalizations

Preventable hospitalizations are one common measure of health care quality. Preventable hospitalizations are hospitalizations for conditions that could have been avoided with better access to or quality of preventive and primary care. Based on data from the 2006 to 2008 Health and Retirement Study and from Medicare, preventable hospitalizations represented 25 percent of the total hospitalizations for individuals with Alzheimer's or other dementias.[431] The proportion was substantially higher, however, for African-Americans, Hispanics and individuals with low incomes. Hispanic older adults had the highest proportion of preventable hospitalizations (34 percent). Based on data from the 1998 to 2008 Health and Retirement Study and from Medicare, after controlling for demographic characteristics, clinical characteristics and health risk factors, individuals with dementia had a 1.3 times greater risk and individuals with depression and dementia had a 1.7 times greater risk of having a preventable hospitalization than those without dementia, cognitive impairment without dementia or depression.[432] Healthy People 2020, the U.S. Department of Health and Human Services' initiative to achieve 10-year goals for health promotion and disease prevention, has set a target to reduce preventable hospitalizations for people with Alzheimer's or other dementias by 10 percent by 2020.[431]

Medicare beneficiaries who have Alzheimer's or other dementias and a serious coexisting medical condition (for example, congestive heart failure) are more likely to be hospitalized than people with the same coexisting medical condition but without dementia (Figure 13).[388] One research team found that individuals hospitalized with heart failure are more likely to be readmitted or die after hospital discharge if they also have cognitive impairment.[433] Another research team found that Medicare beneficiaries with Alzheimer's or other dementias have more potentially

avoidable hospitalizations for diabetes complications and hypertension, meaning that the hospitalizations could possibly be prevented through proactive care management in the outpatient setting.[434]

Differences in health care use between individuals with and without dementia are most prominent for those residing in the community. Based on data from the Health and Retirement Study, community-residing individuals with dementia were more likely to have a potentially preventable hospitalization, an emergency department visit that was potentially avoidable, and/or an emergency department visit that resulted in a hospitalization.[435] For individuals residing in a nursing home, there were no differences in the likelihood of being hospitalized or having an emergency department visit.

Initiatives to Reduce Avoidable Health Care and Nursing Home Use

Recent research has demonstrated that two types of programs have potential for reducing avoidable health care and nursing home use, with one type of program focusing on the caregiver and the other focusing on the care delivery team. The Caregiving section (see pages 32-45) describes caregiver support programs that have promise for reducing unnecessary emergency department visits and hospitalizations and reducing transitions to residential care for individuals with Alzheimer's or other dementias. Additionally, collaborative care models — models that include not only geriatricians, but also social workers, nurses and medical assistants — can improve care coordination, thereby reducing health care costs associated with hospitalizations, emergency department visits and other outpatient visits.[373] For example, an interprofessional memory care clinic was shown to reduce per-person health care costs by $3,474 in 2012 dollars ($3,871 in 2016 dollars) over a year for individuals with memory problems compared with others whose care was overseen by a primary care provider only.[373] More than half of the cost savings was attributed to lower inpatient hospital costs. The program was relatively low cost per person, with an average annual cost of $618 ($689 in 2016 dollars) — a nearly 6-to-1 return on investment.

Another group of researchers found that individuals with dementia whose care was concentrated within a smaller number of clinicians had fewer hospitalizations and emergency department visits and lower health care spending overall, compared with individuals whose care was more dispersed across a larger number of clinicians.[436] More research is needed to understand whether continuity of care is a strategy for decreasing unnecessary health care use for people with Alzheimer's or other dementias.

Projections for the Future

Total annual payments for health care, long-term care and hospice care for people with Alzheimer's or other dementias are projected to increase from $259 billion in 2017 to more than $1.1 trillion in 2050 (in 2017 dollars). This dramatic rise includes more than four-fold increases both in government spending under Medicare and Medicaid and in out-of-pocket spending.[A21]

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SPECIAL REPORT — ALZHEIMER'S DISEASE: THE NEXT FRONTIER

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In the history of medicine, one means to progress is when we make the decision that our assumptions and definitions of disease are no longer consistent with the scientific evidence, and no longer serve our health care needs. The arc of scientific progress is now requiring a change in how we diagnose Alzheimer's disease. Both the National Institute on Aging – Alzheimer's Association (NIA-AA) 2011 workgroup and the International Work Group (IWG) have proposed guidelines that use detectable measures of biological changes in the brain, commonly known as biological markers, or biomarkers, as part of the diagnosis. This Special Report examines how the development and validation of Alzheimer's disease biomarkers — including those detectable in the blood or cerebral spinal fluid, or through neuroimaging — is a top research priority, and how this has the potential to markedly change how we diagnose Alzheimer's disease and, as a result, how we count the number of people with this disease. As research advances a biomarker-based method for diagnosis and treatment at the earliest stages of Alzheimer's disease, we envision a future in which Alzheimer's disease is placed in the same category as other chronic diseases, such as cardiovascular disease or diabetes, which can be readily identified with biomarkers and treated before irrevocable disability occurs.

Introduction

After Dr. Alois Alzheimer's 1906 case report of the disease that came to bear his name, for much of the 20th century, Alzheimer's disease was defined as an unusual cause of dementia in adults we now consider middle-aged.[1] "Senile dementia" was the diagnosis for the more common cause of dementia in individuals 65 and older. In 1976, Robert Katzman, M.D., made the case that these definitions should change.

Arguing that an age-based distinction between dementia due to Alzheimer's disease and senile dementia was neither scientifically nor medically sensible,[2] he used scientific data to conclude that the two conditions were in fact one and to call them both Alzheimer's disease. "Although further studies are clearly indicated, the fact remains that neither the clinician, the neuropathologist nor the electron microscopist can distinguish between the two disorders (Alzheimer's disease and senile dementia) except by the age of the patient."[2] His rationale was pragmatic — dementia at any age causes substantial personal, medical and economic burden.

Dr. Katzman's contribution that Alzheimer's disease was a cause of dementia across a wide age span was incorporated into diagnostic criteria published in 1984, known as the National Institute of Neurological and Communicative Disorders and Stroke and the Alzheimer's Disease and Related Disorders Association (now known as the Alzheimer's Association) Criteria, or NINCDS-ADRDA Criteria.[3] These criteria did not include biomarkers for the diagnosis of Alzheimer's disease.

Since Dr. Katzman's time, Alzheimer's science has made notable discoveries. Using certain biomarkers, we can now distinguish between Alzheimer's disease and other causes of dementia. In this sense, the arc of scientific progress is now requiring another change in how we diagnose Alzheimer's disease. Both the National Institute on Aging – Alzheimer's Association (NIA-AA) 2011 workgroup[4-6] and the International Work Group (IWG)[7-9] have proposed guidelines that use biomarkers as part of the diagnosis. The guidelines use biomarkers

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(such as brain imaging of amyloid plaques, changes in brain volume, and measures of tau and amyloid in spinal fluid) and clinical symptoms to define dementia caused by Alzheimer's disease, and also preclinical Alzheimer's and mild cognitive impairment (MCI) due to Alzheimer's.[10-19]

The science of Alzheimer's is the primary driver of this change. Drug interventions in people with Alzheimer's disease dementia have repeatedly reported negative results. Research shows points in the course of the disease when an intervention might effectively slow or even stop the disease. The Dominantly Inherited Alzheimer's Network (DIAN) study findings have shown brain changes starting 10 to 20 years before the onset of dementia symptoms in people genetically destined to get Alzheimer's disease.[20] Ongoing trials in this population are testing interventions at this pre-symptomatic point in an effort to delay or even prevent the onset of dementia symptoms. Other clinical trials (A4 Study, etc.) are testing interventions in people who do not have memory (cognitive) and thinking (functional) changes or these genes but do have measurable Alzheimer's biomarkers.[21]

The development and validation of biomarkers — including those detectable in the blood or cerebrospinal fluid, or through neuroimaging — may significantly change how we identify Alzheimer's disease and, as a result, how we estimate the number of people with this disease. This is important because Alzheimer's disease prevalence and incidence estimates are used to calculate other statistics, which are used to describe the scope of the Alzheimer's problem in the U.S., illustrate the need to combat the disease, and identify and allocate the resources needed to address it.

Rethinking Our Assumptions About Alzheimer's Disease

The U.S. has, since 2011, charted a national plan to address Alzheimer's disease. The first of the plan's five goals is to effectively treat and prevent the disease by 2025.[22] Researchers and those who translate research into clinical practice have reached a consensus: a core strategy to achieve this goal relies on studies testing

What are Biomarkers?

A biomarker, or biological marker, is a measurable indicator of some biological state or condition in the human body. Clinicians use biomarkers to diagnose the presence or absence of disease, assess the risk of developing a disease, or understand how a patient has responded to a treatment. For example, a high blood glucose level (blood sugar) may be diagnostic of diabetes and lowering that level can indicate the success of a prescribed diet or medication.

Researchers are investigating several promising biomarkers for Alzheimer's disease. These include, but are not limited to, the amount of accumulation of the proteins beta-amyloid and tau in the brain. These proteins can be measured using brain imaging or the levels in cerebrospinal fluid and blood. Another kind of biomarker is changes in brain size and activity.

Identifying and then validating biomarkers for Alzheimer's is critical. They will facilitate early diagnosis and treatment. Many researchers believe that early intervention — either at the mild cognitive impairment (MCI) stage or even before symptoms appear — offers the best chance of slowing or stopping the progression of Alzheimer's disease and therefore the best chance of preserving brain function.

Biomarkers also have an important role in the discovery of treatments. They enable researchers to identify which individuals to enroll in clinical trials to test new therapies. Biomarkers allow researchers to enroll those individuals with the brain changes that treatments target. (It's important to note that the most effective biomarker test or combination of tests may differ depending on the stage of the disease and other factors.) Biomarkers also allow researchers to monitor the effects of these treatments. The more a change in a biomarker maps onto the health of the patient, the better that biomarker is to assess whether a treatment is effective.

Research on new strategies for earlier diagnosis, including ongoing efforts to identify and validate biomarkers for Alzheimer's disease, is among the most active areas in Alzheimer's science.

drugs in persons who have biomarker confirmation of the presence of Alzheimer's disease.[23] Studies such as the A4 Study discussed above, as well as trials in persons with Alzheimer's disease dementia, are enrolling persons who have these biomarkers.[24,25]

This strategy aligns with approaches taken with other common diseases of aging, such as cardiovascular disease. Clinicians use measures of biological change, such as elevated levels of blood pressure or cholesterol, to diagnose and treat individuals. Their goal is to prevent the person from suffering another heart attack or worsening heart failure, or to prevent these problems from happening in the first place. Someday, clinicians may have a similar strategy to diagnose and treat Alzheimer's disease. They may use biological measures (biomarker-based) to diagnose and then prescribe treatments to these persons, treatments that trials have shown to either slow cognitive and functional decline or even prevent the onset of symptoms of dementia.

Alzheimer's related brain changes — amyloid plaques and tau tangles among others — contribute to the cognitive impairment observed in dementia due to Alzheimer's.[26-29] A clinically effective intervention that targets these brain changes will help to validate the disease as a continuum that begins before cognitive decline. This confirmation will change how we identify (and therefore estimate) individuals with Alzheimer's disease. It will alter the prevalence and incidence of the disease, just as the treatment of vascular disease has altered the prevalence of dementia among individuals with primarily vascular lesions.[30,31] As these events unfold, they compel us to plan for a future when Alzheimer's disease is defined using biomarkers alone, not symptoms. (See pages 67-68, "Determining the Incidence and Prevalence of Alzheimer's Disease.")

The Evolving Diagnosis of Alzheimer's Disease

Current methods of diagnosis do not conform to what we know about the disease. The 1984 NINCDS-ADRDA criteria for Alzheimer's disease defined it as a clinical disease caused by underlying brain changes.[3] The assumption was that an individual with an amnestic dementia would have Alzheimer's-related brain changes, namely amyloid plaques and tau neurofibrillary tangles, if the individual came to autopsy. Conversely, individuals without amnestic dementia would not have plaques or tangles at autopsy. This definition of Alzheimer's intertwines the signs and symptoms of dementia and the underlying brain changes.[3]

In the years that followed the adoption of those criteria, studies suggested that the clinical symptoms and underlying brain changes do not always align. Autopsy studies found that 10-30 percent of individuals who met NINCDS-ADRDA criteria for Alzheimer's disease did not have significant Alzheimer's-related brain changes (i.e., plaques and/or tangles). Instead, they had other (non-Alzheimer's) brain changes at autopsy.[32] Often Alzheimer's was mixed with non-Alzheimer's brain changes, such as cerebral infarctions or Lewy body disease, particularly in older individuals.[26,27,33] Furthermore, autopsy studies in individuals who were cognitively normal for their age found that roughly 30 percent had Alzheimer's-related brain changes at death.[34-36]

Over the past roughly two decades, biomarkers of Alzheimer's disease-related brain changes continued to be developed. They fit into two classes: (1) brain imaging of amyloid and tau buildup, and of brain volume and brain metabolism changes, and (2) measures of relevant proteins in spinal fluid.[10-19] These biomarkers illustrate or represent the presence of amyloid plaques, tau tangles and brain cell death or injury.[37] Studies have validated that biomarkers are indeed reliable measures of the relevant disease-related changes in the living brain.[38-44] These studies, like autopsy studies, also demonstrated that roughly one-third of individuals who meet NINCDS–ADRDA criteria for Alzheimer's disease do not have the required brain changes (and thus do not have Alzheimer's disease).[43-46] In addition, studies showed that roughly one-third of clinically normal older individuals do have Alzheimer's-related brain changes without the clinical symptoms.[43-45,47,48]

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Recognizing the potential for biomarkers, both the NIA-AA and the IWG have proposed that, when used alongside clinical criteria, biomarkers can increase the confidence that a diagnosis of dementia is or is not due to Alzheimer's disease.[4-9,49] Importantly, the NIA-AA also proposed that biomarkers could identify MCI as due either to Alzheimer's (called MCI due to Alzheimer's disease) or to other diseases.[5] The equivalent term for biomarker-positive individuals with MCI is prodromal Alzheimer's disease in the IWG criteria.

Further, the NIA-AA proposed that cognitively normal individuals with abnormal Alzheimer's biomarkers have preclinical Alzheimer's disease. If this is validated, then individuals who have no cognitive impairment but have Alzheimer's biomarkers have Alzheimer's disease.[4]

A biomarker-based diagnosis of Alzheimer's disease — one based on brain changes, not cognitive or functional changes — will change the incidence and prevalence of Alzheimer's.

The Prevalence and Incidence of Alzheimer's Disease in a New Era of Research

Today, we understand that Alzheimer's disease exists as a continuum beginning with a phase that may only be detectable through biomarkers, moving through the dementia stage. In the future, a biomarker-based diagnosis of Alzheimer's disease will impact the estimates of incidence and prevalence of Alzheimer's. It will add a population of individuals who are currently not included in estimates (people with Alzheimer's biomarkers but no dementia) and remove a population that currently is included (people with dementia but no Alzheimer's biomarkers).

The Alzheimer's Association *2017 Alzheimer's Disease Facts and Figures* reports the prevalence and incidence of Alzheimer's in the U.S. Among individuals age 65 and older, the prevalence in 2017 is estimated to be 5.3 million (one in 10 people age 65 and older or 10 percent have Alzheimer's dementia), and 480,000 people age 65 or older will develop Alzheimer's dementia in the U.S. in 2017 (further information can be found on pages 18-25).

Epidemiologists, demographers and biostatisticians will use these prevalence and incidence estimates to calculate other statistics, such as the numbers of people providing care and support for someone with the disease, the costs of care, and mortality. Clinicians, policy makers and organizations use these statistics to describe the size of the Alzheimer's problem in the U.S., to demonstrate the need to combat the disease, and to identify the resources needed to address it.

Validated Alzheimer's disease biomarkers will transform how study results are interpreted and change the messages and terms professionals and society use to talk about who has Alzheimer's disease and how big of a problem the disease poses.

To accurately answer the question, "What is the true prevalence and incidence of Alzheimer's disease?" we have to identify Alzheimer's disease in a way that is grounded in current science and makes sense to individuals, families, clinicians, researchers and health care policymakers. Looking ahead, a biologically-based Alzheimer's disease diagnosis will yield different prevalence and incidence figures than a diagnosis that uses only the severity of cognitive or functional impairment (either using *DSM* or NINCDS-ADRDA criteria). It will exclude individuals who have dementia but do not have the Alzheimer's biomarkers and thus do not have Alzheimer's disease. On the other hand, it will include individuals with MCI who have Alzheimer's biomarkers and therefore have Alzheimer's disease, a proportion that may, according to existing studies, be as high as 56 percent of persons with a diagnosis of MCI.[50,51] Even further in the future and with more research, it will also include people who do not have cognitive impairment but have Alzheimer's disease biomarkers.

Epidemiologic and related natural history studies that measure cognition in older adults and that want to estimate the prevalence and incidence of Alzheimer's disease will need to gather biomarker data from their participants. We should expect that these study results will further disrupt our understanding of the causes and trajectories of cognitive impairment. Studies that do not use these measures will not be able to accurately

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report the prevalence and incidence of Alzheimer's disease. (They can report on the clinical severity of cognitive impairment in a population using constructs such as dementia or mild cognitive impairment.)

It is possible that these biomarker measures will add to the burdens and risks encountered by research participants. This, in turn, may hinder study recruitment, retention and accessibility. Studies to assess why individuals might refuse to undergo biomarker measures, test interventions to change that decision, and discover messaging that motivates the intention to undergo biomarker testing will be essential to address this problem. Studies will likely benefit from collaborations among epidemiologists, bioethicists, clinicians, biomarker scientists and decision-scientists who interpret data and help make public health recommendations.

Conclusion

Even with scientific progress, a common question from the public has been, "What's the difference between Alzheimer's disease and dementia?" The NINCDS-ADRDA diagnostic criteria of 1984 aimed to help answer that question.[3] Alzheimer's disease is the most frequent cause of the dementia syndrome.

As dementia science has progressed, biomarker-based data have advanced our understanding of who has Alzheimer's disease as well as contributed to a more accurate clinical diagnosis of who has dementia due to Alzheimer's. Biomarker-based clinical criteria and future clinical trial data will continue to change our understanding of who has Alzheimer's disease, as improved diagnostic techniques will provide earlier identification of cognitive impairment, and of the brain changes that lead to it.

As with cardiovascular disease, we must care not just about those who have had a disease manifesting event, such as a heart attack, but everyone who has cardiovascular disease-related biological changes that precede the heart attack. All of these individuals represent the societal burden of cardiovascular disease.

Similarly, although we have known for years about the occurrence of dementia due to Alzheimer's, as a result of the recent use of biomarkers in studies, we have learned that a proportion of people previously thought to have cognitive impairment caused by Alzheimer's disease lack those biomarkers. The diagnosis of Alzheimer's disease will come to include the full spectrum of persons with Alzheimer's biomarkers, those who are symptomatic — with either dementia or MCI — and those who are still asymptomatic but have preclinical Alzheimer's disease. All individuals with biomarkers of Alzheimer's disease, including those with and without dementia symptoms, will represent the full disease burden.

Additional research and development of guidelines for the future use of biomarkers is urgently needed to optimize therapeutic strategies for this potentially much larger population of people with Alzheimer's disease. Successful validation of biomarkers will bring our definition of Alzheimer's disease in line with the remarkable advances we have seen in Alzheimer's research over the past decade. This latest research is now allowing us to envision a future in which Alzheimer's is no longer a disease leading to irrevocable cognitive and functional decline and death, but rather a chronic condition like cardiovascular disease, AIDS or some cancers that can often be managed with early intervention.

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Determining the Incidence and Prevalence of Alzheimer's Disease

Counting the incidence or prevalence of Alzheimer's disease or dementia due to Alzheimer's is complex. In the absence of registries akin to cancer registries or routine disease monitoring systems used to track infectious diseases, investigators must make a series of assumptions. These assumptions mean we are not so much counting as we are estimating the prevalence and incidence of Alzheimer's disease. Below, we review these assumptions, and why studies have arrived at different estimates.

The process begins with identifying a study population, usually a cohort of individuals in a given region. It could also be a representative sample in various regions. Next, investigators select a strategy to identify the cases of dementia due to Alzheimer's disease in that given population. Some studies have used a two-phase strategy that starts with a brief cognitive test administered to the total group of participants to identify potential cases (known as the screening phase of the survey), who are then more fully evaluated using the Alzheimer's disease diagnostic criteria.[52-56] Other studies fully evaluate a random sub-group from the total participants; still others fully evaluate the entire participating group.

A crucial methodological step to identify the individuals with Alzheimer's disease is the choice of diagnostic criteria that will be used in the study. Historically, studies have used a clinical diagnosis of the disease — that is, they counted people who had signs and symptoms of dementia. They have not included biomarkers as part of the criteria for the disease, nor have they excluded people with signs and symptoms of dementia but no biomarkers for Alzheimer's disease.

In most cases, the onset of dementia or dementia caused by Alzheimer's disease is gradual. It is therefore difficult in the early stages of the disease to assign a diagnosis of dementia. Consequently, investigators using brief cognitive tests face the error of mistakenly diagnosing someone as cognitively normal, and therefore without the disease, when in fact, the person is not normal; in other words, the error of false negatives, which can lead to an underestimate of prevalence and incidence. More recent studies, therefore, have abandoned brief screening tests. Instead, they either fully examine all participants in the sample or they fully examine a random sample of the study population.[54-56] Each of the design choices described above creates variability in who is selected for evaluation and, hence, as studies differ in these choices, there is variability in their respective prevalence estimates.

The Alzheimer's Association uses estimates for the prevalence and incidence of Alzheimer's disease modeled by the Chicago Health and Aging Project at Rush University Medical Center, called CHAP.[57,58] CHAP is a longitudinal, population-based study in a geographically defined area of Chicago with significant population diversity. It began in 1993 with a census of individuals age 65 or older using in-home interview and random sampling of participants for clinical evaluation for dementia due to Alzheimer's.[57]

CHAP researchers identify an individual living with Alzheimer's disease by detecting cognitive decline that then triggers a clinical assessment. The clinician uses the 1984 NINCDS-ADRDA criteria for the clinical diagnosis of Alzheimer's disease to determine if the dementia is caused

by Alzheimer's disease.[3] These criteria focus on dementia assessed by an interview with the participant and an informant, usually their partner or child (if available), and cognitive testing.[3]

CHAP uses newly diagnosed cases of Alzheimer's — incidence — to determine the prevalence. This is a notable feature. It minimizes missing cases of the disease whose symptoms are mild or even very mild.[57-59] Evaluation is repeated in 3-year cycles. Calculations of national and state-by-state prevalence figures as well as estimates of future prevalence are extrapolated from the CHAP data and incorporate age, sex and race: (1) risk of developing dementia due to Alzheimer's, (2) increased risk of mortality among those with dementia due to Alzheimer's, (3) U.S. mortality rates, (4) U.S. education levels, and (5) U.S. current and projected total population.[30] Since their first publication in 2003, CHAP produced updated estimates of prevalence in 2013 utilizing 2010 U.S. Bureau of Census population information.[58] The Association's *2017 Alzheimer's Disease Facts and Figures* prevalence estimates are reported from these data for U.S. residents age 65 or over.

Other U.S. based studies have measured either the prevalence or incidence of dementia. Two of note are the Health and Retirement Study-Alzheimer's Disease and Memory Study (HRS-ADAMS) — a nationally representative sample[30,60] — and the Framingham Heart Study (FHS) — a study of all-cause dementia over time in Framingham, Massachusetts.[61] HRS-ADAMS and FHS have consistently reported estimates that are lower than CHAP estimates.[30,60-62]

At a 2009 conference convened by the NIA and the Alzheimer's Association, researchers concluded that these discrepancies were mainly due to differences in diagnostic criteria, differences that reflect the study's different goals.[59] HRS-ADAMS defines a case using the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*) criteria for dementia, incorporating impairments in both cognition and function.[59,63] In addition, people exhibiting the symptoms of Alzheimer's disease are not counted as having Alzheimer's if they are determined to have vascular dementia. HRS-ADAMS focuses on the severity of disability, not the precision of the diagnosis of Alzheimer's disease, which is the goal of CHAP.[57, 60, 62] The Framingham Heart Study uses DSM criteria for dementia and the NINCDS-ADRDA criteria, an approach that achieves the goal of determining if a case of dementia is caused by Alzheimer's.[61]

The estimates from each of these studies are often discussed as different numbers measuring the same thing, a conclusion that destabilizes confidence that we can talk coherently about the prevalence of Alzheimer's disease. They are in fact different numbers because they are measuring different things in different populations using different means of identifying individuals with all-cause dementia and/or dementia due to Alzheimer's.[59] None of the studies referenced above used biomarkers in their estimates; inclusion of biomarkers would markedly alter estimates of the prevalence and incidence of Alzheimer's disease.

As research advances a biomarker-based strategy for detection and treatment at the earliest stages of Alzheimer's disease, ever more accurate estimates of the number of persons affected will be needed to understand the full extent of that burden. These estimates will very likely be greater than current estimates and will require appropriate, modernized research and public health strategies.

Special Report References

1. Alzheimer A, Stelzmann RA, Schnitzlein HN, Murtagh FR. An English translation of Alzheimer's 1907 paper, "Uber eine eigenartige Erkankung der Himrinde". Clin Anat 1995;8(6):429-31.
2. Lijtmaer H, Fuld PA, Katzman R. Letter: Prevalence and malignancy of Alzheimer disease. Arch Neurol 1976;33(4):304.
3. McKhann G, Drachman D, Folstein M, Katzman R, Price D, Stadlan EM. Clinical diagnosis of Alzheimer's disease: Report of the NINCDS-ADRDA Work Group under the auspices of Department of Health and Human Services Task Force on Alzheimer's Disease. Neurology 1984;34(7):939-44.
4. Sperling RA, Aisen PS, Beckett LA, Bennett DA, Craft S, Fagan AM, et al. Toward defining the preclinical stages of Alzheimer's disease: Recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 2011;7(3):280-92.
5. Albert MS, DeKosky ST, Dickson D, Dubois B, Feldman HH, Fox NC, et al. The diagnosis of mild cognitive impairment due to Alzheimer's disease: Recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 2011;7(3):270-9.
6. McKhann GM, Knopman DS, Chertkow H, Hyman BT, Jack CR Jr, Kawas CH, et al. The diagnosis of dementia due to Alzheimer's disease: Recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 2011;7(3):263-9.
7. Dubois B, Feldman HH, Jacova C, Cummings JL, Dekosky ST, Barberger-Gateau P, et al. Revising the definition of Alzheimer's disease: A new lexicon. Lancet Neurol 2010;9(11):1118-27.
8. Dubois B, Feldman HH, Jacova C, Dekosky ST, Barberger-Gateau P, Cummings J, et al. Research criteria for the diagnosis of Alzheimer's disease: Revising the NINCDS-ADRDA criteria. Lancet Neurol 2007;6(8):734-46.
9. Dubois B, Feldman HH, Jacova C, Hampel H, Molinuevo JL, Blennow K, et al. Advancing research diagnostic criteria for Alzheimer's disease: The IWG-2 criteria. Lancet Neurol 2014;13(6):614-29.
10. Blennow K. Cerebrospinal fluid protein biomarkers for Alzheimer's disease. NeuroRx 2004;1(2):213-25.
11. Blennow K, Hampel H. CSF markers for incipient Alzheimer's disease. Lancet Neurol 2003;2(10):605-13.
12. Blennow K, Wallin A, Agren H, Spenger C, Siegfried J, Vanmechelen E. Tau protein in cerebrospinal fluid: A biochemical marker for axonal degeneration in Alzheimer disease? Mol Chem Neuropathol 1995;26(3):231-45.
13. Fagan AM, Mintun MA, Mach RH, Lee SY, Dence CS, Shah AR, et al. Inverse relation between in vivo amyloid imaging load and cerebrospinal fluid Abeta42 in humans. Ann Neurol 2006;59(3):512-9.
14. Fagan AM, Roe CM, Xiong C, Mintun MA, Morris JC, Holtzman DM. Cerebrospinal fluid tau/beta-amyloid(42) ratio as a prediction of cognitive decline in nondemented older adults. Arch Neurol 2007;64(3):343-9.
15. van Harten AC, Smits LL, Teunissen CE, Visser PJ, Koene T, Blankenstein MA, et al. Preclinical AD predicts decline in memory and executive functions in subjective complaints. Neurology 2013;81(16):1409-16.
16. Tapiola T, Alafuzoff I, Herukka SK, Parkkinen L, Hartikainen P, Soininen H, et al. Cerebrospinal fluid {beta}-amyloid 42 and tau proteins as biomarkers of Alzheimer-type pathologic changes in the brain. Arch Neurol 2009;66(3):382-9.
17. Tapiola T, Overmyer M, Lehtovirta M, Helisalmi S, Ramberg J, Alafuzoff I, et al. The level of cerebrospinal fluid tau correlates with neurofibrillary tangles in Alzheimer's disease. NeuroReport 1997;8(18):3961-3.
18. Visser PJ, Verhey F, Knol DL, Scheltens P, Wahlund LO, Freund-Levi Y, et al. Prevalence and prognostic value of CSF markers of Alzheimer's disease pathology in patients with subjective cognitive impairment or mild cognitive impairment in the DESCRIPA study: A prospective cohort study. Lancet Neurol 2009;8(7):619-27.
19. Mattsson N, Zetterberg H, Hansson O, Andreasen N, Parnetti L, Jonsson M, et al. CSF biomarkers and incipient Alzheimer disease in patients with mild cognitive impairment. JAMA 2009;302(4):385-93.
20. Bateman RJ, Xiong C, Benzinger TL, Fagan AM, Goate A, Fox NC, et al. Clinical and biomarker changes in dominantly inherited Alzheimer's disease. N Engl J Med 2012;367(9):795-804.
21. Sperling RA, Rentz DM, Johnson KA, Karlawish J, Donohue M, Salmon DP, et al. The A4 Study: Stopping AD before symptoms begin? Sci Transl Med 2014;6(228):228fs13.
22. U.S. Department of Health and Human Services. National Plan to Address Alzheimer's Disease 2012. Available at: aspe.hhs.gov/national-plan-address-alzheimers-disease-and-other-napa-documents. Accessed January 18, 2017.
23. Kozauer N, Katz R. Regulatory innovation and drug development for early-stage Alzheimer's disease. N Engl J Med 2013;368(13):1169-71.
24. Honig LS, Aisen PS, Carrillo MC, Vellas B, Seimers ER. Expedition 3: A Phase 3 Trial of Solanezumab in Mild Dementia Due to Alzheimer's Disease. Available at: ctad-alzheimer.com/live-expedition-3-webcast. Accessed December 22, 2016.
25. Sevigny J, Suhy J, Chiao P, Chen T, Klein G, Purcell D, et al. Amyloid PET screening for enrichment of early-stage Alzheimer disease clinical trials: Experience in a phase 1b clinical trial. Alzheimer Dis Assoc Disord 2016;30(1):1-7.
26. Schneider JA, Arvanitakis Z, Bang W, Bennett DA. Mixed brain pathologies account for most dementia cases in community-dwelling older persons. Neurology 2007;69(24):2197-204.
27. Schneider JA, Arvanitakis Z, Leurgans SE, Bennett DA. The neuropathology of probable Alzheimer disease and mild cognitive impairment. Ann Neurol 2009;66(2):200-8.
28. Mormino EC, Betensky RA, Hedden T, Schultz AP, Amariglio RE, Rentz DM, et al. Synergistic effect of beta-amyloid and neurodegeneration on cognitive decline in clinically normal individuals. JAMA Neurol 2014;71(11):1379-85.
29. Sperling RA, Johnson KA, Doraiswamy PM, Reiman EM, Fleisher AS, Sabbagh MN, et al. Amyloid deposition detected with florbetapir F 18 ([18]F-AV-45) is related to lower episodic memory performance in clinically normal older individuals. Neurobiol Aging 2013;34(3):822-31.
30. Langa KM, Larson EB, Crimmins EM, Faul JD, Levine DA, Kabeto MU, et al. A comparison of the prevalence of dementia in the United States in 2000 and 2012. JAMA Intern Med 2017;177(1):51-8.
31. Sposato LA, Kapral MK, Fang J, Gill SS, Hackam DG, Cipriano LE, et al. Declining incidence of stroke and dementia: Coincidence or prevention opportunity? JAMA Neurol 2015;72(12):1529-31.
32. Nelson PT, Head E, Schmitt FA, Davis PR, Neltner JH, Jicha GA, et al. Alzheimer's disease is not "brain aging": Neuropathological, genetic, and epidemiological human studies. Acta Neuropathol 2011;121(5):571-87.
33. Sonnen JA, Santa Cruz K, Hemmy LS, Woltjer R, Leverenz JB, Montine KS, et al. Ecology of the aging human brain. Arch Neurol 2011;68(8):1049-56.
34. Bennett DA, Schneider JA, Arvanitakis Z, Kelly JF, Aggarwal NT, Shah RC, et al. Neuropathology of older persons without cognitive impairment from two community-based studies. Neurology 2006;66(12):1837-44.
35. Price JL, Davis PB, Morris JC, White DL. The distribution of tangles, plaques and related immunohistochemical markers in healthy aging and Alzheimer's disease. Neurobiol Aging 1991;12(4):295-312.

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36. Knopman DS, Parisi JE, Salviati A, Floriach-Robert M, Boeve BF, Ivnik RJ, et al. Neuropathology of cognitively normal elderly. J Neuropathol Exp Neurol 2003;62(11):1087-95.
37. Jack CR, Jr., Bennett DA, Blennow K, Carrillo MC, Feldman HH, Frisoni GB, et al. A/T/N: An unbiased descriptive classification scheme for Alzheimer disease biomarkers. Neurology 2016;87(5):539-47.
38. Ikonomovic MD, Klunk WE, Abrahamson EE, Mathis CA, Price JC, Tsopelas ND, et al. Post-mortem correlates of in vivo PiB-PET amyloid imaging in a typical case of Alzheimer's disease. Brain 2008;131(Pt 6):1630-45.
39. Murray ME, Lowe VJ, Graff-Radford NR, Liesinger AM, Cannon A, Przybelski SA, et al. Clinicopathologic and 11C-Pittsburgh compound B implications of Thal amyloid phase across the Alzheimer's disease spectrum. Brain 2015;138(Pt 5):1370-81.
40. Fleisher AS, Chen K, Liu X, Roontiva A, Thiyyagura P, Ayutyanont N, et al. Using positron emission tomography and florbetapir F18 to image cortical amyloid in patients with mild cognitive impairment or dementia due to Alzheimer disease. Arch Neurol 2011;68(11):1404-11.
41. Clark CM, Schneider JA, Bedell BJ, Beach TG, Bilker WB, Mintun MA, et al. Use of florbetapir-PET for imaging beta-amyloid pathology. JAMA 2011;305(3):275-83.
42. Sojkova J, Driscoll I, Iacono D, Zhou Y, Codispoti KE, Kraut MA, et al. In vivo fibrillar beta-amyloid detected using [11C]PiB positron emission tomography and neuropathologic assessment in older adults. Arch Neurol 2011;68(2):232-40.
43. Rowe CC, Ellis KA, Rimajova M, Bourgeat P, Pike KE, Jones G, et al. Amyloid imaging results from the Australian Imaging, Biomarkers and Lifestyle (AIBL) study of aging. Neurobiol Aging 2010;31(8):1275-83.
44. Rowe CC, Ng S, Ackermann U, Gong SJ, Pike K, Savage G, et al. Imaging beta-amyloid burden in aging and dementia. Neurology 2007; 68(20):1718-25.
45. Jack CR, Jr., Lowe VJ, Senjem ML, Weigand SD, Kemp BJ, Shiung MM, et al. 11C PiB and structural MRI provide complementary information in imaging of Alzheimer's disease and amnestic mild cognitive impairment. Brain 2008;131(Pt 3):665-80.
46. Salloway S, Sperling R, Fox NC, Blennow K, Klunk W, Raskind M, et al. Two phase 3 trials of bapineuzumab in mild-to-moderate Alzheimer's disease. N Engl J Med 2014;370(4):322-33.
47. Mintun MA, Larossa GN, Sheline YI, Dence CS, Lee SY, Mach RH, et al. [11C]PIB in a nondemented population: Potential antecedent marker of Alzheimer disease. Neurology 2006;67(3):446-52.
48. Aizenstein HJ, Nebes RD, Saxton JA, Price JC, Mathis CA, Tsopelas ND, et al. Frequent amyloid deposition without significant cognitive impairment among the elderly. Arch Neurol 2008;65(11):1509-17.
49. Jack CR, Jr., Albert MS, Knopman DS, McKhann GM, Sperling RA, Carrillo MC, et al. Introduction to the recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 2011;7(3):257-62.
50. Petersen RC, Aisen P, Boeve BF, Geda YE, Ivnik RJ, Knopman DS, et al. Criteria for mild cognitive impairment due to alzheimer's disease in the community. Ann Neurol 2013;74(2):199-208.
51. Petersen RC, Roberts RO, Knopman DS, Geda YE, Cha RH, Pankratz VS, et al. Prevalence of mild cognitive impairment is higher in men: The Mayo Clinic Study of Aging. Neurology 2010;75(10):889-97.
52. Matthews FE, Arthur A, Barnes LE, Bond J, Jagger C, Robinson L, et al. A two-decade comparison of prevalence of dementia in individuals aged 65 years and older from three geographical areas of England: Results of the Cognitive Function and Ageing Study I and II. Lancet 2013;382(9902):1405-12.
53. Matthews FE, Stephan BC, Robinson L, Jagger C, Barnes LE, Arthur A, et al. A two decade dementia incidence comparison from the Cognitive Function and Ageing Studies I and II. Nat Commun 2016;7:11398.
54. Qiu C, von Strauss E, Bäckman L, Winblad B, Fratiglioni L. Twenty-year changes in dementia occurrence suggest decreasing incidence in central Stockholm, Sweden. Neurology 2013;80(20):1888-94.
55. Wu YT, Fratiglioni L, Matthews FE, Lobo A, Breteler MM, Skoog I, et al. Dementia in western Europe: Epidemiological evidence and implications for policy making. Lancet Neurol 2016;15(1):116-24.
56. Fratiglioni L, Viitanen M, von Strauss E, Tontodonati V, Herlitz A, Winblad B. Very old women at highest risk of dementia and Alzheimer's disease: Incidence data from the Kungsholmen Project, Stockholm. Neurology 1997;48(1):132-8.
57. Hebert LE, Scherr PA, Bienias JL, Bennett DA, Evans DA. Alzheimer disease in the US population: prevalence estimates using the 2000 census. Arch Neurol 2003;60(8):1119-22.
58. Hebert LE, Weuve J, Scherr PA, Evans DA. Alzheimer disease in the United States (2010-2050) estimated using the 2010 census. Neurology 2013;80(19):1778-83.
59. Wilson RS, Weir DR, Leurgans SE, Evans DA, Hebert LE, Langa KM, et al. Sources of variability in estimates of the prevalence of Alzheimer's disease in the United States. Alzheimers Dement 2011;7(1):74-9.
60. Brookmeyer R, Evans DA, Hebert L, Langa KM, Heeringa SG, Plassman BL, et al. National estimates of the prevalence of Alzheimer's disease in the United States. Alzheimers Dement 2011;7(1):61-73.
61. Satizabal CL, Beiser AS, Chouraki V, Chêne G, Dufouil C, Seshadri S Incidence of dementia over three decades in the Framingham Heart Study. N Engl J Med 2016;374(6):523-32.
62. Launer LJ. Counting dementia: There is no one "best" way. Alzheimers Dement 2011;7(1):10-4.
63. Arnold SE, Louneva N, Cao K, Wang LS, Han LY, Wolk DA, et al. Cellular, synaptic, and biochemical features of resilient cognition in Alzheimer's disease. Neurobiol Aging 2013;34(1):157-68.

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End Notes

A1. Six drugs approved by the U.S. Food and Drug Administration (FDA): The FDA has approved six drugs to alleviate symptoms of Alzheimer's dementia: tacrine (discontinued in the United States due to potentially severe side effects), galantamine, rivastigmine, donepezil, memantine, and a drug that combines memantine and donepezil. None of these drugs slows or stops the progression of Alzheimer's disease.

A2. Number of Americans age 65 and older with Alzheimer's dementia for 2017 (prevalence of Alzheimer's in 2017): The number 5.3 million is from published prevalence estimates based on incidence data from the Chicago Health and Aging Project (CHAP) and population estimates from the 2010 U.S. Census.[31]

A3. Proportion of Americans age 65 and older with Alzheimer's dementia: The 10 percent for the age 65 and older population is calculated by dividing the estimated number of people age 65 and older with Alzheimer's dementia (5.3 million) by the U.S. population age 65 and older in 2017, as projected by the U.S. Census Bureau (51.1 million) = approximately 10 percent.[437] Please note that the proportion of Americans age 65 and older with Alzheimer's dementia has gone down slightly in recent years despite the number of Americans with Alzheimer's dementia in this age range going up; this is because of the large number of baby boomers who have started to enter this age range and increased the overall number of seniors, but at the early low risk years in this range.[206]

A4. Percentage of total Alzheimer's dementia cases by age groups: Percentages for each age group are based on the estimated 200,000 people under 65,[31] plus the estimated numbers for people ages 65 to 74 (0.9 million), 75 to 84 (2.4 million), and 85+ (2.1 million) based on prevalence estimates for each age group and incidence data from the CHAP study. Prevalence numbers for age groups do not total 5.5 million due to rounding.

A5. Differences between CHAP and ADAMS estimates for Alzheimer's dementia prevalence: ADAMS estimated the prevalence of Alzheimer's dementia to be lower than CHAP, at 2.3 million Americans age 71 and older in 2002,[138] while the CHAP estimate for 2000 was 4.5 million.[207] At a 2009 conference convened by the National Institute on Aging and the Alzheimer's Association, researchers determined that this discrepancy was mainly due to two differences in diagnostic criteria: (1) a diagnosis of dementia in ADAMS required impairments in daily functioning and (2) people determined to have vascular dementia in ADAMS were not also counted as having Alzheimer's, even if they exhibited clinical symptoms of Alzheimer's.[139] Because the more stringent threshold for dementia in ADAMS may miss people with mild Alzheimer's dementia and because clinical-pathologic studies have shown that mixed dementia due to both Alzheimer's and vascular pathology in the brain is very common,[6] the Association believes that the larger CHAP estimates may be a more relevant estimate of the burden of Alzheimer's dementia in the United States.

A6. Number of women and men age 65 and older with Alzheimer's dementia in the United States: The estimates for the number of U.S. women (3.3 million) and men (2.0 million) age 65 and older with Alzheimer's in 2013 is from unpublished data from CHAP. For analytic methods, see Hebert et al.[31]

A7. Prevalence of Alzheimer's and other dementias in older whites, African-Americans and Hispanics: The statement that African-Americans are twice as likely and Hispanics one and one-half times as likely as whites to have Alzheimer's or other dementias is the conclusion of an expert review of a number of multiracial and multi-ethnic data sources, as reported in detail in the Special Report of the Alzheimer's Association's *2010 Alzheimer's Disease Facts and Figures*.

A8. State-by-state prevalence of Alzheimer's dementia: These state-by-state prevalence numbers are based on an analysis of incidence data from CHAP, projected to each state's population, with adjustments for state-specific age, gender, years of education, race and mortality.[189] Specific prevalence numbers projected for each year from 2014 to 2025 derived from this analysis were provided to the Alzheimer's Association by a team led by Liesi Hebert, Sc.D., from Rush University Institute on Healthy Aging.

A9. Number of new cases of Alzheimer's dementia this year (incidence of Alzheimer's in 2017): The East Boston Established Populations for Epidemiologic Study of the Elderly (EPESE) estimated that there would be 454,000 new cases in 2010 and 491,000 new cases in 2020 (see Hebert et al[190]). The Alzheimer's Association calculated the incidence of new cases in 2017 by multiplying the 10-year change from 454,000 to 491,000 (37,000) by 0.7 (for the number of years from 2010 to 2017 divided by the number of years from 2010 to 2020), adding that result (25,900) to the Hebert et al. estimate for 2010 (454,000) = 479,900.[190] Rounded to the nearest thousand, this is 480,000 new cases of Alzheimer's dementia in 2017. The same technique for linear interpolation from 2010 to 2020 projections was used to calculate the number of new cases in 2017 for ages 65-74, 75-84 and 85 and older. The age group-specific Alzheimer's dementia incident rate is the number of new people with Alzheimer's per population at risk (the total number of people in the age group in question). These incidence rates are expressed as number of new cases per 1,000 people using the total number of people per age group (e.g., 65-74, 75-84, 85+) for 2017 from population projections from the 2000 U.S. Census as the denominator.[438]

A10. Number of seconds for the development of a new case of Alzheimer's dementia: Although Alzheimer's does not present suddenly like stroke or heart attack, the rate at which new cases develop can be computed in a similar way. The 66 seconds number is calculated by dividing the number of seconds in a year (31,536,000) by the number of new cases in a year (479,900)[A9] = 65.7 seconds, rounded to 66 seconds. Using the same method of calculation for 2050, 31,536,000 divided by 959,000 (from Hebert et al.[190]) = 32.8 seconds, rounded to 33 seconds.

A11. Criteria for identifying people with Alzheimer's or other dementias in the Framingham Study: From 1975 to 2009, 7,901 people from the Framingham Study who had survived free of dementia to at least age 45, and 5,937 who had survived free of dementia until at least age 65 were followed for incidence of dementia.[160] Diagnosis of dementia was made according to Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) criteria and required that the participant survive for at least 6 months after onset of symptoms. Standard diagnostic criteria (the NINCDS-ADRDA criteria from 1984) were used to diagnose Alzheimer's dementia. The definition of Alzheimer's and other dementias used in the Framingham Study was very strict; if a definition that included milder disease and disease of less than six months' duration were used, lifetime risks of Alzheimer's and other dementias would be higher than those estimated by this study.

A12. Projected number of people with Alzheimer's dementia: This figure comes from the CHAP study.[31] Other projections are somewhat lower (see, for example, Brookmeyer et al.[439]) because they relied on more conservative methods for counting people who currently have Alzheimer's dementia.[A5] Nonetheless, these estimates are statistically consistent with each other, and all projections suggest substantial growth in the number of people with Alzheimer's dementia over the coming decades.

A13. Projected number of people age 65 and older with Alzheimer's dementia in 2025: The number 7.1 million is based on a linear extrapolation from the projections of prevalence of Alzheimer's for the years 2020 (5.8 million) and 2030 (8.4 million) from CHAP.[31]

A14. Previous high and low projections of Alzheimer's dementia prevalence in 2050: High and low prevalence projections for 2050 from the U.S. Census were not available for the most recent analysis of CHAP data.[31] The previous high and low projections indicate that the projected number of Americans with Alzheimer's in 2050 age 65 and older will range from 11 to 16 million.[207]

A15. Annual mortality rate due to Alzheimer's disease by state: Unadjusted death rates are presented rather than age-adjusted death rates in order to provide a clearer depiction of the true burden of mortality for each state. States such as Florida with larger populations of older people will have a larger burden of mortality due to Alzheimer's — a burden that appears smaller relative to other states when the rates are adjusted for age.

A16. Number of family and other unpaid caregivers of people with Alzheimer's or other dementias: To calculate this number, the Alzheimer's Association started with data from the BRFSS survey. In 2009, the BRFSS survey asked respondents age 18 and over whether they had provided any regular care or assistance during the past month to a family member or friend who had a health problem, long-term illness or disability. To determine the number of family and other unpaid caregivers nationally and by state, we applied the proportion of caregivers nationally and for each state from the 2009 BRFSS (as provided by the CDC, Healthy Aging Program, unpublished data) to the number of people age 18 and older nationally and in each state from the U.S. Census Bureau report for July 2016. Available at: census.gov/programs-surveys/popest/data/tables.html. Accessed Jan. 4, 2017. To calculate the proportion of family and other unpaid caregivers who provide care for a person with Alzheimer's or another dementia, the Alzheimer's Association used data from the results of a national telephone survey also conducted in 2009 for the National Alliance for Caregiving (NAC)/AARP.[440] The NAC/AARP survey asked respondents age 18 and over whether they were providing unpaid care for a relative or friend age 18 or older or had provided such care during the past 12 months. Respondents who answered affirmatively were then asked about the health problems of the person for whom they provided care. In response, 26 percent of caregivers said that: (1) Alzheimer's or another dementia was the main problem of the person for whom they provided care, or (2) the person had Alzheimer's or other mental confusion in addition to his or her main problem. The 26 percent figure was applied to the total number of caregivers nationally and in each state, resulting in a total of 15.975 million Alzheimer's and dementia caregivers.

A17. The 2014 Alzheimer's Association Women and Alzheimer's Poll: This poll questioned a nationally representative sample of 3,102 American adults about their attitudes, knowledge and experiences related to Alzheimer's and dementia from Jan. 9, 2014, to Jan. 29, 2014. An additional 512 respondents who provided unpaid help to a relative or friend with Alzheimer's or a related dementia were asked questions about their care provision. Random selections of telephone numbers from landline and cell phone exchanges throughout the United States were conducted. One individual per household was selected from the landline sample, and cell phone respondents were selected if they were 18 years old or older. Interviews were administered in English and Spanish. The poll "oversampled" Hispanics, selected from U.S. Census tracts with higher than an 8 percent concentration of this group. A list sample of Asian-Americans was also utilized to oversample this group. A general population weight was used to adjust for number of adults in the household and telephone usage; the second stage of this weight balanced the sample to estimated U.S. population characteristics. A weight for the caregiver sample accounted for the increased likelihood of female and white respondents in the caregiver sample. Sampling weights were also created to account for the use of two supplemental list samples. The resulting interviews comprise a probability-based, nationally representative sample of U.S. adults. A caregiver was defined as an adult over age 18 who, in the past 12 months, provided unpaid care to a relative or friend age 50 or older with Alzheimer's or another dementia. Questionnaire design and interviewing were conducted by Abt SRBI of New York.

A18. Number of hours of unpaid care: To calculate this number, the Alzheimer's Association used data from a follow-up analysis of results from the 2009 NAC/AARP national telephone survey (data provided under contract by Matthew Greenwald and Associates, Nov. 11, 2009). These data show that caregivers of people with Alzheimer's or other dementias provided an average of 21.9 hours a week of care, or 1,139 hours per year. The number of family and other unpaid caregivers (15.975 million)[A16] was multiplied by the average hours of care per year, which totals 18.191 billion hours of care. This is slightly higher than the total resulting from multiplying 18.191 billion by 15.975 million because 15.975 is a rounded figure for the total number of caregivers.

A19. Value of unpaid caregiving: To calculate this number, the Alzheimer's Association used the method of Amo et al.[441] This method uses the average of the federal minimum hourly wage ($7.25 in 2016) and the mean hourly wage of home health aides ($18.05 in July 2016).[442] The average is $12.65, which was multiplied by the number of hours of unpaid care (18.191 billion) to derive the total value of unpaid care ($230.127 billion; this is slightly higher than the total resulting from multiplying $12.65 by 18.191 billion because 18.191 is a rounded number for the hours of unpaid care).

A20. Higher health care costs of Alzheimer's caregivers: This figure is based on a methodology originally developed by Brent Fulton, Ph.D., for *The Shriver Report: A Woman's Nation Takes on Alzheimer's*. A survey of 17,000 employees of a multinational firm based in the United States estimated that caregivers' health care costs were 8 percent higher than non-caregivers'.[443] To determine the dollar amount represented by that 8 percent figure nationally and in each state, the 8 percent figure and the proportion of caregivers from the 2009 BRFSS[A16] were used to weight each state's caregiver and non-caregiver per capita personal health care spending in 2009,[444] inflated to 2016 dollars. The dollar amount difference between the weighted per capita personal health care spending of caregivers and non-caregivers in each state (reflecting the 8 percent higher costs for caregivers) produced the average additional health care costs for caregivers in each state. Nationally, this translated into an average of $680. The amount of the additional cost in each state, which varied by state from a low of $501 in Utah to a high of $1,037 in the District of Columbia, was multiplied by the total number of unpaid Alzheimer's and dementia caregivers in that state[A16] to arrive at that state's total additional health care costs of Alzheimer's and other dementia caregivers as a result of being a caregiver. The combined total for all states was $10.852 billion. Fulton concluded that this is "likely to be a conservative estimate because caregiving for people with Alzheimer's is more stressful than caregiving for most people who don't have the disease."[445]

A21. Lewin Model on Alzheimer's and dementia costs: These numbers come from a model created for the Alzheimer's Association by the Lewin Group. The model estimates total payments for health care, long-term care and hospice — as well as state-by-state Medicaid spending — for people with Alzheimer's and other dementias. The model was updated by the Lewin Group in January 2015 (updating previous model) and June 2015 (addition of state-by-state Medicaid

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estimates). Detailed information on the model, its long-term projections and its methodology are available at alz.org/trajectory. For the purposes of the data presented in this report, the following parameters of the model were changed relative to the methodology outlined at alz.org/trajectory: (1) cost data from the 2011 Medicare Current Beneficiary Survey (MCBS) were used rather than data from the 2008 MCBS; (2) prevalence among older adults was assumed to equal the prevalence levels from Hebert et al[31] and included in this report (5.3 million in 2017),[A7] rather than the prevalence estimates derived by the model itself; (3) estimates of inflation and excess cost growth reflect the most recent relevant estimates from the cited sources (the Centers for Medicare & Medicaid Services [CMS] actuaries and the Congressional Budget Office); and (4) the most recent (2014) state-by-state data from CMS on the number of nursing home residents and percentage with moderate and severe cognitive impairment were used in lieu of 2012 data.

A22. All cost estimates were inflated to year 2016 dollars using the Consumer Price Index (CPI): All cost estimates were inflated using the seasonally adjusted average prices for medical care services from all urban consumers. The relevant item within medical care services was used for each cost element. For example, the medical care item within the CPI was used to inflate total health care payments; the hospital services item within the CPI was used to inflate hospital payments; and the nursing home and adult day services item within the CPI was used to inflate nursing home payments.

A23. Medicare Current Beneficiary Survey Report: These data come from an analysis of findings from the 2011 Medicare Current Beneficiary Survey (MCBS). The analysis was conducted for the Alzheimer's Association by Avalere Health.[380] The MCBS, a continuous survey of a nationally representative sample of about 15,000 Medicare beneficiaries, is linked to Medicare claims. The survey is supported by the U.S. Centers for Medicare & Medicaid Services (CMS). For community-dwelling survey participants, MCBS interviews are conducted in person three times a year with the Medicare beneficiary or a proxy respondent if the beneficiary is not able to respond. For survey participants who are living in a nursing home or another residential care facility, such as an assisted living residence, retirement home or a long-term care unit in a hospital or mental health facility, MCBS interviews are conducted with a staff member designated by the facility administrator as the most appropriate to answer the questions. Data from the MCBS analysis that are included in *2017 Alzheimer's Disease Facts and Figures* pertain only to Medicare beneficiaries age 65 and older. For this MCBS analysis, people with dementia are defined as:

- Community-dwelling survey participants who answered yes to the MCBS question, "Has a doctor ever told you that you had Alzheimer's disease or dementia?" Proxy responses to this question were accepted.
- Survey participants who were living in a nursing home or other residential care facility and had a diagnosis of Alzheimer's disease or dementia in their medical record.
- Survey participants who had at least one Medicare claim with a diagnostic code for Alzheimer's or other dementias in 2008. The claim could be for any Medicare service, including hospital, skilled nursing facility, outpatient medical care, home health care, hospice or physician, or other health care provider visit. The diagnostic codes used to identify survey participants with Alzheimer's or other dementias are 331.0, 331.1, 331.11, 331.19, 331.2, 331.7, 331.82, 290.0, 290.1, 290.10, 290.11, 290.12, 290.13, 290.20, 290.21, 290.3, 290.40, 290.41, 290.42, 290.43, 291.2, 294.0, 294.1, 294.10 and 294.11.

Costs from the MCBS analysis are based on responses from 2011 and reported in 2016 dollars.

A24. Differences in estimated costs reported by Hurd and colleagues: Hurd et al.[237] estimated per-person costs using data from participants in ADAMS, a cohort in which all individuals underwent diagnostic assessments for dementia. *2017 Alzheimer's Disease Facts and Figures* estimated per-person costs using data from the Medicare Current Beneficiary Survey (MCBS). One reason that the per-person costs estimated by Hurd et al. are lower than those reported in *Facts and Figures* is that ADAMS, with its diagnostic evaluations of everyone in the study, is more likely than MCBS to have identified individuals with less severe or undiagnosed Alzheimer's. By contrast, the individuals with Alzheimer's registered by MCBS are likely to be those with more severe, and therefore more costly, illness. A second reason is that Hurd et al.'s estimated costs reflect an effort to isolate the incremental costs associated with Alzheimer's and other dementias (those costs attributed only to dementia), while the per-person costs in *2017 Alzheimer's Disease Facts and Figures* incorporate all costs of caring for people with the disease (regardless of whether the expenditure was related to dementia or a coexisting condition).

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References (exclusive of Special Report)

1. Wilson RS, Segawa E, Boyle PA, Anagnos SE, Hizel LP, Bennett DA. The natural history of cognitive decline in Alzheimer's disease. Psychol Aging 2012;27(4):1008-17.
2. Barker WW, Luis CA, Kashuba A, Luis M, Harwood DG, Loewenstein D, et al. Relative frequencies of Alzheimer's disease, Lewy body, vascular and frontotemporal dementia, and hippocampal sclerosis in the State of Florida Brain Bank. Alzheimer Dis Assoc Disord 2002;16(4):203-12.
3. Viswanathan A, Rocca WA, Tzourio C. Vascular risk factors and dementia: How to move forward? Neurology 2009;72:368-74.
4. Schneider JA, Arvanitakis Z, Bang W, Bennett DA. Mixed brain pathologies account for most dementia cases in community-dwelling older persons. Neurology 2007;69:2197-204.
5. Schneider JA, Arvanitakis Z, Leurgans SE, Bennett DA. The neuropathology of probable Alzheimer disease and mild cognitive impairment. Ann Neurol 2009;66(2):200-8.
6. Jellinger KA, Attems J. Neuropathological evaluation of mixed dementia. J Neurol Sci 2007;257(1-2):80-7.
7. Jellinger KA. The enigma of mixed dementia. Alzheimers Dement 2007;3(1):40-53.
8. Clarfield AM. The decreasing prevalence of reversible dementias: An updated meta-analysis. Arch Intern Med 2003;163(18):2219-29.
9. Katzman R. The prevalence and malignancy of Alzheimer disease: A major killer. Arch Neurol 1976;33(4):217-18.
10. Fernando MS, Ince PG. MRC Cognitive Function and Ageing Neuropathology Study Group: Vascular pathologies and cognition in a population-based cohort of elderly people. J Neurol Sci 2004;226(1-2):13-7.
11. Verrees M, Selman WR. Management of normal pressure hydrocephalus. Am Fam Physician 2004;70(60):1071-8.
12. Villemagne VL, Burnham S, Bourgeat P, Brown B, Ellis KA, Salvado O, et al. Amyloid ß deposition, neurodegeneration, and cognitive decline in sporadic Alzheimer's disease: A prospective cohort study. Lancet Neurol 2013;12(4):357-67.
13. Reiman EM, Quiroz YT, Fleisher AS, Chen K, Velez-Pardos C, Jimenez-Del-Rio M, et al. Brain imaging and fluid biomarker analysis in young adults at genetic risk for autosomal dominant Alzheimer's disease in the presenilin 1 E280A kindred: A case-control study. Lancet Neurol 2012;11(2):1048-56.
14. Jack CR, Lowe VJ, Weigand SD, Wiste HJ, Senjem ML, Knopman DS, et al. Serial PiB and MRI in normal, mild cognitive impairment and Alzheimer's disease: Implications for sequence of pathological events in Alzheimer's disease. Brain 2009;132:1355-65.
15. Bateman RJ, Xiong C, Benzinger TL, Fagan AM, Goate A, Fox NC, et al. Clinical and biomarker changes in dominantly inherited Alzheimer's disease. N Engl J Med 2012;367(9):795-804.
16. Roberts R, Knopman DS. Classification and epidemiology of MCI. Clin Geriatr Med 2013;29(4):753-72.
17. Kantarci K, Weigand SD, Przybelski SA, Shiung MM, Whitwell JL, Negash S, et al. Risk of dementia in MCI: Combined effect of cerebrovascular disease, volumetric MRI, and 1H MRS. Neurology 2009;72(17):1519-25.
18. Mitchell AJ, Shiri-Feshki M. Rate of progression of mild cognitive impairment to dementia: Meta-analysis of 41 robust inception cohort studies. Acta Psychiatr Scand 2009;119:252-65.
19. Ward A, Tardiff S, Dye C, Arrighi HM. Rate of conversion from prodromal Alzheimer's disease to Alzheimer's dementia: A systematic review of the literature. Dement Geriatr Cogn Disord Extra 2013;3:320-32.
20. Sperling RA, Aisen PS, Beckett LA, Bennett DA, Craft S, Fagan AM, et al. Toward defining the preclinical stages of Alzheimer's disease: Recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 2011;7(3):280-92.
21. Albert MS, DeKosky ST, Dickson D, Dubois B, Feldman HH, Fox N, et al. The diagnosis of mild cognitive impairment due to Alzheimer's disease: Recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 2011;7(3):270-9.
22. McKhann GM, Knopman DS, Chertkow H, Hyman BT, Jack CR, Kawas CH, et al. The diagnosis of dementia due to Alzheimer's disease: Recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 2011;7(3):263-9.
23. Jack CR, Albert MS, Knopman DS, McKhann GM, Sperling RA, Carrillo MC, et al. Introduction to the recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 2011;7(3):257-62.
24. Bekris LM, Yu CE, Bird TD, Tsuang DW. Genetics of Alzheimer disease. J Geriatr Psychiatry Neurol 2010;23(4):213-27.
25. Goldman JS, Hahn SE, Bird T. Genetic counseling and testing for Alzheimer disease: Joint practice guidelines of the American College of Medical Genetics and the National Society of Genetic Counselors. Genet Med 2011;13:597-605.
26. National Down Syndrome Society. What is Down Syndrome? Available at: ndss.org/Down-Syndrome/What-Is-Down-Syndrome/. Accessed November 24, 2016.
27. Lott IT, Dierssen M. Cognitive deficits and associated neurological complications in individuals with Down's syndrome. Lancet Neurol 2010;9(6):623-33.
28. National Down Syndrome Society. An Introduction to Alzheimer's, Available at: ndss.org/Resources/Aging-Matters/Alzheimers-Disease/An-Introduction-to-Alzheimers-Disease/. Accessed October 20, 2016.
29. National Institutes of Health. National institute on Aging. Alzheimer's Disease in People with Down Syndrome Fact Sheet. Available at: nia.nih.gov/alzheimers/publication/alzheimers-disease-people-down-syndrome. Accessed October 20, 2016.
30. Hebert LE, Bienias JL, Aggarwal NT, Wilson RS, Bennett DA, Shah RC, et al. Change in risk of Alzheimer disease over time. Neurology 2010;75:786-91.
31. Hebert LE, Weuve J, Scherr PA, Evans DA. Alzheimer disease in the United States (2010-2050) estimated using the 2010 Census. Neurology 2013;80(19):1778-83.
32. Green RC, Cupples LA, Go R, Benke KS, Edeki T, Griffith PA, et al Risk of dementia among white and African American relatives of patients with Alzheimer disease. JAMA 2002;287(3):329-36.
33. Fratiglioni L, Ahlbom A, Viitanen M, Winblad B. Risk factors for late-onset Alzheimer's disease: A population-based, case-control study. Ann Neurol 1993;33(3):258-66.
34. Mayeux R, Sano M, Chen J, Tatemichi T, Stern Y. Risk of dementia in first-degree relatives of patients with Alzheimer's disease and related disorders. Arch Neurol 1991;48(3):269-73.
35. Lautenschlager NT, Cupples LA, Rao VS, Auerbach SA, Becker R, Burke J, et al. Risk of dementia among relatives of Alzheimer's disease patients in the MIRAGE Study: What is in store for the oldest old? Neurology 1996;46(3):641-50.
36. Saunders AM, Strittmatter WJ, Schmechel D, George-Hyslop PH, Pericak-Vance MA, Joo SH, et al. Association of apolipoprotein E allele epsilon 4 with late-onset familial and sporadic Alzheimer's disease. Neurology 1993;43:1467-72.
37. Farrer LA, Cupples LA, Haines JL, Hyman B, Kukull WA, Mayeux R, et al Effects of age, sex, and ethnicity on the association between apolipoprotein E genotype and Alzheimer disease: A meta-analysis. JAMA 1997;278:1349-56.
38. Loy CT, Schofield PR, Turner AM, Kwok JBJ. Genetics of dementia. Lancet 2014;383:828-40.

ATTACHMENT-10G

39. Mahley RW, Rall SC, Jr. Apolipoprotein E: Far more than a lipid transport protein. Annu Rev Genomics Hum Genet 2000;1:507-37.
40. Raber J, Huang Y, Ashford JW. ApoE genotype accounts for the vast majority of AD risk and AD pathology. Neurobiol Aging 2004;25:641-50.
41. Holtzman DM, Herz J, Bu G. Apolipoprotein E and apolipoprotein E receptors: Normal biology and roles in Alzheimer disease. Cold Spring Harb Perspect Med 2012;2(3):a006312.
42. Alzheimer's Drug Discovery Foundation. What APOE Means for Your Health. Available at: alzdiscovery.org/cognitive-vitality/what-apoe-means-for-your-health. Accessed November 24, 2016.
43. Spinney L. Alzheimer's disease: The forgetting gene. Nature 2014;510(7503):26-8.
44. Ward A, Crean S, Mercaldi CJ, Collins JM, Boyd D, Cook MN, et al. Prevalence of apolipoprotein e4 genotype and homozygotes (APOE e4/4) among patients diagnosed with Alzheimer's disease: A systematic review and meta-analysis. Neuroepidemiology 2012;38:1-17.
45. Mayeux R, Saunders AM, Shea S, Mirra S, Evans D, Roses AD, et al. Utility of the apolipoprotein E genotype in the diagnosis of Alzheimer's disease. N Engl J Med 1998;338:506-11.
46. Chouraki V, Seshadri S. Genetics of Alzheimer's disease. Adv Genet 2014;87:245-94.
47. Baumgart M, Snyder HM, Carrillo MC, Fazio S, Kim H, Johns H. Summary of the evidence on modifiable risk factors for cognitive decline and dementia: A population-based perspective. Alzheimers Dement 2015;11(6):718-26.
48. Institute of Medicine. Cognitive Aging: Progress in Understanding and Opportunity for Action. Washington, D.C.: The National Academies Press; 2015.
49. The Brain: Our Sense of Self. science.education.nih.gov/supplements/nih4/self/activities/activities_toc.html. Accessed November 24, 2016.
50. Anstey KJ, von Sanden C, Salim A, O'Kearney R. Smoking as a risk factor for dementia and cognitive decline: A meta-analysis of prospective studies. Am J Epidemiol 2007;166(4):367-78.
51. Rusanen M, Kivipelto M, Quesenberry CP, Zhou J, Whitmer RA. Heavy smoking in midlife and long-term risk of Alzheimer disease and vascular dementia. Arch Intern Med 2011;171(4):333-9.
52. Beydoun MA, Beydoun HA, Gamaldo AA, Teel A, Zonderman AB, Wang Y. Epidemiologic Studies of Modifiable Factors Associated with Cognition and Dementia: Systematic Review and Meta-Analysis. BMC Public Health 2014;14:643.
53. Rönnemaa E, Zethelius B, Lannfelt L, Kilander L. Vascular risk factors and dementia: 40-year follow-up of a population-based cohort. Dement Geriatr Cogn Disord 2011;31(6):460-6.
54. Loef M, Walach H. Midlife obesity and dementia: Meta-analysis and adjusted forecast of dementia prevalence in the United States and China. Obesity (Silver Spring) 2013;21(1):E51-5.
55. Anstey KJ, Cherbuin N, Budge M, Young J. Body mass index in midlife and late-life as a risk factor for dementia: A meta-analysis of prospective studies. Obes Rev 2011;12(5):e426-37.
56. Wu W, Brickman AM, Luchsinger J, Ferrazzano P, Pichiule P, Yoshita M, et al. The brain in the age of old: The hippocampal formation is targeted differentially by diseases of late life. Ann Neurol 2008;64:698-706.
57. Gudala K, Bansal D, Schifano F, Bhansali A. Diabetes mellitus and risk of dementia: A meta-analysis of prospective observational studies. Diabetes Investig 2013;4(6):640-50.
58. Vagelatos NT, Eslick GD. Type 2 diabetes as a risk factor for Alzheimer's disease: The confounders, interactions, and neuropathology associated with this relationship. Epidemiol Rev 2013;35(1):152-60.
59. Reitz C, Brayne C, Mayeux R. Epidemiology of Alzheimer disease. Nat Rev Neurol 2011;7(3):137-52.
60. Crane PK, Walker R, Hubbard RA, Li G, Nathan DM, Zheng H, et al. Glucose levels and risk of dementia. N Engl J Med 2013;369(6):540-8.
61. Sajeev G, Weuve J, McQueen MB, Blacker D. Diabetes. The AlzRisk Database. Alzheimer Research Forum. Available at: alzrisk.org. Accessed November 30, 2016.
62. Launer LJ, Ross GW, Petrovitch H, Masaki K, Foley D, White LR, et al. Midlife blood pressure and dementia: The Honolulu-Asia Aging Study. Neurobiol Aging 2000;21(1):49-55.
63. Ninomiya T, Ohara T, Hirakawa Y, Yoshida D, Doi Y, Hata J, et al. Midlife and late-life blood pressure and dementia in Japanese elderly: The Hisayama Study. Hypertension 2011;58(1):22-8.
64. Debette S, Seshadri S, Beiser A, Au R, Himali JJ, Palumbo C, et al. Midlife vascular risk factor exposure accelerates structural brain aging and cognitive decline. Neurology 2011;77(5):461-8.
65. Solomon A, Kivipelto M, Wolozin B, Zhou, J, Whitmer, RA. Midlife serum cholesterol and increased risk of Alzheimer's and vascular dementia three decades later. Dement and Geriatr Disord 2009;28:75-80.
66. Meng XF, Yu JT, Wang HF, Tan MS, Wang C, Tan CC, et al. Midlife vascular risk factors and the risk of Alzheimer's disease: A systematic review and meta-analysis. J Alzheimers Dis 2014;42(4):1295-310.
67. Willis BL, Gao A, Leonard D, DeFina LF, Berry JD. Midlife fitness and the development of chronic conditions in later life. Arch Intern Med 2012;172(17):1333-40.
68. Harrington M, Weuve J, Jackson JW, Blacker D. Physical Activity. The AlzRisk Database. Alzheimer Research Forum. Available at: alzrisk.org. Accessed November 30, 2016.
69. Tan ZS, Spartano NL, Beiser AS, DeCarli C, Auerbach SH, Vasan RS, et al. Physical activity, brain volume, and dementia risk: The Framingham Study. J Gerontol A Biol Sci Med Sci 2016;doi:10.1093/gerona/glw130 [epub ahead of print]. Accessed November 30, 2016.
70. Willey JZ, Gardener H, Caunca MR, Moon YP, Dong C, Cheung YK, et al. Leisure-time physical activity associates with cognitive decline: The Northern Manhattan Study. Neurology 2016;86(20):1897-903.
71. Barberger-Gateau P, Raffaitin C, Letenneur L, Berr C, Tzourio C, Dartigues JF, et al. Dietary patterns and risk of dementia: The Three-City Cohort Study. Neurology 2007;69(20):1921-30.
72. Hardman RJ, Kennedy G, Macpherson H, Scholey AB, Pipingas A. Adherence to a Mediterranean-style diet and effects on cognition in adults: A qualitative evaluation and systematic review of longitudinal and prospective trials. Front Nutr 2016;3:22.
73. Lourida I, Soni M, Thompson-Coon J, Purandare N, Lang IA, Ukoumunne OC, et al. Mediterranean diet, cognitive function, and dementia: A systematic review. Epidemiology 2013;24:479-89.
74. Morris MC, Tangney CC, Wang Y, Sacks FM, Barnes LL, Bennett DA, et al. MIND diet slows cognitive decline with aging. Alzheimers Dement 2015;11(9):1015-22.
75. Loef M, Walach H. Fruit, vegetables and prevention of cognitive decline or dementia: A systematic review of cohort studies. J Nutr Health Aging. 2012 Jul;16(7):626-30.
76. Ngandu T, Lehtisalo J, Solomon A, Levälahti E, Ahtiluoto S, Antikainen R, et al. A 2-year multidomain intervention of diet, exercise, cognitive training, and vascular risk monitoring versus control to prevent cognitive decline in at-risk elderly people (FINGER): A randomised controlled trial. Lancet 2015;385(9984):2255-63.
77. Fitzpatrick AL, Kuller LH, Ives DG, Lopez OL, Jagust W, Breitner JC, et al. Incidence and prevalence of dementia in the Cardiovascular Health Study. J Am Geriatr Soc 2004;52(2):195-204.
78. Kukull WA, Higdon R, Bowen JD, McCormick WC, Teri L, Schellenberg GD, et al. Dementia and Alzheimer disease incidence: A prospective cohort study. Arch Neurol 2002;59(11):1737-46.

ATTACHMENT-10G

79. Evans DA, Bennett DA, Wilson RS, Bienias JL, Morris MC, Scherr PA, et al. Incidence of Alzheimer disease in a biracial urban community: Relation to apolipoprotein E allele status. Arch Neurol 2003;60(2):185-9.
80. Stern Y. Cognitive reserve in ageing and Alzheimer's disease. Lancet Neurol 2012;11(11):1006-12.
81. Sando SB, Melquist S, Cannon A, Hutton M, Sletvold O, Saltvedt I, et al. Risk-reducing effect of education in Alzheimer's disease. Int J Geriatr Psychiatry 2008;23(11):1156-62.
82. Roe CM, Xiong C, Miller JP, Morris JC. Education and Alzheimer disease without dementia: Support for the cognitive reserve hypothesis. Neurology 2007;68(3):223-8.
83. Stern Y. Cognitive reserve and Alzheimer disease. Alzheimer Dis Assoc Disord 2006;20(2):112-7.
84. Grzywacz JG, Segel-Karpas D, Lachman ME. Workplace exposures and cognitive function during adulthood: Evidence from National Survey of Midlife Development and the O*NET. J Occup Environ Med 2016;58(6):535-41.
85. Pool LR, Weuve J, Wilson RS, Buotmann U, Evans DA, Mendes de Leon CF. Occupational cognitive requirements and late-life cognitive aging. Neurology 2016;86(15):1386-92.
86. Then FS, Luck T, Luppa M, Arelin K, Schroeter ML, Engel C, et al. Association between mental demands at work and cognitive functioning in the general population: Results of the health study of the Leipzig Research Center for Civilization Diseases. J Occup Med Toxicol 2014;9:23. Available at: occup-med.biomedcentral.com/articles/10.1186/1745-6673-9-23. Accessed November 2, 2016.
87. Fisher GG, Stachowski A, Infurna FJ, Faul JD, Grosch J, Tetrick LE. Mental work demands, retirement, and longitudinal trajectories of cognitive functioning. J Occup Health Psychol 2014;19(2):231-42.
88. McDowell I, Xi G, Lindsay J, Tierney M. Mapping the connections between education and dementia. J Clin Exp Neuropsychol 2007;29(2):127-41.
89. Harris CD, Watson KB, Carlson SA, Fulton JE, Dorn JM, Elam-Evans L. Adult Participation in aerobic and muscle-strengthening physical activities — United States, 2011. Morb Mortal Wkly Rep 2013;62(17):326-30.
90. Menke A, Casagrande S, Geiss L, Cowie CC. Prevalence of and trends in diabetes among adults in the United States, 1988-2012. JAMA 2015;314(10):1021-9.
91. Sims M, Diez Roux AV, Boykin S, Sarpong D, Gebreab SY, Wyatt SB, et al. The socioeconomic gradient of diabetes prevalence, awareness, treatment, and control among African Americans in the Jackson Heart Study. Ann Epidemiol 2011;21(12):892-8.
92. Lee TC, Glynn RJ, Peña JM, Paynter NP, Conen D, Ridker PM, et al. Socioeconomic status and incident type 2 diabetes mellitus: Data from the Women's Health Study. PLoS One 2011;6(12):e27670.
93. Steptoe A, Marmot M. Socioeconomic status and coronary heart disease: A psychobiological perspective. In: White LJ, ed. Aging, Health, and Public Policy. Population Council, New York. 2005.
94. Wang H-X, Xu W, Pei J-J. Leisure activities, cognition and dementia. BBA-Mol Basis Dis 2012;1822(3):482-91.
95. Wang H-X, Karp A, Winblad B, Fratiglioni L. Late-life engagement in social and leisure activities is associated with a decreased risk of dementia: A longitudinal study from the Kungsholmen Project. Am J Epidemiol 2002;155(12):1081-7.
96. Saczynski JS, Pfeifer LA, Masaki K, Korf ES, Laurin D, White L, et al. The effect of social engagement on incident dementia: The Honolulu-Asia Aging Study. Am J Epidemiol 2006;163(5):433-40.
97. Karp A, Paillard-Borg S, Wang H-X, Silverstein M, Winblad B, Fratiglioni L. Mental, physical and social components in leisure activities equally contribute to decrease dementia risk. Dement Geriatr Cogn Disord 2005;21(2):65-73.
98. Di Marco LY, Marzo A, Muñoz-Ruiz M, Ikram MA, Kivipelto M, Ruefenacht D, et al. Modifiable lifestyle factors in dementia: A systematic review of longitudinal observational cohort studies. J Alzheimers Dis 2014;42(1):119-35.
99. Krueger KR, Wilson RS, Kamenetsky JM, Barnes LL, Bienias JL, Bennett DA. Social engagement and cognitive function in old age. Exp Aging Res 2009;35(1):45-60.
100. Yates LA, Ziser S, Spector A, Orrell M. Cognitive leisure activities and future risk of cognitive impairment and dementia: Systematic review and meta-analysis. Int Psychogeriatr 2016;9:1-16.
101. Ball K, Berch DB, Helmers KF, Jobe JB, Leveck MD, Marsiske M, et al. Effects of cognitive training interventions with older adults: A randomized controlled trial. JAMA 2002;288(18):2271-81.
102. Hall CB, Lipton RB, Sliwinski M, Katz MJ, Derby CA, Verghese J. Cognitive activities delay onset of memory decline in persons who develop dementia. Neurology 2009;73:356-61.
103. Sanjeev G, Weuve J, Jackson JW, VanderWeele TJ, Bennett DA, Grodstein F, et al. Late-life cognitive activity and dementia. Epidemiology 2016;27(5):732-42.
104. Wilson RS, Bennett DA, Bienias JL, Aggarwal NT, Mendes De Leon CF, Morris MC, et al. Cognitive activity and incident AD in a population-based sample of older persons. Neurology 2002;59(12):1910-4.
105. Centers for Disease Control and Prevention. Get the Stats on Traumatic Brain Injury in the United States. Available at: cdc.gov/traumaticbraininjury/pdf/BlueBook_factsheet-a.pdf. Accessed November 24, 2016.
106. National Institutes of Health. Traumatic Brain Injury. Available at: nlm.nih.gov/medlineplus/traumaticbraininjury.html. Accessed November 24, 2016.
107. Plassman BL, Havlik RJ, Steffens DC, Helms MJ, Newman TN, Drosdick D, et al. Documented head injury in early adulthood and risk of Alzheimer's disease and other dementias. Neurology 2000;55(8):1158-66.
108. Teasdale G, Jennett B. Assesment of coma and impaired consciousness: A practical scale. Lancet 1974;2(7872):81-4.
109. Lye TC, Shores EA. Traumatic brain injury as a risk factor for Alzheimer's disease: A review. Neuropsychol Rev 2000;10:115-29.
110. Gardner R, Yaffe K. Traumatic brain injury may increase risk of young onset dementia. Ann Nuerol 2014;75:339-41.
111. Fleminger S, Oliver DL, Lovestone S, Rabe-Hesketh S, Giora A. Head injury as a risk factor for Alzheimer's disease: The evidence 10 years on; a partial replication. J Neurol Neurosurg Psychiatry 2003;74:857-62.
112. Shively S, Scher AI Perl DP, Diaz-Arrastia R. Dementia resulting from traumatic brain injury: What is the pathology? Arch Neurol 2012;69:1245-51.
113. Smith DH, Johnson VE, Stewart W. Chronic neuropathologies of single and repetitive TBI: Substrates of dementia? Nat Rev Neurol 2013;9(4):211-21.
114. Guskiewicz KM. Association between recurrent concussion and late-life cognitive impairment in retired professional football players. Neurosurgery 2005;57:719-26.
115. Institute for Social Research. National Football League Player Care Foundation Study of NFL Retired Players. Ann Arbor, Mich.: University of Michigan; 2009.
116. Groswasser Z, Reider-Groswasser II, Schwab K, Ommaya AK, Pridgen A, Brown HR, et al. Quantitative imaging in late TBI. Part II: Cognition and work after closed and penetrating head injury: A report of the Vietnam Head Injury Study. Brain Inj 2002;16(8):681-90.
117. Salazar AM, Warden DL, Schwab K, Spector J, Braverman S, Walter J, et al. Cognitive rehabilitation for traumatic brain injury: A randomized trial. Defense and Veterans Head Injury Program (DVHIP) Study Group. JAMA 2000;283(23):3075-81.

ATTACHMENT-10G

118. Lehman EJ, Hein MJ, Baron SL, Gersic CM. Neurodegenerative causes of death among retired National Football League players. Neurology 2012;79(19):1970-4.
119. Omalu BI, DeKosky ST, Minster RL, Kamboh MI, Hamilton RL, Wecht CH. Chronic traumatic encephalopathy in a National Football League player. Neurosurgery 2005;57(1):128-34.
120. McKee AC, Stern RA, Nowinski CJ, Stein TD, Alvarez VE, Daneshvar DH, et al. The spectrum of disease in chronic traumatic encephalopathy. Brain 2013;136(Pt 1):43-64.
121. Monti JM, Voss MW, Pence A, McAuley E, Kramer AF, Cohen NJ. History of mild traumatic brain injury is associated with deficits in relational memory, reduced hippocampal volume, and less neural activity later in life. Front Aging Neurosci 2013;5:41.
122. Roberts GW, Allsop D, Bruton C. The occult aftermath of boxing. J Neurol Neurosurg Psychiatry 1990;53-373-8.
123. McKee AC, Stein TD, Kiernan PT, Alvarez VE. The neuropathology of chronic traumatic encephalopathy. Brain Pathol 2015;25(3):350-64.
124. Cummings JL, Morstorf T, Zhong K. Alzheimer's disease drug-development pipeline: Few candidates, frequent failures. Alzheimer Res Therapy 2014;6:37.
125. Groot C, Hooghiemstra AM, Raijmakers PG, van Berckel BN, Scheltens P, Scherder E, et al. The effect of physical activity on cognitive function in patients with dementia: A meta-analysis of randomized control trials. Ageing Res Rev 2016(25):13-23.
126. Farina N, Rusted J, Tabet N. The effect of exercise interventions on cognitive outcome in Alzheimer's disease: A systematic review. Int Psychogeriatr 2014;26(1):9-18.
127. Aguirre E, Woods RT, Spector A, Orrell M. Cognitive stiumulation for dementia: A systematic review of the evidence of effectiveness from randomised controlled trials. Ageing Res Rev 2013;12(1):253-62.
128. Vickrey BG, Mittman BS, Connor KI, Pearson ML, Della Penna RD, Ganiats TG, et al. The effect of a disease management intervention on quality and outcomes of dementia care: A randomized, controlled trial. Ann Intern Med 2006;145(10):713-26.
129. Voisin T, Vellas B. Diagnosis and treatment of patients with severe Alzheimer's disease. Drugs Aging 2009;26(2):135-44.
130. Grossberg GT, Christensen DD, Griffith PA, Kerwin DR, Hunt G, Hall EJ. The art of sharing the diagnosis and management of Alzheimer's disease with patients and caregivers: Recommendations of an expert consensus panel. Prim Care Companion J Clin Psychiatry 2010;12(1):PCC.09cs00833.
131. McKhann G, Drachman D, Folstein M, Katzman R, Price D, Stadlan EM. Clinical diagnosis of Alzheimer's disease: Report of the NINCDS-ADRDA Work Group under the auspices of Department of Health and Human Services Task Force on Alzheimer's Disease. Neurology 1984(34):939-44.
132. Hyman BT, Phelps, CH, Beach TG, Bigio EH, Cairns NJ, Carrillo MC, et al. National Institute on Aging-Alzheimer's Association guidelines on neuropathologic assessment of Alzheimer's disease. Alzheimers Dement 2012;8(1):1-13.
133. McKhann GM, Albert MS, Sperling RA. Changing diagnostic concepts of Alzheimer's Disease. In: Hampel H, Camillo MC, editors. Alzheimer's Disease — Modernizing concept, biological diagnosis and therapy. Basel, Switzerland: Karger; 2012: p. 115-21.
134. Bloudek LM, Spackman ED, Blankenburg M, Sullivan SD. Review and meta-analysis of biomarkers and diagnostic imaging in Alzheimer's disease. J Alzheimers Dis 2011;26:627-45.
135. He W, Goodkind D, Kowal P. U.S. Census Bureau, International Population Reports, P95/16-1, An Aging World: 2015, U.S. Government Publishing Office, Washington, DC, 2016. Available at census.gov/content/dam/Census/library/publications/2016/demo/p95-16-1.pdf. Accessed November 24, 2016.
136. Administration on Aging, Administration for Community Living, U.S. Department of Health and Human Services. A Profile of Older Americans: 2015. Available at: aoa.acl.gov/aging_statistics/profile/2015/docs/2015-Profile.pdf. Accessed November 24, 2016.
137. Alzheimer's Association. Early-Onset Dementia: A National Challenge, a Future Crisis. Washington, D.C.: Alzheimer's Association; 2006.
138. Plassman BL, Langa KM, Fisher GG, Heeringa SG, Weir DR, Ofstedal MB, et al. Prevalence of dementia in the United States: The Aging, Demographics, and Memory Study. Neuroepidemiology 2007;29(1-2):125-32.
139. Wilson RS, Weir DR, Leurgans SE, Evans DA, Hebert LE, Langa KM, et al. Sources of variability in estimates of the prevalence of Alzheimer's disease in the United States. Alzheimers Dement 2011;7(1):74-9.
140. Boustani M, Peterson B, Hanson L, Harris R, Lohr KN. Screening for dementia in primary care: A summary of the evidence for the U.S. Preventive Services Task Force. Ann Intern Med 2003;138(11):927-37.
141. Bradford A, Kunik ME, Schultz P, Williams SP, Singh H. Missed and delayed diagnosis of dementia in primary care: Prevalence and contributing factors. Alz Dis Assoc Disord 2009;23(4):306-14.
142. Kotagal V, Langa KM, Plassman BL, Fisher GG, Giordani BJ, Wallace RB, et al. Factors associated with cognitive evaluations in the United States. Neurology 2015;84(1):64-71.
143. Barrett AM, Orange W, Keller M, Damgaard P, Swerdlow RH. Short-term effect of dementia disclosure. How patients and families describe the diagnosis. J Am Geriatr Soc 2006;54(12):1968-70.
144. Campbell P, Wright J, Oyebode J, Job D, Crome P, Bentham P, et al. Determinants of burden in those who care for someone with dementia. Int J Geriatr Psychiatry 2008;23(10):1078-85.
145. Zaleta AK, Carpenter BD, Porensky EK, Xiong C, Morris JC. Agreement on diagnosis among patients, companions, and professionals after a dementia evaluation. Alzheimer Dis Assoc Disord 2012;26(3):232-7.
146 Amjad H, Roth DL, Samus QM, Yasar S, Wolff JL. Potentially unsafe activities and living conditions of older adults with dementia. J Am Geriatr Soc. Jun 2016;64(6):1223-32.
147. Reisberg B, Gauthier S. Current evidence for subjective cognitive impairment (SCI) as the pre-mild cognitive impairment (MCI) stage of subsequently manifest Alzheimer's disease. Int Psychogeriatr 2008;20(1):1-16.
148. Jessen F, Wolfsgruber S, Wiese B, Bickel H, Mösch E, Kaduszkiewicz H, et al. AD dementia risk in late MCI, in early MCI, and in subjective memory impairment. Alzheimers Dement 2014;10(1):76-83.
149. Jessen F, Amariglio RE, van Boxtel M, Breteler M, Ceccaldi M, Chételat G, et al. A conceptual framework for research on subjective cognitive decline in preclinical Alzheimer's disease. Alzheimers Dement 2014;10(6):844-52.
150. Buckley RF, Maruff P, Ames D, Bourgeat P, Martins RN, Masters CL, et al. Subjective memory decline predicts greater rates of clinical progression in preclinical Alzheimer's disease. Alzheimers Dement 2016;12(7):796-804.
151. Gifford KA, Liu D, Lu Z, Tripodis Y, Cantwell NG, Palmisano J, et al. The source of cognitive complaints predicts diagnostic conversion differentially among nondemented older adults. Alzheimers Dement 2014;10(3):319-27.
152. Kaup AR, Nettiksimmons J, LeBlanc ES, Yaffe K. Memory complaints and risk of cognitive impairment after nearly 2 decades among older women. Neurology 2015;85(21):1852-8.
153. Reisberg B, Shulman MB, Torossian C, Leng L, Zhu W. Outcome over seven years of healthy adults with and without subjective cognitive impairment. Alzheimers Dement 2010;6(1):11-24.

ATTACHMENT-10G

154. Fernandez-Blazquez MA, Avila-Villanueva M, Maestu F, Medina M. Specific features of subjective cognitive decline predict faster conversion to mild cognitive impairment. J Alzheimers Dis 2016;52(1):271-81.
155. Wolfsgruber S, Kleineidam L, Wagner M, Mösch E, Bickel H, Lühmann D, et al. Differential risk of incident Alzheimer's disease dementia in stable versus unstable patterns of subjective cognitive decline. J Alzheimers Dis 2016;54(3):1135-46.
156. Unpublished data from the 2015 Behavioral Risk Factor Surveillance System survey (cdc.gov/brfss). Data were analyzed and provided to the Alzheimer's Association by the Healthy Aging Program, Centers for Disease Control and Prevention (CDC).
157. Seshadri S, Wolf PA, Beiser A, Au R, McNulty K, White R, et al. Lifetime risk of dementia and Alzheimer's disease. The impact of mortality on risk estimates in the Framingham Study. Neurology 1997;49(6):1498-504.
158. Mielke MM, Vemuri P, Rocca WA. Clinical epidemiology of Alzheimer's disease: Assessing sex and gender differences. Clin Epidemiol 2014;6:37-48.
159. Hebert LE, Scherr PA, McCann JJ, Beckett LA, Evans DA. Is the risk of developing Alzheimer's disease greater for women than for men? Am J Epidemiol 2001;153(2):132-6.
160. Chene G, Beiser A, Au R, Preis SR, Wolf PA, Dufouil C, et al. Gender and incidence of dementia in the Framingham Heart Study from mid-adult life. Alzheimers Dement 2015;11(3):310-20.
161. Tom SE, Hubbard RA, Crane PK, Haneuse SJ, Bowen J, McCormick WC, et al. Characterization of dementia and Alzheimer's disease in an older population: Updated incidence and life expectancy with and without dementia. Am J Public Health 2015;105(2):408-13.
162. Carter CL, Resnick EM, Mallampalli M, Kalbarczyk A. Sex and gender differences in Alzheimer's disease: Recommendations for future research. J Womens Health 2012;21(10):1018-23.
163. Altmann A, Tian L, Henderson VW, Greicius MD, Alzheimer's Disease Neuroimaging Initiative Investigators. Sex modifies the APOE-related risk of developing Alzheimer disease. Ann Neurol 2014;75(4):563-73.
164. Ungar L, Altmann A, Greicius MD. Apolipoprotein E, gender, and Alzheimer's disease: An overlooked, but potent and promising interaction. Brain Imaging Behav 2014;8(2):262-73.
165. Yaffe K, Haan M, Byers A, Tangen C, Kuller L. Estrogen use, APOE, and cognitive decline: Evidence of gene-environment interaction. Neurology 2000;54(10):1949-54.
166. Kang JH, Grodstein F. Postmenopausal hormone therapy, timing of initiation, APOE and cognitive decline. Neurobiol Aging 2012;33(7):1129-37.
167. Rocca WA, Mielke MM, Vemuri P, Miller VM. Sex and gender differences in the causes of dementia: A narrative review. Maturitas 2014;79(2):196-201.
168. Dilworth-Anderson P, Hendrie HC, Manly JJ, Khachaturian AS, Fazio S. Diagnosis and assessment of Alzheimer's disease in diverse populations. Alzheimers Dement 2008;4(4):305-9.
169. Manly JJ, Mayeux R. Ethnic differences in dementia and Alzheimer's disease. In: Anderson N, Bulatao R, Cohen B, eds. Critical perspectives on racial and ethnic differentials in health in late life. Washington, D.C.: National Academies Press; 2004: p. 95-141.
170. Demirovic J, Prineas R, Loewenstein D, Bean J, Duara R, Sevush S, et al. Prevalence of dementia in three ethnic groups: The South Florida Program on Aging and Health. Ann Epidemiol 2003;13(6):472-78.
171. Harwood DG, Ownby RL. Ethnicity and dementia. Curr Psych Report 2000;2(1):40-5.
172. Perkins P, Annegers JF, Doody RS, Cooke N, Aday L, Vernon SW. Incidence and prevalence of dementia in a multiethnic cohort of municipal retirees. Neurology 1997;49(1):44-50.
173. Steenland K, Goldstein FC, Levey A, Wharton W. A meta-analysis of Alzheimer's disease incidence and prevalence comparing African-Americans and caucasians. J Alzheimers Dis 2015;50(1):71-6.
174. Potter GG, Plassman BL, Burke JR, Kabeto MU, Langa KM, Llewellyn DJ, et al. Cognitive performance and informant reports in the diagnosis of cognitive impairment and dementia in African Americans and whites. Alzheimers Dement 2009;5(6):445-53.
175. Gurland BJ, Wilder DE, Lantigua R, Stern Y, Chen J, Killeffer EH, et al. Rates of dementia in three ethnoracial groups. Int J Geriatr Psychiatry 1999;14(6):481-93.
176. Haan MN, Mungas DM, Gonzalez HM, Ortiz TA, Acharya A, Jagust WJ. Prevalence of dementia in older latinos: The influence of type 2 diabetes mellitus, stroke and genetic factors. J Am Geriatr Soc 2003;51:169-77.
177. Samper-Ternent R, Kuo YF, Ray LA, Ottenbacher KJ, Markides KS, Al Snih S. Prevalence of health conditions and predictors of mortality in oldest old Mexican Americans and non-Hispanic whites. J Am Med Dir Assn 2012;13(3):254-9.
178. Mayeda ER, Glymour MM, Quesenberry CP, Whitmer RA. Inequalities in dementia incidence between six racial and ethnic groups over 14 years. Alzheimers Dement 2016;12(3):216-24.
179 Yaffe K, Falvey C, Harris TB, Newman A, Satterfield S, Koster A, et al. Effect of socioeconomic disparities on incidence of dementia among biracial older adults: Prospective study. BMJ 2013;347:f7051.
180. Reitz C, Jun G, Naj A, Rajbhandary R, Vardarajan BN, Wang LS, et al. Variants in the ATP-binding cassette transporter (ABCA7), apolipoprotein E epsilon 4, and the risk of late-onset Alzheimer disease in African Americans. JAMA 2013;309(14):1483-92.
181. Froehlich TE, Bogardus ST, Jr., Inouye SK. Dementia and race: Are there differences between African Americans and Caucasians? J Am Geriatr Soc 2001;49(4):477-84.
182. Chin AL, Negash S, Hamilton R. Diversity and disparity in dementia: The impact of ethnoracial differences in Alzheimer disease. Alzheimer Dis Assoc Disord 2011;25(3):187-95.
183. Lines LM, Sherif NA, Wiener JM. Racial and ethnic disparities among individuals with Alzheimer's disease in the United States: A literature review. Research Triangle Park, NC: RTI Press; 2014.
184. Glymour MM, Manly JJ. Lifecourse social conditions and racial and ethnic patterns of cognitive aging. Neuropsychol Rev 2008;18(3):223-54.
185. Zhang Z, Hayward MD, Yu YL. Life Course Pathways to racial disparities in cognitive impairment among older Americans. J Health Soc Behav 2016;57(2):184-99.
186. Clark PC, Kutner NG, Goldstein FC, Peterson-Hazen S, Garner V, Zhang R, et al. Impediments to timely diagnosis of Alzheimer's disease in African Americans. J Am Geriatr Soc 2005;53(11):2012-7.
187. Fitten LJ, Ortiz F, Ponton M. Frequency of Alzheimer's disease and other dementias in a community outreach sample of Hispanics. J Am Geriatr Soc 2001;49(10):1301-8.
188. Unpublished tabulations based on data from the National 5% Sample Medicare Fee-for-Service Beneficiaries for 2014. Prepared under contract by Avalere Health, January 2016.
189. Weuve J, Hebert LE, Scherr PA, Evans DA. Prevalence of Alzheimer disease in U.S. states. Epidemiology 2015;26(1):e4-6.
190. Hebert LE, Beckett LA, Scherr PA, Evans DA. Annual incidence of Alzheimer disease in the United States projected to the years 2000 through 2050. Alzheimer Dis Assoc Disord 2001;15(4):169-73.
191. Manton KC, Gu XL, Ukraintseva SV. Declining prevalence of dementia in the U.S. elderly population. Adv Gerontol 2005;16:30-7.

ATTACHMENT-10G

192. Langa KM, Larson EB, Karlawish JH, Cutler DM, Kabeto MU, Kim SY, et al. Trends in the prevalence and mortality of cognitive impairment in the United States: Is there evidence of a compression of cognitive morbidity? Alzheimers Dement 2008;4(2):134-44.
193. Schrijvers EM, Verhaaren BF, Koudstaal PJ, Hofman A, Ikram MA, Breteler MM. Is dementia incidence declining? Trends in dementia incidence since 1990 in the Rotterdam Study. Neurology 2012;78(19):1456-63.
194. Qiu C, von Strauss E, Backman L, Winblad B, Fratiglioni L. Twenty-year changes in dementia occurrence suggest decreasing incidence in central Stockholm, Sweden. Neurology 2013;80(20):1888-94.
195. Christensen K, Thinggaard M, Oksuzyan A, Steenstrup T, Andersen-Ranberg K, Jeune B, et al. Physical and cognitive functioning of people older than 90 years: A comparison of two Danish cohorts born 10 years apart. Lancet 2013;382(9903):1507-13.
196. Dodge HH, Zhu J, Lee CW, Chang CC, Ganguli M. Cohort effects in age-associated cognitive trajectories. J Gerontol A Biol Sci Med Sci 2014;69(6):687-94.
197. Satizabal CL, Beiser AS, Chouraki V, Chene G, Dufouil C, Seshadri S. Incidence of dementia over three decades in the Framingham Heart Study. N Engl J Med 2016;374:523-32.
198. Doblhammer G, Fink A, Zylla S, Fritze T, Willekens F. Short-term trends in German dementia prevalence, incidence, and mortality. Presentation at the Alzheimer's Association International Conference; July 16, 2014.
199. Matthews FE, Arthur A, Barnes LE, Bond J, Jagger C, Robinson L, et al. A two-decade comparison of prevalence of dementia in individuals aged 65 years and older from three geographical areas of England: Results of the Cognitive Function and Ageing Study I and II. Lancet 2013;382(9902):1405-12.
200. Rocca WA, Petersen RC, Knopman DS, Hebert LE, Evans DA, Hall KS, et al. Trends in the incidence and prevalence of Alzheimer's disease, dementia, and cognitive impairment in the United States. Alzheimers Dement 2011;7(1):80-93.
201. Matthews FE, Stephan BC, Robinson L, Jagger C, Barnes LE, Arthur A, et al. A two decade dementia incidence comparison from the Cognitive Function and Ageing Studies I and II. Nat Commun 2016;7:11398.
202. Langa KM, Larson EB, Crimmins EM, Faul JD, Levine DA, Kabeto MU, et al. A Comparison of the prevalence of dementia in the United States in 2000 and 2012. JAMA Intern Med 2016;doi:10.1001/jamainternmed.2016.6807 [epub ahead of print].
203. Langa KM. Is the risk of Alzheimer's disease and dementia declining? Alzheimers Res Ther 2015;7(1):34.
204. Larson EB, Yaffe K, Langa KM. New insights into the dementia epidemic. N Engl J Med 2013;369(24):2275-7.
205. Prince MJ, Wimo A, Guerchet M, Ali G-C, Wu Y-T, Prina M. World Alzheimer Report 2015: The Global Impact of Dementia: An Analysis of Prevalence, Incidence, Cost and Trends. 2015.
206. Ortman JM, Velkoff VA, Hogan H. An Aging Nation: The Older Population in the United States. Current Population Reports, P25-1140. U.S. Census Bureau, Washington, D.C. 2014. Available at: census.gov/content/dam/Census/library/publications/2014/demo/p25-1140.pdf. Accessed November 24, 2016.
207. Hebert LE, Scherr PA, Bienias JL, Bennett DA, Evans DA. Alzheimer's disease in the U.S. population: Prevalence estimates using the 2000 Census. Arch Neurol 2003;60:1119-22.
208. Kochanek KD, Murphy SL, Xu JQ, Tejada-Vera B. Deaths: Final Data for 2014, National Vital Statistics Reports; vol 65, no 4. Hyattsville, Md.: National Center for Health Statistics; 2016.
209. World Health Organization. International Statistical Classification of Diseases and Related Health Problems. 10th revision. 2nd edition. WHO Press: Geneva, Switzerland; 2004.
210. Burns A, Jacoby R, Luthert P, Levy R. Cause of death in Alzheimer's disease. Age Ageing 1990;19(5):341-44.
211. Brunnstrom HR, Englund EM. Cause of death in patients with dementia disorders. Eur J Neurol 2009;16(4):488-92.
212. Ives DG, Samuel P, Psaty BM, Kuller LH. Agreement between nosologist and Cardiovascular Health Study review of deaths: Implications of coding differences. J Am Geriatr Soc 2009;57(1):133-9.
213. Romero JP, Benito-Leon J, Mitchell AJ, Trincado R, Bermejo-Pareja F. Under reporting of dementia deaths on death certificates using data from a population-based study (NEDICES). J Alzheimers Dis 2014;39(4):741-8.
214. Romero JP, Benito-Leon J, Louis ED, Bermejo-Pareja F. Under reporting of dementia deaths on death certificates: A systematic review of population-based cohort studies. J Alzheimers Dis 2014;41(1):213-21.
215. Ganguli M, Rodriguez EG. Reporting of dementia on death certificates: A community study. J Am Geriatr Soc 1999;47(7):842-9.
216. James BD, Leurgans SE, Hebert LE, Scherr PA, Yaffe K, Bennett DA. Contribution of Alzheimer disease to mortality in the United States. Neurology 2014;82(12):1045-50.
217. Weuve J, Hebert LE, Scherr PA, Evans DA. Deaths in the United States among persons with Alzheimer's disease (2010-2050). Alzheimers Dement 2014;10(2):e40-6.
218. Arrighi HM, Neumann PJ, Lieberburg IM, Townsend RJ. Lethality of Alzheimer disease and its impact on nursing home placement. Alzheimer Dis Assoc Disord 2010;24(1):90-5.
219. National Center for Health Statistics. Deaths: Final Data for 2000. National Vital Statistics Reports. Hyattsville, Md.: National Center for Health Statistics; 2002.
220. Tejada-Vera B. Mortality from Alzheimer's disease in the United States: Data for 2000 and 2010. National Center for Health Statistics Data Brief, No. 116. National Center for Health Statistics, Hyattsville, Md.; 2013.
221. Ganguli M, Dodge HH, Shen C, Pandav RS, DeKosky ST. Alzheimer disease and mortality: A 15-year epidemiological study. Arch Neurol 2005;62(5):779-84.
222. Waring SC, Doody RS, Pavlik VN, Massman PJ, Chan W. Survival among patients with dementia from a large multi-ethnic population. Alzheimer Dis Assoc Disord 2005;19(4):178-83.
223. Brookmeyer R, Corrada MM, Curriero FC, Kawas C. Survival following a diagnosis of Alzheimer disease. Arch Neurol 2002;59(11):1764-7.
224. Larson EB, Shadlen MF, Wang L, McCormick WC, Bowen JD, Teri L, et al. Survival after initial diagnosis of Alzheimer disease. Ann Intern Med 2004;140(7):501-9.
225. Helzner EP, Scarmeas N, Cosentino S, Tang MX, Schupf N, Stern Y. Survival in Alzheimer disease: A multiethnic, population-based study of incident cases. Neurology 2008;71(19):1489-95.
226. Xie J, Brayne C, Matthews FE. Survival times in people with dementia: Analysis from a population based cohort study with 14-year follow-up. BMJ 2008;336(7638):258-62.
227. Brodaty H, Seeher K, Gibson L. Dementia time to death: A systematic literature review on survival time and years of life lost in people with dementia. Int Psychogeriatr 2012;24(7):1034-45.
228. Todd S, Barr S, Roberts M, Passmore AP. Survival in dementia and predictors of mortality: A review. Int J Geriatr Psychiatry 2013;28(11):1109-24.
229. Mitchell SL, Teno JM, Miller SC, Mor V. A national study of the location of death for older persons with dementia. J Am Geriatr Soc 2005;53(2):299-305.
230. U.S. Burden of Disease Collaborators. The state of U.S. health, 1990-2010: Burden of diseases, injuries, and risk factors. JAMA 2013;310(6):591-608.

ATTACHMENT-10G

231. Gaugler JE, Kane RL, Kane RA. Family care for older adults with disabilities: Toward more targeted and interpretable research. Int J Aging Hum Dev 2002;54(3):205-31.
232. Schulz R, Quittner AL. Caregiving through the life-span: Overview and future directions. Health Psychol 1998;17:107-11.
233. Friedman EM, Shih RA, Langa KM, Hurd MD. U.S. prevalence and predictors of informal caregiving for dementia. Health Aff 2015;34(10):1637-41.
234. Wolff JL, Spillman BC, Freedman VA, Kasper JD. A national profile of family and unpaid caregivers who assist older adults with health care activities. JAMA Intern Med 2016;176(3):372-9.
235. Only Walmart: 2016 Annual Report. Available at: corporatereport.com/walmart/2016/ar/_pdf/WMT_2016AR.pdf. Accessed January 12, 2017.
236. McDonald's Corporation Report 2015. Available at: corporate.mcdonalds.com/content/dam/AboutMcDonalds/Investors%202/2015%20Annual%20Report.pdf. Accessed November 24, 2016.
237. Hurd MD, Martorell P, Delavande A, Mullen KJ, Langa KM. Monetary costs of dementia in the United States. N Engl J Med 2013;368:1326-34.
238. Kasper JD, Freedman VA, Spillman BC, Wolff JL. The disproportionate impact of dementia on family and unpaid caregiving to older adults. Health Aff 2015;34(10):1642-49.
239. Kasper JD, Freedman VA, Spillman BC. Disability and Care Needs of Older Americans by Dementia Status: An Analysis of the 2011 National Health and Aging Trends Study. U.S. Department of Health and Human Services; 2014. Available at: aspe.hhs.gov/report/disability-and-care-needs-older-americans-dementia-status-analysis-2011-national-health-and-aging-trends-study. Accessed November 24, 2016.
240. Bouldin ED, Andresen E. Caregiving Across the United States: Caregivers of Persons with Alzheimer's Disease or Dementia in 8 States and the District of Columbia, Data from the 2009 & 2010 Behavioral Risk Factor Surveillance System. Available at: alz.org/documents_custom/public-health/2009-2010-combined-caregiving.pdf. Accessed November 24, 2016.
241. Langa KM, Plassman BL, Wallace RB, Herzog AR, Heeringa SG, Ofstedal MB, et al. The Aging, Demographics, and Memory Study. Study design and methods. Neuroepidemiology 2005;25(4)181-91.
242. Fisher GG, Franks MM, Plassman BL, Brown SL, Potter GG, Llewellyn D, et al. Caring for individuals with dementia and cognitive impairment, not dementia: Findings from The Aging, Demographics, and Memory Study. J Am Geriatr Soc 2011;59(3):488-94.
243. National Alliance for Caregiving and AARP. Caregiving in the U.S.: Unpublished data analyzed under contract for the Alzheimer's Association; 2016.
244. National Alliance for Caregiving and United Hospital Fund. Young Caregivers in the U.S.: Report of Findings; September 2005. Available at: caregiving.org/data/youngcaregivers.pdf. Accessed December 14, 2016.
245. National Alliance for Caregiving and AARP. Caregiving in the U.S.: Unpublished data analyzed under contract for the Alzheimer's Association; 2009.
246. Alzheimer's Association. 2014 Alzheimer's Disease Facts and Figures. Special report: Women and Alzheimer's disease. Available at: alz.org/downloads/Facts_Figures_2014.pdf. Accessed November 24, 2016.
247. Pinquart M, Sörensen S. Gender differences in caregiver stressors, social resources, and health: An updated meta-analysis. J Gerontol B Psychol Sci Soc Sci 2006;61(1):P33-P45. Available at: psychsocgerontology.oxfordjournals.org/content/61/1/P33.long. Accessed November 24, 2016.
248. National Alliance for Caregiving and AARP. Caregiving in the U.S. (2015). Available at: caregiving.org/wp-content/uploads/2015/05/2015_CaregivingintheUS_Final-Report-June-4_WEB.pdf. Accessed November 24, 2016.
249. Spillman B, Wolff J, Freedman VA, Kasper JD. Informal Caregiving for Older Americans: An Analysis of the 2011 National Health and Aging Trends Study. Available at: aspe.hhs.gov/report/informal-caregiving-older-americans-analysis-2011-national-study-caregiving. Accessed January 12, 2017.
250. Garity J. Caring for a family member with Alzheimer's disease: Coping with caregiver burden post-nursing home placement. J Gerontol Nurs 2006;32(6):39-48.
251. Port CL, Zimmerman S, Williams CS, Dobbs D, Preisser JS, Williams SW. Families filling the gap: Comparing family involvement for assisted living and nursing home residents with dementia. Gerontologist 2005;45(Special Issue 1):87-95.
252. Schulz R, Belle SH, Czaja SJ, McGinnis KA, Stevens A, Zhang S. Long-term care placement of dementia patients and caregiver health and well-being. JAMA 2004;292(8):961-7.
253. Rattinger GB, Schwartz S, Mullins CD, Corcoran C, Zuckerman IH, Sanders C, et al. Dementia severity and the longitudinal costs of informal care in the Cache County population. Alzheimers Dement 2015;11(8):946-54.
254. Rattinger GB, Fauth EB, Behrens S, Sanders C, Schwartz S, Norton MC, et al. Closer caregiver and care-recipient relationships predict lower informal costs of dementia care: The Cache County Dementia Progression Study. Alz Dement 2016;12(8):917-24.
255. Ornstein K, Gaugler JE. The problem with "problem behaviors": A systematic review of the association between individual patient behavioral and psychological symptoms and caregiver depression and burden within the dementia patient-caregiver dyad. Int Psychogeriatr 2012;24(10):1536-52.
256. Vaingankar JA, Chong SA, Abdin E, Picco L, Shafie S, Seow E, et al. Psychiatric morbidity and its correlates among informal caregivers of older adults. Compr Psychiatry 2016;68:178-85.
257. Feast A, Moniz-Cook E, Stoner C, Charlesworth G, Orrell M. A systematic review of the relationship between behavioral and psychological symptoms (BPSD) and caregiver well-being. Int Psychogeriatr 2016;28(11):1761-74.
258. Kiecolt-Glaser JK, Glaser R, Gravenstein S, Malarkey WB, Sheridan J. Chronic stress alters the immune response to influenza virus vaccine in older adults. Proc Natl Acad Sci 1996;93:3043-7.
259. Schulz R, Beach SR. Caregiving as a risk factor for mortality: The Caregiver Health Effects Study. JAMA 1999;282:2215-60.
260. Vitaliano PP, Zhang J, Scanlan JM. Is caregiving hazardous to one's physical health? A meta-analysis. Psychol Bull 2003;129(6):946-72.
261. Liu W, Gallagher-Thompson D. Impact of dementia caregiving: Risks, strains, and growth. In: Qualls SH, Zarit SH, eds. Aging families and caregiving. Hoboken, N.J.: John Wiley & Sons, Inc.; 2009: p. 85-112.
262. Pinquart M, Sörensen S. Associations of stressors and uplifts of caregiving with caregiver burden and depressive mood: A meta-analysis. J Gerontol B Psychol Sci Soc Sci 2003;58(2):112-28.
263. Sörensen S, Duberstein P, Gill D, Pinquart M. Dementia care: Mental health effects, intervention strategies, and clinical implications. Lancet Neurol 2006;5(11):961-73.
264. Goren A, Montgomery W, Kahle-Wrobleski K, Nakamura T, Ueda K. Impact of caring for persons with Alzheimer's disease or dementia on caregivers' health outcomes: Findings from a community based survey in Japan. BMC Geriatr 2016;16:122.
265. Alzheimer's Association. 2016 Facts and Figures. Special Report.
266. Zarit S. Positive aspects of caregiving: More than looking on the bright side. Aging Ment Health 2012;16(6):673-74.

ATTACHMENT-10G

267. Cheng ST, Mak EP, Lau RW, Ng NS, Lam LC. Voices of Alzheimer caregivers on positive aspects of caregiving. Gerontologist 2016;56(3):451-60.
268. Monin JK, Schulz R, Feeney BC. Compassionate love in individuals with Alzheimer's disease and their spousal caregivers: Associations with caregivers' psychological health. Gerontologist 2015;55(6):981-9.
269. Roth DL, Dilworth-Anderson P, Huang J, Gross AL, Gitlin LN. Positive aspects of family caregiving for dementia: Differential item functioning by race. J Gerontol B Psychol Sci Soc Sci 2015;70(6):813-9.
270. Schulz R, O'Brien AT, Bookwala J, Fleissner K. Psychiatric and physical morbidity effects of dementia caregiving. Prevalence, correlates, and causes. Gerontologist 1995;35(6):771-91.
271. Baumgarten M, Battista RN, Infante-Rivard C, Hanley JA, Becker R, Gauthier S. The psychological and physical health of family members caring for an elderly person with dementia. J Clin Epidemiol 1992;45(1):61-70.
272. Mausbach BT, Chattillion EA, Roepke SK, Patterson TL, Grant I. A comparison of psychosocial outcomes in elderly Alzheimer caregivers and noncaregivers. Am J Geriatr Psychiatry 2013;21(1):5-13.
273. Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry 2005;62:617-27.
274. Sallim AB, Sayampanathan AA, Cuttilan A, Chun-Man Ho R. Prevalence of mental health disorders among caregivers of patients with Alzheimer disease. J Am Med Dir Assoc 2015;16(12):1034-41.
275. Thunyadee C, Sitthimongkol Y, Sangon S, Chai-Aroon T, Hegadoren KM. Predictors of depressive symptoms and physical health in caregivers of individuals with schizophrenia. J Nurs Health Sci 2015;17:412-19.
276. Atteih S, Mellon L, Hall P, Brewer L, Horgan F, Williams D, et al. Implications of stroke for caregiver outcomes: Findings from the ASPIRE-S Study. Int J Stroke 2015;10:918-23.
277. Seeher K, Low L-F, Reppermund S, Brodaty H. Predictors and outcomes for caregivers of people with mild cognitive impairment: A systematic literature review. Alzheimers Dement 2013;9(3):346-55.
278. Epstein-Lubow G, Gaudiano B, Darling E, Hinckley M, Tremont G, Kohn R, et al. Differences in depression severity in family caregivers of hospitalized individuals with dementia and family caregivers of outpatients with dementia. Am J Geriatr Psychiatry 2012;20(9):815-9.
279. Vitaliano PP, Ustundag O, Borson S. Objective and subjective cognitive problems among caregivers and matched non-caregivers. Gerontologist 2016;pii:gnv690 [epub ahead of print].
280. Dassel KB, Carr DC, Vitaliano P. Does caring for a spouse with dementia accelerate cognitive decline? Findings from the Health and Retirement Study. Gerontologist 2015;pii:gnv148 [epub ahead of print].
281. Gillespie R, Mullan J, Harrison L. Managing medications: The role of informal caregivers of older adults and people living with dementia: A review of the literature. J Clin Nurs 2014;23(23-24):3296-308.
282. Alsaeed D, Jamieson E, Gul MO, Smith FJ. Challenges to optimal medicines use in people living with dementia and their caregivers: A literature review. Int J Pharm 2016;512(2):396-404.
283. Rubin R, White-Means S. Informal caregiving: Dilemmas of sandwiched caregivers. J Fam Econ Issues 2009;30(3):252-67.
284. Chassin L, Macy JT, Seo D-C, Presson CC, Sherman SJ. The association between membership in the sandwich generation and health behaviors: A longitudinal study. J Appl Dev Psychol 2010;31(1):38-46.
285. Do EK, Cohen SA, Brown MJ. Socioeconomic and demographic factors modify the association between informal caregiving and health in the Sandwich Generation. BMC Public Health 2014;14:362.
286. Gaugler JE, Mittelman MS, Hepburn K, Newcomer R. Clinically significant changes in burden and depression among dementia caregivers following nursing home admission. BMC Medicine 2010;8:85.
287. Mausbach BT, Chattillion EA, Ho J, Flynn LM, Tiznado D, von Känel R, Patterson TL, Grant I. Why does placement of persons with Alzheimer's disease into long-term care improve caregivers' well-being? Examination of psychological mediators. Psychol Aging 2014;29(4):776-86.
288. Peacock SC. The experience of providing end-of-life care to a relative with advanced dementia: An integrative literature review. Palliat Support Care 2013;11(2):155-68.
289. Schulz R, Mendelsohn AB, Haley WE, Mahoney D, Allen RS, Zhang S, et al. End-of-life care and the effects of bereavement on family caregivers of persons with dementia. N Engl J Med 2003;349(20):1936-42.
290. Fonareva I, Oken BS. Physiological and functional consequences of caregiving for relatives with dementia. Int Psychogeriatr 2014;26(5):725-47.
291. von Känel R, Mausbach BT, Ancoli-Israel S, Mills PJ, Dimsdale JE, Patterson TL, Grant I. Positive affect and sleep in spousal Alzheimer caregivers: A longitudinal study. Behav Sleep Med 2014;12(5):358-72.
292. Peng H-L, Chang Y-P. Sleep disturbance in family caregivers of individuals with dementia: A review of the literature. Perspect Psychiatr C 2012;49(2):135-46.
293. Välimäki TH, Martikainen JA, Hongisto K, Väätäinen S, Sintonen H, Koivisto AM. Impact of Alzheimer's disease on the family caregiver's long-term quality of life: Results from an ALSOVA follow-up study. Qual Life Res 2016;25(3):687-97.
294 Bremer P, Cabrera E, Leino-Kilpi H, Lethin C, Saks K, Sutcliffe C. Informal dementia care: Consequences for caregivers' health and health care use in 8 European countries. Health Policy 2015;119(11):1459-71.
295. MetLife Mature Market Institute. The MetLife Study of Alzheimer's Disease: The Caregiving Experience; August 2006. Available at: metlife.com/assets/cao/mmi/publications/studies/mmi-alzheimers-disease-caregiving-experience-study.pdf. Accessed November 24, 2016.
296. Dassel KB, Carr DC. Does dementia caregiving accelerate frailty? Findings from the Health and Retirement Study. Gerontologist 2016;56(3):444-50.
297. Fredman L, Bertrand RM, Martire LM, Hochberg M, Harris EL, Leisure-time exercise and overall physical activity in older women caregivers and non-caregivers from the Caregiver-SOF Study. Prev Med 2006;43:226-9.
298. Roepke SK, Allison M, Von Kanel R, Mausbach BT, Chattillion, EA, Harmell AL, et al. Relationship between chronic stress and carotid intima-media thickness (IMT) in elderly Alzheimer's disease caregivers. Stress 2012;15(2):121-9.
299. Gouin J, Glaser R, Malarkey WB, Beversdorf D, Kiecolt-Glaser J. Chronic stress, daily stressors, and circulating inflammatory markers. Health Psychol 2012;31(2):264-8.
300. von Kanel R, Mills PJ, Mausbach BT, Dimsdale JE, Patterson TL, Ziegler MG, et al. Effect of Alzheimer caregiving on circulating levels of C-reactive protein and other biomarkers relevant to cardiovascular disease risk: A longitudinal study. Gerontology 2012;58(4):354-65.
301. von Kanel R, Mausbach BT, Dimsdale JE, Mills PJ, Patterson TL, Ancoli-Israel S, et al. Effect of chronic dementia caregiving and major transitions in the caregiving situation on kidney function: A longitudinal study. Psychosom Med 2012;74(2):214-20.

ATTACHMENT-10G

302. Mausbach BT, Chattillion E, Roepke SK, Ziegler MG, Milic M, von Kanel R, et al. A longitudinal analysis of the relations among stress, depressive symptoms, leisure satisfaction, and endothelial function in caregivers. Health Psychol 2012;31(4):433-40.
303. Chattillion EA, Mausbach BT, Roepke SK, von Kanel R, Mills PJ, Dimsdale JE, et al. Leisure activities, caregiving demands and catecholamine levels in dementia caregivers. Psychol Health 2012;27(10):1134-49.
304. von Kanel R, Dimsdale JE, Mills PJ, Ancoli-Israel S, Patterson TL, Mausbach BT, et al. Effect of Alzheimer caregiving stress and age on frailty markers interleukin-6, C-reactive protein, and D-dimer. J Gerontol A Biol Sci Med Sci 2006;61(9):963-9.
305. Kiecolt-Glaser JK, Dura JR, Speicher CE, Trask OJ, Glaser R. Spousal caregivers of dementia victims: Longitudinal changes in immunity and health. Psychosom Med 1991;53:345-62.
306. Kiecolt-Glaser JK, Marucha PT, Mercado AM, Malarkey WB, Glaser R. Slowing of wound healing by psychological stress. Lancet 1995;346(8984):1194-6.
307. Vitaliano PP, Scanlan JM, Zhang J, Savage MV, Hirsch IB, Siegler I. A path model of chronic stress, the metabolic syndrome, and coronary heart disease. Psychosom Med 2002;64:418-35.
308. Shaw WS, Patterson TL, Ziegler MG, Dimsdale JE, Semple SJ, Grant I. Accelerated risk of hypertensive blood pressure recordings among Alzheimer caregivers. J Psychosom Res 1999;46(3):215-27.
309. Mausbach BT, Roepke SK, Ziegler MG, Milic M, Von Kanel R, Dimsdale JE, et al. Association between chronic caregiving stress and impaired endothelial function in the elderly. J Am Coll Cardiol 2010;55(23):2599-606.
310. Schubert CC, Boustani M, Callahan CM, Perkins AJ, Hui S, Hendrie HC. Acute care utilization by dementia caregivers within urban primary care practices. J Gen Intern Med 2008;23(11):1736-40.
311. Zhu CW, Scarmeas N, Ornstein K, Albert M, Brandt J, Blacker D, et al. Health-care use and cost in dementia caregivers: Longitudinal results from the Predictors Caregiver Study. Alzheimers Dement 2015;11(4):444-54.
312. Christakis NA, Allison PD. Mortality after the hospitalization of a spouse. N Engl J Med 2006;354:719-30.
313 Perkins M, Howard VJ, Wadley VG, Crowe M, Safford MM, Haley WE, et al. Caregiving strain and all-cause mortality: Evidence from the REGARDS Study. J Gerontol B Psychol Sci Soc Sci 2013;68(4):504-12.
314. Gitlin LN, Hodgson N. Caregivers as therapeutic agents in dementia care: The evidence-base for interventions supporting their role. In: Gaugler JE, Kane RL, eds. Family caregiving in the new normal. Philadelphia, Pa.: Elsevier, Inc.; 2015: p. 305-56.
315. Maslow K. Translating Innovation to Impact: Evidence-Based Interventions to Support People with Alzheimer's Disease and their Caregiver at Home and in the Community. Washington, D.C.: Administration on Aging; 2012. Available at: aoa.acl.gov/AoA_Programs/HPW/Alz_Grants/docs/TranslatingInnovationtoImpactAlzheimersDisease.pdf. Accessed November 24, 2016.
316. Rosalynn Carter Institute for Caregiving. Caregiver Intervention Database. Available at: rosalynncarter.org/caregiver_intervention_database/. Accessed November 24, 2016.
317. Menne HL, Bass DM, Johnson JD, Primetica B, Kearney KR, Bollin S, et al. Statewide implementation of "reducing disability in Alzheimer's disease": Impact on family caregiver outcomes. J Gerontol Soc Work 2014;57(6-7):626-39.
318. Teri L, McKenzie G, Logsdon RG, McCurry SM, Bollin S, Mead J, et al. Translation of two evidence-based programs for training families to improve care of persons with dementia. Gerontologist 2012;52(4):452-9.
319. Gitlin LN, Jacobs M, Earland TV. Translation of a dementia caregiver intervention for delivery in homecare as a reimbursable Medicare service: Outcomes and lessons learned. Gerontologist 2010;50(6):847-54.
320. Burgio LD, Collins IB, Schmid B, Wharton T, McCallum D, Decoster J. Translating the REACH caregiver intervention for use by area agency on aging personnel: The REACH OUT program. Gerontologist 2009;49(1):103-16.
321. Mittelman MS, Bartels SJ. Translating research into practice: Case study of a community-based dementia caregiver intervention. Health Aff 2014,33(4):587-95.
322. Cheung KS, Lau BH, Wong PW, Leung AY, Lou VW, Chan GM, et al. Multicomponent intervention on enhancing dementia caregiver well-being and reducing behavioral problems among Hong Kong Chinese: A translational study based on REACH II. Int J Geriatr Psychiatry 2015;30(5):460-9.
323. Samia LW, Aboueissa AM, Halloran J, Hepburn K. The Maine Savvy Caregiver Project: Translating an evidence-based dementia family caregiver program within the RE-AIM Framework. J Gerontol Soc Work 2014;57(6-7):640-61.
324. Lykens K, Moayad N, Biswas S, Reyes-Ortiz C, Singh KP. Impact of a community based implementation of REACH II program for caregivers of Alzheimer's patients. PLoS One 2014;9(2):e89290.
325. Menne HL, Bass DM, Johnson JD, Kearney KR, Bollin S, Teri L. Program components and outcomes of individuals with dementia: Results from the replication of an evidence-based program. J Appl Gerontol 2015;pii:0733464815591212 [epub ahead of print].
326. Primetica B, Menne HL, Bollin S, Teri L, Molea M. Evidente-Based Program replication: Translational activities, experiences, and challenges. J Appl Gerontol 2015;34(5):652-70.
327. Fortinsky RH, Gitlin LN, Pizzi LT, Piersol CV, Grady J, Robison JT, et al. Translation of the Care of Persons with Dementia in their Environments (COPE) intervention in a publicly-funded home care context: Rationale and research design. Contemp Clin Trials 2016;49:155-65.
328. Nichols LO, Martindale-Adams J, Burns R, Zuber J, Graney MJ. REACH VA: Moving from translation to system implementation. Gerontologist 2016;56(1):135-44.
329. Boots LM, de Vugt ME, van Knippenberg RJ, Kempen GI, Verhey FR. A systematic review of internet-based supportive interventions for caregivers of patients with dementia. Int J Geriatr Psych 2015;29(4):331-44.
330. Czaja SJ, Loewenstein D, Schulz R, Nair SN, Perdomo D. A videophone psychosocial intervention for dementia caregivers. Am J Geriatr Psychiatry 2013;21(11):1071-81.
331. Griffiths PC, Whitney MK, Kovaleva M, Hepburn K. Development and implementation of tele-savvy for dementia caregivers: A Department of Veterans Affairs Clinical Demonstration Project. Gerontologist 2016;56(1):145-54.
332. Gaugler JE, Potter T, Pruinelli L. Partnering with caregivers. Clin Geriatr Med 2014;30(3):493-515.
333. Gitlin LN, Marx K, Stanley IH, Hodgson N. Translating evidence-based dementia caregiving interventions into practice: State-of-the-science and next steps. Gerontologist 2015;55(2):210-26.
334. Wethington E, Burgio LD. Translational research on caregiving: Missing links in the translation process. In Gaugler JE, Kane RL, eds. Family caregiving in the new normal. Philadelphia, Pa.: Elsevier, Inc; 2015: p. 193-210.
335. Zarit SH. Empirically supported treatment for family caregivers. In: Qualls SH, Zarit SH, eds. Aging families and caregiving. Hoboken, N.J.: John Wiley & Sons, Inc.; 2009: p. 131-54.
336. Zarit SH, Lee JE, Barrineau MJ, Whitlatch CJ, Femia EE. Fidelity and acceptability of an adaptive intervention for caregivers: An exploratory study. Aging Ment Health 2013;17(2):197-206.

ATTACHMENT-10G

337. Van Mierlo LD, Meiland FJ, Van Hout HP, Dröes RM. Toward an evidence-based implementation model and checklist for personalized dementia care in the community. Int Psychogeriatr 2016;28(5):801-13.
338. Gaugler JE, Reese M, Tanler R. Care to Plan: An online tool that offers tailored support to dementia caregivers. Gerontologist 2016;56(6):1161-74.
339. Gonyea JG, López LM, Velásquez EH. The effectiveness of a culturally sensitive cognitive behavioral group intervention for Latino Alzheimer's caregivers. Gerontologist 2016;56(2):292-302.
340. Llanque SM, Enriquez M. Interventions for Hispanic caregivers of patients with dementia: A review of the literature. Am J Alzheimers Dis Other Demen 2012;27(1):23-32.
341. Kally Z, Cote SD, Gonzalez J, Villarruel M, Cherry DL, Howland S, et al. The Savvy Caregiver Program: Impact of an evidence-based intervention on the well-being of ethnically diverse caregivers. J Gerontol Soc Work 2014;57(6-7):681-93.
342. Kally Z, Cherry DL, Howland S, Villarruel M. Asian Pacific Islander dementia care network: A model of care for underserved communities. J Gerontol Soc Work 2014;57(6-7):710-27.
343. Napoles AM, Chadiha L, Eversley R, Moreno-John G. Reviews: Developing culturally sensitive dementia caregiver interventions: Are we there yet? Am J Alzheimers Dis Other Dement 2010;25:389-406.
344. Hicken BL, Daniel C, Luptak M, Grant M, Kilian S, Rupper RW. Supporting caregivers of rural veterans electronically (SCORE). J Rural Health 2016:doi:10.1111/jrh.12195 [epub ahead of print].
345. Graham-Phillips A, Roth DL, Huang J, Dilworth-Anderson P, Gitlin LN. Racial and Ethnic Differences in the Delivery of the Resources for Enhancing Alzheimer's Caregiver Health II Intervention. J Am Geriatr Soc 2016;64(8):1662-7.
346. Khatutsky G, Wiener J, Anderson W, Akhmerova V, Jessup EA, Squillace MR. Understanding direct care workers: A snapshot of two of America's most important jobs: Certified nursing assistants and home health aides. Washington, DC: U.S. Department of Health and Human Services; 2011.
347. Jones AL, Dwyer LL, Bercovitz AR, Strahan GW. The National Nursing Home Survey: 2004 Overview. Vital Health Stat 2009;(167):1-155.
348. Kramer NA, Smith MC. Training nursing assistants to care for nursing home residents with dementia. In: Molinari V, editor. Professional psychology in long- term care. New York, N.Y.: Hatherleigh Press; 2000: p. 227-56.
349. McCabe MP, Davison TE, George K. Effectiveness of staff training programs for behavioral problems among older people with dementia. Aging Ment Health 2007;11(5):505-19.
350. Beck C, Ortigara A, Mercer S, Shue V. Enabling and empowering certified nursing assistants for quality dementia care. Int J Geriatr Psychiatry 1999;14(3):197-211.
351. Institute of Medicine. Retooling for an Aging America: Building the Health Care Workforce. Washington, D.C.: The National Academies Press 2008. Available at: nationalacademies.org/hmd/~/media/Files/Report%20Files/2008/Retooling-for-an-Aging-America-Building-the-Health-Care-Workforce/ReportBriefRetoolingforanAgingAmericaBuildingtheHealthCareWorkforce.pdf. Accessed November 30, 2016.
352. Stone RI. Factors affecting the future of family caregiving in the United States. In JE Gaugler, RL Kane,eds. Family caregiving in the new normal. San Diego, Calif.: Elsevier, Inc; 2015: p. 57-77.
353. Elvish R, Burrow S, Cawley R, Harney K, Pilling M, Gregory J, et al. 'Getting to know me': The second phase roll-out of a staff training programme for supporting people with dementia in general hospitals. Dementia (London) 2016;pii:1471301216634926 [epub ahead of print].
354. Spector A, Orrell M, Goyder J. A systematic review of staff training interventions to reduce the behavioural and psychological symptoms of dementia. Ageing Res Rev 2013;12(1):354-64.
355. Bray J, Evans S, Bruce M, Carter C, Brooker D, Milosevic S, et al. Enabling hospital staff to care for people with dementia Nurs Older People 2015;27(10):29-32.
356. Palmer JL, Lach HW, McGillick J, Murphy-White M, Carroll MB, Armstrong JL. The Dementia Friendly Hospital Initiative education program for acute care nurses and staff. J Contin Educ Nurs 2014;45(9):416-24.
357. Surr CA, Smith SJ, Crossland J, Robins J. Impact of a person-centred dementia care training programme on hospital staff attitudes, role efficacy and perceptions of caring for people with dementia: A repeated measures study. Int J Nurs Stud 2016;53:144-51.
358. Eldercare Workforce Alliance. Geriatrics Workforce Shortage: A Looming Crisis for our Families. Washington, D.C.: Eldercare Workforce Alliance; 2012.
359. The American Geriatrics Society. The Geriatrics Workforce Policy Studies Center (GWPS). Available at: americangeriatrics.org/advocacy_public_policy/gwps/gwps_faqs/id:3188. Accessed November 24, 2016.
360 Hoffman D, Zucker H. A call to preventive action by health care providers and policy makers to support caregivers. Prev Chronic Dis 2016;13:E96.
361. Adelman RD, Tmanova LL, Delgado D, Dion S, Lachs MS. Caregiver burden: A clinical review. JAMA 2014;311(10):1052-60.
362. Riedel O, Klotsche J, Wittchen HU. Overlooking informal dementia caregivers' burden. Res Gerontol Nurs 2016;9(4):167-74.
363. Alzheimer's Association National Plan Care and Support Milestone Workgroup, Borson S, Boustani MA, Buckwalter KC, Burgio LD, Chodosh J, et al. Report on milestones for care and support under the U.S. National Plan to Address Alzheimer's Disease. Alzheimer's & Dementia 2016;12(3):334-69.
364. Gaugler JE, Westra BL, Kane RL. Professional discipline and support recommendations for family caregivers of persons with dementia. Int Psychogeriatr 2016;28(6):1029-40.
365. Austrom MG, Carvell CA, Alder CA, Gao S, Boustani M, LaMantia M. Workforce development to provide person-centered care. Aging Ment Health 2016;20(8):781-92.
366. Brody AA, Galvin JE. A review of interprofessional dissemination and education interventions for recognizing and managing dementia. Gerontol Geriatr Educ 2013;34(3):225-56.
367. McCaffrey R, Tappen RM, Lichtstein DM, Friedland M. Interprofessional education in community-based Alzheimer's disease diagnosis and treatment. J Interprof Care 2013;27(6):534-6.
368. Köhler L, Meinke-Franze C, Hein J, Fendrich K, Heymann R, Thyrian JR, et al. Does an interdisciplinary network improve dementia care? Results from the IDemUck-study. Curr Alzheimer Res 2014;11(6):538-48.
369. Sadak T, Wright J, Borson S. Managing Your Loved One's Health: Development of a new care management measure for dementia family caregivers. J Appl Gerontol 2016;pii:0733464816657472 [epub ahead of print].
370. Noel MA, Kaluzynski TS, Templeton VH. Quality dementia care: Integrating caregivers into a chronic disease management model. J Appl Gerontol 2015;pii:0733464815589986 [epub ahead of print].
371. Tan ZS, Jennings L, Reuben D. Coordinated care management for dementia in a large academic health system. Health Aff 2014;33(4):619-25.
372. Callahan CM, Sachs GA, Lamantia MA, Unroe KT, Arling G, Boustani MA. Redesigning systems of care for older adults with Alzheimer's disease. Health Aff 2014;33(4):626-32.
373. French DD, LaMantia MA, Livin LR, Herceg D, Alder CA, Boustani MA. Healthy Aging Brain Center improved care coordination and produced net savings. Health Aff 2014;33(4):613-8.
374. Borson S, Chodosh J. Developing dementia-capable health care systems: A 12-step program. Clin Geriatr Med 2014;30(3):395-420.

ATTACHMENT-10G

375. Reuben DB, Evertson LC, Wenger NS, Serrano K, Chodosh J, Ercoli L, et al. The University of California at Los Angeles Alzheimer's and Dementia Care Program for comprehensive, coordinated, patient-centered care: Preliminary data. J Am Geriatr Soc 2013;61(12):2214-8.
376. Odenheimer G, Borson S, Sanders AE, Swain-Eng RJ, Kyomen HH, Tierney S, et al. Quality improvement in neurology: Dementia management quality measures (executive summary). Am J Occup Ther 2013;67(6):704-10.
377. LaMantia MA, Alder CA, Callahan CM, Gao S, French DD, Austrom MG, et al. The Aging Brain Care Medical Home: Preliminary data. J Am Geriatr Soc 2015;63(6):1209-13.
378. National Academies of Sciences, Engineering, and Medicine. Families Caring for an Aging America. Washington, D.C.: The National Academies Press: 2016.
379. Gaugler JE, Kane RL, eds. Family caregiving in the new normal. Philadelphia, Pa.: Elsevier, Inc.; 2015.
380. Unpublished tabulations based on data from the Medicare Current Beneficiary Survey for 2011. Prepared under contract by Avalere Health, March 2016.
381. Yang Z, Zhang K, Lin PJ, Clevenger C, Atherly A. A longitudinal analysis of the lifetime cost of dementia. Health Serv Res 2012;47(4):1660-78.
382. Yang Z, Levey A. Gender differences: A lifetime analysis of the economic burden of Alzheimer's disease. Women Health Iss 2015;25(5):436-40.
383. Kelley AS, McGarry K, Gorges R, Skinner JS. The burden of health care costs for patients with dementia in the last 5 years of life. Ann Intern Med 2015;163:729-36.
384. Bynum JPW, Meara E, Chang C-H, Rhoads JM. Our Parents, Ourselves: Health Care for an Aging Population. A Report of the Dartmouth Atlas Project. The Dartmouth Institute for Health Policy & Clinical Practice. 2016.
385. Rudolph JL, Zanin NM, Jones RN, Marcantonio ER, Fong TG, Yang FM, et al. Hospitalization in community-dwelling persons with Alzheimer's disease: Frequency and causes. J Am Geriatr Soc 2010;58(8):1542-8.
386. Beydoun MA, Beydoun HA, Gamaldo AA, Rostant O, Dore GA, Zonderman AB, et al. Nationwide Inpatient Prevalence, Predictors and Outcomes of Alzheimer's Disease Among Older Adults in the United States, 2002–2012. J Alzheimers Dis 2015;48(2):361-75.
387. Medicare. Glossary. Medicare: The Official U.S. Government Site for Medicare. Available at: medicare.gov/HomeHealthCompare/Resources/Glossary.html. Accessed November 24, 2016.
388. Leibson CL, Hall Lon K, Ransom JE, Robers RO, Hass SL, Duhig AM, et al. Direct medical costs and source of cost differences across the spectrum of cognitive decline: A population-based study. Alzheimers Dement 2015;11(8):917-32.
389. Suehs BT, Davis CD, Alvir J, van Amerongen D, Patel NC, Joshi AV, et al. The clinical and economic burden of newly diagnosed Alzheimer's disease in a Medicare Advantage population. Am J Alzheimers Dis Other Dement 2013;28(4):384-92.
390. Lin P-J, Zhon Y, Fillit HM, Chen E, Neumann PJ. Medicare expenditures of individuals with Alzheimer's disease and related dementias or mild cognitive impairment before and after diagnosis. J Am Geriatr Soc 2016;64:1549-57.
391. Geldmacher DS, Kirson NY, Birnbaum HG, Eapen S, Kantor E, Cummings AK, et al. Pre-diagnosis excess acute care costs in Alzheimer's patients among a U.S. Medicaid population. Appl Health Econ Health Policy 2013;11(4):407-13.
392. Zhu CW, Cosentino S, Ornstein K, Gu Y, Scarmeas N, Andrews H, et al. Medicare utilization and expenditures around incident dementia in a multiethnic cohort. J Gerontol A Biol Sci Med Sci 2015;70(11):1448-53.
393. Kirson NY, Desai U, Ristovska L, Cummings AKG, Birnbaum HG, Ye W, et al. Assessing the economic burden of Alzheimer's disease patients first diagnosed by specialists. BMC Geriatrics 2016;16:138.
394. Stark SL, Roe CM, Grant EA, Hollingsworth H, Benzinger TL, Fagan AM, et al. Preclinical Alzheimer's disease and risk of falls. Neurology 2013;81(5):437-43.
395. Genworth. Cost of Care Survey 2016: Summary of 2016 Survey Findings. Available at: genworth.com. Accessed October 1, 2016.
396. Johnson RW, Wiener JM. A Profile of Frail Older Americans and Their Caregivers. Washington, D.C.: Urban Institute; February 2006.
397. Dwyer LL, Harris-Kojetin LD, Valverde RH. Differences in Adult Day Services Center Participant Characteristics by Center Ownership: United States, 2012. NCHS Data Brief, No. 164; September 2014.
398. Dwyer LL, Harris-Kojetin LD, Valverde RH. Differences in Adult Day Services Center Characteristics by Center Ownership: United States, 2012. NCHS Data Brief, No. 165; September 2014.
399. Mollica R, Houser A, Ujvari K. Assisted Living and Residential Care in the States in 2010. Washington, D.C.: AARP Public Policy Institute; 2012.
400. Sengupta M, Harris-Kojetin LD, Caffrey C. Variation in Residential Care Community Resident Characteristics, by Size of Community: United States, 2014. NCHS Data Brief, No. 223. November 2015.
401. Caffrey C, Harris-Kojetin L, Rome V, Sengupta M. Variation in Operating Characteristics of Residential Care Communities by Size of Community: United States, 2014. NCHS Data Brief, No. 222. November 2015.
402. U.S. Centers for Medicare & Medicaid Services. Nursing Home Data Compendium 2015 Edition. Available at: cms.gov/Medicare/Provider-Enrollment-and-Certification/CertificationandComplianc/Downloads/nursinghomedatacompendium_508-2015.pdf. Accessed December 13, 2016.
403. American Health Care Association. LTC Stats: Nursing Facility Operational Characteristics Report. Table 5: Nursing Facility Beds in Dedicated Special Care Units; September 2014.
404. American Health Care Association. LTC Stats: Nursing Facility Operational Characteristics Report. Table 5: Nursing Facility Beds in Dedicated Special Care Units; June 2013.
405. Bynum, J. Characteristics, Costs, and Health Service Use for Medicare Beneficiaries with a Dementia Diagnosis: Report 1: Medicare Current Beneficiary Survey. Unpublished; provided under contract with the Alzheimer's Association. Lebanon, N.H.: Dartmouth Institute for Health Policy and Clinical Care, Center for Health Policy Research, January 2009.
406. Eiken S, Sredl K, Burwell B, Saucier P. Medicaid Expenditures for Long-Term Services and Supports (LTSS) in FY 2014: Managed LTSS Reached 15 Percent of LTSS Spending. Chicago, Ill.: Truven Health Analytics; April 15, 2016.
407. Callahan CM, Arling G, Tu W, Rosenman MB, Counsell SR, Stump TE, et al. Transitions in care among older adults with and without dementia. J Am Geriatr Soc 2012;60(5):813-20.
408. Gozalo P, Teno JM, Mitchell SL, Skinner J, Bynum J, Tyler D, et al. End-of-life transitions among nursing home residents with cognitive issues. N Engl J Med 2011;365(13):1212-21.
409. Teno JM, Mitchell SL, Skinner J, Kuo S, Fisher E, Intrator O, et al. Churning: The association between health care transitions and feeding tube insertion for nursing home residents with advanced cognitive impairment. J Palliat Med 2009;12(4):359-62.
410. MetLife Mature Market Institute. Market Survey of Long-Term Care Costs: The 2012 MetLife Market Survey of Nursing Home, Assisted Living, Adult Day Services, and Home Care Costs. New York, N.Y.: Metropolitan Life Insurance Company; 2012.
411. Jacobson G, Swoope C, Neuman T. Income and Assets of Medicare Beneficiaries, 2014-2030. The Henry J. Kaiser Family Foundation Issue Brief. September 2015.
412. U.S. Department of Health and Human Services. What is Long-Term Care Insurance? Available at: longtermcare.gov/costs-how-to-pay/what-is-long-term-care-insurance/. Accessed November 27, 2016.

ATTACHMENT-10G

413. U.S. Centers for Medicare and Medicaid Services. Your Medicare Coverage. Long-Term Care. Available at: medicare.gov/coverage/long-term-care.html. Accessed December 20, 2016.
414. Association of Health Insurance Plans. AHIP Statement on Long-Term Care Insurance. Available at: ahip.org/ahip-statement-on-long-term-care-insurance/. Accessed November 30, 2016.
415. Cohen MA. "The Current State of the Long-Term Care Insurance Market." Presented to the 14th Annual Intercompany Long-Term Care Insurance Conference. March 2014. Available at: iltciconf.org/2014/index_htm_files/44-Cohen.pdf. Accessed November 24, 2016.
416. HHS Office of the Assistant Secretary for Planning and Evaluation Office of Disability, Aging and Long-Term Care Policy. Long-Term Care Insurance. ASPE Research Brief. June 2012.
417. Reaves EL, Musumeci M. Medicaid and Long-Term Services and Supports: A Primer. Menlo Park, Calif.: Kaiser Commission on Medicaid and the Uninsured, Henry J. Kaiser Family Foundation; December 2015. Publication # 8617-02.
418. Moody's Investors Service. Special Comment: Long-Term Care Insurance: Sector Profile; September 18, 2012.
419. U.S. Centers for Medicare and Medicaid Services. Medicare Provider Utilization and Payment Data: Hospice Providers. Available at: cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Hospice.html. Accessed November 5, 2016.
420. U.S. Centers for Medicare and Medicaid Services. Hospice Center. Available at: cms.gov/Medicare/Medicare-Fee-for-Service-Payment/Hospice/Medicare_Hospice_Data.html. Accessed November 24, 2016.
421. Miller SC, Lima JC, Looze J, Mitchell SL. Dying in U.S. nursing homes with advanced dementia: How does health care use differ for residents with, versus without, end-of-life Medicare skilled nursing facility care? J Palliat Med 2012;15:43-50.
422. Miller SC, Gozalo P, Mor V. Hospice enrollment and hospitalization of dying nursing home patients. Am J Med 2001;111(1):38-44.
423 Kiely DK, Givens JL, Shaffer ML, Teno JM, Mitchell SL. Hospice use and outcomes in nursing home residents with advanced dementia. J Am Geriatr Soc 2010;58(12):2284-91.
424. Miller SC, Mor V, Wu N, Gozalo P, Lapane K. Does receipt of hospice care in nursing homes improve management of pain at the end of life? J Am Geriatr Soc 2002;50(3):507-15.
425. Teno JM, Gozalo PL, Bynum JP, Leland NE, Miller SC, Morden NE, et al. Change in end-of-life care for Medicare beneficiaries: Site of death, place of care, and health care transitions in 2000, 2005, and 2009. JAMA 2013;309(5):470-7.
426. Shega JW, Hougham GW, Stocking CB, Cox-Hayley D, Sachs GA. Patients dying with dementia: Experience at the end of life and impact of hospice care. J Pain Symptom Manage 2008;35(5):499-507.
427. Teno J, Meltzer DO, Mitchell SL, Fulton AT, Gozalo P, Mor V. Type of attending physician influenced feeding tube insertions for hospitalized elderly people with severe dementia. Health Aff 2014;33(4):675-82.
428. Mitchell SL, Mor V, Gozalo PL, Servadio JL, Teno JM. Tube feeding in U.S. nursing home residents with advanced dementia, 2000-2014. JAMA 2016;316(7):769-70.
429. Gozalo P, Plotzke M, Mor V, Miller SC, Teno JM. Changes in Medicare costs with the growth of hospice care in nursing homes. N Engl J Med 2015;372:1823-31.
430. Gilligan AM, Malone DC, Warholak TL, Armstrong EP. Health disparities in cost of care in patients with Alzheimer's disease: An analysis across 4 state Medicaid populations. Am J Alzheimers Dis Other Dement 2013;28(1):84-92.
431. Healthy People 2020. Dementias Including Alzheimer's Disease. Available at: healthypeople.gov/2020/topics-objectives/topic/dementias-including-alzheimers-disease/national-snapshot. Accessed November 24, 2016.
432. Davydow DS, Zibin K, Katon WJ, Pontone GM, Chwastiak L, Langa KM, Iwashyna TJ. Neuropsychiatric disorders and potentially preventable hospitalizations in a prospective cohort study of older Americans. J Gen Intern Med 2014;29(10):1362-71.
433. Patel A, Parikh R, Howell EH, Hsich E, Landers SH, Gorodeski EZ. Mini-Cog performance: Novel marker of post discharge risk among patients hospitalized for heart failure. Circ Heart Fail 2015;8(1):8-16.
434. Lin PJ, Fillit HM, Cohen JT, Neumann PJ. Potentially avoidable hospitalizations among Medicare beneficiaries with Alzheimer's disease and related disorders. Alzheimers Dement 2013;9(1):30-8.
435. Feng Z, Coots LA, Kaganova Y, Wiener JM. Hospital and ED use among Medicare beneficiaries with dementia varies by setting and proximity to death. Health Aff 2014;33(4):683-90.
436. Amjad H, Carmicheal D, Austin AM, Chang C-H, Bynum JPW. Continuity of care and health care utilization in older adults. JAMA Intern Med 2016;176(9):1371-8.
437. U.S. Census Bureau. 2014 National Population Projections: Downloadable Files. Available at: census.gov/population/projections/data/national/2014/downloadablefiles.html. Accessed November 30, 2016.
438. U.S. Census Bureau. National Population Projections for 2016 to 2020: Summary Tables. Available at: census.gov/population/projections/files/natproj/summary/np-t4-e.pdf. Accessed November 30, 2016.
439. Brookmeyer R, Gray S, Kawas C. Projections of Alzheimer's disease in the United States and the public health impact of delaying disease onset. Am J Public Health 1998;88:1337-42.
440. National Alliance for Caregiving and AARP, Caregiving in the U.S., November 2009. Available at: assets.aarp.org/rgcenter/il/caregiving_09_fr.pdf. Accessed November 24, 2016.
441. Arno PS, Levine C, Memmott MM. The economic value of informal caregiving. Health Aff 1999;18:182-8
442. U.S. Department of Labor, Bureau of Labor Statistics. Employment, Hours, and Earnings from the Current Employment Statistics Survey. Series 10-CEU 6562160008, Home Health Care Services (NAICS code 6216), Average Hourly Earnings, July 2016. Available at: bls.gov/ces. Accessed January 14, 2017.
443. Albert SM, Schulz R. The MetLife Study of working caregivers and employer health care costs. New York, N.Y.: MetLife Mature Market Institute; 2010.
444. U.S. Centers for Medicare & Medicaid Services, Center for Strategic Planning. Health Expenditures by State of Residence 1991-2009. Available at: cms.gov/mmrr/Downloads/MMRR2011_001_04_a03-.pdf. Accessed November 30, 2016.
445. Shriver M. The Shriver Report: A Woman's Nation Takes on Alzheimer's. Chicago, Ill.: Alzheimer's Association; 2010.

The Alzheimer's Association acknowledges the contributions of Joseph Gaugler, Ph.D., Bryan James, Ph.D., Tricia Johnson, Ph.D., and Jennifer Weuve, M.P.H., Sc.D., in the preparation of *2017 Alzheimer's Disease Facts and Figures*.

The Alzheimer's Association is the leading voluntary health organization in Alzheimer's care, support and research. Our mission is to eliminate Alzheimer's disease through the advancement of research; to provide and enhance care and support for all affected; and to reduce the risk of dementia through the promotion of brain health.

Our vision is a world without Alzheimer's disease.®

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Chicago, IL 60601-7633

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alzheimer's association®

THE BRAINS BEHIND SAVING YOURS.®

Alden Estates-Courts of New Lenox
30-Minute Facilities Identified in the SBSR for Project #15-051

FACNAME	ADDRESS	CITY	2016 PROFILE DATA # of Licensed Nursing Beds	#15-051 SBR Adj. Travel Times
Alden Estates-Courts of New Lenox	Cedar Crossing Drive	New Lenox	140 permitted	
FACILITIES FROM 15-051 SAR				
Spring Creek Nursing & Rehab Center	777 Draper	Joliet	168	8.1
Smith Crossing	10501 Emilie Ln	Orland Park	46	11.5
Salem Village Nursing & Rehab	1314 Rowell Avenue	Joliet	266	12.7
Sunny Hill Nursing Home Will County (1)	421 Doris Avenue	Joliet	157	12.7
Alden Estates of Orland Park	16450 South 97th Avenue	Orland Park	200	16.1
Joliet Terrace Nursing Center	2230 Mcdonough	Joliet	120	16.1
Lemont Nrsg & Rehab Center	12450 Walker Rd	Lemont	158	16.1
Symphony of Joliet	306 North Larkin Avenue	Joliet	214	16.1
The PARC at Joliet	222 North Hammes	Joliet	203	17.3
Our Lady Of Angels Ret Home	1201 Wyoming Avenue	Joliet	87	18.4
Presence Villa Franciscan	210 North Springfield Avenue	Joliet	154	18.4
Franciscan Village (2)	1270 Franciscan Drive	Lemont	127	19.6
Frankfort Terrace Nursing Center	40 North Smith Street	Frankfort	120	19.6
Lexington Health Care Center (8)	14601 S. John Humphrey Drive	Orland Park	275	20.7
Windsor Estates Nursing & Rehab	18300 South Lavergne Ave	Country Club Hills	200	20.7
Oak Trace (3)	250 Village Drive	Downers Grove	102	21.15
Advocate South Suburban Hospital	17800 South Kedzie Avenue	Hazel Crest	41	21.9
Holy Family Villa (4)	Will Cook Rd	Palos Park	129	21.9
Pine Crest Health Care	3300 West 175th Street	Hazel Crest	199	21.9
Bria of Westmont	6501 South Cass	Westmont	215	23
Generations at Applewood (5)	21020 Kostner Avenue	Matteson	154	24.2
Alden Estates of Shorewood (6)	735 Shorewood Dr	Shorewood	150	25.3
Brookdale Burr Ridge	6801 Highgrove Boulevard	Burr Ridge	30	25.3
Brookdale Plaza Lisle	1800 Robin Lane	Lisle	55	25.3
Burgess Square	5801 South Cass Avenue	Westmont	203	25.3
Glenshire Nsg & Rehab Centre	22660 South Cicero Avenue	Richton Park	294	25.3
Lakewood Nrsg & Rehab Center (7)	1112 North Eastern Avenue	Plainfield	131	25.3
Manorcare of Homewood	940 Maple Avenue	Homewood	132	25.3
Rosewood Care Center	3401 Hennepin Drive	Joliet	120	25.3
Alden Estates of Naperville	1525 South Oxford Lane	Naperville	203	26.45
Aperion Care Midlothian	3249 West 147 Street	Midlothian	91	26.5
Heather Healthcare Center	15600 Honore Ave	Harvey	173	26.5
Manorcare of Palos Heights East	7850 West College Drive	Palos Heights	184	26.5
Manorcare of Palos Heights West	11860 Southwest Highway	Palos Heights	130	26.5
Symphony of Crestwood	14255 South Cicero Ave	Crestwood	303	26.5
Beacon Hill	2400 South Finley Road	Lombard	110	27.6
Tri-State Manor Nursing Home	2500 East 175th Street	Lansing	84	28.75
Crestwood Terrace Nursing Center	13301 South Central Ave	Crestwood	126	29.9
Lexington Health Care Center-Lombard	2100 South Finley Road	Lombard	224	29.9
Lexington of Lagrange	4735 Willow Springs Road	Lagrange	120	29.9
Manorcare of South Holland	2145 East 170th Street	South Holland	216	29.9
Manorcare of Westmont	512 East Ogden Avenue	Westmont	149	29.9
Meadowbrook Manor	431 West Remington Boulevard	Bolingbrook	298	29.9
Prairie Manor Nsg & Rehab Ctr	345 Dixie Highway	Chicago Heights	148	29.9
Providence of Downers Grove	3450 Saratoga Avenue	Downers Grove	145	29.9
Providence of Palos Heights	13259 South Central Avenue	Palos Heights	193	29.9
The Villa at South Holland	16300 Wausau Ave	South Holland	171	29.9
			7518	

(1) Bed Changes: 12/18/15 Disc. 25 Nsg Care beds, now has 227; 06/03/16 Disc. 16 Nsg Care beds, now has 211; D8/07/17 Disc. 54 Nsg Care beds, facility now has 157 Nsg Care beds.
(2) profile address: 1260 Franciscan Drive
(3) Bed Change: D3/14/17 Permit #16-056 issued to disc. 58 Nsg Care beds. Facility will have 102 Nsg Care beds upon completion
(4) profile address: 12220 South Will Cook Road
(5) Bed Change: 06/02/15 Permit #15-008 issued for modernization and addition of 39 to existing facility; facility will have 154 Nsg Care beds upon projet completion.
(6) Bed Change: D2/22/17 #12-032 Facility Licensed for operation with the addition of 50 Nsg Care beds to existing facility; Profile address & Website address: 710 West Black Road.
(7) Profile address & Facility Website address: 14716 South Eastern Avenue
(8) Bed Change: Facility discontinued 3 Nursing Care beds; facility now has 275 nursing care beds

Source:
IDPH Inventory of Health Care Facilities and Services and Need Determinations - 2017 - Long-Term Care Services
Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development
Microsoft MapPoint 2009
www.mapquest.com

Our Products

- US ZIP Code Database
- US ZIP+4 Database
- 2010 Census Database
- Canadian Postal Codes
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FREE ZIP Code Finder

Enter ZIP Code:

*Find Info On any U.S. ZIP Code

Find ZIP+4 of Address

Address(U.S.):
Town/City:
State:

*Find the ZIP Code, county, and +4 of any U.S. Address

Other FREE Lookups

Town/City:
State:
County:
Area Code:

*Lookup ZIP Code of any city, state, county or area code

FREE Radius Search

Find all ZIP Codes

Between 0 Miles
And 5 Miles
of ZIP Code: 60451

» Download the FREE Radius Finder Application

FREE Distance Calc

Calculate the distance between two U.S. or Canadian ZIP codes.

Start ZIP:
End ZIP:

ZIP Code Database - Facts & Stats

Zip Code 60451 - 2000/2010 Comparison Census Data

Profile of General Demographic Characteristics: 2000 & 2010. See the population growth for ZIP Code 60451

ZIP Code 60451 Data

Zip Code:	60451
City:	New Lenox
State:	IL [Illinois]
Counties:	WILL, IL
City Alias(es):	New Lenox
Area Code:	815 / 779
Time Zone:	Central (GMT -06:00)
Observes Day Light Savings:	Yes
Classification:	[Non-Unique]

Jekyll Island - Holiday Inn Resort Jekyll Island $ 195

Jekyll Island - Days Inn & Suites Jekyll Island $ 126

2000 to 2010 Census Comparison for ZIP Code 60451

SEX AND AGE	2000	2010	% Change
Total population	27,338	34,063	+24.60%
Under 5 years	2,236	2,117	-5.32%
5 to 9 years	2,518	2,864	+13.74%
10 to 14 years	2,512	3,108	+23.73%
15 to 19 years	2,119	2,870	+35.44%
20 to 24 years	1,182	1,672	+41.46%
25 to 29 years	1,291	1,535	+18.90%
30 to 34 years	2,161	1,818	-15.87%
35 to 39 years	2,791	2,342	-16.09%
40 to 44 years	2,748	2,987	+8.70%
45 to 49 years	2,150	3,194	+48.56%
50 to 54 years	1,735	2,823	+62.71%
55 to 59 years	1,265	2,133	+68.62%
60 to 64 years	784	1,632	+108.16%
65 to 69 years	568	1,077	+89.61%
70 to 74 years	531	728	+37.10%
75 to 79 years	392	489	+24.74%
80 to 84 years	216	365	+68.98%
85 years and over	139	309	+122.30%
Median age (years)	34.3	37.6	+9.62%
16 years and over		25,313	
18 years and over	18,619	24,053	+29.19%
21 years and over	17,657	22,757	+28.88%
62 years and over	2,289	3,913	+70.95%
65 years and over	1,846	2,968	+60.78%
Male population	13,445	16,930	+25.92%
Under 5 years	1,131	1,060	-6.28%
5 to 9 years	1,257	1,508	+19.97%
10 to 14 years	1,240	1,612	+30.00%
15 to 19 years	1,066	1,492	+39.96%
20 to 24 years	617	871	+41.17%

2010 Census Database

Get all these Census Demographics for every City, County, State, and more in 1 easy to use database.

U.S. ZIP Code Database

Get the data for every U.S. ZIP Code in 1 easy to use database.

ATTACHMENT-101

Dr. Gandhi
16151 Weber Road Suite 101 Crest Hill, IL 60403
Phone# (815) 773-7827
Fax# (630) 914-2469

November 27, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates – Courts of New Lenox, Inc., 114 Bed Skilled Nursing and 52 Bed Skilled Memory Care Center in New Lenox, Illinois.

Dear Ms. Avery,

I am a practicing physician in the New Lenox area. It is my understanding that the Alden Group, Ltd., through its affiliates, proposes to build a 114-bed skilled rehabilitation and health care center and a 52-bed memory care facility in this area, adjacent to Silver Cross Hospital. With Silver Cross Hospital being adjacent to this location, this development will be a terrific continuum of care for the Village.

As the population continues to age and grow in and around the New Lenox area, these services are very much needed. Specifically, there is a shortage of appropriate care for residents with dementia who receive Medicare and Medicaid benefits. I have patients who have not had proper placement for care and it was detrimental to their well-being.

Over the years, I have referred approximately 20 patients per month for skilled care and 2 patients for memory care to facilities farther than the proposed Alden project location in New Lenox. I could refer to the proposed project approximately 20 patients per month for skilled care and 2 patients for memory care within a 12-month period after the project is completed, and anticipate the referral volume to remain similar or grow for the next two years. My patient volume originates nearly 90% from within 30-minute travel time of the new Silver Cross Hospital campus (which I am on staff at) and I would expect my referral to be respective of those origins. Specifically, 90% of my patients originate from Zip Code areas: 60403, 60435, 60441, 60446 and 60544.

Please note that these patient referrals have not been used to support any other pending or approved certificate of need application for this area.

Thank you for giving Alden's certificate of need application every consideration. If I can be of further assistance, please feel free to contact me.

Sincerely,

MD

Physician

OFFICIAL SEAL
ANNA GOLDSTEIN
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires February 24, 2022

ATTACHMENT-10J

Dr. Singh
1900 Silver Cross Blvd, New Lenox, IL 60451
Phone# (815) 300-5376
Fax# (815) 300-4848

November 27, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

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Please note that these patient referrals have not been used to support any other pending or approved certificate of need application for this area.

Thank you for giving Alden's certificate of need application every consideration. If I can be of further assistance, please feel free to contact me.

Sincerely,

Physician

OFFICIAL SEAL
ANNA GOLDSTEIN
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires February 24, 2022

Dinesh K. Jain, M.D, C.M.D.
16532 S. Oak Park Ave. Suite 101
Tinley Park, IL 60487

November 27, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 W. Jefferson Street, Second Floor Springfield,
Illinois 62761

RE: Application for Certificate of Need for Alden Estates – Courts of New Lenox, Inc., 114 Bed Skilled Nursing and 52 Bed Skilled Memory Care Center in New Lenox, Illinois.

Dear Ms. Avery,

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Please note that these patient referrals have not been used to support any other pending or approved certificate of need application for this area.

Thank you for giving Alden's certificate of need application every consideration. If I can be of further assistance, please feel free to contact me.

Sincerely,

Physician

OFFICIAL SEAL
ANNA GOLDSTEIN
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires February 24, 2022

ATTACHMENT-10J

Nitesh Thakker, MD.
5335 Bamboo lane,
Naperville, IL 60564

November 27, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board Illinois Department of Public Health
525 W. Jefferson Street, Second Floor Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates – Courts of New Lenox, Inc., 114 Bed Skilled Nursing and 52 Bed Skilled Memory Care Center in New Lenox, Iilinois.

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Sincerely,

Physician

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ANNA GOLDSTEIN
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires February 24, 2022

ATTACHMENT-10J

Sarfaraz Haque, MD.
1210 Chapman Court
Darien, IL 60561

November 27, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board Illinois Department of Public Health
525 W. Jefferson Street, Second Floor Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates – Courts of New Lenox, Inc., 114 Bed Skilled Nursing and 52 Bed Skilled Memory Care Center in New Lenox, Illinois.

Dear Ms. Avery,

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Sincerely,

Physician

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My Commission Expires February 24, 2022

ATTACHMENT-10J

Planning Area: Grundy

Facility Name	City	County/Area	General Nursing Care Beds	General Nursing Care 2015 Patient Days
MORRIS HOSPITAL (SWING BEDS)	MORRIS	Grundy County	0	0
PARK POINTE HEALTHCARE & REHABILITATION	MORRIS	Grundy County	142	42,726
REGENCY CARE OF MORRIS	MORRIS	Grundy County	123	25,418
		Planning Area Totals	**265**	**68,144**

HEALTH SERVICE AREA	AGE GROUPS	2015 Patient Days	2015 Population	2015 Use Rates (Per 1,000)	2015 Minimum Use Rates	2015 Maximum Use Rates
009	0-64 Years Old	186,307	863,000	215.9	129.5	345.4
	65-74 Years Old	188,032	66,800	2,814.9	1,688.9	4,503.8
	75+ Years Old	807,309	40,800	19,787.0	11,872.2	31,659.2

	2015 PSA Patient Days	2015 PSA Estimated Populations	2015 PSA Use Rates (Per 1,000)	2015 HSA Minimum Use Rates	2015 HSA Maximum Use Rates	2020 PSA Planned Use Rates	2020 PSA Projected Populations	2020 PSA Planned Patient Days	Planned Average Daily Census	Planned Bed Need (90% Occ.)	Beds Needed
0-64 Years Old	6,779	44,800	151.3	129.5	345.4	151.3	47,900	7,248			
65-74 Years Old	5,708	3,800	1,502.1	1,688.9	4,503.8	1,688.9	5,200	8,782			
75+ Years Old	55,657	2,300	24,198.7	11,872.2	31,659.2	24,198.7	3,000	72,596			
						Planning Area Totals		**88,627**	**242.1**	**269**	**4**

ATTACHMENT-10K

Planning Area: Kendall

Facility Name	City	County/Area	General Nursing Care Beds	General Nursing Care 2015 Patient Days
HILLSIDE REHAB & CARE CENTER	YORKVILLE	Kendall County	79	17,995
SYMPHONY AT THE TILLERS	OSWEGO	Kendall County	105	31,632

12/1/2015 CHOW Change of Ownership occurred.

5/31/2017 Bed Change Facility discontinued 1 Nursing Care beds. Facility now has 105 Nursing Care beds.

						Planning Area Totals				184	49,627
HEALTH SERVICE AREA	AGE GROUPS	2015 Patient Days	2015 Population	2015 Use Rates (Per 1,000)			2015 Minimum Use Rates			2015 Maximum Use Rates	
009	0-64 Years Old	186,307	863,000	215.9			129.5			345.4	
	65-74 Years Old	188,032	66,800	2,814.9			1,688.9			4,503.8	
	75+ Years Old	807,309	40,800	19,787.0			11,872.2			31,659.2	

	2015 PSA Patient Days	2015 PSA Estimated Populations	2015 PSA Use Rates (Per 1,000)	2015 HSA Minimum Use Rates	2015 HSA Maximum Use Rates	2020 PSA Planned Use Rates	2020 PSA Projected Populations	2020 PSA Planned Patient Days			
0-64 Years Old	2,736	112,000	24.4	129.5	345.4	129.5	127,600	16,528	Planned Average Daily Census	Planned Bed Need (90% Occ.)	Beds Needed
65-74 Years Old	9,378	6,400	1,465.3	1,688.9	4,503.8	1,688.9	9,600	16,214			
75+ Years Old	37,513	3,100	12,101.0	11,872.2	31,659.2	12,101.0	5,600	67,765			
						Planning Area Totals		100,507	274.6	305	121

ATTACHMENT-10K

Planning Area: Will

Facility Name	City	County/Area	General Nursing Care Beds	General Nursing Care 2015 Patient Days
ALDEN COURTS OF SHOREWOOD	SHOREWOOD	Will County	50	
2/22/2017 12-032 Facility licensed for operation with 50 Nursing Care beds.				
ALDEN ESTATES OF SHOREWOOD	SHOREWOOD	Will County	100	26,456
ALDEN ESTATES-COURTS OF NEW LENOX (PERMIT)	NEW LENOX	Will County	140	
3/29/2016 15-051 Received permit to establish a facility with 140 Nursing Care beds at Cedar Crossing Drive in New Lenox.				
APERION CARE WILMINGTON	WILMINGTON	Will County	171	59,345
BEECHER MANOR NURSING & REHAB CTR	BEECHER	Will County	130	40,239
FRANKFORT TERRACE NURSING CENTER	FRANKFORT	Will County	120	39,464
JOLIET TERRACE NURSING CENTER	JOLIET	Will County	120	41,296
LAKEWOOD NURSING & REHAB CENTER	PLAINFIELD	Will County	131	42,543
MEADOWBROOK MANOR	BOLINGBROOK	Will County	298	96,672
OUR LADY OF ANGELS RETIREMENT HOME	JOLIET	Will County	87	27,227
PRESENCE VILLA FRANCISCAN	JOLIET	Will County	154	42,992
ROSEWOOD CARE CENTER OF JOLIET	JOLIET	Will County	120	31,438
SALEM VILLAGE NURSING & REHAB	JOLIET	Will County	266	83,747
SMITH CROSSING	ORLAND PARK	Will County	46	15,013
SPRING CREEK NURSING & REHAB CENTER	JOLIET	Will County	168	13,458
ST. JAMES MANOR & VILLA	CRETE	Will County	110	33,601
SUNNY HILL NURSING HOME WILL COUNTY	JOLIET	Will County	157	63,174
12/18/2015 Bed Change Facility discontinued 25 Nursing Care beds; facility now has 227 Nursing Care beds.				
6/3/2016 Bed Change Discontinued 16 Nursing Care beds; facility now has 211 Nursing Care beds.				
8/7/2017 Bed Change Facility discontinued 54 Nursing Care beds; facility now has 157 Nursing Care beds.				
SYMPHONY OF JOLIET	JOLIET	Will County	214	62,555
THE PARC AT JOLIET	JOLIET	Will County	203	46,036
VICTORIAN VILLAGE HEALTH & WELLNESS	HOMER GLEN	Will County	50	10,899
		Planning Area Totals	**2,835**	**776,155**

HEALTH SERVICE AREA	AGE GROUPS	2015 Patient Days	2015 Population	2015 Use Rates (Per 1,000)	2015 Minimum Use Rates	2015 Maximum Use Rates
009	0-64 Years Old	186,307	863,000	215.9	129.5	345.4
	65-74 Years Old	188,032	66,800	2,814.9	1,688.9	4,503.8
	75+ Years Old	807,309	40,800	19,787.0	11,872.2	31,659.2

	2015 PSA Patient Days	2015 PSA Estimated Populations	2015 PSA Use Rates (Per 1,000)	2015 HSA Minimum Use Rates	2015 HSA Maximum Use Rates	2020 PSA Planned Use Rates	2020 PSA Projected Populations	2020 PSA Planned Patient Days	Planned Average Daily Census	Planned Bed Need (90% Occ.)	Beds Needed
0-64 Years Old	151,061	613,000	246.4	129.5	345.4	246.4	692,300	170,603			
65-74 Years Old	122,532	47,400	2,585.1	1,688.9	4,503.8	2,585.1	64,500	166,737			
75+ Years Old	502,562	28,100	17,884.8	11,872.2	31,659.2	17,884.8	38,400	686,775			
						Planning Area Totals		**1,024,115**	**2,798.1**	**3,109**	**274**

ATTACHMENT-10K

SECTION II – PURPOSE OF THE PROJECT, AND ALTERNATIVES – INFORMATION REQUIREMENTS Continued ix

Criterion 1125.330 – Alternatives

1. Identify **ALL** of the alternatives to the proposed project:

   Alternative options **must** include:

   a. Proposing a project of greater or lesser scope and cost;

   b. Pursuing a joint venture or similar arrangement with one or more providers or entities to meet all or a portion of the project's intended purposes; developing alternative settings to meet all or a portion of the project's intended purposes;

   c. Utilizing other health care resources that are available to serve all or a portion of the population proposed to be served by the project; and

   d. Provide the reasons why the chosen alternative was selected.

2. Documentation shall consist of a comparison of the project to alternative options. The comparison shall address issues of total costs, patient access, quality and financial benefits in both the short term (within one to three years after project completion) and long term. This may vary by project or situation. **FOR EVERY ALTERNATIVE IDENTIFIED THE TOTAL PROJECT COST AND THE REASONS WHY THE ALTERNATIVE WAS REJECTED MUST BE PROVIDED.**

This project presents a situation that has become more common in areas around the State of Illinois in terms of health planning. The dichotomy is that within the Will County Planning Area there is currently an outstanding need for 274 nursing care beds which includes the Applicant's already permitted 140 beds (15-051) according to the 01/10/2018 Update to Inventory of the 2017 IDPH, Inventory of Health Care Facilities and Services and Need Determinations, Volume 2, Parts VI-VII, Long-Term Care Services (see **ATTACHMENT-11A**). However, at the same time, the State's latest available information (IDPH, Long-Term Care Questionnaire Data for 2016) shows that many facilities have utilization rates that are under the State's optimal rate of 90 percent (77 Illinois Administrative Code, Chapter II, Section 1125.210.c). See **ATTACHMENT-11B** for the 2017 IDPH

Market Area	Nursing Beds	Utilization
Illinois	97,752	74.0%
Will Co.	**2,699**	**77.9%**
Grundy Co.	265	69.6%
Kendall Co.	185	73.0%

Source: LTC Fac. Questionnaire for 2016, IDPH, Health Systems Development

ATTACHMENT-11

Inventory of Health Care Facilities and Services and Need Determinations, Volume2, Parts VI-VII, Long-Term Care Summary Profiles. It is hard to balance these two issues since the identified need for additional nursing beds is also significantly high in the neighboring Kendall County (121 beds needed), and Grundy County (4 beds needed) as identified in **ATTACHMENT-11A.** For the proposed market area, the State's identified need for additional capacity makes sense in that the community of New Lenox has no immediate accessibility to nursing services either for general geriatric or specialized dementia care nursing services.

Therefore, the alternatives to the project as proposed are limited. The alternatives that were considered include: "Maintain the Status Quo", "Establish a smaller Project", "Establish a Larger Project" and the "Project as Proposed". It should be noted that all alternatives are limited based on the issue that there are no existing facilities to partner with in New Lenox or within nearly 5-miles / 10-minutes travel time (primary market area) from the proposed site and there is only an identified need for 274 nursing beds which is in addition to the Applicant's already permitted 140 beds (15-051).

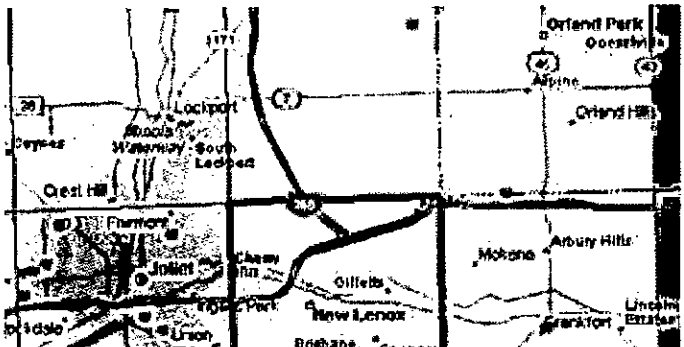
MAINTAIN THE STATUS QUO

Total Costs

There are no capital costs associated with this alternative. The true cost of this alternative is the inaccessibility to general and memory support long-term care services for the residents of New Lenox and those of the entire Planning Area that the proposed market area is part of. Specifically, this alternative maintains that there will be a large need for 390 nursing beds throughout the entire Health Service Area 9, which includes the Will County Planning Area that by itself supports 274 additional beds which is in addition to the Applicant's already permitted

140 beds (15-051) (see **ATTACHMENT-11A**), according to the Long-Term Care Facility Update, January 10, 2018 to the 2017 IDPH Inventory of Health Care Facilities and Facilities and Services and Need Determinations, Volume 2, Parts VI-VII, Long-Term Care Services. Moreover, there appears to be an inverse maldistribution of services in New Lenox. A typical maldistribution is that there would be too many beds in one area. Here, there are no beds in the primary market area to support the population. Coupled with the State's identified need for beds, there is inherently a lack of nursing services within the proposed market.

Patient Access



Patient access is non-existent in New Lenox and the New Lenox Township as illustrated herein. The map on the left was provided by IDPH, HFSRB staff and the dots identify where nursing facilities are. Again, no long-term care facilities are within the Village or Township of New Lenox. Out of the total of 47 nursing facilities within a 30-minute travel time as identified by the State Board Staff Report for Project #15-051 (see **ATTACHMENT-11C**), only one is right at, or just within, 5 miles or 10 minutes. There are only four facilities in less than 10 miles or 15-minute travel time. More than half (34) of the facilities are greater than 20 minutes travel time from the proposed site. When the

2015 DATA FROM 2017 INVENTORY PUBLISHED 09/01/2017				
Service Area	2020 Projected Population	2017 Inventory Lic. Beds	2020 Projected 65+ Pop	2020 Projected 65+ Pop: 1 bed
Illinois	13,427,700	94,980	2,136,900	22.5:1
Will Co.	**795,200**	**2,835**	**102,900**	**36.3:1**
Grundy Co.	56,100	265	8,200	30.9:1
Kendall Co.	142,800	184	15,200	82.6:1
Source: Inventory of Health Care Facilities and Services and Need Determinations 2017 Long-Term Care Services				

30-minute market area contour as identified by the State Board Staff Report for Project #15-051 is analyzed, there is accessibility to nursing services, yet the immediate Zip Code area for the Village of New Lenox has the population to support the majority of the beds being proposed by itself (refer to **ATTACHMENT-11D**). The Planning area also has the second highest ratio of population to beds of the surrounding Planning Service Area's with identified bed needs (refer to **ATTACHMENT-11B**).

The State's new bed need inventory, in and of itself, implies that there is an accessibility issue. The bed need calculation uses the historical use rates and applies them forward. Before one additional bed is needed, the entire existing inventory capacity at 90% is factored in first and, therefore, if there is a need it comes only after the existing beds are presumed filled.

Finally, in addition to the ratio of population per nursing bed, the 30-minute market area is surrounded by Grundy County, Kankakee County and Kendall County Planning Areas that make up Health Service Area 9, which cumulatively calculate a need for 390 additional nursing care beds (refer to **ATTACHMENT-11A**). Therefore, this alternative does not enhance patient accessibility and as such was not determined to be viable.

Quality

The issue as presented here is about accessibility and not quality. The Applicant states and continues to offer its commitment to the highest quality in care and in physical plant environment, but this alternative restricts the accessibility of those in need of long-term care for general geriatric and dementia nursing care. This alternative does not allow for greater quality of care for both the ADRD residents and the general geriatric residents as the populations will have to seek services in out-of-area facilities as the use rates continue to increase.

ATTACHMENT-11

Financial Benefits

As there is no project cost and no nursing services available within the primary market area, there can be no financial benefits as there is nothing to benefit from. In fact, there would appear to be a cost. The population of New Lenox, especially those 65 and over, are at a disadvantage. This population must seek long-term care at a significant distance. As stated and documented there are no nursing beds within New Lenox, or for nearly a 5 mile/10-minute radius, of the proposed site. New Lenox (Zip Code area 60451) is a newer community with a fast-growing population (between the 2000 and 2010 census's), but more importantly it is one that has a large percent of elderly persons. The over 65 age cohort grew by 60.8% (1,846 persons to 2,968 respectively). Refer to **ATTACHMENT-11D**. This elderly growth rate increased more rapidly than the area on a whole which still posted an impressive growth rate of 24.6%. The population has also received a new hospital, Silver Cross's replacement hospital. The vertical referral arraignments that this project can establish being adjacent to the hospital is invaluable and provides untold financial benefits for both enterprises, especially in light of the affordable care act pushing everything down stream. This alternative does not allow that to happen and as such was considered not viable.

ESTABLISH A SMALLER PROJECT

Total Costs

It is presumed that the cost of establishing a smaller nursing facility would be less in a proportionate share of the total cost of the proposed project adjusted for the number of beds. Thus, the proposed project has 166 nursing beds at a total cost of $39,615,616 or $238,648 per bed. That, however, is not entirely true. There are expensive components of a project such as Mechanical/Electrical, Elevators and Kitchen that are fairly fixed. This means, to justify the cost

of those spaces, a certain number of beds are needed. That level has traditionally equated to the State's Licensure standard of 75 nursing beds to a nurses' station. When the proposed project is analyzed one will really see two facilities: one is a 114-bed nursing unit for general geriatric nursing services (rehabilitative), and one that is only 52 beds for the innovative care of those with memory impairments. As such, this is already appropriately sized and to consider the costs of a smaller project could harm the overall financial viability of a project.

Patient Access

The Applicant explored the alternative of only constructing and establishing services for a lesser number of nursing beds. Alden's dilemma is, which will they make smaller, the 114-bed general nursing facility or the already small Alzheimer's Disease and Related Dementia unit. The project could conceivably eliminate the 52-bed memory unit and only proceed with the general nursing building, and while it represents a smaller project and a potentially smaller cost, access to memory care nursing services would not be had. If they were to keep the 52-bed memory care unit and reduce the general nursing facility, the project runs the risk of not providing the economies-of-scale to supplement the memory care unit. It should be noted that memory care services are not a reimbursed cost as many other services are, even though it takes specialized care and programming, and to really do it right a separate facility specifically designed around an ADRD program is needed. Moreover, there is a need for 274 nursing care beds (which includes the Applicant's already permitted 140 beds (15-051)) in the Will County Planning Area and the proposed community of New Lenox (Zip Code Area 60451) has no existing nursing beds once the approved project (15-051) is abandoned. The ratio of population to beds for the State are presented, if applied to the New Lenox (Zip Code Area 60451) total population (34,063 persons) and 65 and over age cohort (2,968 persons), this area by itself could

ATTACHMENT-11

SECTION II – PURPOSE OF THE PROJECT, AND ALTERNATIVES – INFORMATION REQUIREMENTS Continued xv

Nursing Bed Need Projected from State and Planning Area Ratio of Pop. to Nursing Beds									
	2020 Projected Popuiation	2017 Inventory Lic. Beds	Ratio of Tot Pop: 1 Bed	2020 Projected 65+ Pop	Ratio of 65+ Pop: 1 bed	2017* Zip Code 60451 Tot Popuiation	2017* Zip Code 60451 65+ Population	Need based upon Tot. Pop.	Need based upon 65+ Pop
illinois	13,427,700	94,980	141.4:1	2,136,900	22.5:1	34,063	2,968	240.9:1	131.9:1

*Zip Code 60451 data based on 2010 Census.
Source: Inventory of Health Care Facilities and Services and Need Determinations 2017 LTC Services
http://www.zip-codes.com/zip-code/60451/zip-code-60451-2010-census.asp

support a up to 241 nursing beds (refer to **ATTACHMENT-11D**).

The only way that the Applicant would consider the alternative of a lesser level of care would be under the context of a continuum of care retirement community (CCRC non-variance CON), which is the trend of future growth in the long-term care industry. A CCRC campus environment includes the lesser levels of care such as independent, assisted/supportive living or even sheltered care. However, the cornerstone of a CCRC is the nursing unit. This type of comprehensive environment allows residents to age-in-place so when they become most frail and vulnerable they do not have to leave their "home", i.e., the CCRC campus, for nursing services. Typically, the industry has found that the Applicant would need a five to one ratio of campus beds to nursing beds; thus, just to address the beds being proposed (166), the Applicant would also have to build 830 independent and assisted/supportive living (or sheltered care units). The CCRC variances through the State's own rules are contrary to open accessibility for general geriatric residents.

Although it is the intent of the Applicant to allow residents to age-in-place, any potential plan for a campus would not be available in time to satisfy the 2020 demand in a single campus setting. It is important to also note that the 30-minute travel time contour fully resembles that of the State in terms of total growth and elderly growth. Both approaches are consistent and show high continued population increases.

It is also the intent of the Applicant to build and care for the general geriatric

rehabilitative residents and the more specialized memory care residents of the Planning Area, which is not the same as the 30-minute market contour. The cause of this is based on the State's rules, i.e., 77 Illinois Administrative Code, Chapter II, Section 1125.580a)1) of Subchapter a, which states that the Applicant must also address beds and services under a "30 minute travel time" from the proposed site. This forces the Applicant to draw a service area contour that overlaps Planning Areas in this particular case. Since the need appears to be so overwhelming for Health Service Area 9, and the Will County Planning Area specifically (refer to **ATTACHMENT-11B**), the Applicant rejects the alternative to establish a lesser number of nursing beds.

Quality

The issue as presented here is about accessibility and not quality. The Applicant states that it is committed to provide the highest quality in care and in physical plant environment whether in the project as being proposed (establishment) or in this alternative.

Financial Benefits

The issue with this alternative is that the proposed project is not your traditional nursing facility. Today, most new facilities cater only to the rehabilitative side of nursing care as dictated by the changing long-term care and health care environment. This project uses traditional nursing care to supplement the ability to provide specialized and innovative memory care. As such, this alternative restricts potential financial benefits that allow for the supplementing of these needed services. Therefore, this alternative was rejected.

ESTABLISH A LARGER PROJECT

Total Costs

There is a calculated need for 390 nursing care beds throughout the entire Health Service

Area 9, which includes the Will County Planning Area. This number is too voluminous for an Applicant to even consider, and there would be no consistent features such as land, construction type, staffing, administration, etc. Furthermore, just addressing the Will County Planning Area, a 274-bed facility in any single community, let alone New Lenox, would appear to create a maldistribution of services and it would be in excess of the 250-bed capacity criterion (77 Illinois Administrative Code, Chapter II, Section 1125.600). As the proposed project has a total per bed cost of $238,648, a 274-bed facility would cost over $65,389,552 compared to the $39 million proposed. Therefore, it appears safe to estimate total costs for this alternative to far outweigh those being proposed.

Patient Access

Patient accessibility could actually be damaged having all new nursing beds needed in one community within the Will County Planning Area. Locating 274 beds in one community, although central throughout the Planning Area, could cause accessibility issues in the various other communities such as the accessibility issue present in New Lenox.

Quality

The issue as presented here is about accessibility and not quality. The Applicant states that it is committed to providing the highest quality in care and in physical plant environment regardless of bed capacity or size; that being said, there are quality concerns when a project becomes too big or institutional.

Financial Benefits

Although the potential income from so many beds identified in this alternative could be desirable, institutional sized facilities are not popular. Therefore, realizing financial benefits for this alternative most likely would not be viable. The Applicant's intent with the size of the project was to effectively create no impact on the area's existing facilities, while satisfying the

need for beds in New Lenox and the Will County Planning Area. Therefore, to proceed with this alternative, and thereby potentially impacting the utilization of other area facilities, could cause negative financial benefits for all. Thus, this alternative was considered not viable.

THE PROJECT AS PROPOSED

Total Costs

The proposed project cost is $39,615,616.

Patient Access

The proposed project improves accessibility in a responsible fashion. The project establishes a service in a substantially sized community with a large number of seniors that are currently not directly served. However, the project does not intend to improve the ratio of population to each nursing bed to a number more in line with that of the State's. The beds needed are derived from a five-year projection and for each entire county. As the proposed project's market contour takes in four Planning Service Areas, the 166 beds proposed are appropriate to ensure access without harming accessibility to other area facilities. Moreover, the 166 nursing beds are not solely serving a general geriatric or rehabilitative resident. It is important to remember that 52 of the total nursing beds will be located in a connected but separate and distinct building specifically designed for residents suffering with Alzheimer's disease and related dementia (ADRD).

Alden Courts of New Lenox, the memory support building, will be a one-story structure providing for the early, mid and late stages of memory support. Since all beds will be certified for both Medicare and Medicaid, those residents would not have to be transferred to the appropriate level of care should their medical needs change. A narrative of the Applicant's Dementia Memory Care Program is appended as **ATTACHMENT-11E**. The nursing category

of service allows the Applicant the ability to care for residents should their funds become exhausted or if they have limited financial resources. Traditionally, specialized care is private pay and there is no specific reimbursement for ADRD nursing care. However, as a nursing care facility dually certified for Medicare and Medicaid, this specific population will have access to rehabilitative care should their medical situation require it. Medicaid will cover the cost of general nursing care so that the resident would not have to be discharged.

In addition to the ability to care for a wider range of Alzheimer's residents, there appears to be a need for this innovative service. According to the Alzheimer's Association, in 2017 there were 220,000 people over 65+ suffering with ADRD in Illinois (refer to **ATTACHMENT-10G**). According to the 2010 Census, Illinois has 1,603,829 people in that age cohort (refer to **ATTACHMENT-11F**). That implies that 13.7% of those 65 and over are afflicted with Alzheimer's disease. In addition, according to the statewide IDPH Profile from the 2016 Annual Questionnaire Data (appended as **ATTACHMENT-11B**), 7.3% of those in nursing beds have ADRD as a primary diagnosis. Projecting those percentages on the New Lenox population (Zip Code Area 60451), New Lenox itself can support between 217-386 ADRD beds.

Quality

The issue as presented here is about accessibility and not quality. The Applicant states that it is committed to provide the highest quality in care and in physical plant environment regardless of bed capacity or size. Moreover, the Applicant only has the highest appreciation for the other nursing providers in the area. Therefore, quality is not of issue or of great concern.

Financial Benefits

Through the Applicant's ability address the accessibility issue of New Lenox (Zip Code Area 60451) and the Will County Planning Area, this Applicant will have the ability not only to

benefit financially from the operations, but the residents of New Lenox may benefit also. As these elderly residents continue to age, they will not have to leave the community for nursing services. There is a resultant financial benefit of less travel for loved ones, friends and family members and for the community who will be able to keep their residents and their economic impact. There are many intangible financial benefits but there are also the one that result in jobs and the additional tax base income for the community. Due to this alternative's ability to address the issue of accessibility, its ability to offer a service in a quality manner that is indicative of the other Alden facilities, and it allows for multiple financial benefits, this alternative was considered the most viable.

3. The applicant shall provide empirical evidence, including quantified outcome data that verifies improved quality of care, as available.

The alternative of the "Project as Proposed" is based on the identified bed need (274 in Will County Planning Area which includes the Applicant's already permitted 140 beds (15-051)) and the need for specific ADRD beds within the Applicant's 30-minute market contour as identified by the State Board Staff Report for Project #15-051. Therefore, this alternative is not based solely or in part on improved quality of care. Moreover, there are no nursing beds in New Lenox, a community with over 24,000 residents. The State has one nursing bed for every 141.4 persons or one nursing beds for every 22.5 seniors (65+). This would appear to suggest that New Lenox (Zip Code area 60451) alone could support 131.9-240.9 nursing beds. Therefore, this item would appear to be not applicable.

ATTACHMENT-11

LONG-TERM CARE FACILITY UPDATES

1/10/2018

CALCULATED BED NEEDS

Planning Area	Calculated Beds Needed	Approved Beds	Additional Beds Needed or Excess Beds ()
HEALTH SERVICE AREA 7			
Planning Area 7-A	3,590	3,309	281
Planning Area 7-B	5,500	6,168	(668)
Planning Area 7-C	5,848	5,999	(151)
Planning Area 7-D	2,407	2,892	(485)
Planning Area 7-E	7,361	8,487	(1,126)
HEALTH SERVICE AREA 8			
Kane	2,826	2,934	(108)
Lake	3,804	3,909	(105)
McHenry	1,062	1,095	(33)
HEALTH SERVICE AREA 9			
Grundy	269	265	4
Kankakee	980	989	(9)
Kendall	305	184	121
Will	3,109	2,835	274
HEALTH SERVICE AREA 10			
Henry	407	495	(88)
Mercer	147	172	(25)
Rock Island	1,130	1,219	(89)
HEALTH SERVICE AREA 11			
Clinton	320	357	(37)
Madison	1,904	2,212	(308)
Monroe	293	263	30
St. Clair	1,867	2,101	(234)

LONG-TERM CARE ICF/DD 16 AND UNDER BED NEED

HSA 1	253	333	(80)
HSA 2	241	224	17
HSA 3	207	336	(129)
HSA 4	307	112	195
HSA 5	222	208	14
HSA 6, 7, 8, 9	3,167	1,065	2,102
H5A 10	74	32	42
HSA 11	217	288	(71)

State of Illinois	
TOTAL FACILITIES	999
HOSPITAL BASED UNITS	30
FREE STANDING FACILITIES	969
FACILITIES LICENSED FOR:	
NURSING CARE BEDS ONLY	724
DD CARE BEDS ONLY	223
MULTI-LICENSED FACILITIES	52
FACILITIES REPORTED BY OWNERSHIP TYPE	
GOVERNMENTAL OWNERSHIP	33
NON-PROFIT OWNERSHIP	367
FOR PROFIT OWNERSHIP	584
CONTINUING CARE COMMUNITY	95
LIFE CARE FACILITY	112
Reported Identified Offenders	3,060

ADMISSION RESTRICTIONS	
Aggressive/Anti-Social	527
Chronic Alcoholism	517
Developmentally Disabled	318
Drug Addiction	633
Medicaid Recipient	53
Medicare Recipient	107
Mental Illness	255
Non-Ambulatory	54
Non-Mobile	68
Public Aid Recipient	92
Under 65 Years Old	22
Unable to Self-Medicate	42
Ventilator Dependent	924
Infectious Disease w/ Isolation	220
Other Restrictions	109
No Restrictions	22

RESIDENTS BY PRIMARY DIAGNOSIS*	
Neoplasms	1,233
Endocrine/Metabolic	4,485
Blood Disorders	1,007
Nervous System Non Alzheimer	5,891
Alzheimer's Disease	5,957
Mental Illness	13,474
Developmental Disability	5,674
Circulatory System	12,945
Respiratory System	5,973
Digestive System	1,623
Genitourinary System Disorders	2,456
Skin Disorders	886
Musculo-skeletal Disorders	5,568
Injuries and Poisonings	2,770
Other Medical Conditions	8,058
Non-Medical Conditions	846
TOTALS	78,846
Total Residents Diagnosed with Mental Illness	25,021

LICENSED BEDS, BEDS IN USE, MEDICARE/MEDICAID CERTIFIED BEDS

LEVEL OF CARE	LICENSED BEDS	PEAK BEDS SET-UP	PEAK BEDS USED	BEDS SET-UP	BEDS IN USE	AVAILABLE BEDS	MEDICARE CERTIFIED	MEDICAID CERTIFIED
Nursing Care	97,752	95,570	80,568	145,087	73,123	24,629	70,565	82,865
Skilled Under 22	932	901	872	836	844	88		918
Intermediate DD	4,609	4,575	4,448	4,523	4,256	353		4,436
Sheltered Care	2,636	2,483	1,917	2,458	1,636	1,000		
TOTAL BEDS	105,929	103,529	87,805	152,904	79,859	26,070	70,565	88,219

ADMISSIONS AND DISCHARGES - 2016

Residents on 1/1/2016	80,030
Total Admissions 2016	191,001
Total Discharges 2016	190,023
Residents on 12/31/2016	81,008

FACILITY UTILIZATION - 2016

BY LEVEL OF CARE PROVIDED AND PATIENT PAYMENT SOURCE

LEVEL OF CARE	Medicare Pat. days	Medicare Occ. Pct.	Medicaid Pat. days	Medicaid Occ. Pct.	Other Public Pay Pat. days	Private Insurance Pat. days	Private Pay Pat. days	Charity Care Pat. days	TOTAL Pat. days	Licensed Beds Occ. Pct.	Peak Beds Set Up Occ. Pct.
Nursing Care	3,481,116	13.5%	15,782,148	52.0%	740,072	975,069	5,386,362	106,479	26,471,246	74.0%	75.7%
Skilled Under 22			289,463	86.2%	541	89	1,080	0	291,602	85.5%	88.4%
Intermediate DD			1,442,574	88.9%	11,312	0	14,475	0	1,468,361	87.0%	87.7%
Sheltered Care					11,985	7,073	579,464	24,054	622,576	64.5%	68.5%
TOTALS	3,481,116	13.5%	17,514,185	54.2%	763,910	982,231	5,981,381	130,899	28,853,785	74.4%	76.1%

RESIDENTS BY AGE GROUP, SEX AND LEVEL OF CARE - DECEMBER 31, 2016

AGE GROUPS	NURSING CARE Male	NURSING CARE Female	SKL UNDER 22 Male	SKL UNDER 22 Female	INTERMED. DD Male	INTERMED. DD Female	SHELTERED Male	SHELTERED Female	TOTAL Male	TOTAL Female	GRAND TOTAL
Under 18	0	0	97	68	8	0	0	0	105	68	173
18 to 44	1,688	899	277	199	802	708	0	0	2,767	1,806	4,573
45 to 59	5,208	3,402	69	64	815	772	6	5	6,098	4,243	10,341
60 to 64	3,236	2,453	13	11	229	260	6	7	3,484	2,731	6,215
65 to 74	5,977	6,274	25	13	62	232	29	42	6,298	6,561	12,859
75 to 84	6,160	10,649	3	2	62	71	86	238	6,311	10,960	17,271
85+	6,393	20,668	0	0	13	15	267	950	6,673	21,633	28,306
TOTALS	28,662	44,345	484	357	2,196	2,058	394	1,242	31,736	48,002	79,738

Source:Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development 9/20/2017

ILLINOIS LONG-TERM CARE DATA SUMMARY-CALENDAR YEAR 2016 **LTC PLANNING AREA** Will

HEALTH SERVICE AREA	009	**ADMISSION RESTRICTIONS**		**RESIDENTS BY PRIMARY DIAGNOSIS***	
		Aggressive/Anti-Social	11	DIAGNOSIS	
TOTAL FACILITIES	24	Chronic Alcoholism	12	Neoplasms	28
HOSPITAL BASED UNITS	0	Developmentally Disabled	10	Endocrine/Metabolic	116
FREE STANDING FACILITIES	24	Drug Addiction	15	Blood Disorders	24
		Medicaid Recipient	0	Nervous System Non Alzheimer	113
FACILITIES LICENSED FOR:		Medicare Recipient	2	Alzheimer Disease	153
NURSING CARE BEDS ONLY	17	Mental Illness	4	Mental Illness	413
DD CARE BEDS ONLY	6	Non-Ambulatory	0	Developmental Disability	106
MULTI-LICENSED FACILITIES	1	Non-Mobile	2	Circulatory System	401
		Public Aid Recipient	4	Respiratory System	162
FACILITIES REPORTED BY		Under 65 Years Old	2	Digestive System	47
OWNERSHIP TYPE		Unable to Self-Medicate	0	Genitourinary System Disorders	123
GOVERNMENTAL OWNERSHIP	1	Ventilator Dependent	22	Skin Disorders	30
NON-PROFIT OWNERSHIP	7	Infectious Disease w/ Isolation	6	Musculo-skeletal Disorders	153
FOR PROFIT OWNERSHIP	16	Other Restrictions	1	Injuries and Poisonings	185
		No Restrictions	1	Other Medical Conditions	172
CONTINUING CARE COMMUNITY	3			Non-Medical Conditions	41
LIFE CARE FACILITY	5			TOTALS	2,267
Reported Identified Offenders	73			**Total Residents Diagnosed with Mental Illness**	951

LICENSED BEDS, BEDS IN USE, MEDICARE/MEDICAID CERTIFIED BEDS

LEVEL OF CARE	LICENSED BEDS	PEAK BEDS SET-UP	PEAK BEDS USED	BEDS SET-UP	BEDS IN USE	AVAILABLE BEDS	MEDICARE CERTIFIED	MEDICAID CERTIFIED
Nursing Care	2,699	2,606	2,313	2,560	2,127	572	2118	2282
Skilled Under 22	0	0	0	0	0	0		0
Intermediate DD	96	96	94	96	92	4		96
Sheltered Care	50	56	51	56	49	1		
TOTAL BEDS	2,845	2,758	2,458	2,712	2,268	577	2118	2378

ADMISSIONS AND DISCHARGES - 2016

Residents on 1/1/2016	2,249
Total Admissions 2016	6,091
Total Discharges 2016	6,045
Residents on 12/31/2016	2,295

FACILITY UTILIZATION - 2016

BY LEVEL OF CARE PROVIDED AND PATIENT PAYMENT SOURCE

LEVEL OF CARE	Medicare Pat. days	Medicare Occ. Pct.	Medicaid Pat. days	Medicaid Occ. Pct.	Other Public Pay Pat. days	Private Insurance Pat. days	Private Pay Pat. days	Charity Care Pat. days	TOTAL Pat. days	Licensed Beds Occ. Pct.	Peak Beds Set Up Occ. Pct.
Nursing Care	139,204	18.0%	452,949	54.2%	5,254	45,722	126,088	298	769,515	77.9%	80.7%
Skilled Under 22			0	0.0%	0	0	0	0	0	0.0%	0.0%
Intermediate DD			31,390	89.3%	414	0	0	0	31,804	90.5%	90.5%
Sheltered Care					0	0	16,081	0	16,081	87.9%	78.5%
TOTALS	139,204	18.0%	484,339	55.6%	5,668	45,722	142,169	298	817,400	78.5%	81.0%

RESIDENTS BY AGE GROUP, SEX AND LEVEL OF CARE - DECEMBER 31, 2016

AGE GRDUPS	NURSING CARE Male	NURSING CARE Female	SKL UNDER 22 Male	SKL UNDER 22 Female	INTERMED. DD Male	INTERMED. DD Female	SHELTERED Male	SHELTERED Female	TOTAL Male	TOTAL Female	GRAND TOTAL
Under 18	0	0	0	0	0	0	0	0	0	0	0
18 to 44	32	18	0	0	17	11	0	0	49	29	78
45 to 59	126	96	0	0	32	15	0	0	158	111	269
60 to 64	82	67	0	0	5	7	0	0	87	74	161
65 to 74	151	204	0	0	4	0	1	0	156	204	360
75 to 84	215	371	0	0	0	1	4	13	219	385	604
85+	147	618	0	0	0	0	5	26	152	644	796
TOTALS	753	1,374	0	0	58	34	10	39	821	1,447	2,268

Source:Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development 9/20/2017

HEALTH SERVICE AREA	009	**ADMISSION RESTRICTIONS**		**RESIDENTS BY PRIMARY DIAGNOSIS***	
		Aggressive/Anti-Social	1	DIAGNOSIS	
TOTAL FACILITIES	2	Chronic Alcoholism	0	Neoplasms	4
HOSPITAL BASED UNITS	0	Developmentally Disabled	0	Endocrine/Metabolic	7
FREE STANDING FACILITIES	2	Drug Addiction	1	Blood Disorders	6
		Medicaid Recipient	0	Nervous System Non Alzheimer	30
FACILITIES LICENSED FOR:		Medicare Recipient	0	Alzheimer Disease	27
NURSING CARE BEDS ONLY	2	Mental Illness	0	Mental Illness	0
DD CARE BEDS ONLY	0	Non-Ambulatory	0	Developmental Disability	0
MULTI-LICENSED FACILITIES	0	Non-Mobile	0	Circulatory System	44
		Public Aid Recipient	0	Respiratory System	25
FACILITIES REPORTED BY		Under 65 Years Old	0	Digestive System	6
OWNERSHIP TYPE		Unable to Self-Medicate	0	Genitourinary System Disorders	12
GOVERNMENTAL OWNERSHIP	0	Ventilator Dependent	2	Skin Disorders	4
NON-PROFIT OWNERSHIP	0	Infectious Disease w/ Isolation	0	Musculo-skeletal Disorders	15
FOR PROFIT OWNERSHIP	2	Other Restrictions	0	Injuries and Poisonings	12
		No Restrictions	0	Other Medical Conditions	7
CONTINUING CARE COMMUNITY	0			Non-Medical Conditions	0
LIFE CARE FACILITY	1			TOTALS	199
Reported Identified Offenders	0			**Total Residents Diagnosed with Mental Illness**	6

LICENSED BEDS, BEDS IN USE, MEDICARE/MEDICAID CERTIFIED BEDS

LEVEL OF CARE	LICENSED BEDS	PEAK BEDS SET-UP	PEAK BEDS USED	BEDS SET-UP	BEDS IN USE	AVAILABLE BEDS	MEDICARE CERTIFIED	MEDICAID CERTIFIED
Nursing Care	265	265	236	265	199	66	190	241
Skilled Under 22	0	0	0	0	0	0		0
Intermediate DD	0	0	0	0	0	0		0
Sheltered Care	0	0	0	0	0	0		
TOTAL BEDS	265	265	236	265	199	66	190	241

ADMISSIONS AND DISCHARGES - 2016

Residents on 1/1/2016	191
Total Admissions 2016	524
Total Discharges 2016	516
Residents on 12/31/2016	199

FACILITY UTILIZATION - 2016

BY LEVEL OF CARE PROVIDED AND PATIENT PAYMENT SOURCE

LEVEL OF CARE	Medicare Pat. days	Medicare Occ. Pct.	Medicaid Pat. days	Medicaid Occ. Pct.	Other Public Pay Pat. days	Private Insurance Pat. days	Private Pay Pat. days	Charity Care Pat. days	TOTAL Pat. days	Licensed Beds Occ. Pct.	Peak Beds Set Up Occ. Pct.
Nursing Care	12,992	18.7%	25,742	29.2%	690	580	27,503	0	67,507	69.6%	69.6%
Skilled Under 22			0	0.0%	0	0	0	0	0	0.0%	0.0%
Intermediate DD			0	0.0%	0	0	0	0	0	0.0%	0.0%
Sheltered Care					0	0	0	0	0	0.0%	0.0%
TOTALS	12,992	18.7%	25,742	29.2%	690	580	27,503	0	67,507	69.6%	69.6%

RESIDENTS BY AGE GROUP, SEX AND LEVEL OF CARE - DECEMBER 31, 2016

AGE GROUPS	NURSING CARE Male	NURSING CARE Female	SKL UNDER 22 Male	SKL UNDER 22 Female	INTERMED. DD Male	INTERMED. DD Female	SHELTERED Male	SHELTERED Female	TOTAL Male	TOTAL Female	GRAND TOTAL
Under 18	0	0	0	0	0	0	0	0	0	0	0
18 to 44	0	0	0	0	0	0	0	0	0	0	0
45 to 59	6	6	0	0	0	0	0	0	6	6	12
60 to 64	4	3	0	0	0	0	0	0	4	3	7
65 to 74	10	18	0	0	0	0	0	0	10	18	28
75 to 84	15	42	0	0	0	0	0	0	15	42	57
85+	21	74	0	0	0	0	0	0	21	74	95
TOTALS	56	143	0	0	0	0	0	0	56	143	199

ILLINOIS LONG-TERM CARE DATA SUMMARY-CALENDAR YEAR 2016 **LTC PLANNING AREA** Kendall

HEALTH SERVICE AREA	009
TOTAL FACILITIES	2
HOSPITAL BASED UNITS	0
FREE STANDING FACILITIES	2
FACILITIES LICENSED FOR:	
NURSING CARE BEDS ONLY	2
DD CARE BEDS ONLY	0
MULTI-LICENSED FACILITIES	0
FACILITIES REPORTED BY OWNERSHIP TYPE	
GOVERNMENTAL OWNERSHIP	0
NON-PROFIT OWNERSHIP	0
FOR PROFIT OWNERSHIP	2
CONTINUING CARE COMMUNITY	1
LIFE CARE FACILITY	0
Reported Identified Offenders	0

ADMISSION RESTRICTIONS

Aggressive/Anti-Social	2
Chronic Alcoholism	2
Developmentally Disabled	1
Drug Addiction	2
Medicaid Recipient	0
Medicare Recipient	0
Mental Illness	1
Non-Ambulatory	0
Non-Mobile	0
Public Aid Recipient	0
Under 65 Years Old	0
Unable to Self-Medicate	0
Ventilator Dependent	2
Infectious Disease w/ Isolation	0
Other Restrictions	0
No Restrictions	0

RESIDENTS BY PRIMARY DIAGNOSIS*

DIAGNOSIS	
Neoplasms	0
Endocrine/Metabolic	16
Blood Disorders	1
Nervous System Non Alzheimer	4
Alzheimer Disease	12
Mental Illness	1
Developmental Disability	0
Circulatory System	14
Respiratory System	4
Digestive System	1
Genitourinary System Disorders	1
Skin Disorders	1
Musculo-skeletal Disorders	11
Injuries and Poisonings	11
Other Medical Conditions	37
Non-Medical Conditions	1
TOTALS	115

Total Residents Diagnosed with Mental Illness 53

LICENSED BEDS, BEDS IN USE, MEDICARE/MEDICAID CERTIFIED BEDS

LEVEL OF CARE	LICENSED BEDS	PEAK BEDS SET-UP	PEAK BEDS USED	BEDS SET-UP	BEDS IN USE	AVAILABLE BEDS	MEDICARE CERTIFIED	MEDICAID CERTIFIED
Nursing Care	185	175	150	168	133	52	169	66
Skilled Under 22	0	0	0	0	0	0		0
Intermediate DD	0	0	0	0	0	0		0
Sheltered Care	0	0	0	0	0	0		
TOTAL BEDS	185	175	150	168	133	52	169	66

ADMISSIONS AND DISCHARGES - 2016

Residents on 1/1/2016	129
Total Admissions 2016	808
Total Discharges 2016	764
Residents on 12/31/2016	173

FACILITY UTILIZATION - 2016

BY LEVEL OF CARE PROVIDED AND PATIENT PAYMENT SOURCE

LEVEL OF CARE	Medicare Pat. days	Medicare Occ. Pct.	Medicaid Pat. days	Medicaid Occ. Pct.	Other Public Pay Pat. days	Private Insurance Pat. days	Private Pay Pat. days	Charity Care Pat. days	TOTAL Pat. days	Licensed Beds Occ. Pct.	Peak Beds Set Up Occ. Pct.
Nursing Care	17,777	28.7%	11,940	49.4%	31	5,933	7,560	6,209	49,450	73.0%	77.2%
Skilled Under 22			0	0.0%	0	0	0	0	0	0.0%	0.0%
Intermediate DD			0	0.0%	0	0	0	0	0	0.0%	0.0%
Sheltered Care					0	0	0	0	0	0.0%	0.0%
TOTALS	17,777	28.7%	11,940	49.4%	31	5,933	7,560	6,209	49,450	73.0%	77.2%

RESIDENTS BY AGE GROUP, SEX AND LEVEL OF CARE - DECEMBER 31, 2016

AGE GROUPS	NURSING CARE Male	NURSING CARE Female	SKL UNDER 22 Male	SKL UNDER 22 Female	INTERMED. DD Male	INTERMED. DD Female	SHELTERED Male	SHELTERED Female	TOTAL Male	TOTAL Female	GRAND TOTAL
Under 18	0	0	0	0	0	0	0	0	0	0	0
18 to 44	0	0	0	0	0	0	0	0	0	0	0
45 to 59	4	4	0	0	0	0	0	0	4	4	8
60 to 64	1	3	0	0	0	0	0	0	1	3	4
65 to 74	10	21	0	0	0	0	0	0	10	21	31
75 to 84	13	24	0	0	0	0	0	0	13	24	37
85+	7	46	0	0	0	0	0	0	7	46	53
TOTALS	35	98	0	0	0	0	0	0	35	98	133

Alden Estates-Courts of New Lenox
30-Minute Facilities Identified in the SBSR for Project #15-051

FACNAME	ADDRESS	CITY	2016 PROFILE DATA # of Licensed Nursing Beds	#15-051 SBR Adj. Travel Times
Alden Estates-Courts of New Lenox	Cedar Crossing Drive	New Lenox	140 permitted	
FACILITIES FROM 15-051 SAR				
Spring Creek Nursing & Rehab Center	777 Draper	Joliet	168	8.1
Smith Crossing	10501 Emilie Ln	Orland Park	46	11.5
Salem Village Nursing & Rehab	1314 Rowell Avenue	Joliet	266	12.7
Sunny Hill Nursing Home Will County (1)	421 Doris Avenue	Joliet	157	12.7
Alden Estates of Orland Park	16450 South 97th Avenue	Orland Park	200	16.1
Joliet Terrace Nursing Center	2230 Mcdonough	Joliet	120	16.1
Lemont Nrsg & Rehab Center	12450 Walker Rd	Lemont	158	16.1
Symphony of Joliet	306 North Larkin Avenue	Joliet	214	16.1
The PARC at Joliet	222 North Hammes	Joliet	203	17.3
Our Lady Of Angels Ret Home	1201 Wyoming Avenue	Joliet	87	18.4
Presence Villa Franciscan	210 North Springfield Avenue	Joliet	154	18.4
Franciscan Village (2)	1270 Franciscan Drive	Lemont	127	19.6
Frankfort Terrace Nursing Center	40 North Smith Street	Frankfort	120	19.6
Lexington Health Care Center (8)	14601 S. John Humphrey Drive	Orland Park	275	20.7
Windsor Estates Nursing & Rehab	18300 South Lavergne Ave	Country Club Hills	200	20.7
Oak Trace (3)	250 Village Drive	Downers Grove	102	21.15
Advocate South Suburban Hospital	17800 South Kedzie Avenue	Hazel Crest	41	21.9
Holy Family Villa (4)	Will Cook Rd	Palos Park	129	21.9
Pine Crest Health Care	3300 West 175th Street	Hazel Crest	199	21.9
Bria of Westmont	6501 South Cass	Westmont	215	23
Generations at Applewood (5)	21020 Kostner Avenue	Matteson	154	24.2
Alden Estates of Shorewood (6)	735 Shorewood Dr	Shorewood	150	25.3
Brookdale Burr Ridge	6801 Highgrove Boulevard	Burr Ridge	30	25.3
Brookdale Plaza Lisle	1800 Robin Lane	Lisle	55	25.3
Burgess Square	5801 South Cass Avenue	Westmont	203	25.3
Glenshire Nsg & Rehab Centre	22660 South Cicero Avenue	Richton Park	294	25.3
Lakewood Nrsg & Rehab Center (7)	1112 North Eastern Avenue	Plainfield	131	25.3
Manorcare of Homewood	940 Maple Avenue	Homewood	132	25.3
Rosewood Care Center	3401 Hennepin Drive	Joliet	120	25.3
Alden Estates of Naperville	1525 South Oxford Lane	Naperville	203	26.45
Aperion Care Midlothian	3249 West 147 Street	Midlothian	91	26.5
Heather Healthcare Center	15600 Honore Ave	Harvey	173	26.5
Manorcare of Palos Heights East	7850 West College Drive	Palos Heights	184	26.5
Manorcare of Palos Heights West	11860 Southwest Highway	Palos Heights	130	26.5
Symphony of Crestwood	14255 South Cicero Ave	Crestwood	303	26.5
Beacon Hill	2400 South Finley Road	Lombard	110	27.6
Tri-State Manor Nursing Home	2500 East 175th Street	Lansing	84	28.75
Crestwood Terrace Nursing Center	13301 South Central Ave	Crestwood	126	29.9
Lexington Health Care Center-Lombard	2100 South Finley Road	Lombard	224	29.9
Lexington of Lagrange	4735 Willow Springs Road	Lagrange	120	29.9
Manorcare of South Holland	2145 East 170th Street	South Holland	216	29.9
Manorcare of Westmont	512 East Ogden Avenue	Westmont	149	29.9
Meadowbrook Manor	431 West Remington Boulevard	Bolingbrook	298	29.9
Prairie Manor Nsg & Rehab Ctr	345 Dixie Highway	Chicago Heights	148	29.9
Providence of Downers Grove	3450 Saratoga Avenue	Downers Grove	145	29.9
Providence of Palos Heights	13259 South Central Avenue	Palos Heights	193	29.9
The Villa at South Holland	16300 Wausau Ave	South Holland	171	29.9
			7518	

(1) Bed Changes: 12/18/15 Disc. 25 Nsg Care beds, now has 227; 06/03/16 Disc. 16 Nsg Care beds, now has 211; 08/07/17 Disc. 54 Nsg Care beds, facility now has 157 Nsg Care beds.
(2) profile address: 1260 Franciscan Drive
(3) Bed Change: 03/14/17 Permit #16-056 issued to disc. 58 Nsg Care beds. Facility will have 102 Nsg Care beds upon completion
(4) profile address: 12220 South Will Cook Road
(5) Bed Change: 06/02/15 Permit #15-008 issued for modernization and addition of 39 to existing facility; facility will have 154 Nsg Care beds upon projet completion.
(6) Bed Change: 02/22/17 #12-032 Facility Licensed for operation with the addition of 50 Nsg Care beds to existing facility; Profile address & Website address: 710 West Black Road.
(7) Profile address & Facility Website address: 14716 South Eastern Avenue
(8) Bed Change: Facility discontinued 3 Nursing Care beds; facility now has 275 nursing care beds

Source:
IDPH Inventory of Health Care Facilities and Services and Need Determinations - 2017 - Long-Term Care Services
Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development
Microsoft MapPoint 2009
www.mapquest.com

1-800-425-1169

Our Products
- US ZIP Code Database
- US ZIP+4 Database
- 2010 Census Database
- Canadian Postal Codes
- ZIP Code Boundary Data
- ZIP Code API NEW!
- Area Code Database
- Historical Zip Codes
- FREE Radius Application
- FREE Store Locator
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FREE ZIP Code Finder
Enter ZIP Code:
*Find Info on any U.S. ZIP Code

Find ZIP+4 of Address
Address(U.S.):
Town/City:
State:
*Find the ZIP Code, county, and +4 of any U.S. Address

Other FREE Lookups
Town/City:
State:
County:
Area Code:
*Lookup ZIP Code of any city, state, county or area code

FREE Radius Search
Find all ZIP Codes
Between 0 Miles
And 5 Miles
of ZIP Code: 60451
» Download the FREE Radius Finder Application

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Calculate the distance between two U.S. or Canadian ZIP codes.
Start ZIP:
End ZIP:

ZIP Code Database - Facts & Stats

Zip Code 60451 - 2000/2010 Comparison Census Data

Profile of General Demographic Characteristics: 2000 & 2010. See the population growth for ZIP Code 60451

ZIP Code 60451 Data

Zip Code:	60451
City:	New Lenox
State:	IL [Illinois]
Counties:	WILL, IL
City Alias(es):	New Lenox
Area Code:	815 / 779
Time Zone:	Central (GMT -06:00)
Observes Day Light Savings:	Yes
Classification:	[Non-Unique]

Jekyll Island - Holiday Inn Resort Jekyll Island $ 195
Jekyll Island - Days Inn & Suites Jekyll Island $ 126

2000 to 2010 Census Comparison for ZIP Code 60451

SEX AND AGE	2000	2010	% Change
Total population	27,338	34,063	+24.60%
Under 5 years	2,236	2,117	-5.32%
5 to 9 years	2,518	2,864	+13.74%
10 to 14 years	2,512	3,108	+23.73%
15 to 19 years	2,119	2,870	+35.44%
20 to 24 years	1,182	1,672	+41.46%
25 to 29 years	1,291	1,535	+18.90%
30 to 34 years	2,161	1,818	-15.87%
35 to 39 years	2,791	2,342	-16.09%
40 to 44 years	2,748	2,987	+8.70%
45 to 49 years	2,150	3,194	+48.56%
50 to 54 years	1,735	2,823	+62.71%
55 to 59 years	1,265	2,133	+68.62%
60 to 64 years	784	1,632	+108.16%
65 to 69 years	568	1,077	+89.61%
70 to 74 years	531	728	+37.10%
75 to 79 years	392	489	+24.74%
80 to 84 years	216	365	+68.98%
85 years and over	139	309	+122.30%
Median age (years)	34.3	37.6	+9.62%
16 years and over		25,313	
18 years and over	18,619	24,053	+29.19%
21 years and over	17,657	22,757	+28.88%
62 years and over	2,289	3,913	+70.95%
65 years and over	1,846	2,968	+60.78%
Male population	13,445	16,930	+25.92%
Under 5 years	1,131	1,060	-6.28%
5 to 9 years	1,257	1,508	+19.97%
10 to 14 years	1,240	1,612	+30.00%
15 to 19 years	1,066	1,492	+39.96%
20 to 24 years	617	871	+41.17%

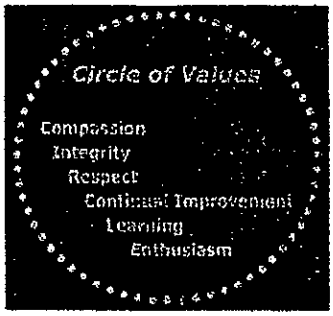
2010 Census Database
Get all these Census Demographics for every City, County, State, and more in 1 easy to use database.

U.S. ZIP Code Database
Get the data for every U.S. ZIP Code in 1 easy to use database.

ATTACHMENT-11D

FOSTERING A CARING, LOVING, SUPPORTIVE

PATHWAYS MEMORY CARE PROGRAM



- OUR PROGRAM IS DEDICATED TO MEETING RESIDENTS' NEEDS AT ALL STAGES OF ALZHEIMER'S DISEASE AND OTHER RELATED DEMENTIA DIAGNOSES
- WE SHAPE OUR PROGRAM AROUND OUR RESIDENTS INDIVIDUALIZED NEEDS
- WE HAVE THREE LEVELS OF PROGRAMMING TO PROVIDE PERSON-CENTERED CARE
- THE DEVELOPMENT OF THE THREE-TIERED LEVELS: THE MEMORY STRENGTHENING, MEMORY PATH, AND EMOTIONS PATH LEVELS HELP TO PROVIDE MEMORIES, CARE AND COMFORT IN ASSISTING RESIDENTS TO FUNCTION AT THEIR HIGHEST LEVEL OF INDEPENDENCE

The Pathways Program is a Specialized Dementia-Care Program dedicated to enhance and comfort the lives of those residents living with Alzheimer's Disease and related dementias. Creating a home-like environment provides the residents with a sense of familiarity, comfort and love. Providing the residents with a pleasant, memory evoking, home-like environment can further help to decrease comorbid negative symptoms of Alzheimer's disease and dementias.

Pathways Program Locations

Alden of Lincoln Park
Alden of Wentworth
Alden Estates of Orland Park
Alden Estates of Naperville
Alden Courts of Des Plaines
Alden Courts of Waterford
Alden of McHenry
Alden of Long Grove
Alden of Town Manor
Alden of Park Strathmoor
Alden of Valley Ridge

ALDEN

ALDEN MANAGEMENT SERVICES

To be the best residential and long –term care provider for our customers.

ATTACHMENT-11E

DEMENTIA MEMORY CARE PROGRAM

Purpose: The Pathways Program is a Specialized Dementia Care Program dedicated to enhance and comfort the lives of those residents living with Alzheimer's Disease and related dementias. Creating a home like-environment provides the residents with a sense of familiarity, comfort, and love. Providing the residents with a pleasant, memory evoking, home-like environment can further help to decrease symptoms of Alzheimer's disease and dementias, such as agitation, anxiety, lack of enthusiasm, and aggravation. Furthermore, this program is dedicated to providing an environment that helps to stimulate and maintain a resident's level of cognitive functioning. Furthermore, staff develop relationships with patience, compassion and love. Dementia Care Units are secure, and promote safety, health, and wellbeing.

Pathways Memory Care Program

The Pathways Program is divided into three life skills/activity programming areas to capture the variety of cognitive levels that are exhibited on the dementia care units. They are as follows:

Memory Strengthening Program

The Memory Path Program is a program dedicated to those residents who are a high level of cognitive functioning. These residents may score high on cognitive testing, alert and oriented to the unit, staff, family, and other residents; they understand the structure of the Pathways Program.

This program provides the following:

Engagement:

This part of the program places emphasis of having residents assists other residents. These residents help to run activities, such as Bingo, JackPot, trivia, exercise, etc. These residents may enjoy helping to decorate for holidays, help hand out clothing protectors at meals, etc. This part of the program gives a resident a sense of belonging and helpfulness to others.

Enhancement:

This part of the program focuses on memory enhancement. These residents participate in memory/mind games, reading, trivia, etc, that help to maintain their knowledge and stimulate the mind. They may also participate in reminiscence and life skill activities. This program may be task oriented, with supervision rather than hands on assistance.

Evoking:

This part of the program also has a resident meeting, where the residents meet and discuss what activities they would like to see the dementia care unit. These residents also are given structure, but they are encouraged to still make

choices as so what they would like to be active in and what they would like to do to participate. The purpose of this portion of the program is to bring out their talents, abilities, choices, and individuality.

Memory Path Program:

The Memory Path Program is for those residents who require support and memory evoking programming in order to find a "path: to their memories and emotions. These residents may have cognitive function varying more often; require more assistance with activities of daily living, redirection and support.

The Memory Path Program Provides the following:

Engagement: This level of the program is dedicated to providing person centered engagement. Understanding the best cues and redirection techniques are key to maximizing participation and creating a connection with the program taking place. Furthermore, staff must understand the best approaches may vary day to day or even minute to minute.

Enhancement: This level of the program is dedicated to enhancing residents' emotions and sensory stimulation. Sights, sounds, smells are incorporated into their routine. Stimulating feelings within our residents can help to access memories and emotions that require stimulation to make a connection to their memories. Types of activities include baking, reminiscing, where many senses are stimulated at once.

Evoking: The program focus is to evoke emotions, feelings, sensations. This part of the program does stress that at any time of the day, during any activity, the staff can evoke feelings of care and comfort in our residents.

The Emotion Path Program

The emotions plan program is a link to emotions that stimulate feelings and/or memories. This is important throughout stages of programming for Alzheimer's; however this program emphasizes the senses, as residents abilities to demonstrate understanding and communicate their needs is limited to none in this stage.

Engagement: Resident Engagement is created by stimulating the senses. Sensory stimulation and programming is an aspect of all three programs; however in this activity program engagement is developed through response of sight, sound, touch, taste and smell. The focus is on stimulating the five senses daily; examples of these activities are taste testing, music, hand massages, etc. The use of Montessori activities are also used, to maintain abilities the residents still can maintain (for example, wrapping yarn around a soda bottle can help maintain the ability to move the hand).

Enhancement: This level of the program uses engagement of the senses to evoke memories. Feelings are not affected by the disease, and emotions/feelings are used to evoke those feelings.

Evoking: This part of the program is about providing emotional support and love to our residents. These are the "unscheduled" moments were staff provide hugs, touch, and care, to evoke pleasant moments.

United States Census Bureau

QuickFacts

Illinois; UNITED STATES

QuickFacts provides statistics for all states and counties, and for cities and towns with a ***population of 5,000 or more.***

Table

All Topics	Illinois	UNITED STATES
Population estimates, July 1, 2017, (V2017)	**12,802,823**	**325,719,178**
PEOPLE		
Population		
Population estimates, July 1, 2017, (V2017)	**12,882,023**	**325,719,178**
Population estimates, July 1, 2016, (V2016)	12,801,539	323,127,513
Population estimates base, April 1, 2010, (V2017)	12,831,565	308,758,105
Population estimates base, April 1, 2010, (V2016)	12,831,574	308,758,105
Population, percent change - April 1, 2010 (estimates base) to July 1, 2017, (V2017)	-0.2%	5.5%
Population, percent change - April 1, 2010 (estimates base) to July 1, 2016, (V2016)	-0.2%	4.7%
Population, Census, April 1, 2010	12,830,632	308,745,538
Age and Sex		
Persons under 5 years, percent, July 1, 2016, (V2016)	6.0%	6.2%
Persons under 5 years, percent, April 1, 2010	6.5%	6.5%
Persons under 18 years, percent, July 1, 2016, (V2016)	22.9%	22.8%
Persons under 18 years, percent, April 1, 2010	24.4%	24.0%
Persons 65 years and over, percent, July 1, 2016, (V2016)	14.6%	15.2%
Persons 65 years and over, percent, April 1, 2010	12.5%	13.0%
Female persons, percent, July 1, 2016, (V2016)	50.9%	50.8%
Female persons, percent, April 1, 2010	51.0%	50.8%
Race and Hispanic Origin		
White alone, percent, July 1, 2016, (V2016) (a)	77.2%	76.9%
Black or African American alone, percent, July 1, 2016, (V2016) (a)	14.7%	13.3%
American Indian and Alaska Native alone, percent, July 1, 2016, (V2016) (a)	0.6%	1.3%
Asian alone, percent, July 1, 2016, (V2016) (a)	5.5%	5.7%
Native Hawaiian and Other Pacific Islander alone, percent, July 1, 2016, (V2016) (a)	0.1%	0.2%
Two or More Races, percent, July 1, 2016, (V2016)	1.9%	2.6%
Hispanic or Latino, percent, July 1, 2016, (V2016) (b)	17.0%	17.8%
White alone, not Hispanic or Latino, percent, July 1, 2016, (V2016)	61.7%	61.3%
Population Characteristics		
Veterans, 2012-2016	643,460	19,535,341
Foreign born persons, percent, 2012-2016	13.9%	13.2%
Housing		
Housing units, July 1, 2016, (V2016)	5,326,970	135,697,926
Housing units, April 1, 2010	5,296,715	131,704,730
Owner-occupied housing unit rate, 2012-2016	66.0%	63.6%
Median value of owner-occupied housing units, 2012-2016	$174,800	$184,700
Median selected monthly owner costs -with a mortgage, 2012-2016	$1,623	$1,491
Median selected monthly owner costs -without a mortgage, 2012-2016	$584	$462
Median gross rent, 2012-2016	$925	$949
Building permits, 2016	22,603	1,206,642
Families & Living Arrangements		
Households, 2012-2016	4,602,124	117,716,237
Persons per household, 2012-2016	2.61	2.64
Living in same house 1 year ago, percent of persons age 1 year+, 2012-2016	86.7%	85.2%
Language other than English spoken at home, percent of persons age 5 years+, 2012-2016	22.7%	21.1%
Education		
High school graduate or higher, percent of persons age 25 years+, 2012-2016	88.3%	87.0%

GENERAL LONG-TERM CARE

Criterion 1125.520 – Background of the Applicant

1. A listing of all health care facilities owned or operated by the applicant, including licensing, and certification if applicable.

ATTACHMENT-12A identifies all nursing facilities owned and operated by related entities as the Applicant only owns and operates Alden Estates-Courts of New Lenox. A copy of all related facility licenses and certifications as applicable are appended under **ATTACHMENT-12B**.

2. A certified listing of any adverse action taken against any facility owned and/or operated by the applicant during the three years prior to the filing of the application.

The required documentation with regards to adverse action, as required under 1125.520, c) 2, is appended as **ATTACHMENT-12C**. It should be noted that the ownership and operating entities of the proposed Alden Estates-Courts of New Lenox do not have any adverse action taken against them.

3. Authorization permitting HFSRB and DPH access to any documents necessary to verify the information submitted, including, but not limited to: official records of DPH or other State agencies; the licensing or certification records of other states, when applicable; and the records of nationally recognized accreditation organizations. **Failure to provide such authorization shall constitute an abandonment or withdrawal of the application without any further action by HFSRB.**

The above requested authorization for the Health Facilities and Services Review Board and the Department of Public Health access to information is appended as **ATTACHMENT-12D.**

4. If, during a given calendar year, an applicant submits more than one application for permit, the documentation provided with the prior applications may be utilized to fulfill the information requirements of this criterion. In such instances, the applicant shall attest the information has been previously provided, cite the project number of the prior application, and certify that no changes have occurred regarding the information that has been previously provided. The applicant is able to submit amendments to previously submitted information, as needed, to update and/or clarify data.

This item is not applicable.

ATTACHMENT-12

Alden Estates-Courts of New Lenox
Other Related Facilities through the Ultimate Parent
The Alden Group, Ltd.

RELATED FACILITIES

Alden Alma Nelson Manor

Alden Estates of Barrington

Alden Des Plaines Rehab & HC

Alden Garden Cts of DesPlaines

Alden Estates of Evanston

Heather Health Care Center

Alden Lakeland Rehab & HCC

Alden Lincoln Rehab & H C Ctr

Alden Long Grove Rehab & HCC

Alden Terrace of McHenry Rehab

Alden Estates of Naperville

Alden Northmoor Rehab & HCC

Alden North Shore Rehab & HCC

Alden Orland Park Rehab & HCC

Alden Park Strathmoor

Alden Poplar Creek Rehab & HCC

Alden Princeton Rehab & HCC

Alden Estates of Shorewood

Alden Courts of Shorewood

Alden Estates of Skokie

Alden Town Manor Rehab & HCC

Alden Valley Ridge Rehab & HCC

Alden Village Health Facility

Alden Village North

Alden of Waterford

Alden Courts of Waterford

Alden Gardens of Waterford

Alden Wentworth Rehab & HCC

Alden of Old Town East

Alden of Old Town West

Alden Trails

Alden Springs

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

10/28/2019	0044891

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 268

UNRESTRICTED 268 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN - ALMA NELSON MANOR, INC.

ALDEN DEBES REHAB & HCC
550 SOUTH MULFORD AVENUE
ROCKFORD IL 61108
EFFECTIVE DATE: 10/29/17

The face of this license has a colored background. Printed by Authority of the State of Illinois • 5/16

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

10/31/2018 0046524

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 150

UNRESTRICTED 150 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN ESTATES OF BARRINGTON, INC.

ALDEN ESTATES OF BARRINGTON
1420 SOUTH BARRINGTON ROAD
BARRINGTON IL 60010
EFFECTIVE DATE: 11/01/16

Printed by Authority of the State of Illinois • 5/16

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

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NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

10/30/2018	0042010

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 110

UNRESTRICTED 110 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN - DES PLAINES REHABILITATION AND HEAL

ALDEN DES PLAINES REHAB & HC
1221 EAST GOLF ROAD
DES PLAINES IL 60016
EFFECTIVE DATE: 10/31/17

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REGION 9 09/21/17

ALDEN DES PLAINES REHAB & HC
1221 EAST GOLF ROAD
DES PLAINES IL 60016

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	I.D. NUMBER
02/01/2020	0054056

LONG TERM CARE LICENSE CATEGORY BGBE
SHELTERED 42

UNRESTRICTED 42 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN GARDEN COURTS OF DES PLAINES,LLC

ALDEN GARDEN CTS OF DESPLAINES
1227 EAST GOLF ROAD
DES PLAINES IL 60016
EFFECTIVE DATE: 02/02/18

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ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	ID NUMBER
03/14/2019	0040733

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 99

UNRESTRICTED 99 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN ESTATES OF EVANSTON, INC.

ALDEN ESTATES OF EVANSTON
2520 GROSS POINT ROAD
EVANSTON IL 60201
EFFECTIVE DATE: 03/15/17

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REGION 9 02/28/17

ALDEN ESTATES OF EVANSTON
2520 GROSS POINT ROAD
EVANSTON IL 60201

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

This person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	LICENSE NUMBER
06/01/2019	0023945

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 173

UNRESTRICTED 173 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

HEATHER HEALTH CARE CENTER, INC.

HEATHER HEALTH CARE CENTER
15600 SOUTH HONORE STREET
HARVEY IL 60426
EFFECTIVE DATE: 06/02/17

The face of this license has a colored background. Printed by Authority of the State of Illinois • 3/16

REGION 9 05/25/17

HEATHER HEALTH CARE CENTER
15600 SOUTH HONORE STREET
HARVEY IL 60426

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION	NUMBER
09/30/2018	0017319

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 300

UNRESTRICTED 300 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN - LAKELAND REHABILITATION AND HEALTH

ALDEN LAKELAND REHAB & HCC
820 WEST LAWRENCE
CHICAGO IL 60640
EFFECTIVE DATE: 10/01/17

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REGION 8 10/18/17

ALDEN LAKELAND REHAB & HCC
820 WEST LAWRENCE
CHICAGO IL 60640

ATTACHMENT-12B

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of the State of Illinois
Department of Public Health

10/31/2019 0040709

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 34 INTERMEDIATE 62

UNRESTRICTED 96 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN - LINCOLN PARK REHABILITATION AND HEA

ALDEN LINCOLN REHAB & H C CTR
504 WEST WELLINGTON AVENUE
CHICAGO IL 60657
EFFECTIVE DATE: 11/01/17

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ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

03/06/2018	0040683

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 210 INTERMEDIATE 38

UNRESTRICTED 248 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN - LONG GROVE REHABILITATION AND HEALT

ALDEN LONG GROVE REHAB & HCC
BOX 2308, RFD OLD HICKS ROAD
LONG GROVE IL 60047
EFFECTIVE DATE: 03/07/17

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ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	I.D. NUMBER
07/18/2019	0040691

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 316

UNRESTRICTED 316 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN TERRACE OF MCHENRY REHABILITATION AND

ALDEN TERRACE OF MCHENRY REHAB
803 ROYAL DRIVE
MCHENRY IL 60050
EFFECTIVE DATE: 07/19/17

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REGION 1 06/22/17

ALDEN TERRACE OF MCHENRY REHAB
803 ROYAL DRIVE
MCHENRY IL 60050

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

11/08/2018 | 0022509

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 203

UNRESTRICTED 203 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN ESTATES OF NAPERVILLE, INC

ALDEN ESTATES OF NAPERVILLE
1525 SOUTH OXFORD LANE
NAPERVILLE IL 60565
EFFECTIVE DATE: 11/09/16

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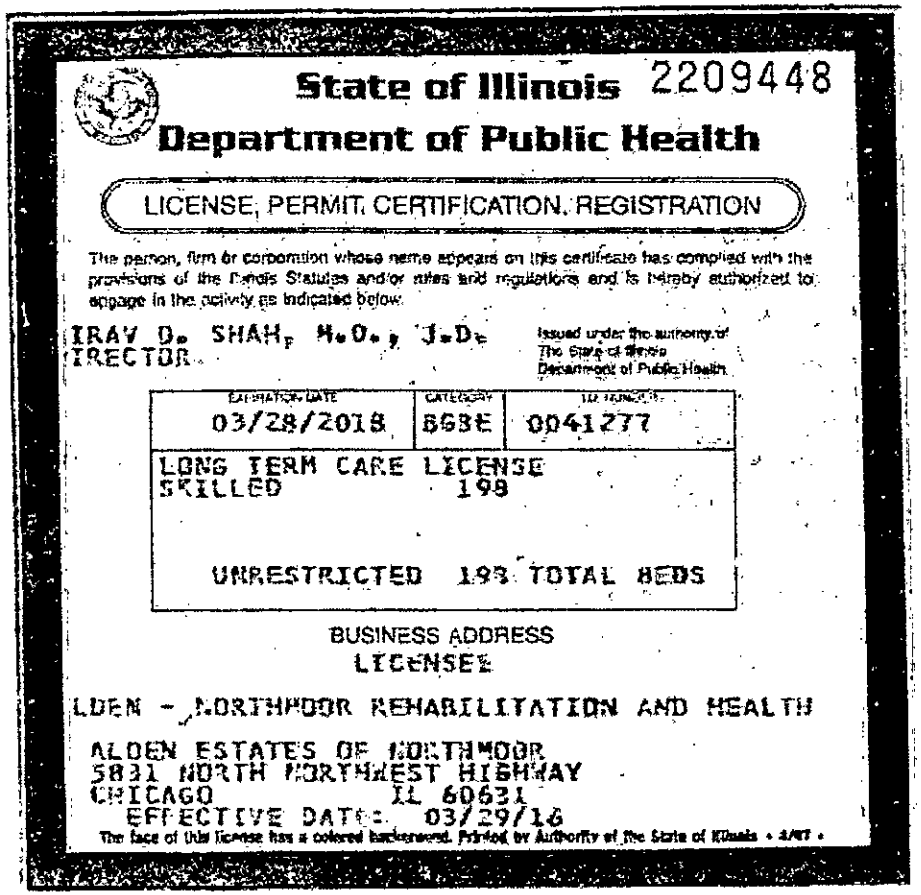
ATTACHMENT-12B



State of Illinois 2209448

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

IRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	CATEGORY	ID NUMBER
03/28/2018	8681E	0041277

LONG TERM CARE LICENSE
SKILLED 198

UNRESTRICTED 198 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN - NORTHMOOR REHABILITATION AND HEALTH

ALDEN ESTATES OF NORTHMOOR
5831 NORTH NORTHWEST HIGHWAY
CHICAGO IL 60631
EFFECTIVE DATE: 03/29/16

The face of this license has a colored background. Printed by Authority of the State of Illinois • 4/97 •

ATTACHMENT-12B

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Issued under the authority of
The State of Illinois
Department of Public Health

08/09/2019	0042028

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 93

UNRESTRICTED 93 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN - NORTH SHORE REHABILITATION AND HEAL

ALDEN NORTH SHORE REHAB & HCC
5050 WEST TOUHY AVENUE
SKOKIE IL 60077
EFFECTIVE DATE: 08/10/17

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ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Issued under the authority of
The State of Illinois
Department of Public Health

Expiration Date	No.
01/07/1920	0042192

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 200

UNRESTRICTED 200 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN - ORLAND PARK REHABILITATION AND HEAL

ALDEN ESTATES OF ORLAND PARK
16450 SOUTH 97TH AVENUE
ORLAND PARK IL 60462
EFFECTIVE DATE: 01/08/18

The face of this license has a colored background. Printed by Authority of the State of Illinois • 3/16

REGION 9 12/14/17

ALDEN ESTATES OF ORLAND PARK
16450 SOUTH 97TH AVENUE
ORLAND PARK IL 60462

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	I.D. NUMBER
07/25/2019	0044909

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 189

UNRESTRICTED 189 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN - PARK STRATHMOOR, INC.

ALDEN PARK STRATHMOOR
5668 STRATHMOOR DRIVE
ROCKFORD IL 61107
EFFECTIVE DATE: 07/26/17

The face of this license has a colored background. Printed by Authority of the State of Illinois • 5/16

REGION 1 06/22/17

ALDEN PARK STRATHMOOR
5668 STRATHMOOR DRIVE
ROCKFORD IL 61107

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	NO.
12/31/2018	0032896

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 217

UNRESTRICTED 217 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN - POPLAR CREEK REHABILITATION AND HEA

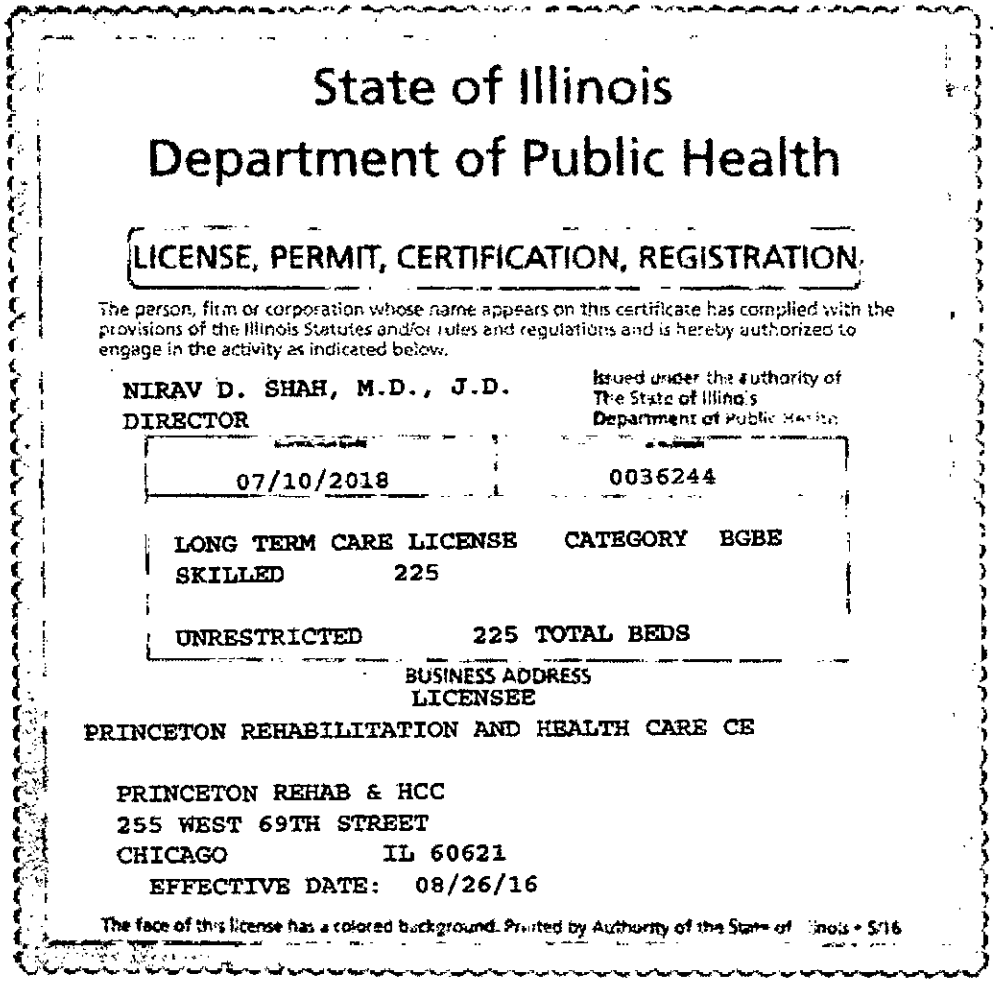
ALDEN POPLAR CREEK REHAB & HCC
1545 BARRINGTON ROAD
HOFFMAN ESTATES IL 60169
EFFECTIVE DATE: 01/01/17

The face of this license has a colored background Printed by Authority of the State of Illinois • 5/16

REGION 9 12/23/16

ALDEN POPLAR CREEK REHAB & HCC
1545 BARRINGTON ROAD
HOFFMAN ESTATES IL 60169

ATTACHMENT-12B



DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

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NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

07/10/2018 0036244

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 225

UNRESTRICTED 225 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

PRINCETON REHABILITATION AND HEALTH CARE CE

PRINCETON REHAB & HCC
255 WEST 69TH STREET
CHICAGO IL 60621
EFFECTIVE DATE: 08/26/16

The face of this license has a colored background. Printed by Authority of the State of Illinois • 5/16

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

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NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	LICENSE NUMBER
03/08/2019	0050781

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 100

UNRESTRICTED 100 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN ESTATES OF SHOREWOOD,INC

ALDEN ESTATES OF SHOREWOOD
710 WEST BLACK ROAD
SHOREWOOD IL 60404
EFFECTIVE DATE: 03/09/17

The face of this license has a colored background. Printed by Authority of the State of Illinois • 5/16

REGION 7 02/28/17

ALDEN ESTATES OF SHOREWOOD
710 WEST BLACK ROAD
SHOREWOOD IL 60404

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	LICENSE NUMBER
02/21/2018	0052530

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 50

UNRESTRICTED 50 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN COURTS OF SHOREWOOD, INC.

ALDEN COURTS OF SHOREWOOD
700 WEST BLACK ROAD
SHOREWOOD IL 60404
EFFECTIVE DATE: 06/23/17

The face of this license has a colored background. Printed by Authority of the State of Illinois • 5/16

REGION 7 07/18/17

ALDEN COURTS OF SHOREWOOD
700 WEST BLACK ROAD
SHOREWOOD IL 60404

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	ID NUMBER
02/01/2020	0050146

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 56

UNRESTRICTED 56 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN ESTATES OF SKOKIE, INC.

ALDEN ESTATES OF SKOKIE
4626 OLD ORCHARD ROAD
SKOKIE IL 60076
EFFECTIVE DATE: 02/02/18

The face of this license has a colored background. Printed by Authority of the State of Illinois • 5/16

REGION 9 01/26/18

ALDEN ESTATES OF SKOKIE
4626 OLD ORCHARD ROAD
SKOKIE IL 60076

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

Expiration Date	ID Number
05/01/2018	0038000

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 249

UNRESTRICTED 249 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN - TOWN MANOR REHABILITATION AND HEALT

ALDEN TOWN MANOR REHAB & HCC
6120 WEST OGDEN
CICERO IL 60804
EFFECTIVE DATE: 05/02/17

The face of this license has a colored background. Printed by Authority of the State of Illinois • 5/16

REGION 9 04/24/17

ALDEN TOWN MANOR REHAB & HCC
6120 WEST OGDEN
CICERO IL 60804

ATTACHMENT-12B

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	NUMBER
10/31/2019	0036640

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 207

UNRESTRICTED 207 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN-VALLEY RIDGE REHABILITATION AND HEALT

ALDEN VALLEY RIDGE REHAB & HCC
275 EAST ARMY TRAIL ROAD
BLOOMINGDALE IL 60108
EFFECTIVE DATE: 11/01/17

The face of this License has a colored background. Printed by Authority of the State of Illinois • 5/16

REGION 7 10/26/17

ALDEN VALLEY RIDGE REHAB & HCC
275 EAST ARMY TRAIL ROAD
BLOOMINGDALE IL 60108

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	ID NUMBER
09/16/2018	0038455

LONG TERM CARE LICENSE CATEGORY BGBE
MC/DD 126

UNRESTRICTED 126 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN VILLAGE HEALTH FACILITY FOR CHILDREN

ALDEN VILLAGE HEALTH FACILITY
267 EAST LAKE STREET
BLOOMINGDALE IL 60108
EFFECTIVE DATE: 09/17/17

The face of this license has a colored background. Printed by Authority of the State of Illinois • 5/16

REGION 7 08/22/17

ALDEN VILLAGE HEALTH FACILITY
267 EAST LAKE STREET
BLOOMINGDALE IL 60108

ATTACHMENT-12B

State of Illinois 2209168
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Statute(s) and/or rules and regulations and is hereby authorized to operate the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of The State of Illinois Department of Public Health

EFFECTIVE DATE	CATEGORY	ID NUMBER
02/28/2018	ESHF	0049122

LONG TERM CARE LICENSE
UNDER 22 150

UNRESTRICTED 150 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN VILLAGE NORTH, INC.

ALDEN VILLAGE NORTH
7464 N. SHERIDAN ROAD
CHICAGO IL 60626
EFFECTIVE DATE: 02/29/16

The face of this license has a colored background. Printed by Authority of the State of Illinois • 4/97 •

DISPLAY THIS PART IN A CONSPICUOUS PLACE

REMOVE THIS CARD TO CARRY AS AN IDENTIFICATION

State of Illinois 2209161
Department of Public Health
LICENSE PERMIT CERTIFICATION, REGISTRATION

EFFECTIVE DATE	CATEGORY	ID NUMBER
02/28/2018	ESHF	0049122

LONG TERM CARE LICENSE
UNDER 22 150

UNRESTRICTED 150 TOTAL BEDS

REGION 6

01/27/16

ALDEN VILLAGE NORTH
7464 N. SHERIDAN ROAD
CHICAGO IL 60626

FEE RECEIPT NO.

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Issued under the authority of
The State of Illinois
Department of Public Health

DATE	NUMBER
07/31/2019	0042036

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 99

UNRESTRICTED 99 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN OF WATERFORD, L.L.C.

ALDEN OF WATERFORD
2021 RANDI DRIVE
AURORA IL 60504
EFFECTIVE DATE: 08/01/17

The face of this license has a colored background. Printed by Authority of the State of Illinois • 5/16

REGION 7 07/20/17

ALDEN OF WATERFORD
2021 RANDI DRIVE
AURORA IL 60504

ATTACHMENT-12B

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The [illegible] Corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Issued under the authority of
The State of Illinois
Department of Public Health

12/05/2019 | 0044180

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 20 SHELTERED 44

UNRESTRICTED 64 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN COURTS OF WATERFORD, L.L.C.

ALDEN COURTS OF WATERFORD
1991 RANDI DRIVE
AURORA IL 60504
EFFECTIVE DATE: 12/06/17

The face of this license has a colored background. Printed by Authority of the State of Illinois - 9/16

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Issued under the authority of
The State of Illinois
Department of Public Health

EFFECTIVE	NO.
01/09/1920	0044503

LONG TERM CARE LICENSE CATEGORY BGBE
SHELTERED 121

UNRESTRICTED 121 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN GARDENS OF WATERFORD, L.L.C.

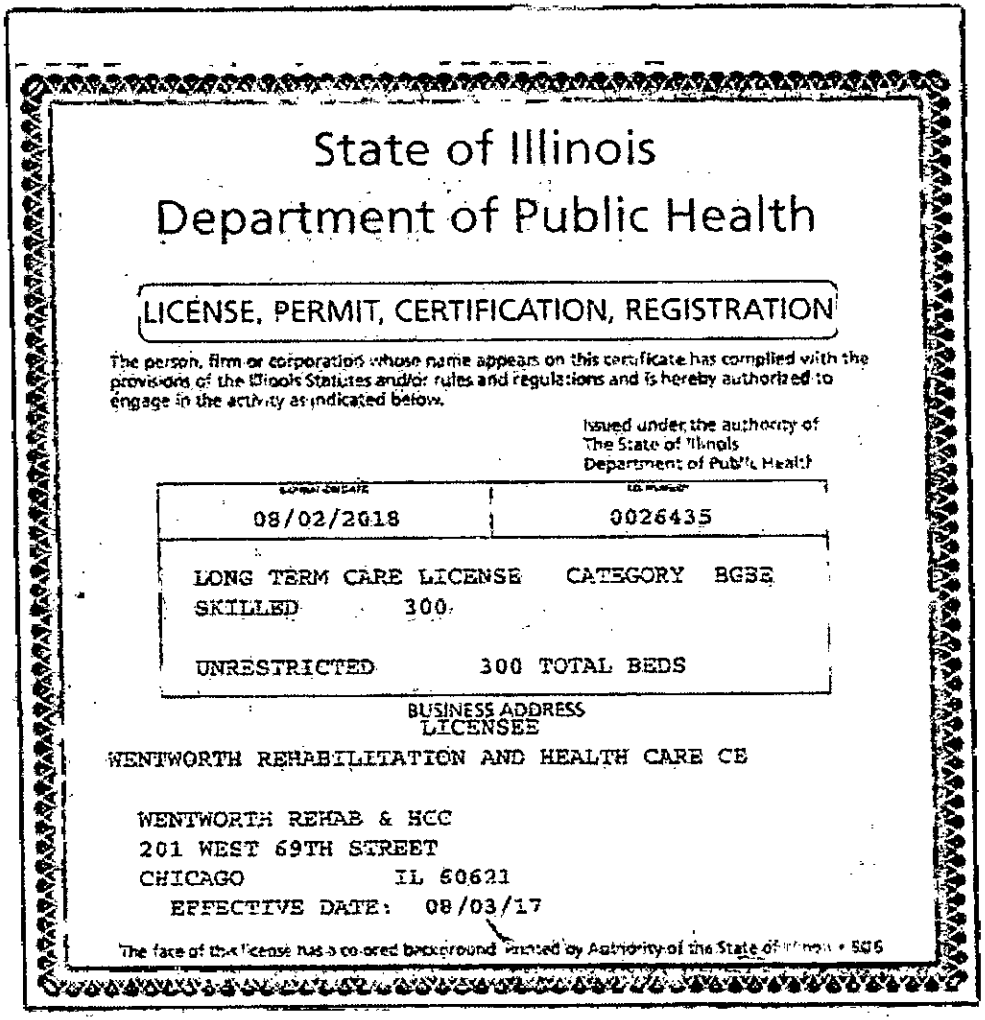
ALDEN GARDENS OF WATERFORD
1955 RANDI DRIVE
AURORA IL 60504
EFFECTIVE DATE: 01/10/18

The face of this license has a colored background. Printed by Authority of the State of Illinois • 5/16

REGION 7 12/14/17

ALDEN GARDENS OF WATERFORD
1955 RANDI DRIVE
AURORA IL 60504

ATTACHMENT-12B



State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Issued under the authority of
The State of Illinois
Department of Public Health

08/02/2018	0026435

LONG TERM CARE LICENSE CATEGORY BGBE
SKILLED 300

UNRESTRICTED 300 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

WENTWORTH REHABILITATION AND HEALTH CARE CE

WENTWORTH REHAB & HCC
201 WEST 69TH STREET
CHICAGO IL 60621
EFFECTIVE DATE: 08/03/17

The face of this license has a colored background. Printed by Authority of the State of Illinois • 505

ATTACHMENT-12B

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	NUMBER
05/08/2018	0042069

LONG TERM CARE LICENSE CATEGORY BGBE
ICFDD 16

UNRESTRICTED 16 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN OF OLD TOWN EAST, INC.

ALDEN OF OLD TOWN EAST
108 SOUTH FIRST STREET
BLOOMINGDALE IL 60108
EFFECTIVE DATE: 05/09/16

The face of this license has a colored background. Printed by Authority of the State of Illinois • 4/97

REGION 7 04/28/16

ALDEN OF OLD TOWN EAST
108 SOUTH FIRST STREET
BLOOMINGDALE IL 60108

ATTACHMENT-12B

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	ID NUMBER
05/18/2018	0042077

LONG TERM CARE LICENSE - CATEGORY BGBE
ICFDD 16

UNRESTRICTED 16 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN OF OLD TOWN WEST, INC.

ALDEN OF OLD TOWN WEST
118 SOUTH BLOOMINGDALE ROAD
BLOOMINGDALE IL 60108
EFFECTIVE DATE: 05/19/16

The face of this license has a colored background. Printed by Authority of the State of Illinois • 4/97

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

EXPIRATION DATE	I.D. NUMBER
05/18/2019	0042051

LONG TERM CARE LICENSE CATEGORY BGBE
ICFDD 16

UNRESTRICTED 16 TOTAL BEDS

BUSINESS ADDRESS
LICENSEE

ALDEN TRAILS, INC.

ALDEN TRAILS
273 ARMY TRAIL RDAD
BLOOMINGDALE IL 60108
EFFECTIVE DATE: 05/19/17

The face of this license has a colored background. Printed by Authority of the State of Illinois - 5/16

REGION 7 04/24/17

ALDEN TRAILS
273 ARMY TRAIL ROAD
BLOOMINGDALE IL 60108

ATTACHMENT-12B

DISPLAY THIS PART IN A CONSPICUOUS PLACE

State of Illinois
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

NIRAV D. SHAH, M.D., J.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

09/24/2018	0047191
LONG TERM CARE LICENSE CATEGORY BGBE ICFDD 16 UNRESTRICTED 16 TOTAL BEDS	

BUSINESS ADDRESS
LICENSEE

ALDEN SPRINGS, INC.

ALDEN SPRINGS
207 EAST ARMY TRAIL ROAD
BLOOMINGDALE IL 60108
EFFECTIVE DATE: 09/25/16

The face of this license has a colored background. Printed by Authority of the State of Illinois • 5/16

REGION 7 08/24/16

ALDEN SPRINGS
207 EAST ARMY TRAIL ROAD
BLOOMINGDALE IL 60108

ATTACHMENT-12B

Kathy Harris

From: Elvia Zamora <elvia.zamora@thealdennetwork.com>
Sent: Monday, January 22, 2018 4:58 PM
To: Joseph R. Schullo
Subject: FW: Licenses w 1920 expiration date

From: Mary Chelotti-Smith
Sent: Monday, January 22, 2018 4:37 PM
To: Elvia Zamora
Subject: FW: Licenses w 1920 expiration date

Please see Paul's response.

From: Corpstein, Paul [mailto:Paul.Corpstein@Illinois.gov]
Sent: Monday, January 22, 2018 4:29 PM
To: Mary Chelotti-Smith <mary.chelottismith@thealdennetwork.com>
Subject: RE: Licenses w 1920 expiration date

Hi Mary!

Yes, we are having something like a Y2K issue with our ancient computer system, and apparently it's not an easy fix. We don't even enter 2020 or 2018 in our system, we just enter a date like 01/01/20, and the system is freaking out and spitting out 1920. Our IT is aware and working on it as we have around 50 facilities with a 1920 date, and more to come this month too.

We will of course replace everyone's license with corrected versions, but at this time, there is no ETA as IT tries to figure out how to fix it.

Sorry!

Paul Corpstein
Illinois Department of Public Health
Long-Term Care - QA (Licensure)

State of Illinois - CONFIDENTIALITY NOTICE: The information contained in this communication is confidential, may be attorney-client privileged or attorney work product, may constitute inside information or internal deliberative staff communication, and is intended only for the use of the addressee. Unauthorized use, disclosure or copying of this communication or any part thereof is strictly prohibited and may be unlawful. If you have received this communication in error, please notify the sender immediately by return e-mail and destroy this communication and all copies thereof, including all attachments. Receipt by an unintended recipient does not waive attorney-client privilege, attorney work product privilege, or any other exemption from disclosure.

December 5, 2017

Ms. Courtney Avery
Administrator
Health Facilities and Services Review Board
525 West Jefferson Street, 2nd Floor
Springfield, Illinois 62761

Dear Ms. Avery:

Please be advised that no adverse actions as defined under 1130.140 have been taken against the Applicant Alden Estates-Courts of New Lenox, Inc. within three years preceding the filing of the Certificate of Need Application.

There are a few other Alden facilities that have received violations at the "A" level from the Illinois Department of Public Health. Notably, there are 32 Alden licensed long-term care facilities in the State of Illinois. Since December of 2014, only 4 of those facilities have received level "A" violations. Attached is a certified listing of facilities with level "A" violations, as well as a list of all Alden facilities that have had no type "A" violations filed against them within the past three (3) years.

Sincerely,
Alden Estates- Courts of New Lenox, Inc.

Randi Schullo
Vice-President

Subscribed and sworn to before me

this 5 day of December, 2017

Notary Public

OFFICIAL SEAL
JOSEPH SCHULLO
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires August 30, 2020

Enclosure(s)

CERTIFIED LIST OF ALDEN LONG TERM CARE FACILITIES
WITH LEVEL "A" VIOLATIONS SINCE DECEMBER 2014

Alden-Town Manor Rehabilitation and Health Care Center, Inc. NH17-C0018
Requested a Hearing-Level "A" reduced to a "B". Settlement documents being drafted.

Alden-Long Grove Rehabilitation and Health Care Center, Inc. NH15-S0018

Wentworth Rehabilitation and Health Care Center, Inc. NH17-S0145(Hearing Requested)

Alden-Lakeland Rehabilitation and Health Care Center, Inc. NH17-C0028 (Hearing Requested)

ALDEN LONG TERM CARE FACILITIES
WITH NO TYPE "A" VIOLATIONS SINCE DECEMBER 2014

ALDEN ALMA NELSON MANOR
ALDEN ESTATES OF BARRINGTON
ALDEN DES PLAINES
ALDEN GARDENS COURTS DES PLAINES
ALDEN ESTATES OF EVANSTON
HEATHER HEALTH CARE CENTER
ALDEN LINCOLN PARK
ALDEN MCHENRY
ALDEN ESTATES OF NAPERVILLE
ALDEN NORTHMOOR
ALDEN NORTH SHORE
ALDEN OF OLD TOWN EAST
ALDEN OF OLD TOWN WEST
ALDEN ESTATES OF ORLAND PARK
ALDEN PARK STRATHMOOR
ALDEN POPLAR CREEK
PRINCETON REHABILITATION AND HEALTH CARE CENTER
ALDEN ESTATES OF SHOREWOOD
ALDEN COURTS OF SHOREWOOD
ALDEN ESTATES OF SKOKIE
ALDEN SPRINGS
ALDEN TRAILS
ALDEN VALLEY RIDGE
ALDEN VILLAGE
ALDEN VILLAGE NORTH
ALDEN OF WATERFORD
ALDEN COURTS OF WATERFORD
ALDEN GARDENS OF WATERFORD

December 5, 2017

Ms. Courtney Avery
Administrator
Health Facilities and Services Review Board
525 West Jefferson Street, 2nd Floor
Springfield, Illinois 62761

Dear Ms. Avery:

I hereby authorize the Health Facilities Planning Board and the Illinois Department of Public Health (IDPH) access to any documents necessary to verify the information submitted, including, but not limited to: official records of IDPH or other State agencies; the licensing or certification records of other states, when applicable; and the records of nationally recognized accreditation organizations. I further authorize the Illinois Department of Public Health to obtain any additional documentation or information that said agency deems necessary for the review of this Application as it pertains to 1125.520.(3).

Respectfully,

Alden New Lenox, L.L.C.

Randi Schullo
Co-Manager

OFFICIAL SEAL
JOSEPH SCHULLO
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires August 30, 2020

Subscribed and sworn to before me

this 5 day of December, 2017

Notary Public

Criterion 1125.530 - Planning Area Need

1. Identify the calculated number of beds needed (excess) in the planning area. See HFSRB website (http://hfsrb.illinois.gov) and click on "Health Facilities Inventories & Data".

According to the Update to the 2017 IDPH Inventory of Health Care Facilities and Services and Need Determinations, Volume2, Parts VI-VII, Long-Term Care Services dated January 10, 2018 the Board's website identifies a need of 274 nursing care beds in Health Service Area 9, Will County Planning Area which includes the Applicant's already permitted 140 beds (15-051). It is interesting to also note that the two Planning Areas (Kendall and Grundy) directly to the west of proposed projects' location in Will County, also show a calculated need of 121 nursing beds and 4 nursing beds respectively. Refer to **ATTACHMENT-13A** for the above referenced Update to Inventory dated January 10, 2018.

2. Attest that the primary purpose of the project is to serve residents of the planning area and that at least 50% of the patients will come from within the planning area.

Through the signing of this application, the Applicant attests that the primary purpose of this project is to serve the residents of the Will County Planning Area. More specifically, the location selected for the proposed project is to serve the residents of New Lenox. The population of New Lenox (Zip Code area 60451) itself (34,063) can justify the need ranging from 131.9 up to 240.9 additional general geriatric nursing beds and of between 217-386 memory support nursing beds. This is indicative of more than 50% of the population to be served coming from New Lenox which is within the Will County Planning Area.

3. Provide letters from referral sources (hospitals, physicians, social services and others) that attest to total number of prospective residents (by zip code of residence) who have received care at existing LTC facilities located in the area during the 12-month period prior to submission of the application. Referral sources shall verify their projections and the methodology used, as described in Section 1125.540.

Appended as **ATTACHMENT-13B**, are five (5) physician referral letters providing, to

the best of their abilities, their historical referrals. Collectively, these physicians have identified 1,320 referrals (1,200 general skilled nursing care and 120 skilled memory care) made to area nursing facilities in the most recent 12-month period. These letters have identified the same number of projected potential annual referrals to Alden Estates-Courts of New Lenox for the next two years.

It should be noted that the projected referrals are well within the number of historical referrals made and are more than enough to fill the proposed project's beds given the average length of stay of area facilities (Will County Planning Area's 2016 ALOS of 126.3 days = 769,515 total nursing patient days / 6,091 total admissions). Refer to **ATTACHMENT-13C** for a chart listing the number of admissions and patient days by facility and the resulting average length of stay (ALOS). The ALOS for the 30-minute market contour as identified by the State Board Staff Report for Project #15-051 is 93.6 days. Therefore, it will take 583 annual referrals with this ALOS to fill the facility to its target 90 percent utilization (166 beds x 365 days x 90% = 54,531 patient days). Since 1,320 annual referrals are being estimated, it would appear that there are more than double (2.26 times) the referrals needed to support this project.

ATTACHMENT-13

LONG-TERM CARE FACILITY UPDATES

1/10/2018

CALCULATED BED NEEDS

Planning Area	Calculated Beds Needed	Approved Beds	Additional Beds Needed or Excess Beds ()
HEALTH SERVICE AREA 7			
Planning Area 7-A	3,590	3,309	281
Planning Area 7-B	5,500	6,168	(668)
Planning Area 7-C	5,848	5,999	(151)
Planning Area 7-D	2,407	2,892	(485)
Planning Area 7-E	7,361	8,487	(1,126)
HEALTH SERVICE AREA 8			
Kane	2,826	2,934	(108)
Lake	3,804	3,909	(105)
McHenry	1,062	1,095	(33)
HEALTH SERVICE AREA 9			
Grundy	269	265	4
Kankakee	980	989	(9)
Kendall	305	184	121
Will	3,109	2,835	274
HEALTH SERVICE AREA 10			
Henry	407	495	(88)
Mercer	147	172	(25)
Rock Island	1,130	1,219	(89)
HEALTH SERVICE AREA 11			
Clinton	320	357	(37)
Madison	1,904	2,212	(308)
Monroe	293	263	30
St. Clair	1,867	2,101	(234)

LONG-TERM CARE ICF/DD 16 AND UNDER BED NEED

HSA 1	253	333	(80)
HSA 2	241	224	17
HSA 3	207	336	(129)
HSA 4	307	112	195
HSA 5	222	208	14
HSA 6, 7, 8, 9	3,167	1,065	2,102
HSA 10	74	32	42
HSA 11	217	288	(71)

Dr. Gandhi
16151 Weber Road Suite 101 Crest Hill, IL 60403
Phone# (815) 773-7827
Fax# (630) 914-2469

November 27, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates – Courts of New Lenox, Inc., 114 Bed Skilled Nursing and 52 Bed Skilled Memory Care Center in New Lenox, Illinois.

Dear Ms. Avery,

I am a practicing physician in the New Lenox area. It is my understanding that the Alden Group, Ltd., through its affiliates, proposes to build a 114-bed skilled rehabilitation and health care center and a 52-bed memory care facility in this area, adjacent to Silver Cross Hospital. With Silver Cross Hospital being adjacent to this location, this development will be a terrific continuum of care for the Village.

As the population continues to age and grow in and around the New Lenox area, these services are very much needed. Specifically, there is a shortage of appropriate care for residents with dementia who receive Medicare and Medicaid benefits. I have patients who have not had proper placement for care and it was detrimental to their well-being.

Over the years, I have referred approximately 20 patients per month for skilled care and 2 patients for memory care to facilities farther than the proposed Alden project location in New Lenox. I could refer to the proposed project approximately 20 patients per month for skilled care and 2 patients for memory care within a 12-month period after the project is completed, and anticipate the referral volume to remain similar or grow for the next two years. My patient volume originates nearly 90% from within 30-minute travel time of the new Silver Cross Hospital campus (which I am on staff at) and I would expect my referral to be respective of those origins. Specifically, 90% of my patients originate from Zip Code areas: 60403, 60435, 60441, 60446 and 60544.

Please note that these patient referrals have not been used to support any other pending or approved certificate of need application for this area.

Thank you for giving Alden's certificate of need application every consideration. If I can be of further assistance, please feel free to contact me.

Sincerely,

MD

Physician

OFFICIAL SEAL
ANNA GOLDSTEIN
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires February 24, 2022

ATTACHMENT-13B

Dr. Singh
1900 Silver Cross Blvd, New Lenox, IL 60451
Phone# (815) 300-5376
Fax# (815) 300-4848

November 27, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates – Courts of New Lenox, Inc., 114 Bed Skilled Nursing and 52 Bed Skilled Memory Care Center in New Lenox, Illinois.

Dear Ms. Avery,

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Please note that these patient referrals have not been used to support any other pending or approved certificate of need application for this area.

Thank you for giving Alden's certificate of need application every consideration. If I can be of further assistance, please feel free to contact me.

Sincerely,

Physician

OFFICIAL SEAL
ANNA GOLDSTEIN
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires February 24, 2022

Dinesh K. Jain, M.D, C.M.D.
16632 S. Oak Park Ave. Suite 101
Tinley Park, IL. 60487

November 27, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 W. Jefferson Street, Second Floor Springfield,
Illinois 62761

RE: Application for Certificate of Need for Alden Estates – Courts of New Lenox, Inc., 114 Bed Skilled Nursing and 52 Bed Skilled Memory Care Center in New Lenox, Illinois.

Dear Ms. Avery,

I am a practicing physician in the New Lenox area. It is my understanding that the Alden Group, Ltd., through its affiliates, proposes to build a 114-bed skilled rehabilitation and health care center and a 52-bed memory care facility in this area, adjacent to Silver Cross Hospital. With Silver Cross Hospital being adjacent to this location, this development will be a terrific continuum of care for the Village.

As the population continues to age and grow in and around the New Lenox area, these services are very much needed. Specifically, there is a shortage of appropriate care for residents with dementia who receive Medicare and Medicaid benefits. I have patients who have not had proper placement for care and it was detrimental to their well-being.

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Thank you for giving Alden's certificate of need application every consideration. If I can be of further assistance, please feel free to contact me.

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ATTACHMENT-13B

Nitesh Thakker, MD.
5335 Bamboo lane,
Naperville, IL 60564

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ATTACHMENT-13B

Alden Estates-Courts of New Lenox
30-Minute Facilities Identified in the SBSR for Project #15-051
Average Length of Stay

FACNAME	2016 PROFILE DATA # of Licensed Nursing Beds	Nursing Patient Days	Admissions	ALOS
Alden Estates-Courts of New Lenox	140 Permitted			
FACILITIES FROM 15-051 SAR				
Spring Creek Nursing & Rehab Center	168	17,483	67	260.9
Smith Crossing	46	15,365	300	51.2
Salem Village Nursing & Rehab	266	79,285	237	340.9
Sunny Hill Nursing Home Will County (1)	157	59,922	74	809.8
Alden Estates of Orland Park	200	50,478	1,107	45.6
Joliet Terrace Nursing Center	120	38,217	31	1,232.8
Lemont Nrsg & Rehab Center	158	51,136	327	156.4
Symphony of Joliet	214	62,033	260	238.6
The PARC at Joliet	203	45,428	187	242.9
Our Lady Of Angels Ret Home	**87**	**29,114**	**190**	**229.9**
Presence Villa Franciscan	154	44,714	1,268	35.3
Franciscan Village (2)	127	37,770	362	104.3
Frankfort Terrace Nursing Center	120	39,035	34	1,148.1
Lexington Health Care Center (8)	**275**	76,861	563	136.5
Windsor Estates Nursing & Rehab	200	45,266	140	323.3
Oak Trace (3)	**102**	**36,760**	**442**	**123.8**
Advocate South Suburban Hospital	41	10,614	820	12.9
Holy Family Villa (4)	**129**	42,417	250	169.7
Pine Crest Health Care	199	64,638	115	562.1
Bria of Westmont	215	51,362	467	110.0
Generations at Applewood (5)	**154**	33,902	122	277.9
Alden Estates of Shorewood (6)	**150**	28,471	880	32.4
Brookdale Burr Ridge	30	7,497	175	192.6
Brookdale Plaza Lisle	55	16,460	272	91.3
Burgess Square	203	47,344	1,156	41.0
Glenshire Nsg & Rehab Centre	294	65,514	196	334.3
Lakewood Nrsg & Rehab Center (7)	131	42,485	234	181.6
Manorcare of Homewood	132	41,634	736	56.6
Rosewood Care Center	120	28,077	331	84.8
Alden Estates of Naperville	203	49,056	739	66.4
Aperion Care Midlothian	91	31,056	90	345.1
Heather Healthcare Center	173	44,622	129	345.9
Manorcare of Palos Heights East	184	54,514	1,644	33.2
Manorcare of Palos Heights West	130	37,168	727	51.1
Symphony of Crestwood	303	76,346	1,214	62.9
Beacon Hill	110	37,076	144	257.5
Tri-State Manor Nursing Home	84	27,190	76	357.8
Crestwood Terrace Nursing Center	126	42,547	67	635.0
Lexington Health Care Center-Lombard	224	59,223	495	119.6
Lexington of Lagrange	120	28,965	815	35.5
Manorcare of South Holland	216	45,123	864	52.2
Manorcare of Westmont	149	36,720	683	53.8
Meadowbrook Manor	298	94,783	627	151.2
Prairie Manor Nsg & Rehab Ctr	148	47,097	231	203.9
Providence of Downers Grove	**145**	**29,801**	**861**	**71.2**
Providence of Palos Heights	193	52,993	1,498	35.4
The Villa at South Holland	171	41,695	685	60.9
	7,518	2,045,257	22,932	93.6

(1) Bed Changes: 12/18/15 Disc. 25 Nsg Care beds, now has 227; 06/03/16 Disc. 16 Nsg Care beds, now has 211;
08/07/17 Disc. 54 Nsg Care beds, facility now has 157 Nsg Care be peak difference
(2) profile address: 1260 Franciscan Drive
(3) Bed Change: 03/14/17 Permit #16-056 issued to disc. 58 Nsg Care beds. Facility will have 102 Nsg Care beds upon completion
(4) profile address: 12220 South Will Cook Road
(5) Bed Change: 06/02/15 Permit #15-008 issued for modernization and addition of 39 to existing facility;
facility will have 154 Nsg Care beds upon projet completion.
(6) Bed Change: 02/22/17 #12-032 Facility Licensed for operation with the addition of 50 Nsg Care beds to existing facility;
Profile address & Website address: 710 West Black Road.
(7) Profile address & Facility Website address: 14716 South Eastern Avenue
(8) Bed Change: Facility discontinued 3 Nursing Care beds; facility now has 275 nursing care beds

Source:
IDPH Inventory of Health Care Facilities and Services and Need Determinations - 2017 - Long-Term Care Services
Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development

ATTACHMENT-13C

Criterion 1125.540 - Service Demand – Establishment of General Long Term Care

- **If the applicant is an existing facility wishing to establish this category of service or a new facility, #1 – 4 must be addressed. Requirements under #5 must also be addressed if applicable.**

- **If the applicant is not an existing facility and proposes to establish a new general LTC facility, the applicant shall submit the number of annual projected referrals.**

1. Document the number of referrals to other facilities, for each proposed category of service, for each of the latest two years. Documentation of the referrals shall include: resident/patient origin by zip code; name and specialty of referring physician or identification of another referral source; and name and location of the recipient LTC facility.

Appended as **ATTACHMENT-14A** are five (5) physician referral letters identifying 1,320 referrals (1,200 general skilled nursing care and 120 skilled memory care) referrals that they have made to area nursing homes for the most recent two years. Each letter has identified the Zip Code areas from which the majority of their patients were derived.

2. Provide letters from referral sources (hospitals, physicians, social services and others) that attest to total number of prospective residents (by zip code of residence) who have received care at existing LTC facilities located in the area during the 12-month period prior to submission of the application. Referral sources shall verify their projections and the methodology used.

The physician referral letters appended in **ATTACHMENT-14A** use the historical referrals to area facilities as their basis of making projections. It should be noted that the physicians reviewed their patient files, and to the level that the information was available, were able to make conservative projections of referrals to the proposed project. It should also be noted that the sources' estimates didn't reference an allowance for increased patient load which is inevitable with the growing 65+ age cohort.

3. Estimate the number of prospective residents whom the referral sources will refer annually to the applicant's facility within a 24-month period after project completion. Please note:

- The anticipated number of referrals cannot exceed the referral sources' documented historical LTC caseload.
- The percentage of project referrals used to justify the proposed expansion cannot exceed the historical percentage of applicant market share, within a 24-month period after project completion.
- Each referral letter shall contain the referral source's Chief Executive Officer's notarized signature, the typed or printed name of the referral source, and the referral source's address.

The referral letters, appended as **ATTACHMENT-14A**, anticipate monthly referrals of 110 residents (100 residents for general nursing care services and 10 residents for skilled memory care nursing care services). Together, and on an annualized basis, the projected referrals equal 1,320 residents/patients. The historical annual referrals equate to 1,320 patients. Even though the health care providers are facing a substantial increase in the 65+ age cohort, the anticipated referrals were not in excess of the historically documented caseload. Moreover, the 24-month projected referral number is equal to that of the historical projected number.

As the Applicant is proposing the establishment of a new facility, the portion of this item to document expansion project is not applicable.

It should be noted that each referral letter has the required notarized signature, name and address.

4. Provide verification by the referral sources that the prospective resident referrals have not been used to support another pending or approved Certificate of Need (CON) application for the subject services.

The referral letters, appended as **ATTACHMENT-14A**, each state that the referrals have not been used to justify or support another Certificate of Need application.

5. **If a projected demand for service is based upon rapid population growth in the applicant facility's existing market area** (as experienced annually within the latest 24-month period), the projected service demand shall be determined as follows:

ATTACHMENT-14

a. The applicant shall define the facility's market area based upon historical resident/patient origin data by zip code or census tract;

Although the Applicant's service area is the 30-minute travel area contour as identified by the State Board Staff Report for Project #15-051, its primary market is the community of New Lenox. There are no existing nursing facilities within New Lenox, the 60451 Zip Code that envelopes it, or the New Lenox Township. Additionally, Will County is experiencing a 15.5% growth in total population as compared to the 4.4% growth experienced in Illinois. This is a three and one-half times greater growth rate. The over 65 age cohort for Will County has an even greater growth rate of 36.3%. This is more than double the 65+ population growth rate of the State, which is 16.7%. A total population that is projected to grow by more than 3 times the State's overall population growth and an over 65 growth rate that more than doubles the State's should qualify as rapid population growth.

b. Population projections shall be produced, using, as a base, the population census or estimate for the most recent year, for county, incorporated place, township or community area, by the U.S. Bureau of the Census or IDPH;

2015 DATA FROM 2017 INVENTORY PUBLISHED 09/01/2017						
Market	2015 Estimated Population	2020 Estimated Population	Growth	2015 Estimated 65+ Pop	2020 Estimated 65+ Pop	Growth
Illinois	12,861,200	13,427,700	4.4%	1,831,300	2,136,900	16.7%
Will Co.	688,500	795,200	15.5%	75,500	102,900	36.3%

Source: Inventory of Health Care Facilities and Services and Need Determinations 2017 Long-Term Care Services

The above base year estimates and the projections were taken from IDPH and the 2017 IDPH Inventory of Health Care Facilities and Services and Need Determinations, Volume2, Parts VI-VII, Long-Term Care Services. Appended as **ATTACHMENT-14B** is the IDPH Inventory page for Will County Planning Area identified herein.

ATTACHMENT-14

c. Projections shall be for a maximum period of 10 years from the date the application is submitted;

The population increase cited is the five-year increment as required for in preparation of the State bed need calculation.

d. Historical data used to calculate projections shall be for a number of years no less than the number of years projected;

The need calculated is considered current need and not projected need. It should be noted that the current need for services is reflected as part of the beds needed as determined by the latest IDPH Update to the Inventory of Health Care Facilities and Services and Need Determinations, as of January 10, 2018 for Will, Grundy, Kankakee and Kendall Counties. In these areas there is a collective need for 390 additional nursing beds through 2020. Refer to **ATTACHMENT-14C** for a copy of the Update to the Inventory.

e. Projections shall contain documentation of population changes in terms of births, deaths and net migration for a period of time equal to or in excess of the projection horizon;

The populations used to document "rapid" population is IDPH data that has accounted for all population changes in terms of births, deaths and net migration has been included.

f. Projections shall be for total population and specified age groups for the applicant's market area, as defined by HFSRB, for each category of service in the application (see the HFSRB Inventory); and

The census data projected in **ATTACHMENT-14B** provides total population and the 65+ age cohort.

g. Documentation on projection methodology, data sources, assumptions and special adjustments shall be submitted to HFSRB.

The methodology for the project is simply based on the census figures and the State's need calculations. The Applicant has not made any assumptions or adjustments.

ATTACHMENT- 14

Dr. Gandhi
16151 Weber Road Suite 101 Crest Hill, IL 60403
Phone# (815) 773-7827
Fax# (630) 914-2469

November 27, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

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MD

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ATTACHMENT-14A

Dr. Singh
1900 Silver Cross Blvd, New Lenox, IL 60451
Phone# (815) 300-5376
Fax# (815) 300-4848

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ATTACHMENT-14A

Planning Area: Will

Facility Name	City	County/Area	General Nursing Care Beds	General Nursing Care 2015 Patient Days
ALDEN COURTS OF SHOREWOOD	SHOREWOOD	Will County	50	
2/22/2017 12-032 Facility licensed for operation with 50 Nursing Care beds.				
ALDEN ESTATES OF SHOREWOOD	SHOREWOOD	Will County	100	26,456
ALDEN ESTATES-COURTS OF NEW LENOX (PERMIT)	NEW LENOX	Will County	140	
3/29/2016 15-051 Received permit to establish a facility with 140 Nursing Care beds at Cedar Crossing Drive in New Lenox.				
APERION CARE WILMINGTON	WILMINGTON	Will County	171	59,345
BEECHER MANOR NURSING & REHAB CTR	BEECHER	Will County	130	40,239
FRANKFORT TERRACE NURSING CENTER	FRANKFORT	Will County	120	39,464
JOLIET TERRACE NURSING CENTER	JOLIET	Will County	120	41,296
LAKEWOOD NURSING & REHAB CENTER	PLAINFIELD	Will County	131	42,543
MEADOWBROOK MANOR	BOLINGBROOK	Will County	298	96,672
OUR LADY OF ANGELS RETIREMENT HOME	JOLIET	Will County	87	27,227
PRESENCE VILLA FRANCISCAN	JOLIET	Will County	154	42,992
ROSEWOOD CARE CENTER OF JOLIET	JOLIET	Will County	120	31,438
SALEM VILLAGE NURSING & REHAB	JOLIET	Will County	266	83,747
SMITH CROSSING	ORLAND PARK	Will County	46	15,013
SPRING CREEK NURSING & REHAB CENTER	JOLIET	Will County	168	13,458
ST. JAMES MANOR & VILLA	CRETE	Will County	110	33,601
SUNNY HILL NURSING HOME WILL COUNTY	JOLIET	Will County	157	63,174
12/18/2015 Bed Change Facility discontinued 25 Nursing Care beds; facility now has 227 Nursing Care beds.				
6/3/2016 Bed Change Discontinued 16 Nursing Care beds; facility now has 211 Nursing Care beds.				
8/7/2017 Bed Change Facility discontinued 54 Nursing Care beds; facility now has 157 Nursing Care beds.				
SYMPHONY OF JOLIET	JOLIET	Will County	214	62,555
THE PARC AT JOLIET	JOLIET	Will County	203	46,036
VICTORIAN VILLAGE HEALTH & WELLNESS	HOMER GLEN	Will County	50	10,899
		Planning Area Totals	**2,835**	**776,155**

HEALTH SERVICE AREA	AGE GROUPS	2015 Patient Days	2015 Population	2015 Use Rates (Per 1,000)	2015 Minimum Use Rates	2015 Maximum Use Rates
009	0-64 Years Old	186,307	863,000	215.9	129.5	345.4
	65-74 Years Old	188,032	66,800	2,814.9	1,688.9	4,503.8
	75+ Years Old	807,309	40,800	19,787.0	11,872.2	31,659.2

	2015 PSA Patient Days	2015 PSA Estimated Populations	2015 PSA Use Rates (Per 1,000)	2015 HSA Minimum Use Rates	2015 HSA Maximum Use Rates	2020 PSA Planned Use Rates	2020 PSA Projected Populations	2020 PSA Planned Patient Days	Planned Average Daily Census	Planned Bed Need (90% Occ.)	Beds Needed
0-64 Years Old	151,061	613,000	246.4	129.5	345.4	246.4	692,300	170,603			
65-74 Years Old	122,532	47,400	2,585.1	1,688.9	4,503.8	2,585.1	64,500	166,737			
75+ Years Old	502,562	28,100	17,884.8	11,872.2	31,659.2	17,884.8	38,400	686,775			
						Planning Area Totals		**1,024,115**	**2,798.1**	**3,109**	**274**

LONG-TERM CARE FACILITY UPDATES

1/10/2018

CALCULATED BED NEEDS

Planning Area	Calculated Beds Needed	Approved Beds	Additional Beds Needed or Excess Beds ()
HEALTH SERVICE AREA 7			
Planning Area 7-A	3,590	3,309	281
Planning Area 7-B	5,500	6,168	(668)
Planning Area 7-C	5,848	5,999	(151)
Planning Area 7-D	2,407	2,892	(485)
Planning Area 7-E	7,361	8,487	(1,126)
HEALTH SERVICE AREA 8			
Kane	2,826	2,934	(108)
Lake	3,804	3,909	(105)
McHenry	1,062	1,095	(33)
HEALTH SERVICE AREA 9			
Grundy	269	265	4
Kankakee	980	989	(9)
Kendall	305	184	121
Will	3,109	2,835	274
HEALTH SERVICE AREA 10			
Henry	407	495	(88)
Mercer	147	172	(25)
Rock Island	1,130	1,219	(89)
HEALTH SERVICE AREA 11			
Clinton	320	357	(37)
Madison	1,904	2,212	(308)
Monroe	293	263	30
St. Clair	1,867	2,101	(234)

LONG-TERM CARE ICF/DD 16 AND UNDER BED NEED

HSA 1	253	333	(80)
HSA 2	241	224	17
HSA 3	207	336	(129)
HSA 4	307	112	195
HSA 5	222	208	14
HSA 6, 7, 8, 9	3,167	1,065	2,102
HSA 10	74	32	42
HSA 11	217	288	(71)

Criterion 1125.570 - Service Accessibility

1. Service Restrictions

The applicant shall document that **at least one** of the following factors exists in the planning area, as applicable:

- The absence of the proposed service within the planning area;

Although there is no absence of nursing care within Will County Planning Area, there is an absence of nursing services in New Lenox, its encompassing Zip Code area (60451) and the New Lenox Township. Utilizing the State's own ratio of Population to nursing beds, some 131.8-240.8 nursing beds could be supported by the New Lenox (Zip Code area 60451), 2010 Census population of 34,063 people. Therefore, the absence of the proposed service in New Lenox is a service restriction. For the ratio and projected need calculation refer to the chart below.

Nursing Bed Need Projected from State and Planning Area Ratio of Pop. to Nursing Beds									
	2020 Projected Population	2017 Inventory Lic. Beds	Ratio of Tot Pop: 1 Bed	2020 Projected 65+ Pop	Ratio of 65+ Pop: 1 bed	2017* Zip Code 60451 Tot Population	2017* Zip Code 60451 65+ Population	Need Based Upon Tot. Pop.	Need Based Upon 65+ Pop
Illinois	13,427,700	94,980	141.4:1	2,136,900	22.5:1	34,063	2,968	240.8	131.8

*Zip Code 60451 data based on 2010 Census.
Source: Inventory of Health Care Facilities and Services and Need Determinations 2017 LTC Services

- Access limitations due to payor status of patients/residents, including, but not limited to, individuals with LTC coverage through Medicare, Medicaid, managed care or charity care;

30-Minute Facilities as Identified by the State Board Staff Report for Project #15-051						
FACNAME	CITY	Licensed NC Beds	Medicare Beds	Medicaid Beds	Medicare Bed %	Medicaid Bed %
Nursing Facilities						
Spring Creek Nursing & Rehab Center	Joliet	168	168	168	100%	100%
Smith Crossing	Orland Park	46	46	30	100%	65%
Salem Village Nursing & Rehab	Joliet	266	230	266	86%	100%
Sunny Hill Nursing Home Will County (1)	Joliet	157	157	157	74%	74%
Alden Estates of Orland Park	Orland Park	200	200	200	100%	100%
Joliet Terrace Nursing Center	Joliet	120	0	120	0%	100%
Lemont Nrsg & Rehab Center	Lemont	158	158	158	100%	100%
Symphony of Joliet	Joliet	214	214	214	100%	100%
The PARC at Joliet	Joliet	203	203	203	100%	100%
Our Lady of Angels Ret Home	Joliet	87	37	40	43%	46%
Presence Villa Franciscan	Joliet	154	106	154	69%	100%
Franciscan Village (2)	Lemont	127	38	31	30%	24%
Frankfort Terrace Nursing Center	Frankfort	120	0	120	0%	100%

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(Continued)		Licensed	Medicare	Medicaid	Medicare	Medicaid
FACNAME	CITY	NC Beds	Beds	Beds	Bed %	Bed %
Nursing Facilities						
Lexington Health Care Center (8)	Orland Park	275	259	215	94%	78%
Windsor Estates Nursing & Rehab	Country Club Hills	200	200	200	100%	100%
Oak Trace (3)	Downers Grove	102	50	0	31%	0%
Advocate South Suburban Hospital	Hazel Crest	41			0%	0%
Holy Family Villa (4)	Palos Park	129	129	6S	100%	50%
Pine Crest Health Care	Hazel Crest	199	199	199	100%	100%
Bria of Westmont	Westmont	215	215	21S	100%	100%
Generations at Applewood (5)	Matteson	154	115	11S	100%	100%
Alden Estates-Courts of Shorewood (6)	Shorewood	150	150	105	100%	70%
Brookdale Burr Ridge	Burr Ridge	30	29	0	97%	0%
Brookdale Plaza Lisle	Lisle	55	55	0	100%	0%
Burgess Square	Westmont	203	203	12	100%	6%
Glenshire Nsg & Rehab Centre	Richton Park	294	292	292	99%	99%
Lakewood Nrsg & Rehab Center (7)	Plainfield	131	131	131	100%	100%
Manorcare of Homewood	Homewood	132	132	85	100%	64%
Rosewood Care Center	Joliet	120	58	34	48%	28%
Alden Estates of Naperville	Naperville	203	203	203	100%	100%
Aperion Care Midlothian	Midlothian	91	48	91	S3%	100%
Heather Healthcare Center	Harvey	173	173	173	100%	100%
Manorcare of Palos Heights East	Palos Heights	184	184	90	100%	49%
Manorcare of Palos Heights West	Palos Heights	130	130	52	100%	40%
Symphony of Crestwood	Crestwood	303	297	297	98%	98%
Beacon Hill	Lombard	110	21	0	19%	0%
Tri-State Manor Nursing Home	Lansing	84	56	84	67%	100%
Crestwood Terrace Nursing Center	Crestwood	126	0	126	0%	100%
Lexington Health Care Center-Lombard	Lombard	224	215	215	96%	96%
Lexington of Lagrange	Lagrange	120	120	40	100%	33%
Manorcare of South Holland	South Holland	216	216	162	100%	75%
Manorcare of Westmont	Westmont	149	78	149	52%	100%
Meadowbrook Manor	Bolingbrook	298	298	298	100%	100%
Prairie Manor Nsg & Rehab Ctr	Chicago Heights	148	148	148	100%	100%
Providence of Downers Grove	Downers Grove	145	145	46	100%	32%
Providence of Palos Heights	Palos Heights	193	14S	98	75%	51%
The Villa at South Holland	South Holland	171	171	171	100%	100%
Total Existing Facilities		**7,518**	6,422	5,972	85.4%	79.4%

(1) Bed Changes: 12/18/15 Disc. 25 Nursing Care beds, now has 227; 06/03/16 Disc. 16 Nursing Care beds, now has 211; 08/07/17 Disc. 54 Nursing Care beds, facility now has 157 Nursing Care beds.
(3) Bed Change: D3/14/17 Permit #16-0S6 issued to discontinue S8 Nursing Care beds. Facility will have 102 Nursing Care beds upon completion
(5) Bed Change: 06/02/15 Permit #15-008 issued for modernization and addition of 39 to existing facility; facility will have 154 Nursing Care beds upon project completion.
(6) Bed Change: 02/22/17 #12-032 Facility Licensed for operation with the addition of 50 Nursing Care beds to existing facility; Profile address & Website address: 710 West Black Road.
(8) Bed Change: Facility discontinues 3 Nursing Care Beds. Facility now has 275 Nursing Care Beds
Source: Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development https://ltc.dph.illinois.gov/webapp/LTCApp/ltc.jsp

As there are long-term care nursing beds and Medicare and Medicaid nursing beds within a 30-minute travel time contour as identified by the State Board Staff Report for Project #15-051, there is not an absence of the service. However, there appears to be access limitations due to payment status as not all beds in all facilities accept Medicare

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and Medicaid. In fact, 20.6% (1,546 beds) of the beds are not certified for Medicaid.

Similarly, 14.6% (1,096 beds) are not certified for Medicare. Therefore, not all beds are equal and accessible. It should be noted that all beds being proposed will be dually Medicare and Medicaid certified.

o Restrictive admission policies of existing providers; or

It is a restrictive admission policy where there is a calculated need for additional beds and services regardless of existing capacity. The chart appended as **ATTACHMENT-17A** identifies that the utilization rate for the existing facilities within the 30-minute market contour as identified by State Board Staff Report for Project #15-051. The peak utilization shows a reality that is much improved versus licensed capacity as peak beds set-up equates to 78.23%. A higher peak utilization rate is a restrictive policy toward admissions as it skews the appearance of available capacity by 355 beds. Specifically, the potential available nursing beds within the 30-minute market contour from the facilities identified by the State Board Staff Report for Project #15-051 (7,518 nursing beds) indicates that only 15.5% of the beds with the service area are under 90%. When evaluating the same equation for peak beds set-up there are only 11.8% under 90%. It is also important to point out that the new bed need calculation used these lower than 90% use rates and projected them forward. The resulting need is for not only the additional 274 beds, but it takes into account filling all beds under the State's target occupancy of 90% to include the Applicant's already permitted 140 beds (15-051). The four-county planning area need of 390 additional nursing beds only comes after the calculation fills to 90% the existing bed capacity. Therefore, the need for additional nursing beds in and of itself is a restrictive admissions policy.

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One additional characteristic of those being served is an indicator of restricted access to the general geriatric population. From the list of facilities identified by the State Board Staff Report for Project #15-051, nearly 30% (27.0%) of the existing residents in the area nursing facilities are identified as Mentally Ill. Refer to **ATTACHMENT-17B**. It is best practices not to co-mingle a general geriatric resident or a resident with ADRD with those with a primary diagnosis of being mentally ill (MI). A MI resident is typically younger, mobile, and more active than their geriatric counterpart. As there are differences in programming between a general geriatric resident and a memory impaired resident there are more differences for the MI population.

- o The area population and existing care system exhibit indicators of medical care problems, such as an average family income level below the State average poverty level, or designation by the Secretary of Health and Human Services as a Health Professional Shortage Area, a Medically Underserved Area, or a Medically Underserved Population.

This item is not germane to this project as the issue is of accessibility to services due to the overwhelming need for addition beds that are documented.

2. Additional documentation required:

The applicant shall provide the following documentation, as applicable, concerning existing restrictions to service access:

a. The location and utilization of other planning area service providers;

Appended as **ATTACHMENT-17C**, is a listing of the names and locations of other planning area service providers as identified by the State Board Staff Report for Project # 15-051. A listing of the facilities and their respective utilization rates are appended as **ATTACHMENT-17A**.

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b. Patient/resident location information by zip code;

The proposed project is for the establishment of service, and therefore there are no existing residents. Patient/resident location information by zip code is not applicable.

c. Independent time-travel studies;

In project #15-051 the State Board Staff Report identified all facilities within the 30-minute travel time. The listing, appended as **ATTACHMENT-17C** also indicates the individual facility travel times.

d. Certification of a waiting list;

As the proposed project is for the establishment of service, and as a result there are no existing residents, a wait list is not applicable.

e. Admission restrictions that exist in area providers;

Refer to **ATTACHMENT-17D** for a listing of the admission restrictions discussed above.

f. An assessment of area population characteristics that document that access problems exist;

Refer to **ATTACHMENT-14B,** is a copy of the 2017 Inventory of Health Care Facilities and Services and Need Determinations, Volume 2, Parts VI-VII, for Long-Term Care for Will County Planning Area which calculates a need for additional beds and services. As there are underutilized facilities within the Will County Planning Area, it is the increasing population that is the driving the need for beds.

g. Most recently published IDPH Long Term Care Facilities Inventory and Data (see www.hfsrb.illinois.gov).

Refer to **ATTACHMENT-14B** for a copy of the 2017 IDPH Inventory of Health Care Facilities and Services and Need Determinations, Volume 2, Parts VI-VII, Long-Term Care Services for Will County Planning Area.

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Alden Estates-Courts of New Lenox
30-Minute Facilities Identified in the SBSR for Project #15-051
Utilization Data

FACNAME	# of Licensed Nursing Beds	Peak Beds Set-up	2016 PROFILE DATA Nursing Patient Days	Nursing Occupancy	Set-Up NRSG Occupancy
Alden Estates-Courts of New Lenox					
FACILITIES FROM 15-051 SAR					
Spring Creek Nursing & Rehab Center	168	168	17,483	28.51%	28.51%
Smith Crossing	46	46	15,365	**91.51%**	91.51%
Salem Village Nursing & Rehab	266	266	79,285	81.66%	81.66%
Sunny Hill Nursing Home Will County (1)	**157**	211	59,922	104.57%	77.81%
Alden Estates of Orland Park	200	167	50,478	69.15%	82.81%
Joliet Terrace Nursing Center	120	120	38,217	87.25%	87.25%
Lemont Nrsg & Rehab Center	158	158	51,136	88.67%	88.67%
Symphony of Joliet	214	177	62,033	79.42%	96.02%
The PARC at Joliet	203	155	45,428	61.31%	80.30%
Our Lady Of Angels Ret Home	**87**	**87**	**29,114**	**91.68%**	**91.68%**
Presence Villa Franciscan	154	154	44,714	79.55%	79.55%
Franciscan Village (2)	127	123	37,770	81.48%	84.13%
Frankfort Terrace Nursing Center	120	120	39,035	89.12%	89.12%
Lexington Health Care Center (8)	**275**	275	76,861	76.57%	76.57%
Windsor Estates Nursing & Rehab	200	200	45,266	62.01%	62.01%
Oak Trace (3)	**102**	**125**	**36,760**	**98.74%**	**80.57%**
Advocate South Suburban Hospital	41	38	10,614	70.93%	76.52%
Holy Family Villa (4)	129	129	42,417	**90.09%**	90.09%
Pine Crest Health Care	199	199	64,638	88.99%	88.99%
Bria of Westmont	215	197	51,362	65.45%	71.43%
Generations at Applewood (5)	**154**	115	33,902	60.31%	80.77%
Alden Estates of Shorewood (6)	**150**	92	28,471	52.00%	84.79%
Brookdale Burr Ridge	30	30	7,497	68.47%	68.47%
Brookdale Plaza Lisle	55	55	16,460	81.99%	81.99%
Burgess Square	203	203	47,344	63.90%	63.90%
Glenshire Nsg & Rehab Centre	294	264	65,514	61.05%	67.99%
Lakewood Nrsg & Rehab Center (7)	131	131	42,485	88.85%	88.85%
Manorcare of Homewood	132	132	41,634	86.41%	86.41%
Rosewood Care Center	120	120	28,077	64.10%	64.10%
Alden Estates of Naperville	203	170	49,056	66.21%	79.06%
Aperion Care Midlothian	91	91	31,056	**93.50%**	93.50%
Heather Healthcare Center	173	145	44,622	70.67%	84.31%
Manorcare of Palos Heights East	184	178	54,514	81.17%	83.91%
Manorcare of Palos Heights West	130	130	37,168	78.33%	78.33%
Symphony of Crestwood	303	303	76,346	69.03%	69.03%
Beacon Hill	110	110	37,076	**92.34%**	92.34%
Tri-State Manor Nursing Home	84	84	27,190	88.68%	88.68%
Crestwood Terrace Nursing Center	126	126	42,547	**92.51%**	92.51%
Lexington Health Care Center-Lombard	224	224	59,223	72.44%	72.44%
Lexington of Lagrange	120	120	28,965	66.13%	66.13%
Manorcare of South Holland	216	202	45,123	57.23%	61.20%
Manorcare of Westmont	149	132	36,720	67.52%	76.21%
Meadowbrook Manor	298	298	94,783	87.14%	87.14%
Prairie Manor Nsg & Rehab Ctr	148	148	47,097	87.18%	87.18%
Providence of Downers Grove	**145**	**101**	**29,801**	56.31%	**80.84%**
Providence of Palos Heights	193	173	52,993	75.23%	83.92%
The Villa at South Holland	171	171	41,695	66.80%	66.80%
	7518	7,163	2,045,257	74.53%	78.23%

(1) Bed Changes: 12/18/15 Disc. 25 Nsg Care beds, now has 227; 06/03/16 Disc. 16 Nsg Care beds, now has 211;
08/07/17 Disc. 54 Nsg Care beds, facility now has 157 Nsg Care be peak difference
(2) profile address: 1260 Franciscan Drive
(3) Bed Change: 03/14/17 Permit #16-056 issued to disc. 58 Nsg Care beds. Facility will have 102 Nsg Care beds upon completion
(4) profile address: 12220 South Will Cook Road
(5) Bed Change: 06/02/15 Permit #15-008 issued for modernization and addition of 39 to existing facility;
facility will have 154 Nsg Care beds upon projet completion.
(6) Bed Change: 02/22/17 #12-032 Facility Licensed for operation with the addition of 50 Nsg Care beds to existing facility;
Profile address & Website address: 710 West Black Road.
(7) Profile address & Facility Website address: 14716 South Eastern Avenue
(8) Bed Change: Facility discontinued 3 Nursing Care beds; facility now has 275 nursing care beds

Source:
IOPH Inventory of Health Care Facilities and Services and Need Determinations - 2017 - Long-Term Care Services
Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development

Alden Estates-Courts of New Lenox
30-Minute Facilities Identified in the SBSR for Project #15-051
Residents Diagnosed as Mentally Ill

FACNAME	2016 IDPH Facility Profile Details Total Residents on 12/31/2016	Total M.I. Residents	% of M.I. Residents
Alden Estates-Courts of New Lenox			
FACILITIES FROM 15-051 SAR			
Spring Creek Nursing & Rehab Center	80	0	0.0%
Smith Crossing	38	7	18.4%
Salem Village Nursing & Rehab	215	152	70.7%
Sunny Hill Nursing Home Will County (1)	152	98	64.5%
Alden Estates of Orland Park	145	86	59.3%
Joliet Terrace Nursing Center	99	103	104.0%
Lemont Nrsg & Rehab Center	143	0	0.0%
Symphony of Joliet	174	31	17.8%
The PARC at Joliet	124	95	76.6%
Our Lady Of Angels Ret Home	125	20	16.0%
Presence Villa Franciscan	126	91	72.2%
Franciscan Village (2)	105	65	61.9%
Frankfort Terrace Nursing Center	106	101	95.3%
Lexington Health Care Center (8)	195	8	4.1%
Windsor Estates Nursing & Rehab	131	9	6.9%
Oak Trace (3)	146	20	13.7%
Advocate South Suburban Hospital	29	0	0.0%
Holy Family Villa (4)	115	58	50.4%
Pine Crest Health Care	181	163	90.1%
Bria of Westmont	165	0	0.0%
Generations at Applewood (5)	89	1	1.1%
Alden Estates of Shorewood (6)	76	35	46.1%
Brookdale Burr Ridge	94	0	0.0%
Brookdale Plaza Lisle	69	0	0.0%
Burgess Square	131	96	73.3%
Glenshire Nsg & Rehab Centre	136	0	0.0%
Lakewood Nrsg & Rehab Center (7)	116	5	4.3%
Manorcare of Homewood	123	0	0.0%
Rosewood Care Center	81	12	14.8%
Alden Estates of Naperville	146	0	0.0%
Aperion Care Midlothian	86	38	44.2%
Heather Healthcare Center	134	98	73.1%
Manorcare of Palos Heights East	143	2	1.4%
Manorcare of Palos Heights West	93	2	2.2%
Symphony of Crestwood	216	8	3.7%
Beacon Hill	103	38	36.9%
Tri-State Manor Nursing Home	75	0	0.0%
Crestwood Terrace Nursing Center	122	119	97.5%
Lexington Health Care Center-Lombard	164	9	5.5%
Lexington of Lagrange	75	0	0.0%
Manorcare of South Holland	123	1	0.8%
Manorcare of Westmont	100	0	0.0%
Meadowbrook Manor	241	0	0.0%
Prairie Manor Nsg & Rehab Ctr	136	0	0.0%
Providence of Downers Grove	155	13	8.4%
Providence of Palos Heights	133	0	0.0%
The Villa at South Holland	107	0	0.0%
	5,861	1,584	27.0%

(1) Bed Changes: 12/18/15 Disc. 25 Nsg Care beds, now has 227; 06/03/16 Disc. 16 Nsg Care beds, now has 211;
08/07/17 Disc. 54 Nsg Care beds, facility now has 157 Nsg Care beds.
(2) profile address: 1260 Franciscan Drive
(3) Bed Change: 03/14/17 Permit #16-056 issued to disc. 58 Nsg Care beds. Facility will have 102 Nsg Care beds upon completion
(4) profile address: 12220 South Will Cook Road
(5) Bed Change: 06/02/15 Permit #15-008 issued for modernization and addition of 39 to existing facility;
facility will have 154 Nsg Care beds upon projet completion.
(6) Bed Change: 02/22/17 #12-032 Facility Licensed for operation with the addition of 50 Nsg Care beds to existing facility;
Profile address & Website address: 710 West Black Road.
(7) Profile address & Facility Website address: 14716 South Eastern Avenue
(8) Bed Change: Facility discontinued 3 Nursing Care beds; facility now has 275 nursing care beds

Source:
IDPH Inventory of Health Care Facilities and Services and Need Determinations - 2017 - Long-Term Care Services
Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development

Alden Estates-Courts of New Lenox
30-Minute Facilities identified in the SBSR for Project #15-051

FACNAME	ADDRESS	CITY	ZIP	2016 PROFILE DATA # of Licensed Nursing Beds	#15-051 SBR Adj. Travel Times
Alden Estates-Courts of New Lenox	Cedar Crossing Drive	New Lenox	60451	140 Permitted	
FACILITIES FROM 15-051 SAR					
Spring Creek Nursing & Rehab Center	777 Draper	Joliet	60432-0000	168	8.1
Smith Crossing	10501 Emilie Ln	Orland Park	60467	46	11.5
Salem Village Nursing & Rehab	1314 Rowell Avenue	Joliet	60433-0000	266	12.7
Sunny Hill Nursing Home Will County (1)	421 Doris Avenue	Joliet	60433-0000	**157**	12.7
Alden Estates of Orland Park	16450 South 97th Avenue	Orland Park	60462	200	16.1
Joliet Terrace Nursing Center	2230 Mcdonough	Joliet	60436-0000	120	16.1
Lemont Nrsg & Rehab Center	12450 Walker Rd	Lemont	60439-0000	158	16.1
Symphony of Joliet	306 North Larkin Avenue	Joliet	60435-0000	214	16.1
The PARC at Joliet	222 North Hammes	Joliet	60435-0000	203	17.3
Our Lady Of Angels Ret Home	1201 Wyoming Avenue	Joliet	60435-0000	**87**	18.4
Presence Villa Franciscan	210 North Springfield Avenue	Joliet	60435-0000	154	18.4
Franciscan Village (2)	1270 Franciscan Drive	Lemont	60439-0000	127	19.6
Frankfort Terrace Nursing Center	40 North Smith Street	Frankfort	60423-0000	120	19.6
Lexington Health Care Center (8)	14601 S. John Humphrey Drive	Orland Park	60462-0000	**275**	20.7
Windsor Estates Nursing & Rehab	18300 South Lavergne Ave	Country Club Hills	60478	200	20.7
Oak Trace (3)	250 Village Drive	Downers Grove	60516-0000	**102**	21.15
Advocate South Suburban Hospital	17800 South Kedzie Avenue	Hazel Crest	60429	41	21.9
Holy Family Villa (4)	Will Cook Rd	Palos Park	60439-0000	129	21.9
Pine Crest Health Care	3300 West 175th Street	Hazel Crest	60429-0000	199	21.9
Bria of Westmont	6501 South Cass	Westmont	60559-0000	215	23
Generations at Applewood (5)	21020 Kostner Avenue	Matteson	60443-0000	**154**	24.2
Alden Estates of Shorewood (6)	735 Shorewood Dr	Shorewood	60431	**150**	25.3
Brookdale Burr Ridge	6801 Highgrove Boulevard	Burr Ridge	60527	30	25.3
Brookdale Plaza Lisle	1800 Robin Lane	Lisle	60532-0000	55	25.3
Burgess Square	5801 South Cass Avenue	Westmont	60559-0000	203	25.3
Glenshire Nsg & Rehab Centre	22660 South Cicero Avenue	Richton Park	60471-0000	294	25.3
Lakewood Nrsg & Rehab Center (7)	1112 North Eastern Avenue	Plainfield	60544-0000	131	25.3
Manorcare of Homewood	940 Maple Avenue	Homewood	60430-0000	132	25.3
Rosewood Care Center	3401 Hennepin Drive	Joliet	60435-0000	120	25.3
Alden Estates of Naperville	1525 South Oxford Lane	Naperville	60565-0000	203	26.45
Aperion Care Midlothian	3249 West 147 Street	Midlothian	60445-0000	91	26.5
Heather Healthcare Center	15600 Honore Ave	Harvey	60426-0000	173	26.5
Manorcare of Palos Heights East	7850 West College Drive	Palos Heights	60463-0000	184	26.5
Manorcare of Palos Heights West	11860 Southwest Highway	Palos Heights	60463-0000	130	26.5
Symphony of Crestwood	14255 South Cicero Ave	Crestwood	60445-0000	303	26.5
Beacon Hill	2400 South Finley Road	Lombard	60148-0000	110	27.6
Tri-State Manor Nursing Home	2500 East 175th Street	Lansing	60438-0000	84	28.75
Crestwood Terrace Nursing Center	13301 South Central Ave	Crestwood	60445-0000	126	29.9
Lexington Health Care Center-Lombard	2100 South Finley Road	Lombard	60148-0000	224	29.9
Lexington of Lagrange	4735 Willow Springs Road	Lagrange	60525-0000	120	29.9
Manorcare of South Holland	2145 East 170th Street	South Holland	60473-0000	216	29.9
Manorcare of Westmont	512 East Ogden Avenue	Westmont	60559-0000	149	29.9
Meadowbrook Manor	431 West Remington Boulevard	Bolingbrook	60440-0000	298	29.9
Prairie Manor Nsg & Rehab Ctr	345 Dixie Highway	Chicago Heights	60411-0000	148	29.9
Providence of Downers Grove	3450 Saratoga Avenue	Downers Grove	60515-0000	**145**	29.9
Providence of Palos Heights	13259 South Central Avenue	Palos Heights	60463-0000	193	29.9
The Villa at South Holland	16300 Wausau Ave	South Holland	60473	171	29.9
				7,518	

(1) Bed Changes: 12/18/15 Disc. 25 Nsg Care beds, now has 227; 06/03/16 Disc. 16 Nsg Care beds, now has 211;
08/07/17 Disc. 54 Nsg Care beds, facility now has 157 Nsg Care beds.
(2) profile address: 1260 Franciscan Drive
(3) Bed Change: 03/14/17 Permit #16-056 issued to disc. 58 Nsg Care beds. Facility will have 102 Nsg Care beds upon completion
(4) profile address: 12220 South Will Cook Road
(5) Bed Change: 06/02/15 Permit #15-008 issued for modernization and addition of 39 to existing facility;
facility will have 154 Nsg Care beds upon projet completion.
(6) Bed Change: 02/22/17 #12-032 Facility Licensed for operation with the addition of 50 Nsg Care beds to existing facility;
Profile address & Website address: 710 West Black Road.
(7) Profile address & Facility Website address: 14716 South Eastern Avenue
(8) Bed Change: Facility discontinued 3 Nursing Care beds; facility now has 275 nursing care beds

Source:
IDPH Inventory of Health Care Facilities and Services and Need Determinations - 2017 - Long-Term Care Services
Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development
IDPH Long-Term Care Facility Updates January 10, 2018

ATTACHMENT-17C

Alden Estates-Courts of New Lenox
30-Minute Facilities Identified in the SBSR for Project #15-051
SNF Bed Certification

FACNAME	2016 PROFILE DATA # of Licensed Nursing Beds	IDPH NSG HOMES IN ILLINOIS WEBSITE DATA SNF Beds	ICF Beds	Medicare Beds	Medicare/Medicaid Beds	Medicaid Beds	#15-051 SBR Adj. Travel Times
Alden Estates-Courts of New Lenox	140 Permitted						
FACILITIES FROM 15-051 SAR							
Spring Creek Nursing & Rehab Center	168	168	0	0	168	0	8.1
Smith Crossing	46	46	0	16	30	D	11.5
Salem Village Nursing & Rehab	266	230	36	0	230	36	12.7
Sunny Hill Nursing Home Will County (1)	157	157	0	0	157	0	12.7
Alden Estates of Orland Park	200	200	0	0	200	0	16.1
Joliet Terrace Nursing Center	120	0	120	0	0	120	16.1
Lemont Nrsg & Rehab Center	158	158	0	0	158	0	16.1
Symphony of Joliet	214	214	0	0	214	0	16.1
The PARC at Joliet	203	203	0	0	203	0	17.3
Our Lady Of Angels Ret Home	87	37	50	18	19	21	18.4
Presence Villa Franciscan	154	154	0	0	106	48	18.4
Franciscan Village (2)	127	127	0	38	0	31	19.6
Frankfort Terrace Nursing Center	120	0	120	0	0	120	19.6
Lexington Health Care Center (8)	275	275	0	44	215	0	20.7
Windsor Estates Nursing & Rehab	200	200	0	0	200	0	20.7
Oak Trace (3)	102	102	0	50	0	0	21.15
Advocate South Suburban Hospital	41						21.9
Holy Family Villa (4)	129	129	0	64	65	0	21.9
Pine Crest Health Care	199	199	0	0	199	0	21.9
Bria of Westmont	215	215	0	0	215	0	23
Generations at Applewood (5)	154	115	0	0	115	0	24.2
Alden Estates of Shorewood (6)	150	150	0	150	105	0	25.3
Brookdale Burr Ridge	30	29	0	29	0	0	25.3
Brookdale Plaza Lisle	55	55	0	55	0	0	25.3
Burgess Square	203	203	0	191	12	0	25.3
Glenshire Nsg & Rehab Centre	294	294	0	0	292	0	25.3
Lakewood Nrsg & Rehab Center (7)	131	131	0	0	131	0	25.3
Manorcare of Homewood	132	132	0	47	85	0	25.3
Rosewood Care Center	120	120	0	58	0	34	25.3
Alden Estates of Naperville	203	203	0	0	203	0	26.45
Aperion Care Midlothian	91	48	43	0	48	43	26.5
Heather Healthcare Center	173	173	0	0	173	0	26.5
Manorcare of Palos Heights East	184	184	0	94	90	0	26.5
Manorcare of Palos Heights West	130	130	0	78	52	0	26.5
Symphony of Crestwood	303	303	0	0	297	0	26.5
Beacon Hill	110	45	65	21	0	0	27.6
Tri-State Manor Nursing Home	84	56	28	0	56	28	28.75
Crestwood Terrace Nursing Center	126	0	126	0	0	126	29.9
Lexington Health Care Center-Lombard	224	224	0	0	215	0	29.9
Lexington of Lagrange	120	120	0	80	40	0	29.9
Manorcare of South Holland	216	216	0	54	162	0	29.9
Manorcare of Westmont	149	149	0	0	78	71	29.9
Meadowbrook Manor	298	298	0	0	298	0	29.9
Prairie Manor Nsg & Rehab Ctr	148	148	0	0	148	0	29.9
Providence of Downers Grove	145	145	0	99	46	0	29.9
Providence of Palos Heights	193	145	48	95	50	48	29.9
The Villa at South Holland	171	171	0	0	171	0	29.9
	7,518	6,801	636	1,281	5,246	726	

(1) Bed Changes: 12/18/15 Disc. 25 Nsg Care beds, now has 227; 06/03/16 Disc. 16 Nsg Care beds, now has 211; 08/07/17 Disc. 54 Nsg Care beds, facility now has 157 Nsg Care beds.
(2) profile address: 1260 Franciscan Drive
(3) Bed Change: 03/14/17 Permit #16-056 issued to disc. 58 Nsg Care beds. Facility will have 102 Nsg Care beds upon completion
(4) profile address: 12220 South Will Cook Road
(5) Bed Change: 06/02/15 Permit #15-008 issued for modernization and addition of 39 to existing facility; facility will have 154 Nsg Care beds upon projet completion.
(6) Bed Change: 02/22/17 #12-032 Facility Licensed for operation with the addition of 50 Nsg Care beds to existing facility; Profile address & Website address: 710 West Black Road.
(7) Profile address & Facility Website address: 14716 South Eastern Avenue
(8) Bed Change: Facility discontinued 3 Nursing Care beds; facility now has 275 nursing care beds

Source:
IDPH Inventory of Health Care Facilities and Services and Need Determinations - 2017 - Long-Term Care Services
Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development
IDPH Nursing Homes in Illinois

ATTACHMENT-17D

Alden Estates-Courts of New Lenox
30-Minute Facilities Identified in the SBSR for Project #15-051
Residents Diagnosed as Mentally Ill

FACNAME	2016 PROFILE DATA # of Licensed Nursing Beds	2016 IDPH Facility Profile Details: Total Residents on 12/31/2016	Total M.I. Residents	% of M.I. Residents	Total Identified Offenders	#15-051 SBR Adj. Travel Times
Alden Estates-Courts of New Lenox	140 Permitted					
FACILITIES FROM 15-051 SAR						
Spring Creek Nursing & Rehab Center	168	80	0	0.0%	3	8.1
Smith Crossing	46	38	7	18.4%	0	11.5
Salem Village Nursing & Rehab	266	215	152	70.7%	12	12.7
Sunny Hill Nursing Home Will County (1)	157	152	98	64.5%	D	12.7
Alden Estates of Orland Park	200	145	86	59.3%	0	16.1
Joliet Terrace Nursing Center	120	99	103	104.0%	11	16.1
Lemont Nrsg & Rehab Center	158	143	0	0.0%	0	16.1
Symphony of Joliet	214	174	31	17.8%	2	16.1
The PARC at Joliet	203	124	95	76.6%	5	17.3
Our Lady Of Angels Ret Home	87	125	20	16.0%	0	18.4
Presence Villa Franciscan	154	126	91	72.2%	0	18.4
Franciscan Village (2)	127	105	65	61.9%	D	19.6
Frankfort Terrace Nursing Center	120	106	101	95.3%	14	19.6
Lexington Health Care Center (8)	275	195	8	4.1%	0	20.7
Windsor Estates Nursing & Rehab	200	131	9	6.9%	3	20.7
Oak Trace (3)	102	146	20	13.7%	D	21.15
Advocate South Suburban Hospital	41	29	0	0.0%	0	21.9
Holy Family Villa (4)	129	115	58	50.4%	D	21.9
Pine Crest Health Care	199	181	163	90.1%	22	21.9
Bria of Westmont	215	165	0	0.0%	2	23
Generations at Applewood (5)	154	89	1	1.1%	2	24.2
Alden Estates of Shorewood (6)	150	76	35	46.1%	1	25.3
Brookdale Burr Ridge	30	94	0	0.0%	0	25.3
Brookdale Plaza Lisle	55	69	0	0.0%	0	25.3
Burgess Square	203	131	96	73.3%	0	25.3
Glenshire Nsg & Rehab Centre	294	136	0	0.0%	0	25.3
Lakewood Nrsg & Rehab Center (7)	131	116	5	4.3%	1	25.3
Manorcare of Homewood	132	123	0	0.0%	0	25.3
Rosewood Care Center	120	81	12	14.8%	0	25.3
Alden Estates of Naperville	203	146	0	0.0%	1	26.45
Aperion Care Midlothian	91	86	38	44.2%	9	26.5
Heather Healthcare Center	173	134	98	73.1%	19	26.5
Manorcare of Palos Heights East	184	143	2	1.4%	0	26.5
Manorcare of Palos Heights West	130	93	2	2.2%	2	26.5
Symphony of Crestwood	303	216	8	3.7%	0	26.5
Beacon Hill	110	103	38	36.9%	0	27.6
Tri-State Manor Nursing Home	84	75	0	0.0%	3	28.75
Crestwood Terrace Nursing Center	126	122	119	97.5%	23	29.9
Lexington Health Care Center-Lombard	224	164	9	5.5%	D	29.9
Lexington of Lagrange	120	75	0	0.0%	1	29.9
Manorcare of South Holland	216	123	1	0.8%	4	29.9
Manorcare of Westmont	149	100	0	0.0%	2	29.9
Meadowbrook Manor	298	241	0	0.0%	0	29.9
Prairie Manor Nsg & Rehab Ctr	148	136	0	0.0%	2	29.9
Providence of Downers Grove	145	155	13	8.4%	1	29.9
Providence of Palos Heights	193	133	0	0.0%	0	29.9
The Villa at South Holland	171	107	0	0.0%	D	29.9
	7,518	5,861	1,584	27.0%	145	

(1) Bed Changes: 12/18/15 Disc. 25 Nsg Care beds, now has 227; 06/03/16 Disc. 16 Nsg Care beds, now has 211;
D8/07/17 Disc. 54 Nsg Care beds, facility now has 157 Nsg Care beds.
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Profile address & Website address: 710 West Black Road.
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(8) Bed Change: Facility discontinued 3 Nursing Care beds; facility now has 275 nursing care beds

Source:
IDPH Inventory of Health Care Facilities and Services and Need Determinations - 2017 - Long-Term Care Services
Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development

ATTACHMENT-17D

Criterion 1125.580 - Unnecessary Duplication/Maldistribution

1. The applicant shall provide the following information:

   a. A list of all zip code areas that are located, in total or in part, within 30 minutes normal travel time of the project's site;

   Appended as **ATTACHMENT-18A**, is a listing of all zip code areas that are located in total or in part within the 30-minute travel contour from the proposed project's site.

   b. The total population of the identified zip code areas (based upon the most recent population numbers available for the State of Illinois); and

   ATTACHMENT-18A also lists the corresponding population for the zip code areas. The census data from http://factfinder.census.gov is appended as **ATTACHMENT-18B**.

   c. The names and locations of all existing or approved LTC facilities located within 30 minutes normal travel time from the project site that provide the categories of bed service that are proposed by the project.

   A list of the names and locations of all existing and approved LTC facilities located within 30 minutes as identified by the State Board Staff Report for Project #15-051 of the proposed project site is appended as **ATTACHMENT-18C**.

2. The applicant shall document that the project will not result in maldistribution of services.

Misdistribution is typified by having too many facilities together within the service area where as the ratio of "beds" to "population" is one and one-half times greater than the ratio of the State as a whole. The primary service area is that of the Zip Code area for the Village of New Lenox. Within this area a ratio cannot be calculated as there are no nursing beds. Therefore, a maldistribution by the Board's definition will not result. Upon project completion, the New

Lenox Zip Code area 60451 will have one nursing home bed for every 223.2 persons whereas the State has one nursing bed for every 141.4 people.

The actual ratio of "beds" to "population" for the State and the 30-minute travel contour is as follows:

$$\frac{\text{(30-minute drive time*) Population (2007) (30-minute drive time**)}}{\text{7,730 (7,518 + 46 in pipeline + 166 proposed beds)}} = \frac{\text{7,730 (7,518 + 46 in pipeline + 166 proposed beds)}}{\text{1,147,054}} = \mathbf{.006739}$$

$$\frac{\text{Total of Nursing Care Beds (State of Illinois) Population}}{\text{94,980 (Existing)}} = \frac{\text{94,980 (Existing)}}{\text{13,427,700}} = .0070735 * 1.5 = \mathbf{.010610}$$

* Travel time as taken from Project #05-051 State Board Staff Report facilities listing.
** Zip Codes and population identified through Microsoft MapPoint 2009 (Population is 2007 estimate)

The State's resultant ratio is one hundredths nursing beds to every person. The market contour's ratio is six thousandths nursing for every person, thus, it would appear that a "maldistribution" in accordance with the Board's definition does not exist.

3. The applicant shall document that, within 24 months after project completion, the proposed project:

   a. Will not lower the utilization of other area providers below the occupancy standards specified in Section 1125.210(c); and

   b. Will not lower, to a further extent, the utilization of other area facilities that are currently (during the latest 12-month period) operating below the occupancy standards.

The Village of New Lenox does not have any beds that its growing population specifically supports. Therefore, there are no existing beds that the establishment of this facility will directly affect. Moreover, as the average use rate for the 30-minute travel time as identified by the State Board Staff Report from Project #15-051 is 78.23%, the existing use rate is already below 90%, the State's target utilization rate and item 3A above is not applicable.

ATTACHMENT-18

Item 3B above requires that the proposed project will not lower, to a further extent, the utilization of other area facilities. As stated, the primary service area of the Village, Zip Code area, Township of New Lenox does not have any nursing beds to adversely affect. On the bigger scale of the Will County Planning Area, in gross population and in the 65 and older age cohort are growing at a rate that eclipse that of the State and of the other Planning Areas where a bed need as has also been addressed with the exception of Kendall County. Refer to the chart below.

Market	2015 Estimated Population	2020 Estimated Population	Growth	2015 Estimated 65+ Pop	2020 Estimated 65+ Pop	Growth
Illinois	12,861,200	13,427,700	4.4%	1,813,300	2,136,900	16.7%
Will Co.	688,500	795,200	15.5%	75,500	102,900	36.3%
Grundy Co.	50,900	56,100	10.2%	6,100	8,200	34.4%
Kendall Co.	121,500	142,800	17.5%	9,500	15,200	60.0%

Source: Inventory of Health Care Facilities and Services and Need Determinations 2017 Long-Term Care Services

As illustrated throughout this document, the Applicant is only proposing 114 general Long-Term Care beds with the balance (52) being innovative ADRD nursing beds. Even in addressing the need for 274 additional services within the Will County Planning Area which includes the Applicant's already permitted 140 beds (15-051), the need projection also projects demand that will first fill the potentially underutilized beds (under the State's optimal rate of 90% to include the Applicant's already permitted beds). Therefore, the proposed demand will not infringe on the referrals already given to the "other area" facilities, to include Alden's own Alden Estates of Orland Park and Alden Estates of Shorewood both which are located within the required 30-minute market area.

ATTACHMENT- 18

Alden Estates-Courts of New Lenox
30-Minute Travel Time
Zip Codes and Population Data

ZIP Code	Population
60403	18,267
60404	18,198
60406	24,629
60410	12,656
60415	14,351
60421	3,910
60422	9,377
60423	30,907
60426	29,826
60428	12,257
60429	15,504
60430	19,978
60431	22,926
60432	20,712
60433	17,034
60435	50,095
60436	18,714
60439	23,373
60440	53,285
60441	35,556
60442	10,226
60443	21,297
60445	26,201
60446	40,018
60448	25,604
60449	9,187
60451	34,921
60452	28,494
Sub-Total	647,503

ZIP Code	Population
60455	16,421
60457	13,858
60458	14,887
60461	4,738
60462	39,714
60463	14,484
60464	9,595
60465	17,575
60467	27,077
60469	5,906
60471	14,076
60472	5,226
60477	38,421
60478	17,178
60480	5,140
60482	11,068
60487	26,827
60490	21,035
60491	22,583
60501	11,990
60525	31,395
60527	28,048
60544	25,682
60561	23,042
60586	47,244
60803	22,762
Sub-Total	499,551
Total	**1,147,054**

Alden Estates-Courts of New Lenox
30 Minute Travel Time Zip Codes and Population Data

Subject	ZCTA5 60403	ZCTA5 60404	ZCTA5 60406	ZCTA5 60410	ZCTA5 60415	ZCTA5 60421	ZCTA5 60422	ZCTA5 60423	ZCTA5 60426
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
SEX AND AGE									
Total population	18,267	18,198	24,629	12,656	14,351	3,910	9,377	30,907	29,826
Male	9,383	8,188	12,455	6,410	7,155	2,026	4,177	15,205	14,098
Female	8,884	10,010	12,174	6,246	7,196	1,884	5,200	15,702	15,728
Under 5 years	986	1,177	1,457	827	1,683	316	355	1,358	1,874
5 to 9 years	1,132	1,237	1,937	993	1,343	300	726	2,205	2,245
10 to 14 years	1,225	1,167	2,057	1,208	750	147	651	2,653	2,610
15 to 19 years	1,022	1,229	1,541	1,099	550	249	536	2,457	2,427
20 to 24 years	1,082	1,353	1,750	663	983	193	471	1,545	2,214
25 to 34 years	2,764	1,815	3,485	1,244	2,300	422	647	2,228	3,315
35 to 44 years	2,712	2,543	3,582	1,819	1,999	446	817	4,199	4,161
45 to 54 years	2,339	2,869	3,112	2,078	1,738	651	1,476	5,223	3,737
55 to 59 years	1,111	1,032	1,502	804	825	302	908	2,711	1,817
60 to 64 years	859	1,081	1,560	653	592	286	881	1,981	1,413
65 to 74 years	1,842	1,698	1,368	793	723	422	1,122	2,825	2,292
75 to 84 years	793	680	951	324	627	133	375	1,002	1,301
85 years and over	400	317	327	151	238	43	412	520	420
Median age (years)	38.3	39.2	35.2	36.6	32.8	42.1	48.1	42.7	35.5
18 years and over	14,264	13,870	18,353	8,907	10,284	2,991	7,161	22,951	21,436
21 years and over	13,723	13,120	17,186	8,405	9,903	2,872	7,103	21,825	20,236
62 years and over	3,548	3,348	3,378	1,600	1,938	773	2,350	5,209	4,852
65 years and over	3,035	2,695	2,646	1,268	1,588	598	1,909	4,347	4,013
18 years and over	14,264	13,870	18,353	8,907	10,284	2,991	7,161	22,951	21,436
Male	7,257	6,387	9,360	4,439	4,975	1,496	3,165	10,951	9,905
Female	7,007	7,483	8,993	4,468	5,309	1,495	3,996	12,000	11,531
65 years and over	3,035	2,695	2,646	1,268	1,588	598	1,909	4,347	4,013
Male	1,199	1,167	1,236	594	655	283	875	2,149	1,663
Female	1,836	1,528	1,410	674	933	315	1,034	2,198	2,350

ATTACHMENT-18B

Alden Estates-Courts of New Lenox
30 Minute Travel Time Zip Codes and Population Data

Subject	ZCTA5 60428	ZCTA5 60429	ZCTA5 60430	ZCTA5 60431	ZCTA5 60432	ZCTA5 60433	ZCTA5 60435	ZCTA5 60436	ZCTA5 60439
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
SEX AND AGE									
Total population	12,257	15,504	19,978	22,926	20,712	17,034	50,095	18,714	23,373
Male	5,404	7,409	9,390	11,247	10,537	8,610	24,145	9,248	11,483
Female	6,853	8,095	10,588	11,679	10,175	8,424	25,950	9,466	11,890
Under 5 years	977	706	952	1,424	1,812	1,159	3,244	1,332	868
5 to 9 years	946	1,140	1,274	1,617	1,915	1,216	3,863	1,357	1,174
10 to 14 years	914	1,221	1,604	1,670	1,932	1,259	3,671	1,247	1,920
15 to 19 years	706	1,115	1,423	1,857	1,586	1,295	3,051	1,383	1,673
20 to 24 years	978	896	971	1,469	1,654	1,332	3,968	1,524	1,589
25 to 34 years	1,290	1,902	2,172	2,814	3,010	2,689	6,481	2,963	2,145
35 to 44 years	1,332	1,724	2,388	3,973	3,236	2,147	7,318	2,697	2,654
45 to 54 years	1,604	2,303	3,035	3,449	2,482	2,120	6,342	2,441	4,458
55 to 59 years	885	990	1,430	1,127	671	923	2,996	936	1,826
60 to 64 years	806	1,093	1,343	1,109	722	796	2,863	819	1,329
65 to 74 years	1,044	1,385	1,898	1,633	1,039	1,069	2,837	870	2,145
75 to 84 years	507	633	1,035	576	464	642	2,329	799	1,010
85 years and over	268	396	453	208	189	387	1,132	346	582
Median age (years)	37.3	39.6	42.0	37.0	30.6	33.7	36.0	33.2	43.7
18 years and over	8,974	11,772	15,121	17,042	14,064	12,546	37,523	13,912	18,139
21 years and over	8,438	11,182	14,580	15,884	13,143	11,806	35,380	12,967	17,323
62 years and over	2,228	3,149	4,054	3,015	2,068	2,542	8,118	2,514	4,497
65 years and over	1,819	2,414	3,386	2,417	1,692	2,098	6,298	2,015	3,737
18 years and over	8,974	11,772	15,121	17,042	14,064	12,546	37,523	13,912	18,139
Male	3,787	5,239	6,892	8,288	6,989	6,324	17,650	7,190	8,832
Female	5,187	6,533	8,229	8,754	7,075	6,222	19,873	6,722	9,307
65 years and over	1,819	2,414	3,386	2,417	1,692	2,098	6,298	2,015	3,737
Male	771	953	1,422	1,016	819	829	2,597	836	1,663
Female	1,048	1,461	1,964	1,401	873	1,269	3,701	1,179	2,074

Alden Estates-Courts of New Lenox
30 Minute Travel Time Zip Codes and Population Data

Subject	ZCTA5 60440	ZCTA5 60441	ZCTA5 60442	ZCTA5 60443	ZCTA5 60445	ZCTA5 60446	ZCTA5 60448	ZCTA5 60449	ZCTA5 60451
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
SEX AND AGE									
Total population	53,285	35,556	10,226	21,297	26,201	40,018	25,604	9,187	34,921
Male	26,640	18,226	5,226	9,775	12,657	19,530	13,095	4,449	17,287
Female	26,645	17,330	5,000	11,522	13,544	20,488	12,509	4,738	17,634
Under 5 years	3,595	2,194	668	923	1,518	2,995	1,595	561	1,871
5 to 9 years	4,354	2,400	1,002	1,373	1,483	2,963	1,711	432	2,638
10 to 14 years	3,711	2,606	825	1,609	1,115	3,119	1,715	668	2,931
15 to 19 years	4,272	2,374	762	1,318	1,643	3,931	1,791	557	2,548
20 to 24 years	3,393	2,437	587	1,552	1,296	3,164	1,551	365	2,116
25 to 34 years	7,737	5,000	1,383	1,940	4,208	5,187	2,882	1,028	3,549
35 to 44 years	7,927	5,582	1,315	3,076	3,094	6,061	3,072	1,282	4,899
45 to 54 years	7,017	5,261	1,542	2,801	3,525	6,000	4,387	1,830	6,159
55 to 59 years	3,557	2,573	712	1,984	2,157	1,547	2,153	573	2,658
60 to 64 years	2,990	1,617	433	1,656	1,942	1,393	1,766	512	1,676
65 to 74 years	3,298	2,127	645	1,794	2,272	2,177	1,770	883	2,441
75 to 84 years	997	1,000	233	850	1,363	1,132	1,041	447	1,086
85 years and over	437	385	119	421	585	349	170	49	349
Median age (years)	34.4	36.4	34.4	40.7	40.9	32.6	40.8	42.9	38.7
18 years and over	38,857	26,867	7,254	16,665	20,973	28,783	19,397	7,090	25,962
21 years and over	36,597	25,668	6,791	15,649	20,166	26,200	18,446	6,812	24,443
62 years and over	6,502	4,531	1,265	3,990	5,369	4,511	3,943	1,712	4,855
65 years and over	4,732	3,512	997	3,065	4,220	3,658	2,981	1,379	3,876
18 years and over	38,857	26,867	7,254	16,665	20,973	28,783	19,397	7,090	25,962
Male	19,115	13,988	3,735	7,590	10,133	13,903	9,608	3,505	12,530
Female	19,742	12,879	3,519	9,075	10,840	14,880	9,789	3,585	13,432
65 years and over	4,732	3,512	997	3,065	4,220	3,658	2,981	1,379	3,876
Male	2,290	1,357	481	1,246	1,403	1,539	1,463	609	1,811
Female	2,442	2,155	516	1,819	2,817	2,119	1,518	770	2,065

ATTACHMENT-18B

Alden Estates-Courts of New Lenox
30 Minute Travel Time Zip Codes and Population Data

Subject	ZCTA5 60452	ZCTA5 60455	ZCTA5	ZCTA5 60458	ZCTA5 60461	ZCTA5 60462	ZCTA5 60463	ZCTA5 60464	ZCTA5 60465
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
SEX AND AGE									
Total population	28,494	16,421	13,858	14,887	4,738	39,714	14,484	9,595	17,575
Male	13,749	7,724	7,127	7,052	2,199	18,618	6,795	4,306	7,981
Female	14,745	8,697	6,731	7,835	2,539	21,096	7,689	5,289	9,594
Under 5 years	1,490	1,154	967	1,499	200	1,953	506	466	1,055
5 to 9 years	1,376	1,025	810	1,245	166	1,893	607	578	804
10 to 14 years	1,874	1,347	824	1,113	178	2,446	838	540	944
15 to 19 years	2,075	859	804	749	209	2,323	905	425	1,093
20 to 24 years	2,111	993	755	1,210	226	2,381	527	366	1,170
25 to 34 years	3,926	2,042	2,035	2,863	420	4,271	1,144	738	2,272
35 to 44 years	3,275	2,215	1,715	2,195	438	4,420	1,307	911	2,233
45 to 54 years	4,396	2,128	1,819	1,448	841	5,661	1,979	1,079	2,646
55 to 59 years	2,097	1,456	1,115	969	378	3,026	1,150	940	1,096
60 to 64 years	2,187	970	915	627	236	3,366	1,092	861	1,182
65 to 74 years	2,283	1,372	1,325	560	809	4,406	1,905	1,377	1,710
75 to 84 years	986	507	578	318	336	2,562	1,762	766	979
85 years and over	418	353	196	91	301	1,006	762	548	391
Median age (years)	39.9	38.0	38.9	31.2	52.6	45.2	52.5	52.7	41.0
18 years and over	22,509	12,383	10,857	10,679	4,003	32,030	12,099	7,705	14,079
21 years and over	21,319	11,870	10,199	9,991	3,963	30,704	11,568	7,562	13,489
62 years and over	4,727	2,693	2,590	1,341	1,606	9,941	5,077	3,244	3,719
65 years and over	3,687	2,232	2,099	969	1,446	7,974	4,429	2,691	3,080
18 years and over	22,509	12,383	10,857	10,679	4,003	32,030	12,099	7,705	14,079
Male	10,757	5,855	5,502	4,991	1,751	14,821	5,491	3,491	6,217
Female	11,752	6,528	5,355	5,688	2,252	17,209	6,608	4,214	7,862
65 years and over	3,687	2,232	2,099	969	1,446	7,974	4,429	2,691	3,080
Male	1,428	925	909	400	570	3,309	1,714	1,143	1,205
Female	2,259	1,307	1,190	569	876	4,665	2,715	1,548	1,875

ATTACHMENT-18B

Alden Estates-Courts of New Lenox
30 Minute Travel Time Zip Codes and Population Data

Subject	ZCTA5 60467	ZCTA5 60469	ZCTA5 60471	ZCTA5 60472	ZCTA5 60477	ZCTA5 60478	ZCTA5 60480	ZCTA5 60482	ZCTA5 60487
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
SEX AND AGE									
Total population	27,077	5,906	14,076	5,226	38,421	17,178	5,140	11,068	26,827
Male	12,821	2,929	6,524	2,633	18,612	8,327	2,345	5,479	13,431
Female	14,256	2,977	7,552	2,593	19,809	8,851	2,795	5,589	13,396
Under 5 years	1,092	524	677	248	2,263	1,282	348	693	1,463
5 to 9 years	1,256	490	829	305	2,022	852	239	523	2,080
10 to 14 years	2,072	509	931	396	2,415	1,266	304	654	1,644
15 to 19 years	1,866	536	1,398	408	2,382	1,306	323	897	2,243
20 to 24 years	1,318	460	1,064	418	1,938	1,000	127	830	1,872
25 to 34 years	2,247	730	1,660	703	6,270	2,251	667	1,602	2,912
35 to 44 years	2,892	682	1,921	531	4,115	1,983	656	1,100	3,183
45 to 54 years	4,572	915	2,207	556	5,441	2,554	657	1,636	4,335
55 to 59 years	2,537	422	869	513	2,739	1,123	407	861	2,275
60 to 64 years	1,910	243	1,064	292	2,743	1,311	368	774	1,775
65 to 74 years	2,822	182	838	451	3,390	1,257	772	988	2,204
75 to 84 years	1,625	152	421	248	1,657	640	210	391	516
85 years and over	868	61	197	157	1,046	353	62	119	325
Median age (years)	47.0	32.1	38.7	36.9	39.6	37.9	44.3	39.2	38.1
18 years and over	21,384	4,054	10,918	3,964	30,327	13,030	4,125	8,618	20,248
21 years and over	20,455	3,714	9,863	3,742	28,961	12,235	3,909	8,144	19,183
62 years and over	6,277	563	2,055	1,016	7,724	3,014	1,255	1,974	4,057
65 years and over	5,315	395	1,456	856	6,093	2,250	1,044	1,498	3,045
18 years and over	21,384	4,054	10,918	3,964	30,327	13,030	4,125	8,618	20,248
Male	10,166	2,101	4,772	2,075	14,361	6,075	1,860	4,407	10,022
Female	11,218	1,953	6,146	1,889	15,966	6,955	2,265	4,211	10,226
65 years and over	5,315	395	1,456	856	6,093	2,250	1,044	1,498	3,045
Male	2,340	132	571	334	2,641	771	554	648	1,401
Female	2,975	263	885	522	3,452	1,479	490	850	1,644

ATTACHMENT-18B

Alden Estates-Courts of New Lenox
30 Minute Travel Time Zip Codes and Population Data

Subject	ZCTA5 60490	ZCTA5 60491	ZCTA5 60501	ZCTA5 60525	ZCTA5 60527	ZCTA5 60544	ZCTA5 60561	ZCTA5 60586	ZCTA5 60803
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
SEX AND AGE									
Total population	21,035	22,583	11,990	31,395	28,048	25,682	23,042	47,244	22,762
Male	10,469	11,231	6,220	15,197	13,386	11,793	11,107	22,818	10,869
Female	10,566	11,352	5,770	16,198	14,662	13,889	11,935	24,426	11,893
Under 5 years	1,295	895	1,033	1,662	1,053	1,579	1,008	3,153	1,631
5 to 9 years	1,757	1,295	1,026	2,318	1,373	1,883	1,179	4,477	1,674
10 to 14 years	2,212	1,616	994	2,539	1,982	2,289	1,201	4,785	1,293
15 to 19 years	1,831	1,659	976	1,920	2,106	1,798	1,305	4,435	1,690
20 to 24 years	1,372	1,339	931	1,349	1,250	1,640	1,459	2,928	1,803
25 to 34 years	1,997	1,882	1,893	2,851	2,997	2,487	2,216	6,033	3,655
35 to 44 years	3,841	2,450	1,781	4,193	3,169	3,626	2,875	7,973	2,365
45 to 54 years	3,687	3,884	1,118	5,075	4,028	3,510	3,461	7,159	3,286
55 to 59 years	892	2,145	732	2,308	2,286	1,283	2,169	2,182	1,385
60 to 64 years	858	1,782	612	1,968	2,591	1,191	1,751	1,551	1,195
65 to 74 years	860	2,308	514	2,798	3,032	2,106	2,696	1,810	1,598
75 to 84 years	300	939	228	1,589	1,607	1,653	1,290	519	851
85 years and over	133	389	152	825	574	637	432	239	336
Median age (years)	35.1	45.5	30.6	42.0	45.2	38.7	46.2	31.3	33.7
18 years and over	14,655	17,704	8,313	23,560	22,118	18,785	18,763	32,085	17,073
21 years and over	13,671	16,899	7,748	22,635	21,318	17,765	18,000	29,506	16,189
62 years and over	1,889	4,557	1,104	6,261	6,691	5,138	5,353	3,483	3,535
65 years and over	1,293	3,636	894	5,212	5,213	4,396	4,418	2,568	2,785
18 years and over	14,655	17,704	8,313	23,560	22,118	18,785	18,763	32,085	17,073
Male	7,321	8,731	4,224	11,188	10,302	8,298	8,887	15,799	8,278
Female	7,334	8,973	4,089	12,372	11,816	10,487	9,876	16,286	8,795
65 years and over	1,293	3,636	894	5,212	5,213	4,396	4,418	2,568	2,785
Male	614	1,650	430	2,034	2,250	1,634	1,974	1,181	1,254
Female	679	1,986	464	3,178	2,963	2,762	2,444	1,387	1,531

ATTACHMENT-18B

DP05: ACS DEMOGRAPHIC AND HOUSING ESTIMATES
2012-2016 American Community Survey 5-Year Estimates
Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Tell us what you think. Provide feedback to help make American Community Survey data more useful for you.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

For more information on understanding race and Hispanic origin data, please see the Census 2010 Brief entitled, Overview of Race and Hispanic Origin: 2010, issued March 2011. (pdf format)

While the 2012-2016 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

Alden Estates-Courts of New Lenox
30-Minute Facilities Identified in the SB5R for Project #15-051

FACNAME	ADDRESS	CITY	ZIP	2016 PROFILE DATA # of Licensed Nursing Beds	#15-051 SBR Adj. Travel Times
Alden Estates-Courts of New Lenox	Cedar Crossing Drive	New Lenox	60451	140 Permitted	
FACILITIES FROM 15-051 SAR					
Spring Creek Nursing & Rehab Center	777 Draper	Joliet	60432-0000	168	8.1
Smith Crossing	10501 Emilie Ln	Orland Park	60467	46	11.5
Salem Village Nursing & Rehab	1314 Rowell Avenue	Joliet	60433-0000	266	12.7
Sunny Hill Nursing Home Will County (1)	421 Doris Avenue	Joliet	60433-0000	157	12.7
Alden Estates of Orland Park	16450 South 97th Avenue	Orland Park	60462	200	16.1
Joliet Terrace Nursing Center	2230 Mcdonough	Joliet	60436-0000	120	16.1
Lemont Nrsg & Rehab Center	12450 Walker Rd	Lemont	60439-0000	158	16.1
Symphony of Joliet	306 North Larkin Avenue	Joliet	60435-0000	214	16.1
The PARC at Joliet	222 North Hammes	Joliet	60435-0000	203	17.3
Our Lady Of Angels Ret Home	1201 Wyoming Avenue	Joliet	60435-0000	87	18.4
Presence Villa Franciscan	210 North Springfield Avenue	Joliet	60435-0000	154	18.4
Franciscan Village (2)	1270 Franciscan Drive	Lemont	60439-0000	127	19.6
Frankfort Terrace Nursing Center	40 North Smith Street	Frankfort	60423-0000	120	19.6
Lexington Health Care Center (8)	14601 S. John Humphrey Drive	Orland Park	60462-0000	275	20.7
Windsor Estates Nursing & Rehab	18300 South Lavergne Ave	Country Club Hills	60478	200	20.7
Oak Trace (3)	250 Village Drive	Downers Grove	60516-0000	102	21.15
Advocate South Suburban Hospital	17800 South Kedzie Avenue	Hazel Crest	60429	41	21.9
Holy Family Villa (4)	Will Cook Rd	Palos Park	60439-0000	129	21.9
Pine Crest Health Care	3300 West 175th Street	Hazel Crest	60429-0000	199	21.9
Bria of Westmont	6501 South Cass	Westmont	60559-0000	215	23
Generations at Applewood (5)	21020 Kostner Avenue	Matteson	60443-0000	154	24.2
Alden Estates of Shorewood (6)	735 Shorewood Dr	Shorewood	60431	150	25.3
Brookdale Burr Ridge	6801 Highgrove Boulevard	Burr Ridge	60527	30	25.3
Brookdale Plaza Lisle	1800 Robin Lane	Lisle	60532-0000	55	25.3
Burgess Square	5801 South Cass Avenue	Westmont	60559-0000	203	25.3
Glenshire Nsg & Rehab Centre	22660 South Cicero Avenue	Richton Park	60471-0000	294	25.3
Lakewood Nrsg & Rehab Center (7)	1112 North Eastern Avenue	Plainfield	60544-0000	131	25.3
Manorcare of Homewood	940 Maple Avenue	Homewood	60430-0000	132	25.3
Rosewood Care Center	3401 Hennepin Drive	Joliet	60435-0000	120	25.3
Alden Estates of Naperville	1525 South Oxford Lane	Naperville	60565-0000	203	26.45
Aperion Care Midlothian	3249 West 147 Street	Midlothian	60445-0000	91	26.5
Heather Healthcare Center	15600 Honore Ave	Harvey	60426-0000	173	26.5
Manorcare of Palos Heights East	7850 West College Drive	Palos Heights	60463-0000	184	26.5
Manorcare of Palos Heights West	11860 Southwest Highway	Palos Heights	60463-0000	130	26.5
Symphony of Crestwood	14255 South Cicero Ave	Crestwood	60445-0000	303	26.5
Beacon Hill	2400 South Finley Road	Lombard	60148-0000	110	27.6
Tri-State Manor Nursing Home	2500 East 175th Street	Lansing	60438-0000	84	28.75
Crestwood Terrace Nursing Center	13301 South Central Ave	Crestwood	60445-0000	126	29.9
Lexington Health Care Center-Lombard	2100 South Finley Road	Lombard	60148-0000	224	29.9
Lexington of Lagrange	4735 Willow Springs Road	Lagrange	60525-0000	120	29.9
Manorcare of South Holland	2145 East 170th Street	South Holland	60473-0000	216	29.9
Manorcare of Westmont	512 East Ogden Avenue	Westmont	60559-0000	149	29.9
Meadowbrook Manor	431 West Remington Boulevard	Bolingbrook	60440-0000	298	29.9
Prairie Manor Nsg & Rehab Ctr	345 Dixie Highway	Chicago Heights	60411-0000	148	29.9
Providence of Downers Grove	3450 Saratoga Avenue	Downers Grove	60515-0000	145	29.9
Providence of Palos Heights	13259 South Central Avenue	Palos Heights	60463-0000	193	29.9
The Villa at South Holland	16300 Wausau Ave	South Holland	60473	171	29.9
				7,518	

(1) Bed Changes: 12/18/15 Disc. 25 Nsg Care beds, now has 227; 06/03/16 Disc. 16 Nsg Care beds, now has 211;
08/07/17 Disc. 54 Nsg Care beds, facility now has 157 Nsg Care beds.
(2) profile address: 1260 Franciscan Drive
(3) Bed Change: 03/14/17 Permit #16-056 issued to disc. 58 Nsg Care beds. Facility will have 102 Nsg Care beds upon completion
(4) profile address: 12220 South Will Cook Road
(5) Bed Change: 06/02/15 Permit #15-008 issued for modernization and addition of 39 to existing facility;
facility will have 154 Nsg Care beds upon projet completion.
(6) Bed Change: 02/22/17 #12-032 Facility Licensed for operation with the addition of 50 Nsg Care beds to existing facility;
Profile address & Website address: 710 West Black Road.
(7) Profile address & Facility Website address: 14716 South Eastern Avenue
(8) Bed Change: Facility discontinued 3 Nursing Care beds; facility now has 275 nursing care beds

Source:
IDPH Inventory of Health Care Facilities and Services and Need Determinations - 2017 - Long-Term Care Services
Long-Term Care Facility Questionnaire for 2016, Illinois Department of Public Health, Health Systems Development
IDPH Long-Term Care Facility Updates January 10, 2018

ATTACHMENT-18C

Criterion 1125.590 - Staffing Availability

1. For each category of service, document that relevant clinical and professional staffing needs for the proposed project were considered and that licensure and JCAHO staffing requirements can be met.

   Nursing care is the only category of service applicable.

2. Provide the following documentation:

   a. The name and qualification of the person currently filling the position, if applicable; and

   b. Letters of interest from potential employees; and

   c. Applications filed for each position; and

   d. Signed contracts with the required staff; or

   e. A narrative explanation of how the proposed staffing will be achieved.

Appended as **ATTACHMENT-19A,** is the proposed staffing pattern by position title for the proposed 166-bed Long-Term Care facility. This project is atypical from traditional start-up projects as the parental entity has two immediate area (within the required 30-minute travel time) facilities and one of the newest start-up facilities to draw applicants from. From these three facilities, Alden Estates of Orland Park, Alden Estates-Courts of Shorewood and Alden Estates of Huntley, in the past six months, 690 job applications have been submitted (unsolicited) for direct cate nursing staff as follows: 35 DON/RN, 18 ADON/RN, 43 RN, 88 Resident Care Coordinator RN/LPN, 20 Transitional Care Nurse RN/LPN, 56 LPN, 18 Patient Care Coordinator LPN, 245 CNA, 164 Memory Care Coordinator, and 3 Memory Care Activity Aide. Additionally, these same facilities have received 2,574 ancillary and support staff applications (unsolicited). Thus, the majority of personnel can be in place as the initial project proceeds through construction completion. Without solicitation the Applicants have more than enough of

the required job applicants necessary to staff the facility and the project has yet to be Approved. See **ATTACHMENT-19B** for the full list of job applications on file by job title. To achieve adequate staffing levels, the Applicant will start by reviewing and interviewing from the employment applications currently on file. To further explain the internal process in recruiting and hiring staff a narrative description is provided below:

The Applicants are related to a much larger organization that operates several general and several specialized long-term care facilities. Therefore, the Applicant and its administrative service company have the resources of general long-term care facilities throughout Illinois. This organization also has several assisted living and independent living units within Illinois. It is the policy of the organization to begin a comprehensive recruitment program for every new facility approximately four to six months prior to the opening in order to ensure that the new facility has all of the necessary positions filled with qualified personnel. Local advertising in the area newspaper and at area nursing schools has generally been sufficient in attracting the needed professional health care manpower.

Furthermore, it is the policy of the organization to promote from within their company whenever possible which allows the transfer of top professionals in their field to start-up facilities. The Applicant is closely related to Alden Management Services, Inc., the administrative services company, who recruits locally, regionally, and nationally for highly qualified staff.

ATTACHMENT- 19

Specific Staffing Achievement Plan

We will utilize all available print, online, and face to face advertising to publicize the opening and available positions including but not limited to the following options:

1. Post a banner ad (3x's) in the local New Lenox newspaper announcing the expected facility opening, scheduled to be posted 3-, 2-, and 1-month prior to opening.
2. Hold a day-long job fair locally to recruit and interview candidates 1-2 months prior to opening.
3. Create and add to the Alden Network website 2 individual home pages applicable to each facility listing information about construction progress, facility services and open positions including on line application capability.
4. Utilize available contracted job postings through CareerBuilder and LinkedIn.
5. Utilize available contracted recruiters for major positions search.
6 Advertise internally within our current network of facilities for staff transfers and/or promotions.
7. Signage at the job site will include contact phone number for career information.

Thus, it does not appear that between the Applicant's experience and through the experience of the existing campus that there will be any difficulty in securing the needed health care manpower.

ATTACHMENT- 19

Alden Extates-Courts of New Lenox Staffing at 90% Occupancy	
Administrative:	
Administrator	1.00
Personnel Manager	1.00
Social Service	1.00
Asst Administrator	1.00
Resident Care Coord	2.00
Admissions	2.00
Receptionist	1.50
Office Manager	1.00
Office	1.00
Marketing	1.00
Total	12.50
Nursing:	
DON	1.00
ADON	1.00
Professionals	22.00
Aides	41.00
Unit Manager	2.00
Total	67.00
Activities:	
Director	1
Program Director	1
Aides	4
Total	6
Dietary:	
Supervisor	1
Chefs and Cooks	4
Dietary Aides	6
Dining Room Aides	3
Total	14
Housekeeping and Maintenance:	
Suipervisor	1
Housekeeping Aides	8
Total	9
TOTAL FTE'S	109

ATTACHMENT-19A

Alden Estates of Huntley
Alden Estates of Orland Park
Alden Estates of Shorewood

Job Title	# of Applicants
Director of Nursing	12
Director of Nursing	23
	35
Assistant Director of Nursing	18
Registered Nurse (RN)	11
Registered Nurse (RN)	19
Registered Nurse (RN)	13
	43
Resident Care Coordinator (RN / LPN)	25
Resident Care Coordinator (RN / LPN)	63
	88
Transitional Care Nurse (LPN / RN)	20
Licensed Practical Nurse (LPN)	56
	56
Patient Care Coordinator (LPN)	18
Certified Nursing Assistant (CNA)	15
Certified Nursing Assistant (CNA)	207
Certified Nursing Assistant (CNA)	23
	245
Memory Care Coordinator	44
Memory Care Coordinator	120
	164
Memory Care Activity Aide	3
	3
	690

Job Title	# of Applicants
Activity Aide	34
Activity Aide	199
Activity Aide	54
Activity Director	58
Activity Director	93
Building Manager	46
Business Office Manager	162
Business Office Manager	280
Chef	5
Chef	9
Dietary Aide	0
Dietary Aide	93
Dietary Aide	50
Dietary Manager	20
Dining Room Aide	1
Dining Room Aide	45
Dining Room Aide	53
Dining Room Hostess	13
Dining Room Hostess	22
Discharge Planner	153
Executive Director	43
Housekeeping Aide	60
Laundry Aide	193
Receptionist	349
Receptionist	205
Rehab Aide	135
Resident Attendant	63
Resident Attendant	52
Social Service Director	84
Unit Manager	0
	2574

Criterion 1125.600 Bed Capacity

The maximum bed capacity of a general LTC facility is 250 beds, unless the applicant documents that a larger facility would provide personalization of patient/resident care and documents provision of quality care based on the experience of the applicant and compliance with IDPH's licensure standards (77 Ill. Adm. Code: Chapter I, Subchapter c (Long-Term Care Facilities)) over a two-year period.

This proposed project is only for the establishment of a 166-bed nursing care facility, well under this 250-bed limit. Therefore, the proposed project is compliant with this criterion.

ATTACHMENT- 20

Criterion 1125.610 - Community Related Functions

The applicant shall document cooperation with and the receipt of the endorsement of community groups in the town or municipality where the facility is or is proposed to be located, such as, but not limited to, social, economic or governmental organizations or other concerned parties or groups. Documentation shall consist of copies of all letters of support from those organizations.

Appended as **ATTACHMENT-21A** are nine (9) letters of support for the proposed Alden Estates-Courts of New Lenox. These letters are from Ruth Colby, Senior Vice President, Business Development, Chief Strategy Officer, Silver Cross Hospital; Barry Kolanowski, Executive Director, Senior Services of Will County; Fr. Robert Basler, O.S.A., Pastor, The Catholic Community of Saint Jude; Michael B. Hickey, Supervisor, New Lenox Township; Rev. Douglas E. Hoag, Pastor, Trinity Lutheran Church; Jason G. Hurbanek, M.D., Hinsdale Orthopaedics; Chad Kollross, Director, Hopewell Schools, Inc.; Paul Lyons, President, Home Helpers; and Marilyn Kurtz, Owner/Secretary, Kurtz Goodale Memorial Chapels.

Appended as **ATTACHMENT-21B** are forty-five (45) additional letters from residents of the New Lenox area expressing support for the proposed project.

ATTACHMENT- 21

SILVER CROSS HOSPITAL

1900 Silver Cross Blvd. • New Lenox, IL 60451
(815) 300-1100 • www.silvercross.org

December 12, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Re: Letter of Support on CON for 166-bed Nursing Facility in New Lenox, Illinois

Dear Ms. Avery:

It is our understanding that the Alden Group, Ltd. through its affiliates proposes to establish a 166-bed nursing care facility, 114 beds for general geriatric and rehab care and 52-bed nursing for memory care.

We support the project, as it will greatly enhance accessibility to skilled nursing in our area, meeting the current 274 -bed need determined by the Illinois Health Facilities and Services Review Board.

Alden Group, Ltd. currently provides health care related services to residents of the planning area within Health Service Area 9, Will County and surrounding service area including some who utilize Public Aid. It is my understanding that this facility will accept these patients. Because all facilities do not accept Public Aid or Public Aid pending patients, a facility that provides services to these patients is both necessary and welcomed. Also, we look forward to working closely with Alden as our neighbor in providing quality post acute care for the patients within our shared community of New Lenox. For tbese reasons, I feel that the proposed facility is needed for this location.

We are familiar with member facilities of the Alden Group, Ltd. and can attest to the commitment and management ability they bring to the skilled nursing and long-term care profession.

Sincerely,

Ruth Colby
Senior Vice President, Business Development
Chief Strategy Officer
Silver Cross Hospital

SUBSCRIBED and SWORN to before me on this 12th day of Dec., 2017

Notary Public

"OFFICIAL SEAL"
CAROL J ZIER
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES JUNE 17, 2019

ATTACHMENT-21A

SENIOR SERVICES OF WILL COUNTY

251 North Center Street, Joliet, IL 60435-7144 (815) 723-9713 www.willcountyseniors.org

Social Services
Case Management
Information/Assistance
Title XX

Health Screenings
Diabetes
Blood Pressure
Bone Density
Wellness Education
Podiatry Care

Outreach
Township Programs
Mobility Equipment Loan
Tax Preparation
Educational Programs
Safe at Home
The Senior Express

Classes
Yoga
Line Dancing
Artist Guild
Woodworking
Facebook
Exercise
Smart Driving

Recreation
Dances
Parties
Bus Trips
Card Players
Dominos
Wii Bowling
Knit and Crochet
Bingo

United Way

Agency on AGING NORTHEASTERN ILLINOIS

Joliet Township

December 8, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox
Cedar Crossing Drive, New Lenox, Illinois
114 bed skilled Rehabilitation and Health Care Center
52 bed skilled Memory Care Facility

Dear Ms. Avery:
It is my understanding that Alden Estates – Courts of New Lenox proposes to build a 114 bed skilled rehabilitation and health care center and a 52 bed memory care facility in Health Services Area 9, Will County Illinois. This project will be located adjacent to Silver Cross Hospital.

We believe that a facility of this type will provide access to health care placement for senior citizens in our community and improve overall health care services provided to Will County residents. It will also help beautify the surrounding neighborhood.

In addition, this project will have a positive impact on the economic development in the community and the count residents' quality of life. It is estimated that this project will create approximately 150 full-time construction and health care related jobs.

We ask that you support and endorse this worthwhile healthcare project for the residents of Will County, Illinois. Thank you for your consideration.

Respectfully,

Barry Kolanowski
Executive Director
Senior Services of Will County

Supported by Illinois Department on Aging, Northeastern Illinois Area Agency on Aging, United Way and Voluntary Contributions

ATTACHMENT-21A

THE CATHOLIC COMMUNITY OF
SAINT JUDE

December 5, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, IL 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox
Cedar Crossing Drive, New Lenox, Illinois
114 bed skilled Rehabilitation and Health Care Center
52 bed skilled Memory Care Facility

Dear Ms. Avery:

It is my understanding that Alden Estates-Courts of New Lenox proposes to build a 114 bed skilled rehabilitation and health care center and a 52 bed memory care facility in Health Services Area 9, Will County, Illinois. This project will be located adjacent to Silver Cross Hospital.

I believe that a facility of this type will provide access to health care placement for senior citizens in our community and improve overall health care services provided to Will County residents. It will also help beautify the surrounding neighborhood.

In addition, this project will have a positive impact on the economic development in the community and the county residents' quality of life. It is estimated that this project will create approximately 150 full-time construction and health care related jobs.

I ask that you support and endorse this worthwhile healthcare project for the residents of Will County, Illinois. Thank you for your consideration.

Respectfully,

Rev. Robert Basler, O.S.A.

Fr. Robert Basler, O.S.A.
Pastor
St. Jude Parish, New Lenox

The Augustinian Friars
241 West Second Avenue
New Lenox, Il 60451

Parish Office: 815.485.8049
Parish Fax: 815.485.7754

School Office: 815.485.2549

Faith Formation Office: 815.463.4260

www.stjudes.org

NEW LENOX TOWNSHIP

1100 South Cedar Road
New Lenox, Illinois 60451
(815) 485-6431
Fax # (815) 485-2544

SUPERVISOR
MICHAEL B. HICKEY

ASSESSOR
BONNIE HERNANDEZ

CLERK
SUE SMITH

HIGHWAY COMMISSIONER
RONALD A. SLY

TRUSTEES
MARTIN J. BOBAN
KATHY A. HILTON
BARBARA E. KAUPAS
LARRY WENNLUND

COLLECTOR
KEIFER KEIGHER

December 5, 2017

Ms Courtney Avery,

Health Facilities and ***Service Review*** Board

Illinois Department of Public Health

525 W. Jefferson St. Second Floor

Springfield, Il 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox, IL

Dear Ms. Avery,

I am writing this letter in support of Alden's proposal to develop Alden Estates-Courts of New Lenox. The addition of a 114 bed skilled rehabilitation center and a 52 bed skilled memory facility would be a welcome addition to our community and this part of Will County-Southwest Cook County. It is a natural addition to the Silver Cross Hospital area health care facilities. Our New Lenox area will continue to increase in population and these type of facilities are ***needed*** for the overall health care of our residents.

Thank you for giving Alden's certificate of need application consideration.

Sincerely

Michael B. Hickey

New Lenox Township, Supervisor,

E-Mail: nltwp@newlenox.org
Web Site: www.newlenox.org

ATTACHMENT-21A

E-Mail: nltwp@newlenox.org
Web Site: www.newlenox.org

ATTACHMENT-21A

Trinity Lutheran Church

508 NORTH CEDAR ROAD
NEW LENOX, ILLINOIS 60451
CHURCH OFFICES: 815/485-6973
FAX: 815/485-0804

www.trinitynewlenox.org
REV. DOUGLAS E. HOAG, PASTOR

December 8, 2017

Ms. Courtney Avery Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox
Cedar Crossing Drive, New Lenox, Illinois
114 bed skilled Rehabilitation and Health Care Center
52 bed skilled Memory Care Facility

Dear Ms. Avery:

It is my understanding that Alden Estates – Courts of New Lenox proposes to build a 114 bed skilled rehabilitation and health care center and a 52 bed memory care facility in Health Services Area 9, Will County, Illinois. This project will be located adjacent to Silver Cross Hospital.

I believe that a facility of this type will provide access to health care placement for senior citizens in our community and improve overall health care services provided to Will County residents. It will also help beatify the surrounding neighborhood.

In addition, this project will have a positive impact on the economic development in the community and the county residents' quality of life. It is estimated that this project will create approximately 150 full-time construction and health care related jobs.

I ask that you support and endorse this worthwhile healthcare project for the residents of Will County, Illinois. Thank you for your consideration.

Respectfully,

Rev. Douglas E. Hoag

Douglas E. Hoag
Pastor - Trinity Lutheran Church New Lenox

Hinsdale Orthopaedics

December 5, 2018

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox
Cedar Crossing Drive, New Lenox, Illinois
114 bed skilled Rehabilitation and Health Care Center
52 bed skilled Memory Care Facility

Dear Ms. Avery:

I am writing to support Alden's proposal to develop Alden Estates of New Lenox, a 114 bed skilled rehabilitation and health care center and Alden Courts of New Lenox a 52 bed skilled memory care facility. I believe there is a tremendous need for this level of care and this development will provide a unique and much needed service to our growing community

With Silver Cross Hospital being adjacent to this location, this development will be a terrific component within the health care continuum for the village. As the population continues to age and grow in and around the New Lenox area, these services are very much needed.

Thank you for giving Alden's certificate of need application every consideration.

Respectfully,

Jason G. Hurbanek, M.D.

Dr. Kris J. Alden
Dr. Steven G. Bardfield
Dr. Debdut Biswas
Dr. Brian J. Burgess
Dr. Giridhar Burra
Dr. Steven C. Chudik
Dr. Michael J. Collins
Dr. Robert J. Daley
Dr. Ashraf H. Darwish
Dr. Benjamin G. Domb
Dr. Evan A. Dougherty
Dr. Michael C. Durkin
Dr. Bradley D. Dworsky
Dr. Marc R. Fajardo
Dr. Bernard J. Feldman
Dr. Maria Francis
Dr. Bryant S. Ho
Dr. Jason G. Hurbanek
Dr. Marie Kirincic
Dr. Justin M. LaReau
Dr. Mark A. Lorenz
Dr. Steven S. Louis
Dr. Edward T. Marcoski
Dr. Steven W. Miller
Dr. Elliot A. Nacke
Dr. Ronak M. Patel
Dr. Anuj S. Puppala
Dr. Cary R. Templin
Dr. Robert J. Thorsness
Dr. Paul M. Trksak
Dr. Leah R. Urbanosky
Dr. Michael R. Zindrick

Hinsdale
550 West Ogden Ave.
Hinsdale, IL 60521
630.323.6116

Elmhurst
1200 South York Rd.
Suite 4110
Elmhurst, IL 60126
630.279.2401

Joliet
951 Essington Rd.
Joliet, IL 60435
815.744.4551

Naperville
2940 Rollingridge Rd.
Suite 102
Naperville, IL 60564
630.579.6500

New Lenox
1870 Silver Cross Blvd.
Suite 200
New Lenox, IL 60451
815.462.3474

Western Springs
4700 Gilbert Ave.
Suite 51
Western Springs, IL 60558
708.387.1737

Westmont
1010 Executive Ct.
Suite 250
Westmont, IL 60559
630.920.2350

www.hinsdale-orthopaedics.com

ATTACHMENT-21A

Hopewell
ACADEMIES

December 5, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

Re: Application for Certificate of Need for Alden Estates – Courts of New Lenox
Cedar Crossing Drive, New Lenox, Illinois
114 bed skilled Rehabilitation and Health Care Center
52 bed skilled Memory Care Facility

Dear Ms. Avery:

It is my understanding that Alden Estates – Courts of New Lenox proposes to build a 114-bed skilled rehabilitation and health care center and a 52-bed memory care facility in Health Services Area 9, Will County, Illinois. This project will be located adjacent to Silver Cross Hospital.

We believe that a facility of this type will provide access to healthcare placement for senior citizens in our community and improve overall healthcare services provided to Will County residents. It will also help to beautify the surrounding neighborhood.

In addition, this project will have a positive impact on the economic development in the community and the county residents' quality of life. It is estimated that this project will create approximately 150 full-time construction and healthcare related jobs.

As a business community member located in New Lenox for the past 13 years, we are always excited to welcome new businesses that provide support and services for our citizens. We ask that you support and endorse this worthwhile healthcare project for the residents of Will County, Illinois. Thank you for your consideration.

Sincerely,

Chad Kollross
Director
Hopewell Schools, Inc.

Home Helpers®
Making *Life Easier*™

Committed to Providing In-Home Companion Care and Personal Emergency Response Systems

DIRECT LINK®
Help At The Touch Of A Button™

December 12, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox
Cedar Crossing Drive, New Lenox, Illinois
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Dear Ms. Avery:

It is my understanding that Alden Estates – Courts of New Lenox proposes to build a 114 bed skilled rehabilitation and health care center and a 52 bed memory care facility in Health Services Area 9, Will County, Illinois. This project will be located adjacent to Silver Cross Hospital.

I believe that a facility of this type will provide access to health care placement for senior citizens in our community and improve overall health care services provided to Will County residents. It will also help beatify the surrounding neighborhood.

In addition, this project will have a positive impact on the economic development in the community and the county residents' quality of life. It is estimated that this project will create approximately 150 full-time construction and health care related jobs.

I ask that you support and endorse this worthwhile healthcare project for the residents of Will County, Illinois. Thank you for your consideration.

Respectfully,

Paul Lyons

Paul Lyons
President

354 A W. Maple • Suite 1055 • New Lenox, IL 60451 • Phone: (708) 326-4001 • Fax: (801) 772-7817
Email: pvlyons@homehelpershomecare.com • www.homehelpershomecare.com/NewLenox

ATTACHMENT-21A

Kurtz Goodale
MEMORIAL CHAPELS

December 13, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox
Cedar Crossing Drive, New Lenox, Illinois
114 bed skilled Rehabilitation and Health Care Center
52 bed skilled Memory Care Facility

Dear Ms. Avery:

I am writing to support Alden's proposal to develop Alden Estates of New Lenox, a 114 bed skilled rehabilitation and health care center and Alden Courts of New Lenox a 52 bed skilled memory care facility. I believe there is a tremendous need for this level of care and this development will provide a unique and much needed service to our growing community

With Silver Cross Hospital being adjacent to this location, this development will be a terrific component within the health care continuum for the village. As the population continues to age and grow in and around the New Lenox area, these services are very much needed.

Thank you for giving Alden's certificate of need application every consideration.

Respectfully,

Marilyn J. Kurtz

Marilyn Kurtz
Owner/Secretary

DATE: Dec 07. 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Patricia A. Paula

PRINT NAME PATRICIA A. PAULA

STREET ADDRESS 1019 S HASBARK Rd. 2C

CITY AND STATE New Lenox, IL. 60451

DATE: Dec. 7, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Madonna Holloway

PRINT NAME Madonna Holloway

STREET ADDRESS 1520 Pine Grove Lane

CITY AND STATE New Lenox, IL 60451

DATE: 12-07-2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Carole Lattz

PRINT NAME Carole Lattz

STREET ADDRESS 835 Somerset St.

CITY AND STATE New Lenox, IL 60451

ATTACHMENT-21B

DATE: 12/7/14

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Sue Ann Bement

PRINT NAME Sue Ann Bement

STREET ADDRESS 2101 Rigby Dr.

CITY AND STATE New Lenox, IL

ATTACHMENT-21B

DATE: 12/7/17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Joanne Gesell

PRINT NAME Joanne Gesell

STREET ADDRESS 605 Central Rd

CITY AND STATE New Lenox, IL

DATE: 12-7-2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Betty Ann Latoza

PRINT NAME BETTY ANN LATOZA

STREET ADDRESS 221 W 2ND AVE

CITY AND STATE NEW LENOX, IL 60451

ATTACHMENT-21B

DATE: 12/07/2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Jean M. Scherer

PRINT NAME Jean M. Scherer

STREET ADDRESS 101 W. Woodlawn Rd.

CITY AND STATE New Lenox, IL 60451

DATE: 12/10-2/17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Angie DiMonte

PRINT NAME Angie DiMonte

STREET ADDRESS 661 Sojourn Rd

CITY AND STATE New Lenox IL 60451

DATE: 12/7/2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

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Dear Ms. Avery:

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Barbara Kinsey

PRINT NAME BARBARA KINSEY

STREET ADDRESS 650 Schooner Dr.

CITY AND STATE New Lenox, IL 60451

ATTACHMENT-21B

DATE: Nov 7, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Carole L. Zenkel

PRINT NAME CAROLE L. ZENKEL

STREET ADDRESS 795 BRAD DR.

CITY AND STATE NEW LENOX, IL. 60451

ATTACHMENT-21B

DATE: Dec 7, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Margaret McGuire

PRINT NAME Margaret McGuire

STREET ADDRESS 1155 No Cedar Rd

CITY AND STATE New Lenox IL 60451

ATTACHMENT-21B

DATE: 12/7/17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Regina M Hall

PRINT NAME Regina M. Hall

STREET ADDRESS 3216 Foxwood Dr.

CITY AND STATE New Lenox, IL 60451

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Barbara Barthelme

PRINT NAME Barbara Barthelme

STREET ADDRESS 166 Wallace St.

CITY AND STATE New Lenox, IL 60451

ATTACHMENT-21B

DATE: Dec 7, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Barbara J Carnahan

PRINT NAME Barbara J. CARNAHAN

STREET ADDRESS 821 Piper DR.

CITY AND STATE New Lenox, IL 60451

DATE: Dec. 7, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Rosann McClanahan

PRINT NAME ROSANN McCLANAHAN

STREET ADDRESS 911 Meadow Ridge Lane Nh

CITY AND STATE New Lenox, Il. 60451

ATTACHMENT-21B

DATE: Dec. 7, 17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Carol E Niemann

PRINT NAME Carol E. Niemann

STREET ADDRESS 200 E. Wood St.

CITY AND STATE New Lenox, IL 60451

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE [signature]

PRINT NAME JAN RAIGER

STREET ADDRESS 370 E CIRCLE

CITY AND STATE New Lenox IL. 60451

DATE: 12/7/17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Judy Grasse

PRINT NAME Judy Grasse

STREET ADDRESS 2946 Ryan Dr

CITY AND STATE New Lenox IL 60451

DATE: Dec 7, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE [signature]

PRINT NAME Sharyn Bestia

STREET ADDRESS 872 Kiepstad

CITY AND STATE New Lenox IL 60451

ATTACHMENT-21B

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Dolores M. Sell

PRINT NAME Dolores M Sell

STREET ADDRESS 163 Tall Grass Rd

CITY AND STATE New Lenox, Ill 60451

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Cecilia Wingate

PRINT NAME Cecilia Wingate

STREET ADDRESS 42 Fairfield Dr.

CITY AND STATE New Lenox, IL 60451

ATTACHMENT-21B

DATE: 12/07/17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Grace Zimmerman

PRINT NAME GRACE ZIMMERMAN

STREET ADDRESS 811 BLACKBOARD DR

CITY AND STATE NEW LENOX IL 60451

DATE: 12/7/2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Judith Wolfe

PRINT NAME Judith Wolfe

STREET ADDRESS 163 N GRAND PRAIRIE DR

CITY AND STATE NEW LENOX, IL 60451

DATE: Dec. 7, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Gloria E. Donnelly

PRINT NAME GLORIA E. DONNELLY

STREET ADDRESS 711 BON TERRE Rd

CITY AND STATE NEW LENOX IL. 60451

ATTACHMENT-21B

DATE: 12-7-2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Linda Ruhl

PRINT NAME Linda Ruhl

STREET ADDRESS 538 S. Marley Rd.

CITY AND STATE New Lenox, IL. 60451

ATTACHMENT-21B

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Linda Wright

PRINT NAME Linda Wright

STREET ADDRESS 805 Cessno Ct.

CITY AND STATE New Lenox IL 60451

ATTACHMENT-21B

DATE: Dec 7, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Frances J. McTee

PRINT NAME FRANCES J. McTEE

STREET ADDRESS 144 ROBERTS RD

CITY AND STATE NEW LENOX, IL 60451

ATTACHMENT-21B

DATE: 12/ 7/2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Debra Devine

PRINT NAME Debra Devine

STREET ADDRESS 507 Navajo Drive

CITY AND STATE New Lenox, IL

ATTACHMENT-21B

DATE: 12/7/17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Marylee Gustafson

PRINT NAME Mary Lee Gustafson

STREET ADDRESS 709 N. Cedar Rd.

CITY AND STATE New Lenox, IL 60451

ATTACHMENT-21B

DATE: Dec. 8, 2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Sharon J White

PRINT NAME Sharon J. White

STREET ADDRESS 2815 Rebecca Dr.

CITY AND STATE Yleen-Fenton, ILL. 60451

ATTACHMENT-21B

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Marilyn Sargent

PRINT NAME MARILYN SARGENT

STREET ADDRESS 174 Tall Grass Road

CITY AND STATE New Lenox, IL. 60451

ATTACHMENT-21B

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Patricia Gawenda

PRINT NAME Patricia Gawenda

STREET ADDRESS 1836 Foxwood Dr

CITY AND STATE New Lenox, IL 60451

ATTACHMENT-21B

DATE: 12/7/17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Elaine Bonfiglio

PRINT NAME Elaine BonFiglio

STREET ADDRESS 165 Tall Grass Rd.

CITY AND STATE New Lenox, IL

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Carolyn McDonald

PRINT NAME CAROLYN McDONALD

STREET ADDRESS 125 Dalgreen Rd.

CITY AND STATE New Lenox Ill 60451

ATTACHMENT-21B

DATE: 12/7/17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Patricia M. Bersano

PRINT NAME PATRICIA M. BERSANO

STREET ADDRESS 525 ALAN DRIVE

CITY AND STATE NEW LENOX, IL. 60451

DATE: 12-7-19

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Pamela Resutko

PRINT NAME PAMELA RESUTKO

STREET ADDRESS 177 HAWTHORN

CITY AND STATE NEW LENOX IL

ATTACHMENT-21B

DATE: 12/7/17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Andrea B Fox

PRINT NAME ANDREA B FOX

STREET ADDRESS 9975 Taylor Glen Dr

CITY AND STATE New Lenox, IL 60451

ATTACHMENT-21B

DATE: 12/7/2017

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Patricia Messina

PRINT NAME PATRICIA MESSINA

STREET ADDRESS 877 Cheyenne Lane

CITY AND STATE New Lenox, IL

ATTACHMENT-21B

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

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I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Elaine T. Corkery

PRINT NAME Elaine T. Corkery

STREET ADDRESS 709 Young Dr

CITY AND STATE New Lenox IL 60451

ATTACHMENT-21B

DATE: 6/7/17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Shirley Kohut

PRINT NAME SHIRLEY KOHUT

STREET ADDRESS 1218 Tamarack Dr.

CITY AND STATE New Lenox, IL

ATTACHMENT-21B

DATE: 12/18/2019

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Mary Ellen Gallagher

PRINT NAME MARY ELLEN GALLAGHER

STREET ADDRESS 125 INVER CT

CITY AND STATE NEW LENOX IL 60451

ATTACHMENT-21B

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Gaetana DiMiele

PRINT NAME Gaetana DiMiele

STREET ADDRESS 309 W Hancock

CITY AND STATE New Lenox IL 60451

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Patricia Hammer

PRINT NAME PATRICIA HAMMER

STREET ADDRESS 16048 W. Lacy Ct.

CITY AND STATE Manhattan IL 60442

ATTACHMENT-21B

DATE: 12-8-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE Patricia Kulhan

PRINT NAME Patricia Kulhan

STREET ADDRESS 24148 Clover Ct

CITY AND STATE Manhattan IL

DATE: 12-7-17

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

RE: Application for Certificate of Need for Alden Estates-Courts of New Lenox

Dear Ms. Avery:

I am a resident of the New Lenox area and I am writing to express my support for Alden's proposed Alden Estates of New Lenox, a 114-bed rehabilitation and health care center, and Alden Courts of New Lenox, a 52-bed skilled memory care facility, which are proposed on Cedar Crossing Drive in New Lenox. With the aging population in New Lenox, and the adjacent Silver Cross Hospital, a development like this will be a welcome addition to our community.

I urge you to give Alden's certificate of need application every consideration.

Sincerely,

SIGNATURE JoAnn Mistro

PRINT NAME JoAnn Mistro

STREET ADDRESS 19536 FORESTDALE CT MOKENA

CITY AND STATE MOKENA, IL 60448

ATTACHMENT-21B

Criterion 1125.620 - Project Size

The applicant shall document that the amount of physical space proposed for the project is necessary and not excessive. The proposed gross square footage (GSF) cannot exceed the GSF standards as stated in Appendix A of 77 Ill. Adm. Code 1125 (LTC rules), unless the additional GSF can be justified by documenting one of the following:

Upon project completion, the proposed Alden Estates-Courts of New Lenox will comprise 109,400 gross square feet of space for 166 nursing care beds. This equates to 659 gsf per bed upon project completion. It should be noted that the proposed project is in compliance with this criterion as it is well within the range limit of 435-713 gross square feet per bed for clinical space.

ATTACHMENT- 22

Criterion 1125.630 - Zoning

The applicant shall document **one** of the following:

1. The property to be utilized has been zoned for the type of facility to be developed;

2. Zoning approval has been received; or

3. A variance in zoning for the project is to be sought.

Appended as **ATTACHMENT-23A,** is a letter from the Village of New Lenox's Ms. Robin L. Ellis, AICP, Assistance Village Administrator and Community Development Director. The Village of New Lenox has been supportive of the Applicant throughout this process and its letter indicates the status of zoning and that approval of an amendment to the Planning Unit Development will be needed.

ATTACHMENT- 23

NEW LENOX

MAYOR
TIMOTHY BALDERMANN

ADMINISTRATOR
KURT T. CARROLL

VILLAGE CLERK
LAURA RUHL

TRUSTEES
ANNETTE BOWDEN
DAVID BUTTERFIELD
DOUGLAS E. FINNEGAN
JASEN HOWARD
KEITH MADSEN
DAVID SMITH

December 13, 2017

Ms. Courtney Avery, Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 West Jefferson Street, Second Floor
Springfield, Illinois 60504

Re: **ZONING VERIFICATION LETTER**
ALDEN ESTATES – COURTS OF NEW LENOX, NEW LENOX, IL
Part of P.I.N. 15-08-04-303-007

Dear Ms. Avery,

I am the zoning administrator for the Village of New Lenox. Alden Realty Services, Inc. received preliminary Planned Unit Development plat approval for Alden Estates-Courts of New Lenox for property on Cedar Crossings Drive, near Silver Cross Hospital, on January 24, 2017. The preliminary Planned Unit Development plat included 100 beds for skilled / post-acute care and 40 beds for skilled memory care patients. I understand that Alden is now proposing to expand the project to include 114 beds for skilled / post-acute care and 52 beds for skilled memory care patients. The subject property is currently zoned C-7 Regional Shopping District with a Special Use for a Planned Unit Development. Expanding the number of beds will require an amendment to the Planned Unit Development.

If you have any questions, please feel free to contact me at (815) 462-6413.

Sincerely,

VILLAGE OF NEW LENOX

Robin L. Ellis

Robin L. Ellis, AICP
Assistant Village Administrator and Community Development Director

RLE:

Criterion 1125.640 – Assurances

1. The applicant representative who signs the CON application shall submit a signed and dated statement attesting to the applicant's understanding that, by the second year of operation after the project completion, the applicant will achieve and maintain the occupancy standards specified in Section 1125.210(c) for each category of service involved in the proposal.

2. For beds that have been approved based upon representations for continuum of care (Section 1125.560(a)) or defined population (Section 1125.560(b)), the facility shall provide assurance that it will maintain admissions limitations as specified in those Sections for the life of the facility. To eliminate or modify the admissions limitations, prior approval of HFSRB will be required.

Appended as **ATTACHMENT-24A**, is a letter signed by the Applicant addressing item number 1 above.

The proposed project is for the establishment of a free-standing nursing facility and not part of a continuum of care community (CCRC). Therefore, item number 2 above is not applicable to this project.

December 5, 2017

Ms. Courtney Avery
Administrator
Health Facilities and Services Review Board
525 West Jefferson Street, 2nd Floor
Springfield, Illinois 62761

Dear Ms. Avery:

This letter attests to the fact that if this Project is approved by the Illinois Health Facilities and Services Review Board, Alden Estates-Courts of New Lenox understands that it is expected to achieve and maintain the occupancy specified in §1125.210 (c) by the second year of operation after project completion. Our ability to maintain this occupancy level could be affected by various factors outside of our control, such as natural disasters, regulatory changes in healthcare, interruption of necessary utilities, physical plant problems, or other unexpected issues outside of our control which could have a direct or indirect effect upon our occupancy rate.

Sincerely,

Alden Estates-Courts of New Lenox, Inc.

Randi Schullo
Vice President

Subscribed and sworn to before me

this 5 day of December, 2017

Notary Public

OFFICIAL SEAL
JOSEPH SCHULLO
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires August 30, 2020

Criterion 1125.800 Estimated Total Project Cost

The following Sections DO NOT need to be addressed by the applicants or co-applicants responsible for funding or guaranteeing the funding of the project if the applicant has a bond rating of A- or better from Fitch's or Standard and Poor's rating agencies, or A3 or better from Moody's (the rating shall be affirmed within the latest 18 month period prior to the submittal of the application):

- **Availability of Funds – Review Criteria**
- **Financial Viability – Review Criteria**
- **Economic Feasibility – Review Criteria, subsection (a)**

Availability of Funds

The applicant shall document that financial resources shall be available and be equal to or exceed the estimated total project cost plus any related project costs by providing evidence of sufficient financial resources from the following sources, as applicable: **Indicate the dollar amount to be provided from the following sources:**

a. Cash and Securities – statements (e.g., audited financial statements, letters from financial institutions, board resolutions) as to:

   1) the amount of cash and securities available for the project, including the identification of any security, its value and availability of such funds; and
   2) interest to be earned on depreciation account funds or to be earned on any asset from the date of applicant's submission through project completion;

d. Debt – a statement of the estimated terms and conditions (including the debt time period, variable or permanent interest rates over the debt time period, and the anticipated repayment schedule) for any interim and for the permanent financing proposed to fund the project, including:

   3. For mortgages, a letter from the prospective lender attesting to the expectation of making the loan in the amount and time indicated, including the anticipated interest rate and any conditions associated with the mortgage, such as, but not limited to, adjustable interest rates, balloon payments, etc.;

Appended as **ATTACHMENT-27A,** is a letter from the Applicant's chief financial officer attesting that the Applicant has cash and securities to meet the equity portion of the project.

Appended as **ATTACHMENT-27B**, is a letter from Capital Funding, LLC attesting to its expectation to make the loan and providing the terms and conditions of the mortgage.

ATTACHMENT-27

December 20, 2017

Ms. Courtney Avery
Chairman
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

In documentation of item 1120.120 Availability of Funds (a) Cash and Securities, please be advised that I am familiar with the financial condition of the Applicants of the Alden Estates-Courts of New Lenox, Certificate of Need and wish to advise you that they have sufficient finances, in excess of the 9,700,000 necessary to fund the equity required for the project.

If you have any questions, please do not hesitate to contact my office.

Sincerely,

Steven M. Kroll
Chief Financial Officer

Notarization:
Subscribed and sworn to before me this 20th day of December, 2017

Rosa I. Molina
Signature of Notary

Seal:

OFFICIAL SEAL
ROSA I. MOLINA
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires February 26, 2018

CAPITAL FUNDING, LLC

December 21, 2017

Ms. Randi Schullo
Alden Management Services, Inc.
4200 West Peterson, Suite 140
Chicago, IL 60646

Re: Alden Estates – Courts of New Lenox

Dear Ms. Schullo:

This proposal has been prepared to provide financing utilizing mortgage insurance issued by the United States Department of Housing and Urban Development ("HUD") through Section 232 of the National Housing Act for the proposed 114-bed skilled nursing facility and 52-bed skilled memory care facility known as Alden Estates – Courts of New Lenox ("Project"). Notwithstanding the foregoing, the following term sheet structure is offered for discussion purposes, is subject to credit committee approval, and is not a commitment to lend. Capital Funding, LLC is hereafter referred to as Lender.

The terms and conditions discussed herein are non-binding and subject to change upon full underwriting of the loan request. Any future commitment to lend on this Project will first be subject to receipt of the required certificate of need, full underwriting and due diligence by Lender and approval by Lender; therefore, the terms and conditions below should not be construed as a binding obligation.

Oral agreements or commitments to loan money, extend credit or to forebear from enforcing repayment of a debt including promises to extend or renew such debt are not enforceable, regardless of the legal theory upon which it is based that is in any way related to the credit agreement. To protect you (Borrower(s)) and us (Lender) from misunderstanding or disappointment, any agreements we reach covering such matters are contained in this writing, which is the complete and exclusive statement of the agreement between us, except as we may later agree in writing to modify it.

The proposed terms are as follows:

Borrower:	Borrower will be a single asset entity to be approved by Lender.
Loan Amount:	An amount equal to the lesser of: • 90% of HUD-approved construction costs • 80% of HUD-approved appraised 'as-stabilized' value The loan amount is estimated to be approximately $37,234,000.

ATTACHMENT-27B

Purpose:	The Loan shall be for the purpose of constructing a 114-bed skilled nursing facility and 52-bed skilled memory care facility known as Alden Estates – Courts of Lenox.
Construction Loan Term:	Estimated to be 18 Months following initial endorsement of the credit instrument by FHA within which time final endorsement of the credit instrument by FHA shall be accomplished by the Mortgagor, subject to extensions consented to by FHA.
Permanent Loan Term:	40 Years or other term approved by HUD from the first payment of principal or other terms as set forth in the FHA Commitment.
Interest Rate:	Fixed Rate to be determined based on market conditions. Under market conditions as of December 21, 2017 the interest rate is approximately 4.10%.
Mortgage Insurance Premium:	0.77% on the outstanding balance paid monthly.
Recourse:	Non-recourse.
Fees:	A. Application fee of 0.30% of the total loan amount. B. Mortgage Banker Fee of 2.00% of the total loan amount. C. First year's Mortgage Insurance Premium equal to 1.00% of the total loan amount is paid to HUD from mortgage proceeds. D. GNMA Placement Fees of $5,000.
Pre-payment:	Market pre-payment terms available and negotiated at the time of rate lock.
Collateral:	The Insured Loan shall be evidenced and secured by (1) a first mortgage lien on the land and improvements now and hereafter acquired or constructed thereon, (2) a chattel mortgage or security agreement creating a first mortgage lien on the furnishings and equipment to be located at the Project, and (3) the endorsement by FHA of the Insured Loan. The Insured Loan shall also be secured by a lien on the Project operator's: tangible and intangible personal property (including, but not limited to, cash and deposit accounts); to the extent assignable under applicable law, licenses, certificates, permits and other governmental approval necessary and required to operate the Project; the books and records of the Project; and accounts receivable. A Deposit Account Control Agreement will be required from the operator.

Loan to Value:	Not to exceed 80% (including funding of reserves and closing costs).
SPE Provision:	The Borrower and Operator will each be a single purpose entity.
Appraisal:	Project shall be appraised by an appraiser approved by Lender and such appraisal must be accepted by Lender (appraisal fees to be paid by Borrower). In the event the Project appraises for less than $46,542,500, Lender shall lower the Loan Amount such that the Loan Amount not exceed 80% of the appraised value.
No Other Encumbrances:	Borrower will not, without prior written consent of Lender and HUD, create, place or permit to be created or placed, or allow to remain any deed of trust, mortgage, voluntary or involuntary lien, security interest, encumbrance or charge against or covering the Project, or any part thereof, regardless of whether the same are expressly or otherwise subordinate to the lien or security interest created in Lender's deed of trust or mortgage. Borrower will cause any of such encumbrances that arise outside of the ordinary course of business and without the prior written consent of Lender to be promptly discharged and released.
Zoning:	Borrower will provide acceptable evidence that the Project is zoned for the intended use.
Skilled Nursing Facility State Requirements:	It is the Lender's understanding that a Certificate of Need is required by the state of Illinois. The Borrower will provide acceptable evidence that all required document/permits have been obtained to operate a skilled nursing facility.
Title Insurance:	Lender requires an ALTA lender's extended coverage title insurance commitment from a company acceptable to Lender ("Title Company") insuring Lender for the Loan Amount, evidencing Borrower's title to the Collateral and showing Lender's lien on the Project is or will be upon recordation of a valid first lien.
Plans/Specs:	A complete set of final working plans, including drawings, specifications, details and manuals, for the Project ("Plans"). Borrower represents and warrants that the Plans shall be in full accordance with all applicable statutes, law, ordinances, regulations and requirements of all governmental agencies including HUD having jurisdiction over the Project, including without limitation the Americans With Disabilities Act and any other statues, laws, ordinances, regulations and requirements dealing with access to real estate properties by persons with disabilities. All specialized

	drawings shall be signed by licensed engineers of the respective disciplines normally responsible for such drawings.
Contractors:	A list of all contractors, subcontractors and materialmen to be employed in connection with the Project. Said list shall provide a name and telephone number, a general description of the nature of the work to be performed, and an approximate dollar value of the services or material to be provided. Lender is hereby authorized to confirm this information.
Permits:	Copies of all permits required for each phase of the construction of the Project. Written confirmation from the suppliers including but not limited to water, storm and sanitary sewer, gas, electric and telephone utilities for the Project.
Budget:	A detailed budget showing a schedule of the estimated construction costs and the estimated timing of disbursements. Lender is hereby authorized to confirm this transaction.
Insurance	During the Construction Period, evidence the Project is covered by a Lender-approved construction policy (builder's risk policy) in an amount satisfactory to Lender and showing Lender and HUD as Loss Payee. Borrower shall also provide evidence that all appropriate contractors have Lender-required insurance.
Survey:	An ALTA survey (at Borrower's expense) showing that the Project, if constructed in accordance with the plans and specifications provided, shall lie wholly within the boundaries of the property described on Lender's deed of trust or mortgage without encroachment or violation of any zoning ordinances, building codes or regulations, or setback requirements. This survey mush show the complete legal description and zoning of the Project.
Environmental:	A HUD-compliant report is required, which shall (a) be prepared by a qualified environmental engineer or consultant satisfactory to Lender, (b) be satisfactory in form and substance to Lender, (c) identify and evaluate any "recognized environmental condition" associated with the Project, (d) evaluate current and past uses of the Project and the Land.
Flood Insurance:	Should the Project at any time prior to the Closing Date or during the term of the Loan be deemed to be located in an area designated by the Director of the Federal Emergency Management Agency as a special flood hazard area, Borrower agrees to obtain and maintain federal flood insurance, if available, for the full unpaid principal balance of the Loan and any prior lines on the collateral, up to the

	maximum policy limits set forth under the National Flood Insurance Program, or as otherwise required by Lender. Flood insurance may be purchased under the national Flood Insurance Program or from private insurers; however, the amount of insurance must be approved by Lender. To the extent HUD deems any potential flood hazard to be a critical action, HUD may choose not to insure the loan.
Change Orders:	Borrower will fund into escrow 100% of the value of all change orders.
Disbursements on Loan:	Disbursements shall be made through Capital Funding, LLC. Updated title insurance endorsements insuring Lender against mechanics liens will be obtained with each disbursement. Borrower agrees to pay all fees and expenses related to these services, to the extent not funded through the mortgage.
Additional Requirements:	Other due diligence information may be required. Borrower shall provide all due diligence items reasonably requested by Lender and HUD; and all due diligence shall be subject to the approval of Lender in Lender's sole discretion. Approval of all due diligence, all Loan Documents, and all documentation associated with any other source of funding for the Project, shall be approved by Lender. Lender or HUD may require additional information to fully underwrite and approve the loan, and may change any conditions listed herein at its full discretion.

The Insured Loan will be made by Lender only upon compliance with each of the following conditions:

1. The Borrower shall have complied with all of the requirements of the FHA Commitment, the requirements of HUD's attorneys, and applicable FHA regulations and all of the requirements of Lender pursuant to this term sheet.

2. Lender shall have approved in its sole discretion the title company, bonding company, insurance companies and all loan documents, instruments, agreements, leases, organizational documents of Borrower and Operator entities, letters of credit, title, hazard insurance, malpractice and property policies, and such other documents required by FHA and Lender in connection with the financing transaction contemplated by this term sheet, which approval shall not be unreasonably withheld. Copies of such proposed documentation shall be submitted to Lender and its special counsel for review at least three weeks prior to the scheduled date of the FHA Endorsement.

3. All costs and expenses in connection with the financing transactions contemplated by this term sheet shall be paid by the Borrower or other party assuming liability for the payment thereof, including but not limited to: Third Party Reports (independent appraisal, property inspection and architectural and cost review, environmental assessment, feasibility and/or market study); the fees and expenses of the special counsel in the transaction; recording costs; title company charges; survey charges; Borrower's legal fees. To the extent possible, these fees will be included in the mortgage and credited against any equity requirement or refunded at the closing.

4. This term sheet is contingent upon receipt of acceptable full market study performed by market analyst to be determined by Lender. Additionally, valuation will be driven by reconciliation to market comparables on per-day revenue rates as well as expense comparables. If market study or expense calculations, in Lender's opinion, does not support the project or underwriting, this term sheet will be modified as Lender deems appropriate, and can be terminated by Borrower with no penalties of fee payment obligations.

On or prior to the date of the FHA Endorsement, the Borrower shall have presented to Lender duly executed copies of its resolutions authorizing the Insured Loan transaction and all authorizations and approvals of governmental or quasi-governmental bodies which shall be required by law to consummate the transaction contemplated by this term sheet, in each case in form and substance satisfactory to Lender and the special counsel.

As a requirement for proper organization and planning, a member of Lender's staff shall be present whenever you meet with an FHA representative concerning the loan application. In addition, all correspondence from FHA should be cleared through Lender's office before transmittal of a reply. Copies of statements required of the sponsor and file copies of all correspondence between the Borrower and FHA shall be furnished to Lender's office.

Capital Funding Group ("CFG") is a leading provider of full-service, comprehensive financing solutions for multifamily properties and healthcare facilities across the country. Through the CFG family of companies, CFG offers bridge loans, HUD loans, commercial banking, working capital lending, purchase/leasebacks, spend management, investment advisory services and more. CFG has previously provided over $48M in funding for other projects related to Alden Management Services, Inc.

Thank you for this opportunity. If you have any questions regarding the above, please do not hesitate to let me know.

Sincerely,

Craig Casagrande
Director

Accepted and Acknowledged,

Randi Schullo

Financial Viability

All the applicants and co-applicants shall be identified, specifying their roles in the project funding or guaranteeing the funding (sole responsibility or shared) and percentage of participation in that funding.

Financial Viability Waiver

The applicant is not required to submit financial viability ratios if:

1. **"A" Bond rating or better.**
2. **All of the projects capital expenditures are completely funded through internal sources.**
3. **The applicant's current debt financing or projected debt financing is insured or anticipated to be insured by MBIA (Municipal Bond Insurance Association Inc.) or equivalent.**
4. **The applicant provides a third party surety bond or performance bond letter of credit from an A rated guarantor.**

See Section 1120.130 Financial Waiver for information to be provided.

Appended as **ATTACHMENT-29A,** are the worksheets providing the calculations for each entity, i.e., Alden New Lenox Investments, LLC (owner), Alden Estates-Courts of New Lenox, Inc. (facility operator), and on a combined basis.

1. The applicant or co-applicant that is responsible for funding or guaranteeing funding of the project shall provide viability ratios for the latest three years for which **audited financial statements are available and for the first full fiscal year at target utilization, but no more than two years following project completion.** When the applicant's facility does not have facility specific financial statements and the facility is a member of a health care system that has combined or consolidated financial statements, the system's viability ratios shall be provided. If the health care system includes one or more hospitals, the system's viability ratios shall be evaluated for conformance with the applicable hospital standards.

The projected financial statements for the first full year at target utilization (second year after project completion (2021) is appended as **ATTACHMENT-29B**. The proforma statements are for the ownership entity, the operator entity, and on a combined basis.

Alden New Lenox, LLC (Real Estate)
Real Estate Viability Ratios

Current Ratio:	2023	Ratio
Current Assets	456,101	0.69
Current liabilities	658,572	
Net Margin Percentage:		
Net Income	(770,931)	-30.49%
Net Operating income	2,528,578	
Percent of debt to total capitalization:		
Long term debt	32,308,757	83.74%
Long term debt plus shareholder's equity	38,583,013	
Projected Debt Service Coverage:		
Net Income+Depreciation+Interest	2,049,012	1.49
Principal and Interest	1,375,656	
Days Cash on Hand:		
Cash in bank	184,973	6,138
Operating Expenses/365	30	
Cushion Ratio:		
Cash and investments	184,973	0.13
Maximum Annual Debt Service	1,375,656	

These ratios should not be considered in an evaluation of project viability. Because these entities are related parties individual entity ratios are irrelevant. The combined ratios should be used to evaluate financial feasability.

Alden Estates -Alden Esrtates-Courts of New Lenox (Operator)
Operator Viability Ratios

Current Ratio:	**2023**	**Ratio**
Current Assets	3,110,010	8.31
Current liabilities	374,270	
Net Margin Percentage:		
Net Income	1,107,293	5.15%
Net Operating income	21,515,126	
Percent of debt to total capitalization:		
Long term debt	523,203	19.12%
Long term debt plus shareholder's equity	2,735,740	
Projected Debt Service Coverage:		
Net income+Depreciation+Interest	1,389,293	4.93
Principal and Interest	282,000	
Days Cash on Hand:		
Cash in bank	353,749	8.50
Operating Expenses/365	41,629	
Cushion Ratio:		
Cash and investments	353,749	1.25
Maximum Annual Debt Service	282,000	

These ratios should not be considered in an evaluation of project viabiiity. Because these entities are related parties individual entity ratios are irrelevant. The combined ratios should be used to evaiuate financial feasability.

Alden New Lenox LLC (Owner) and Alden Estates-Courts of New Lenox, Inc (Operator)
Combined Viability Ratios

Current Ratio:	**2023**	**Ratio**
Current Assets	3,566,111	3.45
Current liabilities	1,032,842	
Net Margin Percentage:		
Net Income	2,990,945	13.90%
Net Operating income	21,515,126	
Percent of debt to total capitalization:		
Long term debt	33,864,801	79.96%
Long term debt plus shareholder's equity	42,351,595	
Projected Debt Service Coverage:		
Net Income+Depreciation+Interest	5,616,613	10.06
Principal and Interest	558,200	
Days Cash on Hand:		
Cash in bank	538,722	12.94
Operating Expenses/365	41,629	
Cushion Ratio:		
Cash and investments	538,722	0.97
Maximum Annual Debt Service	558,200	

The project does not meet minimum standards for Days Cash on Hand an Cushion Ratio. Because this is an operating business whose receivables are due from thrid party payers such as The State of Illinois, Medicare and insurance carriers, collections Range from 45 up to as much as 210 days. In order to meet these ratios, the project would need to borow additional funds which would add debt services and interest costs to the project. Therefore, a waiver is requested.

Alden New Lenox, LLC (Real Estate)
Projected Balance Sheet
As of December 31, 2021 through 2023

	2021	2022	2023
Current assets:			
Cash In bank and on hand	562,079.60	430,553.89	184,972.95
Tax and insurance escrows	146,982	252,336	271,128
Total current assets	709,062	682,890	456,101
Property, Plant and equipment:			
Land	2,194,673	2,194,673	2,194,673
Building	35,839,189	35,839,189	35,839,189
Major moveables	2,818,412	2,818,412	2,818,412
Minor moveables	187,355	187,355	187,355
Subtotal	**41,039,629**	**41,039,629**	**41,039,629**
Accumulated depreciation	(922,744)	(2,030,038)	(3,137,331)
Net fixed assets	**40,116,885**	**39,009,591**	**37,902,298**
Other assets:			
Deferred Inmcome Taxes	162,240	321,000	475,186
Replacement reserve	120,000	264,000	408,000
Total assets	**41,108,186**	**40,277,481**	**39,241,585**
Liabilities and Stockholder's Equity			
Current Liabilities:			
Current portion mortgage payable	234,512	247,740	261,715
Accrued real estate taxes	38,000	248,800	282,000
Accrued interest	144,405	143,331	114,857
Total current liabilities	**416,917**	**639,871**	**658,572**
Long term debt-mortgage payable	33,165,229	32,746,609	32,308,757
Total liabilities	**33,582,146**	**33,386,480**	**32,967,329**
Member's Equity:			
Contributed capital	8,175,000	8,175,000	8,175,000
Retained earnings	(648,960)	(1,283,999)	(1,900,744)
Total Memebr's Equity	**7,526,040**	**6,891,001**	**6,274,256**
Total liabilities and stockholder's equity	**41,108,186**	**40,277,481**	**39,241,585**

ATTACHMENT-29B

Alden New Lenox, LLC (Real Estate)
Projected Income Statement
For the years to end December 31, 2021, 2022 and 2023

	2021	2022	2023
Income:			
Rental Income	1,922,665	2,480,747	2,526,058
Interest income	450	1,440	2,520
Total Income	**1,923,115**	**2,482,187**	**2,528,578**
Operating Expenses:			
Interest expenses	1,593,716	1,725,937	1,712,650
Mortgage insurance	145,255	157,525	156,350
Real Estate Taxes	38,000	248,400	282,000
Property Insurance	24,600	25,830	30,216
Professional fees	7,500	7,500	7,500
Other costs	2,500	3,500	3,500
Depreciation expense	922,744	1,107,293	1,107,293
Total Expenses	**2,734,315**	**3,275,985**	**3,299,509**
Net Income from Operations	(811,200)	(793,798)	(770,931)
Income Taxes	(162,240)	(158,760)	(154,186)
Net Income	**(648,960)**	**(635,039)**	**(616,745)**

ATTACHMENT-29B

Alden Estates- Courts of New Lenox (Operator)
Projected Balance Sheet
As of December 31, 2021 through 2023

	2021	2022	2023
Current assets:			
Cash In bank and on hand	495,530	404,462	353,749
Accounts receivable net of allowance for doubtful accounts	1,123,433	1,792,003	2,721,585
Inventory	10,000	10,000	10,000
Prepaid expenses	20,000	23,000	24,676
Total current assets	**1,648,963**	**2,229,465**	**3,110,010**
Other assets:			
Deferred Inmcome Taxes	337,421	337,421	-
Total assets	**1,986,384**	**2,566,886**	**3,110,010**
Liabilities and Stockholdar's Equity			
Current Liabilities:			
Accounts payable	654,000	576,065	407,024
Accrued salaries	184,230	207,805	213,000
Accrued interest	3,892	7,666	10,221
Accrued payroll taxes	16,025	20,730	21,129
Accrued Provider Taxes	45,980	65,079	60,317
Accrues income taxes			(337,421)
Other liabilities	50,000	200,000	-
Total current liabilities	**954,127**	**1,077,345**	**374,270**
Long term debt-Line of credit	954,918	1,523,203	523,203
Total liabilities	**1,909,045**	**2,600,548**	**897,473**
Stockholder's equity:			
Contributed capital	2,000,000	2,000,000	2,000,000
Retained earnings	(1,922,661)	(2,033,662)	212,537
Total stockholder's equity	**77,339**	**(33,662)**	**2,212,537**
Total liabilities and stockholder's equity	**1,986,384**	**2,566,886**	3,110,010

ATTACHMENT-29B

Aiden Estates-Courts of New Lenox (Operator)
Projected Statement of Operations
for the years to end December 31, 2021, 2022, and 2023

	2021		2022		2023	
Revenues:	Total	Per Diem	Total	Per Diem	Total	Per Diem
Room & Board	$ 5,350,445	$ 351.84	$ 16,481,711	$ 389.20	$ 21,363,806	$ 392.83
Ancillary Income	12,166	0.80	35,987	0.85	145,230	2.67
Other	1,350	0.09	2,490	0.06	6,090	0.11
Total Revenue	**5,363,961**	**$ 352.73**	**16,520,189**	**$ 390.11**	**21,515,126**	**$ 395.61**
Expenses:						
Nursing & Ancillary	$ 1,980,253	$ 130.22	$ 7,427,101	$ 175.38	$ 9,283,546	$ 170.70
Activities	118,946	7.82	264,117	6.24	237,681	4.37
Employee costs	667,834	43.92	1,341,664	31.66	1,380,186	25.38
Dietary costs	549,867	36.16	1,086,273	25.65	1,149,927	21.14
Housekeeping & repairs	410,028	26.96	823,339	19.44	797,726	14.67
Laundry & Linen	55,792	3.67	99,067	2.34	70,726	1.30
Marketing expenses	181,392	11.93	194,588	4.59	113,420	2.09
General and administrative	965,755	63.51	1,734,892	40.97	1,952,831	35.91
Bad debts	53,626	3.53	201,284	4.75	296,044	5.44
Insurance expense	169,520	11.15	169,200	4.00	208,488	3.83
Total expenses	$ 5,153,013	$ 338.86	$ 13,341,522	$ 315.04	$ 15,490,575	$ 284.83
Gross Profit	**210,948**	**$ 13.87**	**3,178,666**	**$ 75.06**	**6,024,551**	**$ 110.78**
Capital costs:						
Mortgage Interest	$ 1,593,176	$ 105	$ 1,725,937	$ 40.76	$ 1,398,027	$ 25.71
Real Estate Taxes	38,000	2.50	248,400	5.87	282,000	5.19
Mortgage Insurance	145,255	9.55	157,525	3.72	125,938	2.32
Interest-Working Capitel	38,416	2.53	87,316	2.06	120,348	2.21
Depreciation	956,235	62.88	1,107,293	26.15	1,107,293	20.36
Total capital costs	$ 2,771,082	$ 182.22	$ 3,326,471	$ 78.55	$ 3,033,606	$ 55.78
Net income from Operetions	**$ (2,560,134)**	**$ (168.35)**	**$ (147,805)**	**$ (3.49)**	**$ 2,990,945**	**$ 55.00**
income tax expensa(benefit)	**$ 637,473**		**$ 36,803**		**$ (744,745)**	
Net Income	**(1,922,661)**		**(111,001)**		**2,246,200**	
Occupency Days	15,207		42,348		54,385	
Avaliable Days	50,798		60,590		60,590	
Occupancy	30%		70%		90%	

ATTACHMENT - 29B

New Lenox Investments, LLC

Projected Statement of Combined Operations

for the years to end December 31, 2021, 2022, and 2023

	2021		2022		2023	
	Total	Per Diem	Total	Per Diem	Total	Per Diem
Revenues:						
Room & Board	$ 5,350,445	$ 351.84	$ 16,481,711	$ 389.20	$ 21,363,806	$ 392.83
Ancillary Income	12,166	0.80	35,987	0.85	145,230	2.67
Other	1,350	0.09	2,490	0.06	6,090	0.11
Total Revenue	**5,363,961**	**$ 352.73**	**16,520,189**	**$ 390.11**	**21,515,126**	**$ 395.61**
Expenses:						
Nursing & Ancillary	$ 1,980,253	$ 130.22	$ 7,427,101	$ 175.38	$ 9,283,546	$ 170.70
Activities	118,946	7.82	264,117	6.24	237,681	4.37
Employee costs	667,834	43.92	1,341,664	31.68	1,380,186	25.38
Dietary costs	549,867	36.16	1,086,273	25.65	1,149,927	21.14
Housekeeping & repairs	410,028	26.96	823,339	19.44	797,726	14.67
Laundry & Linen	55,792	3.67	99,067	2.34	70,726	1.30
Marketing expenses	181,392	11.93	194,586	4.59	113,420	2.09
General and administrative	965,755	63.51	1,734,892	40.97	1,952,831	35.91
Bad debts	53,626	3.53	201,284	4.75	296,044	5.44
Insurance expense	169,520	11.15	169,200	4.00	208,488	3.83
Total expenses	$ 5,153,013	$ 338.86	$ 13,341,522	$ 315.04	$ 15,490,575	$ 284.83
Gross Profit	**210,948**	**$ 13.87**	**3,178,666**	**$ 75.06**	**6,024,551**	**$ 110.78**
Capital costs:						
Mortgage Interest	$ 1,593,176	$ 104.77	$ 1,725,937	$ 40.76	$ 1,398,027	$ 25.71
Real Estate Taxes	38,000	2.50	248,400	5.87	282,000	5.19
Mortgage Insurance	145,255	9.55	157,525	3.72	125,938	2.32
Interest-Working Capital	38,416	2.53	87,316	2.06	120,348	2.21
Depreciation	956,235	62.88	1,107,293	26.15	1,107,293	20.36
Total capital costs	$ 2,771,082	$ 182.22	$ 3,326,471	$ 78.55	$ 3,033,606	$ 55.78
Net Income from Operations	**$ (2,560,134)**	**$ (168.35)**	**$ (147,805)**	**$ (3.49)**	**$ 2,990,945**	**$ 55.00**
Income tax expense(benefit)	**$ 637,473**		**$ 36,803**		**$ (744,745)**	
Net Income	**(1,922,661)**		**(111,001)**		**2,246,200**	
Occupancy Days	15,207		42,348		54,385	
Available Days	50,796		60,590		60,590	
Occupancy	30%		70%		90%	

ATTACHMENT-29B

New Lenox Investments, LLC
Projected Combined Balance Sheet
As of December 31, 2021 through 2023

	2021	2022	2023
Current assets:			
Cash In bank and on hand	1,057,610	835,016	538,722
Accounts receivable net of allowance for doubtful accounts	1,123,433	1,792,003	2,721,585
Inventory	10,000	10,000	10,000
Prepaid expenses	20,000	23,000	24,676
Tax and insurance escrows	146,982	252,336	271,128
Total current assets	**2,358,025**	**2,912,355**	**3,566,111**
Property, Plant and equipment:			
Land	2,194,673	2,194,673	2,194,673
Building	35,839,189	35,839,189	35,839,189
Major moveables	2,818,412	2,818,412	2,818,412
Minor moveables	187,355	187,355	187,355
Subtotal	**41,039,629**	**41,039,629**	**41,039,629**
Accumulated depreciation	(922,744)	(2,030,038)	(3,137,331)
Net fixed assets	**40,116,885**	**39,009,591**	**37,902,298**
Other assets:			
Deferred Income Taxes	499,661	658,421	475,186
Replacement reserve	120,000	264,000	408,000
Total assats	**43,094,570**	**42,844,367**	**42,351,595**
Liabilities and Stockholder's Equity			
Current Liabilities:			
Current portion mortgage payable	234,512	247,740	261,715
Accounts payable	654,000	576,065	407,024
Accrued salaries	184,230	207,805	213,000
Accrued real estate taxes	38,000	248,800	282,000
Accrued interest	148,297	150,997	125,078
Accrued payroll taxes	16,025	20,730	21,129
Accrued Income Taxes	-	-	(337,421)
Accrued Provider Taxes	45,980	65,079	60,317
Other liabilities	50,000	200,000	-
Total current liabilities	**1,371,044**	**1,717,216**	**1,032,842**
Long term debt-Line of credit	954,918	1,523,203	523,203
Long term debt-mortgage payable	33,165,229	32,746,609	32,308,757
Total liabilities	**35,491,192**	**35,987,028**	**33,864,801**
Stockholder's equity:			
Contributed capital	10,175,000	10,175,000	10,175,000
Retained earnings	(2,571,621)	(3,317,661)	(1,688,206)
Total stockholder's equity	**7,603,379**	**6,857,339**	**8,486,794**
Total liabilities and stockholder's equity	**43,094,570**	**42,844,367**	**42,351,595**

ATTACHMENT-29B

Alden New Lenox Investments, LLC
Projected Unconsolidated Balance Sheet
As of December 31, 2021, 2022 and 2023

	2021	2022	2023
Investments:			
Investment in Alden Estates-Courts of New Lenox(Operator)	77,339	(33,662)	2,212,537
Investment in Alden New Lenox, LLC (Rreal Estate)	7,526,040	6,891,001	6,274,256
Total Assets	**7,603,379**	**6,857,339**	**8,486,794**
Member's Equity	**7,603,379**	**6,857,339**	**8,486,794**

Alden New Lenox Investments, LLC
Projected Unconsolidated Income Statement
For the years to end December 31, 2021 thru 2023

	2021	2022	2023
Equity in earnings (loss) on unconsolidated subsidiaries	**(1,922,661)**	**(111,001)**	**2,246,200**

ATTACHMENT-29B

Economic Feasibility

This section is applicable to all projects

A. Reasonableness of Financing Arrangements

The applicant shall document the reasonableness of financing arrangements by submitting a notarized statement signed by an authorized representative that attests to one of the following:

2. That the total estimated project costs and related costs will be funded in total or in part by borrowing because:

   A. A portion or all of the cash and equivalents must be retained in the balance sheet asset accounts in order to maintain a current ratio of at least 1.5 times for LTC facilities; or

   B. Borrowing is less costly than the liquidation of existing investments, and the existing investments being retained may be converted to cash or used to retire debt within a 60-day period.

Appended as **ATTACHMENT-30A,** is a letter from the owner addressing reasonableness of financing arrangements.

B. Conditions of Debt Financing

This criterion is applicable only to projects that involve debt financing. The applicant shall document that the conditions of debt financing are reasonable by submitting a notarized statement signed by an authorized representative that attests to the following, as applicable:

1. That the selected form of debt financing for the project will be at the lowest net cost available;

2. That the selected form of debt financing will not be at the lowest net cost available, but is more advantageous due to such terms as prepayment privileges, no required mortgage, access to additional indebtedness, term (years), financing costs and other factors;

3. That the project involves (in total or in part) the leasing of equipment or facilities and that the expenses incurred with leasing a facility or equipment are less costly than constructing a new facility or purchasing new equipment.

Appended as **ATTACHMENT-30B,** is a letter from the owner addressing the conditions of debt financing.

D. Projected Operating Costs

The applicant shall provide the projected direct annual operating costs (in current dollars per equivalent patient day or unit of service) for the first full fiscal year at target utilization but no more than two years following project completion. Direct cost means the fully allocated costs of salaries, benefits and supplies for the service.

Salaries	$ 5,124,427	
Benefits	$ 1,380,186	
Supplies	$ 5,108,962	
Therapy Costs	$ 3,223,752	
Patient Days @ 90%		54,531
Total/Operating Cost/PT Day	$14,837,327	$272.09

E. Total Effect of the Project on Capital Costs

The applicant shall provide the total projected annual capital costs (in current dollars per equivalent patient day) for the first full fiscal year at target utilization but no more than two years following project completion.

Depreciation	$1,107,293	
Interest Expense	$1,518,375	
Mortgage Insurance	$ 125,938	
Real Estate Taxes	$ 282,000	
Patient Days @ 90%		54,531
Total/Operating Cost/PT Day	$3,033,606	$55.63

ATTACHMENT-30

December 5, 2017

Ms. Courtney Avery
Administrator
Health Facilities and Services Review Board
525 West Jefferson Street, 2nd Floor
Springfield, Illinois 62761

RE: Certificate of Need Application for Alden New Lenox L.L.C.; reasonableness of financing arrangements

Dear Ms. Avery:

A. Reasonableness of Financing Arrangements

The applicant shall document the reasonableness of financing arrangements by submitting a notarized statement signed by an authorized representative that attests to one of the following:

1. That the total estimated project costs and related costs will be funded in total with cash and equivalents, including investment securities, unrestricted funds, received pledge receipts and funded depreciation; or

2. That the total estimated project costs and related costs will be funded in total or in part by borrowing because:

   A. A portion or all of the cash and equivalents must be retained in the balance sheet asset accounts in order to maintain a current ratio of at least 1.5 times for LTC facilities; or

   B. Borrowing is less costly than the liquidation of existing investments, and the existing investments being retained may be converted to cash or used to retire debt within a 60-day period.

Respectfully,

Joan Carl, Co-Manager

Notarization:
Subscribed and sworn to before me
this 5 day of December 2017

OFFICIAL SEAL
JOSEPH SCHULLO
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires August 30, 2020

Signature of Notary
Seal

Randi Schullo, Co-Manager

Notarization:
Subscribed and sworn to before me
this 5 day of December 2017

OFFICIAL SEAL
JOSEPH SCHULLO
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires August 30, 2020

Signature of Notary
Seal

December 5, 2017

Ms. Courtney Avery
Administrator
Health Facilities and Services Review Board
525 West Jefferson Street, 2nd Floor
Springfield, Illinois 62761

RE: Certificate of Need Application for Alden New Lenox L.L.C.; conditions of debt financing

Dear Ms. Avery:

B. Conditions of Debt Financing

This criterion is applicable only to projects that involve debt financing. The applicant shall document that the conditions of debt financing are reasonable by submitting a notarized statement signed by an authorized representative that attests to the following, as applicable:

1. That the selected form of debt financing for the project will be at the lowest net cost available;

2. That the selected form of debt financing will not be at the lowest net cost available, but is more advantageous due to such terms as prepayment privileges, no required mortgage, access to additional indebtedness, term (years), financing costs and other factors;

3. That the project involves (in total or in part) the leasing of equipment or facilities and that the expenses incurred with leasing a facility or equipment are less costly than constructing a new facility or purchasing new equipment.

Respectfully,

Joan Carl, Co-Manager

Notarization:
Subscribed and sworn to before me
this 5 day of December 2017

OFFICIAL SEAL
JOSEPH SCHULLO
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires August 30, 2020

Signature of Notary
Seal

Randi Schullo, Co-Manager

Notarization:
Subscribed and sworn to before me
this 5 day of December 2017

OFFICIAL SEAL
JOSEPH SCHULLO
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires August 30, 2020

Signature of Notary
Seal