MICHIGAN DEPARTMENT OF COMMUNITY HEALTH (MDCH)
HOSPITAL BED (HB)
STANDARD ADVISORY COMMITTEE (HBSAC) MEETING

Thursday June 23, 2011

Capitol View Building
201 Townsend Street
MDCH Conference Center
Lansing, Michigan 48913

APPROVED MINUTES

I. Call to Order

Chairperson Casalou called the meeting to order @ 9:35 a.m.

A. Members Present:

   James Ball, Michigan Manufacturer’s Assoc.
   Ron Bieber, United Auto Workers (UAW)
   Robert Casalou, Chairperson, Trinity Health
   Heidi Gustine, Munson Healthcare
   David Jahn, War Memorial
   Patrick Lamberti, POH Medical Center
   Nancy List, Covenant Healthcare
   Conrad Mallett, DMC
   Doug Rich, Ascension Health
   Jane Schelberg, Vice-Chairperson, Henry Ford
   Kevin Splaine, Spectrum Health
   Robert Milewski, BlueCross BlueShield of Michigan (BCBSM)

B. Members Absent:

   None

C. Michigan Department of Community Health Staff present:

   Jessica Austin
   Lonnie Barnett
   Joette Laseur
   Natalie Kellogg
   Tania Rodriguez
   Brenda Rogers
II. Introduction of Members and Staff

Staff and members introduced themselves.

III. Declaration of Conflicts of Interest

None.

IV. Review of Agenda

Motion by Mr. Mallett and seconded by Mr. Lamberti to accept the agenda as presented. Motion carried.

V. Basic CON Overview

Ms. Rogers gave a verbal and written presentation of the CON process (See attachment A).

VI. MSU Geography Presentation

Mr. Messina gave a verbal and written presentation on Acute Care Bed Need Methodology (See attachment B).

Discussion followed.

VII. Review of Charge

Chairperson Casalou provided an overview of the charge delegated to the HBSAC (See attachment C).

Discussion followed.

VIII. Background Material

Chairperson Casalou asked the SAC members to read the current standards.

Break @ 10:49 a.m. – 11:14 a.m.

IX. Public Comment

None

X. Next Steps and Future Agenda Items

Chairperson Casalou recommended forming workgroups to address each of the charges.
Chairperson Casalou recommended dividing charge 6 into 2 segments to be reviewed by separate workgroups.

Mr. Mallett, Mr. Lamberti, Ms. Gustine, Mr. Splaine, Mr. Rich, and Mr. Milewski (chair) will work with Mr. Messina on developing and presenting further information on the bed need methodology and subarea methodology involving Charge 1 and part of Charge 6.

Chairperson Casalou and Vice-Chairperson Schelberg will further review and present on project delivery requirements within Charge 2.

Chairperson Casalou and Vice-Chairperson Schelberg will further review and present on size requirements for replacement hospitals within Charge 3.

Mr. Mallett will review and present information on possibly eliminating the existing Addendum for HIV Infected Individuals within Charge 4.

Ms. Rogers advised that the Department will provide Psych Bed and Nursing Home Bed language at the next meeting for the review and discussion purposes of Charge 5.

Vice-Chairperson Schelberg (chair), Ms. List, Mr. Ball, and Mr. Jahn will review and present on the second half of Charge 6, disposition of unused beds.

Charge 7 will be handled by the Department and reviewed at a later meeting.

**Public Comment:** Bob Meeker, Spectrum Health

**XI.  Future Meeting Dates**

A. July 20, 2011  
B. August 25, 2011  
C. September 28, 2011  
D. October 19, 2011  
E. November 16, 2011  
F. December 20, 2011

**XII.  Adjournment**

Motion by Mr. Splaine and seconded by Mr. Milewski to adjourn the meeting @ 11:32 a.m. Motion Carried.
Basics of Certificate of Need (CON)
Hospital Beds (HB) SAC
June 23, 2011
Certificate of Need Federal
Background

- The District of Columbia and New York developed CON programs in 1964 in an effort to contain rising health care costs.

- Federally mandated CON programs were established in 1974 as a national health care cost containment strategy.
Certificate of Need Federal Background

• The federal mandate for CON was not renewed by the U.S. Congress in 1986.

• CON regulations are structured, in principle, to improve access to quality health care services while containing costs. Health care organizations are required to demonstrate need before investing in a regulated facility, service or equipment.
Michigan CON Background

• Public Act 368 of 1978 mandated the Michigan Certificate of Need (CON) Program.

• The CON Reform Act of 1988 was passed to develop a clear, systematic standards development system and reduce the number of services requiring a CON.
CON Commission

• Members appointed by Governor
  – Three year terms
  – No more than six from either political party
  – Responsible for developing and approving CON review standards w/legislative oversight

• Public Act 619 of 2002 made several modifications.
  ➢ Expanded the Commission from 5 to 11
  ➢ Key stakeholders are now represented on the Commission (e.g., physicians)
What is Covered by the CON Program?

The following projects must obtain a CON:

• Increase in the number or relocation of licensed beds
• Acquisition of an existing health facility
• Operation of a new health facility
• Initiation, replacement, or expansion of covered clinical services

Capital expenditure projects (i.e., construction, renovation) must obtain a CON if the projects meet the following threshold:

• $2,957,500 for clinical service areas (January 2011)

Note: Threshold is indexed annually by the Department based on the Consumer Price Index.
Categories That Require CON Approval

- Air ambulances (helicopters)
- Cardiac catheterization, including diagnostic, therapeutic, angioplasty, and electrophysiology
- Hospital beds – general acute care
- Magnetic resonance imaging (MRI)
- Megavoltage radiation therapy
- Neonatal intensive care units
- Nursing home/hospital long-term care beds
- Urinary lithotripters
Categories That Require CON Approval

- Open heart surgery
- Positron Emission Tomography (PET)
- Psychiatric beds – acute inpatient
- Surgical services – hospital and free-standing
- Transplantation services – bone marrow, including peripheral stem cell, heart-lung, liver, and pancreas
- Computed tomography (CT) scanners
MDCH CON Org Chart

Olga Dazzo, Director

Vacant, Chief Deputy Director

Melanie Brim, Deputy Director, Policy & Planning

Vacant, Director, Health Policy & Access Division

Linda Collins, Secretary

Policy & Planning Section
Lonnie Barnett, Manager
Brenda Rogers (CON)
Natalie Kellogg (CON)
Tania Rodriguez (CON)
Jessica Austin
Bob Esdale
Ian Horste
Courtney Lawler
Ken Miller
Amber Myers

CON Evaluation Section
Vacant, Manager
Tulika Bhattacharya
Sallie Flanders
Joette Laseur
Andrea Moore
Perry Smith
Gaye Tuttle
Matt Weaver
The CON Process

1. Applicant files letter of intent
2. Applicant files completed application
3. Department reviews application
4. Applicant has 15 days to submit information to DCH
5. DCH determines the review type
6. Proposed decision issued within deadlines for each review type
   - Nonsubstantive – 45 days
   - Substantive – 120 days
   - Comparative – 150 days
CON Process Continued…

7. Proposed decision approved

8. Proposed decision not approved

9. Hearing is not requested

10. Hearing is requested

11. DCH Director makes final decision
Statutory Authority for Review of Standards

- MCL 22215(1)(m) requires that standards be reviewed, and revised if necessary, every 3 years. Statute also requires that the Commission “If determined necessary by the Commission, revise, add to, or delete 1 or more of the covered clinical services listed in section 22203....” [MCL 22215(1)(a)]
Statutory Authority for Review of Standards Continued

• MCL 22215(1)(n) states “If a standard advisory committee is not appointed by the commission and the commission determines it necessary, submit a request to the department to engage the services of private consultants or request the department to contract with any private organization for professional and technical assistance and advice or other services to assist the commission in carrying out its duties and functions under this part.”
Standard Advisory Committee (SAC) Responsibility

• Public Health Code, Act 368 of 1978
  – MCL 333.22215 “...(1)(l) If the Commission determines it necessary, appoint standard advisory committees to assist in the development of proposed certificate of need review standards. A standard advisory committee shall complete its duties under this subdivision and submit its recommendations to the Commission within 6 months unless a shorter period of time is specified by the Commission when the standard advisory committee is appointed....”
Development of the Charge

• Public Hearing in October
• Acceptance of written comments/testimony by MDCH on behalf of the Commission
• Commission members and MDCH staff review all of the comments/testimony received
• Recommendations offered to the Commission by the MDCH
• CON Commission develops and approves the final charge to the SAC
The Hospital Bed Standards SAC should review and recommend any necessary changes to the Hospital Bed Standards with consideration of the following:

1. Review and update, if necessary, the subarea methodology to determine current health care markets and needs including relevant demographic data. If needed, revise methodologies based on defined geographical areas for determining stable projection need.

2. Review project delivery requirements to assure quality, measurability, and affordability for both the provider and consumer.

3. Review and update, if necessary, size requirement for replacement hospitals.

4. Review possible elimination of existing Addendum for HIV Infected Individuals.

5. Consider language similar to that in the nursing home bed standards requiring all outstanding debt obligations to the State of Michigan for Quality Assurance Assessment Program (QAAP) or Civil Monetary Penalties (CMP) be paid prior to receiving or replacing hospital beds.

6. Consider the proper number of beds for Michigan’s population given demographic (aging and health of the population) concerns and consider concepts that link occupancy to inventory thereby allowing for reduction of “excess” beds. Example: Determine the “appropriate” occupancy, and if over a defined period of time bed capacity remains below that figure, unused beds must be released.

7. Consider any necessary technical or other changes e.g., updates or modifications consistent with other CON review standards and the Public Health Code.
SAC Operations

• Operates using modified Roberts’ Rules
• Subject to Open Meeting Act; including public comment period which is placed on the agenda
• The Chair or a designee (SAC member) appointed by the Chair can run the meeting
• A physical quorum is necessary to conduct business
• Although SAC members may participate by phone; phone participation is not included in the quorum count or a vote
• A quorum is defined as a majority of the members appointed and serving
• If a quorum of the SAC members is present at any gathering, this becomes a public meeting
• Final recommendations are made by the SAC to the CON Commission. The SAC presents a written report and/or final draft language.
CON Commission Action

• Commission receives final report of the SAC

• Determines what proposed action will be taken based upon SAC recommendations
Legislative Oversight of Proposed Changes to CON Standards

- Any potential changes to existing standards are required to be reviewed by the Joint Legislative Committee (JLC).
- The JLC includes the chairs of the health policy committees from both the Senate and the House of Representatives.
- After the CON Commission has taken proposed action and no less than 30 days prior to the Commission taking final action, a Public Hearing is conducted by the Commission.
- Notice of the proposed action, along with a brief summary of the impact of any changes, is provided and sent to the JLC for its review.
…..Legislative Oversight Continued

• Upon the Commission taking final action, the JLC and the Governor are provided notice of the proposed final action as well as a brief summary of the impact of any changes that have been proposed by the CON Commission

• The JLC and Governor have a 45-day review period to disapprove the proposed final action. Such 45-day review period shall commence on a legislative session day and must include 9 legislative session days.

• If the proposed final action is not disapproved, then it becomes effective upon the expiration of the 45-day review period or on a later date specified in the proposed final action.
Acute Care Bed Need Methodology

concepts, principles, and next steps

Joe Messina, Ashton Shortridge, and Paul Delamater
Department of Geography
Michigan State University
Outline

- Conceptual model
- (Relatively) current bed demand
- Factors driving change
- Elements of good demand models
- Bed need
- Facility Subareas (FSA)
Conceptual Model of Bed Need

- **Unit is the Bed Day**
- **Demand** for bed days arises out of communities
- **Hospitals provide a Supply of bed days**
  - Number of beds * 365
Demand Side

- Level of Need for bed days associated with characteristics of the community
  - Total population
  - Overall health
  - Age and Sex
- To the extent that these remain constant, future Bed Need is predictable based on past Bed Need
Supply Side

- Allocation – demand assignment
- Current allocation method
  - Past utilization patterns
  - Groups of hospitals (FSAs)
- Allocation alternatives
  - Closest available facility
  - Individual hospitals
- Goal is to identify facilities, or facility proposals, that will meet demand
Factors Driving Change

• Characteristics of the population
  • Number of people
  • Demographics
  • Use patterns

• Characteristics of the medical system
  • Services offered
  • Technological advances
Population change in Michigan, 2000 to 2010

Data sources: US Census 2000 & 2010 population

**Raw counts**

**Percent**

**Population change 2006 to 2010**
- 50000 - 52659
- 10000 - 50000
- 0 - 10000
- -10000 - 0
- -50000 - -10000
- -100000 - -50000
- -240590 - -100000

**Percent change based on 2010 pop.**
- 10% - 14%
- 5% - 10%
- 0% - 5%
- -2.5% - 0%
- -5% - -2.5%
- -10% - -5%
- -14% - -10%
Principles of Good Demand Modeling

- Estimated bed demand must be robust
  - Not sensitive to small numbers
- Estimated bed demand must be accurate
  - Effectively capture variation in time, space, and population subgroup
- Estimated bed demand must be actionable
  - Useful for decision makers to employ
Current State of Supply, Demand, and Use Patterns

• Visualizing current and projected patterns of hospital utilization within the state
  – Maps at county level of aggregation

• Variety of metrics
  – Current supply and demand
  – Projected supply and demand
  – Patient use patterns
Beds and Demand by County

Data sources: 2010 bed inventory and 2009 MIDB

Bed inventory

Daily Census

Licensed beds within county bounds:
- 1501 - 5932
- 501 - 1500
- 251 - 500
- 101 - 250
- 51 - 100
- 26 - 50
- 1 - 25
- 0

Daily Census of county residents:
- 1501 - 4094
- 501 - 1500
- 251 - 500
- 101 - 250
- 51 - 100
- 26 - 50
- 2 - 25
Current Supply and Demand, Projected Demand

Data sources: 2010 bed inventory, 2009 MIDB, 2011 projected bed need (from 2006 MIDB)

2009 Daily Census

2011 Projected Daily Census

2010 Beds - 2009 DC within county bounds
- 500 - 2275
- 50 - 500
- 0 - 50
- -10 - 0
- -50 - -10
- -100 - -50
- -285 - -100

2010 Beds - 2011 DC within county bounds
- 500 - 2397
- 50 - 500
- 0 - 50
- -10 - 0
- -50 - -10
- -100 - -50
- -212 - -100
Patient Utilization Patterns: Out of County Use

Data source: 2006 MIDB

Patient residence

Percent of patient days to out of county hospitals
- 75% - 100%
- 50% - 75%
- 32.7% - 50%
State mean: 32.7%
- 20% - 32.7%
- 10% - 20%
- 5% - 10%

Hospital location

Percent of patient days by out of county patients
- 60% - 72.7%
- 50% - 60%
- 32.8% - 50%
State mean: 32.8%
- 20% - 32.7%
- 10% - 20%
- 0% - 10%
- No hospital
Current Bed Need Approach

- Geographic Unit: ZIP code
- Demographic unit: Age/Gender subgroups
- Allocation Unit: FSA
- Temporal unit: Annual (Base + Planning Year)

Demand:
- Base Y bed days/population x Plan Y population

Allocation:
- Base Y FSA Use Rate x Plan Y Bed Demand

Uncertainty in Current Method
- MI residents who travel out of state
- Non-linear occupancy rate factor
  - Full capacity is not desirable, occupancy rate varies from 50 – 85%, by bed type
  - Larger ADC = higher rate
- Population Projections at ZIP level
  - Closed-source models and methods
  - Noisy and inaccurate
Bed Need Flow and Inputs

1. Estimate Base Year Demand
2. ID Usage Rates
3. Age/Sex Groupings
4. Population Projections
5. Hospital Subarea (FSA)
6. Geographic Unit
7. Model P.Y. Demand
8. Occupancy Rate Adjustment
9. Assign P.Y. Demand
10. Out of State Adjustment
Population projection error, 2010 : 2011

Data sources: US Census 2010 population and Claritas 2011 population projections
Considerations with Current Bed Need Method

- Utility of facility subareas
- Using base year allocation rates perpetuates old use patterns
- Population projections are always wrong, and are more wrong the smaller the spatial unit of analysis
Options: Bed Need Method

- No change
- Modify current method
  - Geographic units
    - Zip code → County
  - Allocation units
    - FSA → Hospital
- Closest capacitated assignment
  - Method of allocation
    - Base year utilization → Closest hospital
Bed Need Flow and Inputs

- Estimate Base Year Demand
- Age/Sex Groupings
- Geographic Unit
- Hospital Subarea (FSA)
- Population Projections
- Model P.Y. Demand
- Out of State Adjustment
- Occupancy Rate Adjustment
- Assign P.Y. Demand
Bed Need Flow and Inputs: Options

- Estimate Base Year Demand
- Age/Sex Groupings
- Geographic Unit
- Hospital Subarea (FSA)
- Population Projections
- Model P.Y. Demand
- Occupancy Rate Adjustment
- Out of State Adjustment
- Assign P.Y. Demand
Considering Supply

• Rethinking FSAs
• (Largely) nested in Health Service Areas
  • 68 FSAs - 3 FSAs cross HSAs
• Current method uses algorithm by Thomas et al. (1978)
  – Two step process
    • create groups via a home area algorithm
    • groups are modified by an expert panel
  – Not tied to an explicit “container”
Current FSA Designation Method: Max Relevance Algorithm

1. Define home areas
2. Hospital utilization
3. Calculate relevance values
4. Identify lowest overall relevance
5. Group with highest relevance
6. Output groups (to panel)
7. Population data

YES

NO
Home Area Definition in Max Relevance Method

Mclaren Regional Medical Center

- Percent of total zip code patients
  - 40% - 52.8%
  - 25% - 40%
  - 12.5% - 25%
  - 5% - 12.5%
  - 2.6% - 5%

Genesys Regional Medical Center

- Percent of total zip code patients
  - 40% - 61%
  - 25% - 40%
  - 12.5% - 25%
  - 5% - 12.5%
  - 2% - 5%
Considerations with Current FSA Designation Method

• Many current FSAs are based on utilization data from the mid-late 1970s

• Method is difficult to implement
  – Interpretation of steps
  – Some hospitals cannot be grouped (no home area) (31)
  – Steps to terminate the code are somewhat vague

• FSAs cannot be compared over time
  – Original groups have been modified by expert panel so a rigorous comparison over time is impossible

• FSAs have direct impact on results of Bed Need
For Consideration

• No change. Keep current HSAs and FSAs

• Use more recent data from MIDB to update FSAs using current method

• Modify current method
  • Adjust parameters
  • Account for hospitals that cannot be grouped
  • More clear termination guidelines

• An example: K-means clustering of hospitals
  • Update both HSAs and FSAs (or, only FSAs)
  • Can be extended to create geographic areas defining each new FSA.

• Areas of similar use are grouped, then hospitals inside areal boundaries are grouped
Recap

- Conceptual model of bed need
- Factors driving change in Michigan
- Model Design
- Bed Need
- Facility Subareas

Questions?
HOSPITAL BED STANDARDS

STANDARD ADVISORY COMMITTEE (SAC) DRAFT CHARGE

Approved by the CON Commission Chairperson and Vice-Chairperson as Delegated by the CON Commission on January 26, 2011

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7) Consider any necessary technical or other changes e.g., updates or modifications consistent with other CON review standards and the Public Health Code.

02/08/11