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

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

Source: NCSL, September 2015.
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.

Bed Need Methodology -1

• Florida

*Formula*

– $A_i = (\text{Estimated Bed Rate}) \times (\text{Projected Population})$
– 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– **Moratorium repealed 7/1/2014**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: \([0.09 \times (\text{population-65+}) + 0.0015 \times (\text{population-64})] \times 110\%\)
  - Urban Counties: \([0.07 \times (\text{population-65+}) + 0.0015 \times (\text{population-64})] \times 110\%\)

  **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 + 2.57 x Square-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**
Count
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
**Illinois**

*Formula*

- Projected Bed Need = \( \frac{(Projected \ Use \ Rate \times Projected \ Population)}{0.90} \)

*Explanation*

- Base Use Rate = \( \frac{Base \ Patient \ Days}{Base \ Population} \)
- 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 = \( Projected \ Use \ Rate \times Projected \ Population \)
- HSA’s Total Projected Patient Days = Sum of Age Groups’ Projected Patient Days
- HSA’s Projected Average Daily Census = \( \frac{Total \ Projected \ Patient \ Days}{Number \ of \ Days \ in \ the \ Year} \)
- HSA’s Projected Number of Needed Beds = \( \frac{Projected \ Average \ Daily \ Census}{0.90} \)

*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.