# CON States: Bed Need Methodologies
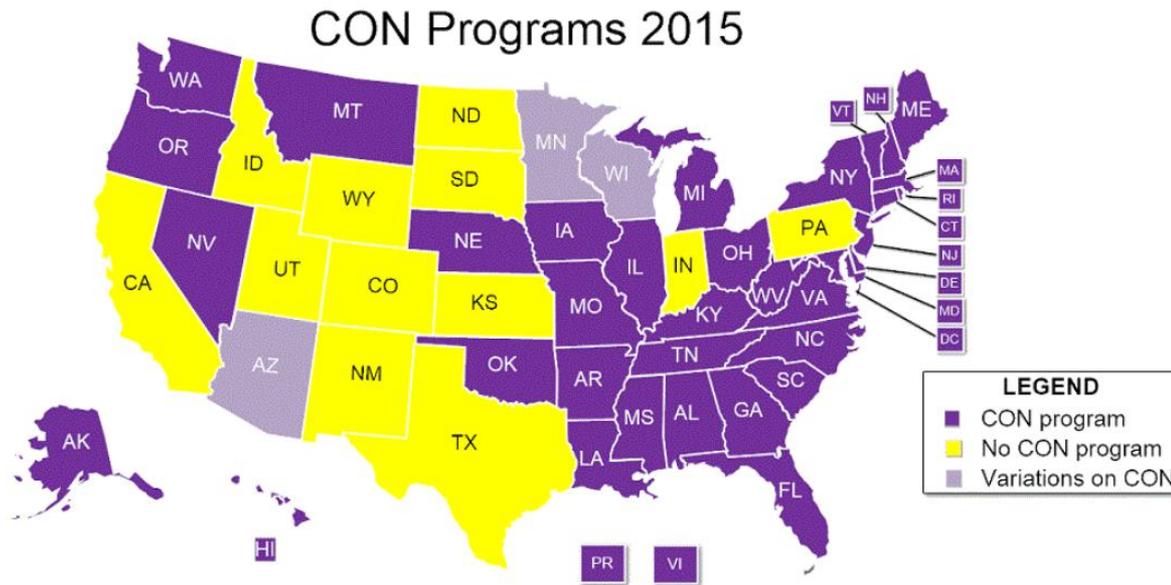
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# Background

- Total number of CON States: 36
- Total number of states with LTC bed moratorium :13
- Number of bed need methodologies collected out of 23 : 7
- This report compiles, discusses, and compares collected CON states' Bed Need Methodologies

# Certificate of Need: Services Covered
## Nursing Homes/Beds, 2015



CON Programs 2015

**LEGEND**
- CON program
- No CON program
- Variations on CON

Source: NCSL, September 2015.

**LTC Bed Moratorium**
- Alabama
- Connecticut
- Louisiana
- Maine
- Massachusetts
- Mississippi
- Nebraska
- New Hampshire
- New Jersey
- Oklahoma
- Rhode Island
- West Virginia
- Wisconsin

# CON States Comparable to Illinois

**Identifying states to compare with Illinois:**

- The law of each state offers different exceptions, thresholds and review processes, making comparisons difficult.

- Despite the difficulty in comparison, we opted to give in-depth reviews of four states—New York, Michigan, New Jersey and Florida with the following rationale:

  - They have the size of supply and demand for health care similar to Illinois.
  - New York is often considered as a benchmark state not only for CON services but also CON-related methodology for need determination.
  - Michigan is one of the forefront runners in revamping CON standards and criteria, a major source of criticism for CON.
  - New York and Michigan currently have the same level of CON scope that Illinois had prior to the 2003 Amendment Act.
  - Illinois appears to follow the same path that Florida and New Jersey have been taking.

Reference: Gellatly, D. L. & Chung, K. (2004, June). *Certificate of Need Programs: A Comparative Assessment*. Report prepared for the Illinois Health Facilities Planning Board. Governors State University.

# Bed Need Methodology -1

- ## Florida

### *Formula*

- $A_i$= (Estimated Bed Rate)x(Projected Population)
- Estimated Bed Rate for Age 65-74 = District Licensed Bed ÷ (Current District Population Aged 65-74 Years + 6 X Current District Population Aged 75+)
- Estimated Bed Rate for Age 75+ = 6 X Estimated Bed Rate for Age 65-74
- Note: Projection is Done for Age Group 65-74 and 75+, Added Up to District Level, and Split for Sub-districts.

### *Explanation*

- $A_i$ is called district projected age-adjusted number of nursing home beds
- projection is made for 3 years
- $A_i$ is calculated for age groups 65-74 and 75+, then summed to get the district's total ($A_t$)
- $A_t$ is multiplied by the proportion of sub-district's number of nursing home beds in the district and by the average of 6 month sub-district occupancy rate then the result is divided by 0.92 (occupancy factor?)
- **Moratorium repealed 7/1/2014**

### *Discussions*

-Mathematical formulation is similar to Illinois method

- Differences: No age group 0-64, use rate assumptions, occupancy factor

# Bed Need Methodology (cont.)-2

- ## South Carolina

### *Formula*

- **(County Projection Growth for 0-64 and 65+)x(County Projected Number of Patients)**

### *Bed Approval*

- An additional agency can be approved for the county if:
  - In non-rural counties: 65+projection(1 − 0.75)>100 or more
  - In rural counties: 65+projection(1 − 0.75)>50 or more
- (75% occupancy factor?)
- **Rural county** is a county with a **population** of **less than 50,000** in projections of SC Fiscal Affairs Office

### *Discussions*

-Assumption: growth of LTC bed need equals growth of the general population

-Mathematical formulation is different from Illinois'

# Bed Need Methodology (cont.)-3

- **New Hampshire**

   *Formula*

   – (Region Population Aged 65+)x40/1000

   *Explanation*

   – State flat use rate = 40/1000

   *Discussions*

   - Simplest of all reviewed methodologies

   - Assumption: 4% of 65+ population will need LTC beds

   - Mathematically different from Illinois'

# Bed Need Methodology (cont.)-4

- ## Iowa

### *Formula*
- Rural Counties : [0.09x(population-65+) + 0.0015x(population-64)]x 110%
- Urban Counties : [0.07x(population-65+) + 0.0015x(population-64)]x 110%

### *Explanation*
- These formulas are for Skill Nursing Facilities (SNF) defined as any institution, place, building, or agency providing for a period exceeding 24 consecutive hours accommodation, board, and nursing services …

### *Discussions*
- Assumptions: 9% and 7% of rural and urban population aged 65+ and 1.5% of the population aged 64 years will need LTC beds;
- 110% (multiplier) is same for Illinois (1/90 =1.1 or 110%)
- Mathematically different from Illinois' but close to New Hampshire

# Bed Need Methodology (cont.)-5

- ## Mississippi

### *Formula*

– **Bed Needed = Average Daily Census +2.57xSquare-root (Average Daily Census)**

$$\text{Bed Needed} = \text{ADC} + K\sqrt{\text{ADC}}$$

Where: ADC = Average Daily Census
K = Confidence Factor of 2.57

### *Discussion*

- Mathematical formulation is unique, completely different from other states

- May be derived from modeling (statistical method of estimation)

# Bed Need Methodology (cont.)-6

- ## Connecticut

### *Formula*

- **Population based**:
  - **Bed Need = Age group beds per 1000 population x Projected population**
    - Below 65 -> 0.7; 65 to 74 -> 10.0; 75 to 84 -> 39.3; 85 and above -> 160.0
- **Utilization based:**
  - **Bed need= max (10% of licensed capacity, 10 beds)** if during the previous 12 months, the facility:
    - Is at 90% occupancy;
    - Has no approved but unlicensed beds;
    - Acquires beds from a facility that averaged 70% or less occupancy;
    - Is located in a county without a population-based need;
    - Is not located in a county where the number of approved but unlicensed beds equals 10% or more of the county's licensed beds; and
    - Has not acquired max (10% of licensed capacity, 10 beds).
  - **Expansion to 70 beds may be approved for facilities with less than 60 licensed beds** if during the previous 12 month, the facility:
    - Averaged 90% or greater occupancy
    - has no approved but unlicensed beds

### *Discussion*
- Mathematical formulation similar to Ohio's
- Need rates and assumption are particular to Connecticut experiences

# Bed Need Methodology (cont.)-7

- ## Ohio

### *Formula*

**County Bed Need = (State Bed Need Rate x County Projected Population )÷ 0.90**

### *Explanation*

- State Bed Need Rate = (Total Licensed Beds ÷ Total Bed Days Available) x (Inpatient days) ÷ (Projected 65+ Population)
- Total Bed Days Available = Licensed Bed x Number of Calendar Days in the reporting year

### *Discussion*

- Mathematical formulation is similar to Connecticut's
- State Need Rate is computed using current utilization beds of all age population (numerator) and only projected 65+ population (denominator) => assumption: utilization will not change from base year throughout projection years
- Occupancy factor of 90% is used, which is the same for Illinois

# Bed Need Methodology (cont.)-8

- ## Illinois

### *Formula*

– **Projected Bed Need = (Projected Use Rate x Projected Population) ÷ 0.90**

### *Explanation*

– Base Use Rate = Base Patient Days ÷ Base Population
– Projected use rate : For each age group, minimum and maximum planning area use rates are 60% and 160% of the HSA's experienced use rate
– Projected Patient Days = Projected Use Rate x Projected Population
– HSA's Total Projected Patient Days = Sum of Age Groups' Projected Patient Days
– HSA's Projected Average Daily Census = Total Projected Patient Days ÷ Number of Days in the Year
– HSA's Projected Number of Needed Beds = Projected Average Daily Census ÷ 0.90

### *Discussions*

– Mathematical formulation close to Florida's
– Assumption for Projected Use Rate is unique

# Conclusion

- Methodologies are unique for each reviewed state: differences found in formulation, coefficients, and assumptions.

- Mathematical formulation of Illinois is similar to Florida's.

- Illinois formula stand out with simplicity and robustness: base use rate carries long-term care need changes and population projections carry population changes (growth, migration, and aging) for each health planning area.