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Finger Lakes Health Systems Agency

**FLHSA 2020 Commission**

**May 16, 2008**

STROUDWATER ASSOCIATES

# ***Agenda***

**Remaining Timetable and Process**

**Overview of Process to Develop Recommendations**

**Recap Commission Direction re. Tenets for Setting Bed Need**

**Finalizing the Bed Need**

- **Context & Outlook**
- **Long-term Bed Need Analysis**
- **Current Bed Need Analysis**
- **Beds Needed to Serve Out-of-Area Patients**

**Executive Session**

**Adjourn**

# ***Timetable & Agenda for Remaining 2020 Commission Meetings***

<b>Meeting Date</b>	<b>Meeting Time</b>	<b>Constituency Presentation</b>	<b>Commission Discussions</b>
<b>May 16</b>	<b>7: 30 a.m. 9:30 a.m.</b>	<b>Establish Long and Short Term Bed Need</b>	
<b>May 21</b>	<b>7:30 a.m. 9:30 a.m.</b>	<b>Rural Hospital Task Force and Rural Medical Societies Presentations</b>	<b>Establish Evaluation Criteria and Identify Options for Addressing Bed Need</b>
<b>May 29</b>	<b>6:00 p.m. 9:00 p.m.</b>	<b>2020 Commission Public Hearing</b>	
<b>June 5</b>	<b>4:00 p.m. 8:00 p.m.</b>	<b>1. RBA Presentation 2. Regional Master Facilities Assessment Presentation</b>	<b>Evaluate Options (Application of Criteria)</b>
<b>June 17</b>	<b>4:00 p.m. 8:00 p.m.</b>	<b>Latino &amp; African American Health Coalition/Future Framework</b>	<b>Development of Recommendations</b>
<b>June 24</b>	<b>4:00 p.m. 7:00 p.m.</b>	<b>Development of Recommendations (Cont.)</b>	
<b>June 30</b>	<b>4:00 p.m. 7:00 p.m.</b>	<b>Review of Draft Recommendations/ Final Report Development Process</b>	

# *Framework for Decision Making*

**1. Key Tenets for Setting Bed Need**



**2. Finalize Bed Need [Long-term and Short-term]**



**3. Define Investment Options**



**4. Evaluate Options [Application of Criteria]**



**5. Recommend Option, Including Requirements for Success**

# Tenets for Setting Bed Need

## Proposal

Develop recommendations on today's demonstrated best practices in terms of inpatient hospital utilization.

Base bed need on utilizing rural bed capacity as a resource for addressing Rochester inpatient demand, recognizing that is a "bed is not always a bed."

Project bed need related to patients living outside the 6 county FLHSA region separately from the population-based analysis for the region.

## Commission Direction

➔ Hospital utilization can trend downward in the future, but do not base 2017 projections on existing national best practices.

➔ Some number of low acuity patients now served by the Rochester hospitals can be cared for by the Central Finger Lakes hospitals in the future.

➔ *Not Addressed in last meeting. Assumes that care to patients seeking highly specialized care (high tech, high acuity care) living outside the 6-county FLHSA region will be encouraged and reflected as a component of overall bed need.*

## *Overview of Decision Process*

1. *Key Tenets for Setting Bed Need*



2. ***Finalize Bed Need [Long-term and Short-term]***



3. *Define Investment Options*



4. *Evaluate Options [Application of Criteria]*



5. *Recommend Option, Including Requirements for Success*

# ***Context for Establishing Bed Need***

***Begin with the end in mind.  
Stephen Covey***

**The art of the long view...**

**The long-term bed need provides an important context for considering potential near-term investments.**

# Directional Outlook for Long-term Bed Need

Consistent with industry analysis, the Bed Need Task Force concluded that the confluence of common factors has a downward impact on the use of acute care beds.

Factors Having an Impact on Acute Bed Need

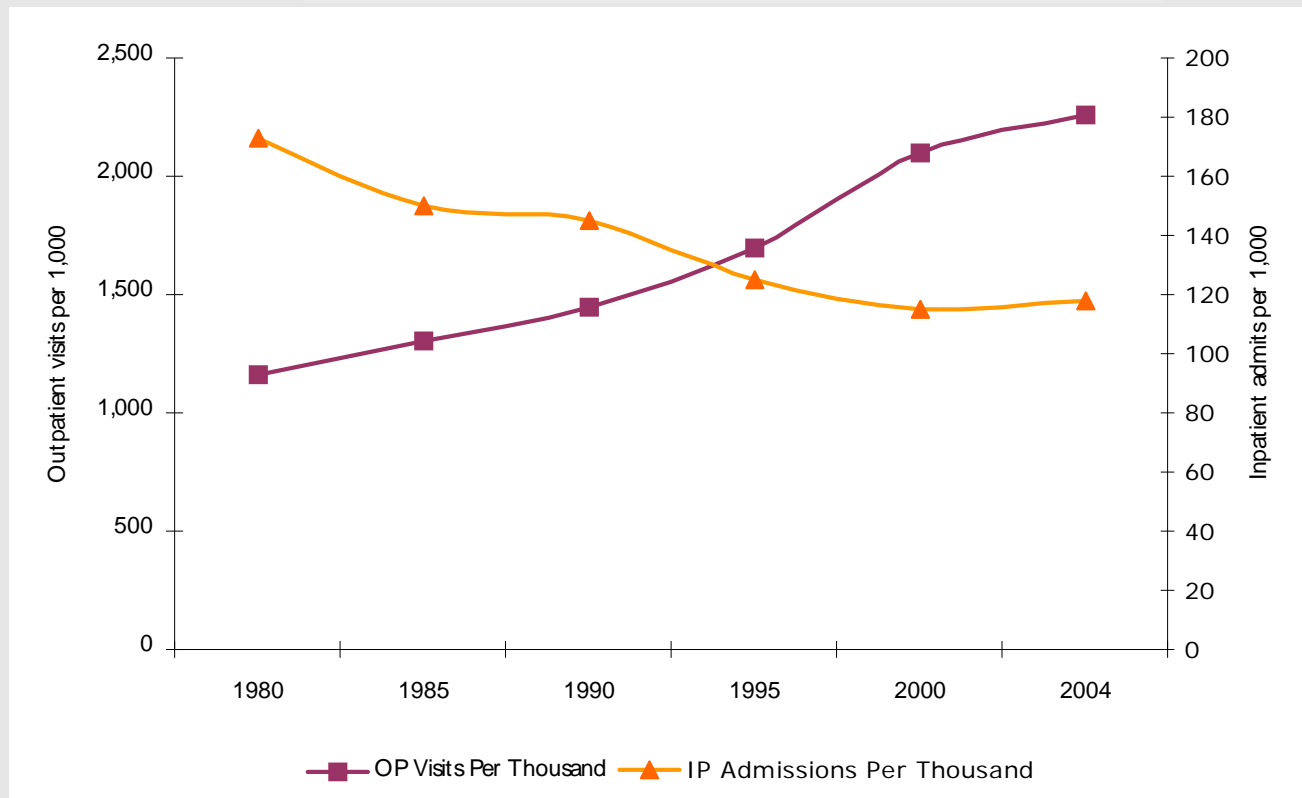
Factor	Impact on Discharges	Impact on LOS	Impact on PT Days	Impact on Bed Need
Occupancy Rate	—	—	—	↓↑
IT	↓	↓	↓	↓
Med Tech	↓↑	↑↓	↓	↓
Aging	↑	↑	↑	↑
23 <sup>rd</sup> Stay/Ob/s/ Boarders	Inpatient ↓	↓	↓	↓↑
Migration	↑↓	—	↑↓	↑↓
Surge Capacity	—	—	—	↑
LTC Opportunities	—	↓	↓	↓
LTACH	—	↓	↓	↓

Source: Acute Bed Need Task Force Final Report, Figure 16

# Directional Outlook for Long-term Bed Need

## Historical impact of factors

### Inpatient vs. Outpatient Hospital Use Rates



Source: Health, United States, 2006 – US Dept of Health and Human Services

# *Long-Term Bed Need Analysis*

## **2017 BED NEED**

# Bed Need Analysis to 2017

## Differences in Methodologies

Variable	Bed Need Task Force	2020 Commission
Bed Need Formula	Same	Same
Time Frame	2015	2017
<b>Discharge Rates</b>	Held Constant	Frequency Distribution
<b>Length of Stay</b>	0.6 day Decline in Monroe Co. by 2015	Frequency Distribution
<b>Modernization to Private Rooms</b>	Not Addressed	Impact on LOS Assumed
<b>Demand Shift to Rural Hospitals</b>	Not Addressed	Addressed
<b>Long Term Care Resources</b>	Not Addressed	Addressed
<b>Medical Technology</b>	Not Addressed	Addressed
Patients From Outside the Region	Incorporated into local population-based bed need	Bed requirements addressed separately

**Red Represents:**  
**Issues referred to 2020 Commission by the Bed Need Task Force**

# Bed Need Analysis to 2017

## Approach & Assumptions

- 1. Includes only medical/surgical (including observation beds), Pediatric, ICU, and Rehabilitation beds.**
- 2. Identified expected occupancy by using the projected range of patient days for the year 2017 (i.e., highest number, lowest number, mean value)**
  - By month**
  - For each individual hospital**
  - For each bed type within each hospital**
  - Ran the resulting values interactively through 10,000 simulations.**

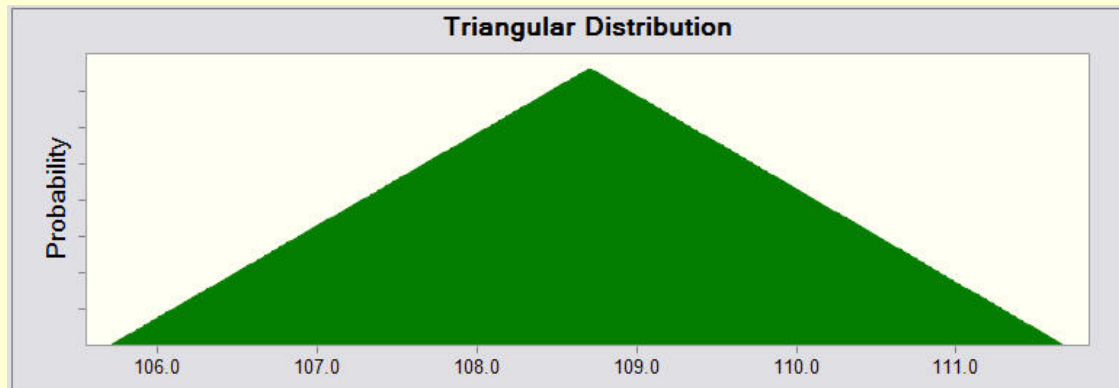
# Bed Need Analysis to 2017

## Approach & Assumptions (cont'd.)

3. Applied probability distributions to range assumptions regarding inpatient discharge rates, lengths of stay, and rural shift.

- **2017: Assumed discharge rate changes will decline between 0 and 6 discharges/1,000 population using a triangular distribution. (Current = 111.7 Best Practice= 91.9\*)**

Future Use Rate Probability Distribution



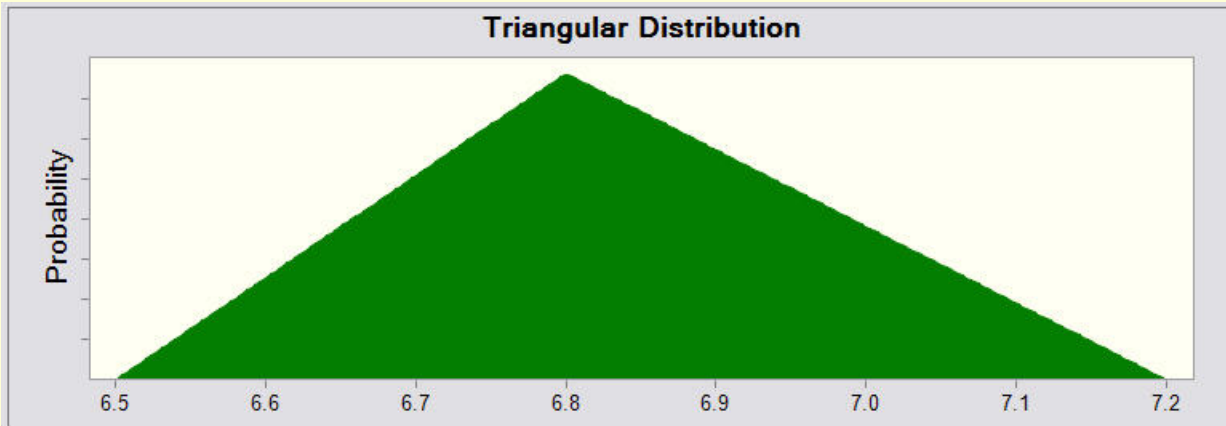
\* Dartmouth Atlas: San Jose adjusted for entire population

# Bed Need Analysis to 2017

## Approach & Assumptions (cont'd.)

- Assumed that length of stay will fall within a range of increasing up to 0.2 days to declining 0.6 days (most likely = decline of 0.2)

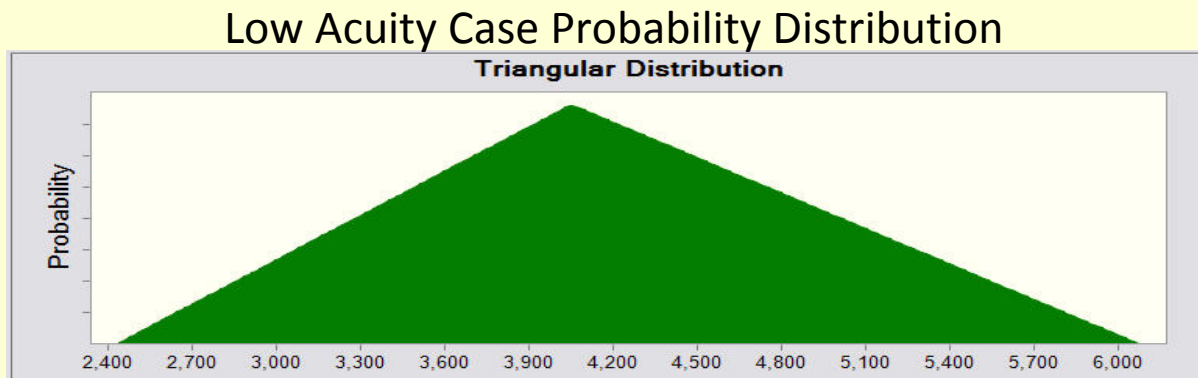
Future Length of Stay Example Probability Distribution



# Bed Need Analysis to 2017

## Approach & Assumptions (cont'd.)

- Assumed the change in the number of low-acuity patients from the five Central Finger Lakes counties seeking care in Rochester (currently 5,030) ranges from an increase to 6,073 to a decrease to 2,429.



# Bed Need Analysis to 2017

## Approach & Assumptions (cont'd.)

### 4. Stratified discharge rates to specific age cohorts:

Rochester Region Use Rates

Age Cohort	Discharges/ 1000 <u>Total</u>
00-17	69.9
18-44	78.2
45-64	98.3
65-69	182.6
70-74	248.7
75-79	314.9
80-84	387.4
85+	458.7
<b>Total</b>	<b>111.7</b>

# **Bed Need Analysis to 2017**

## **Approach & Assumptions (cont'd.)**

- 5. Addressed peak demand by solving to a specific percentage of time (i.e. 95% and 99%) that an incremental bed will be available.**

**Each one percent reduction in bed availability means that no bed available for an additional 3.65 days.**

**To achieve a one percent change in bed availability requires approximately 22 additional beds.**

# **Bed Need Analysis to 2017**

## **Approach & Assumptions (cont'd.)**

### **2020 Commission Policy Question:**

**What percentage of the time should Monroe County hospitals have an additional bed available?**

# Bed Need Analysis to 2017

## Findings

<b>6 County Region</b>	<b>Set-up Beds June 2007</b>	<b>Mean Expected Avg. Daily Census</b>	<b>Bed Need if Bed Available 95% of Time</b>	<b>Bed Need Delta Set-up to 95% of Time</b>	<b>Bed Need if Bed Available 99% of Time</b>	<b>Bed Need Delta Set-up to 99% of Time</b>
<b>Medical/Surgical Total Beds</b>	1,178	986	1,094		1,139	
<b>ICU Total Beds</b>	148	112	147		161	
<b>Pediatric Total Beds</b>	96	63	81		88	
<b>Rehab. Total Beds</b>	20	15	21		24	
<b>Beds for Pts. Outside 6 Co. Region</b>	(included above)	207	255		275	
<b>Total Beds (No LOS or Discharge Rate, or Rural Shift Change)</b>	1,442	1,382	1,597	156	1,686	244
<b>Impact: LOS</b>		(45)	(56)		(60)	
<b>Impact: Discharge Rate</b>		(53)	(65)		(70)	
<b>Impact: Rural Shift</b>		(10)	(16)		(18)	
<b>2017 Total Bed Projection</b>		1,274	1,461	<b>19</b>	1,538	<b>96</b>

# *Bed Need Analysis*

## **CURRENT BED NEED**

# Bed Need Analysis - Current Differences in Methodologies

Variable	Bed Need Task Force	2020 Commission
Occupancy	Solved to targeted occupancy (85%) based upon <u>aggregate annual</u> total patient bed days for all Monroe Co. Hospitals	Solved to beds needed to have one additional bed available x% of time at each hospital and for each individual bed type based upon actual monthly bed days over the course of a year
Projection Method	Based upon yearly average point estimate for bed days for the Monroe Co. region	Created a probability distribution of bed days for each hospital and bed type
Baseline Beds in Service	Total Beds based on FLHSA staff calculations	Total Beds based on June 2007 set-up beds by type

# Bed Need Analysis - Current Approach & Assumptions

1. Addressed medical/surgical (including observation beds), Pediatric, ICU, and Rehabilitation beds only.
2. Identified expected occupancy by using the actual historical range of patient days (i.e. highest number, lowest number, mean value)
  - By month
  - For each individual hospital
  - For each bed type within each hospital
  - Ran the resulting values interactively through 10,000 simulations.
3. Addressed peak demand by solving to a specific percentage of time that an incremental bed will be available.

# Bed Need Analysis

## Current Bed Need

4. Assumed that the 2008 flu season was normal, and not an anomaly.
5. Stratified discharge rates to specific age cohorts:

Rochester Region Use Rates

Age Cohort	Discharges/ 1000 <u>Total</u>
00-17	69.9
18-44	78.2
45-64	98.3
65-69	182.6
70-74	248.7
75-79	314.9
80-84	387.4
85+	458.7
<b>Total</b>	<b>111.7</b>

# Bed Need Analysis

## Current Bed Need

	Set-up Beds June 2007	Mean Expected Avg. Daily Census	Bed Need if Bed Available 95% of Time	Bed Need Delta Set-up to 95% of Time	Bed Need if Bed Available 99% of Time	Bed Need Delta Set-up to 99% of Time
Strong	542	529	594	<b>52</b>	621	<b>79</b>
RGH	434	386	432	<b>(2)</b>	451	<b>17</b>
Unity	187	180	208	<b>21</b>	219	<b>32</b>
Highland	226	182	209	<b>(17)</b>	220	<b>(6)</b>
Lakeside	53	29	41	<b>(12)</b>	45	<b>(8)</b>
Grand Total	1,442	1,307	1,484	<b>42</b>	1,557	<b>115</b>
Med/Surg. Total	1,178	1,090	1,204	<b>26</b>	1,251	<b>73</b>
ICU Total	148	126	163	<b>15</b>	179	<b>31</b>
Pediatric Total	96	72	91	<b>(5)</b>	99	<b>3</b>
Rehab. Total	20	18	25	<b>5</b>	28	<b>8</b>

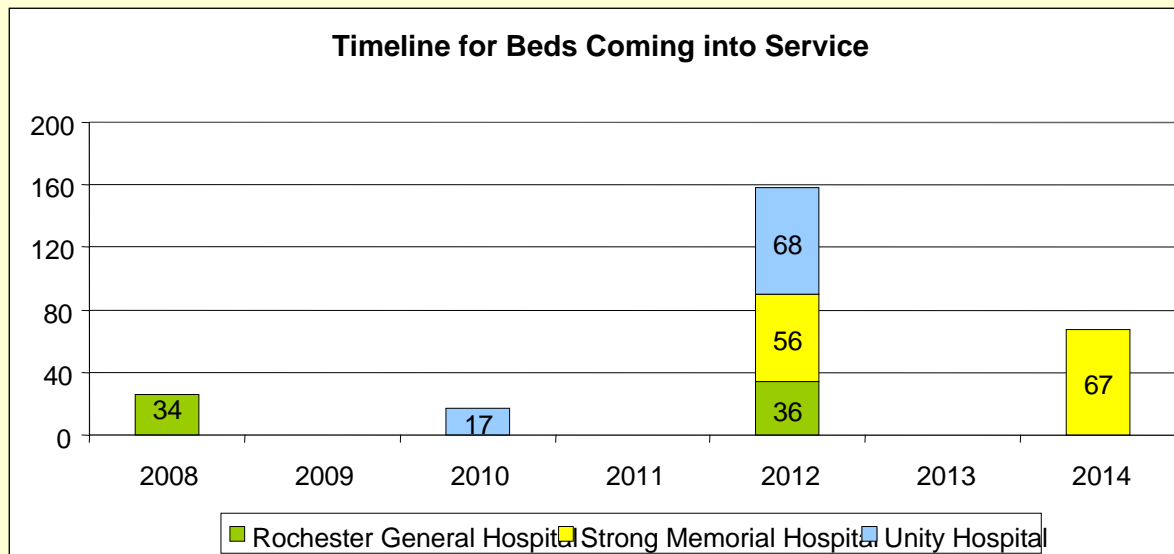
Source: SPARCS Data: 6/06 –5/07

# Bed Need Analysis

## Current Bed Need

### CAVEATS:

1. In the short term (2 years) only 51 incremental beds can be made available based upon current CON applications:



2. Available regional data used in analysis current only up through May, 2007.

# Appendix

## SUPPORTING ASSUMPTIONS

# **Bed Need Analysis**

## **Bed Need to 2017**

### **Discharge Rates**

#### **Context:**

**No “magic bullet” for reducing discharge rates.**

**Requires a Toyota “lean” process of ongoing identification and removal of waste and inefficiencies to improve performance both:**

- Within the walls of the hospitals**
- At the community level**

**Rochester good (top quintile), but has room to improve.**

# Bed Need Analysis

## Bed Need to 2017

### Discharge Rates

#### Context:

**Primary care:** Improving access to primary care is the consensus single biggest opportunity to reduce local demand for hospital emergency and inpatient care based upon interviews. Monroe County has a shortage of over 60+ primary care physicians.

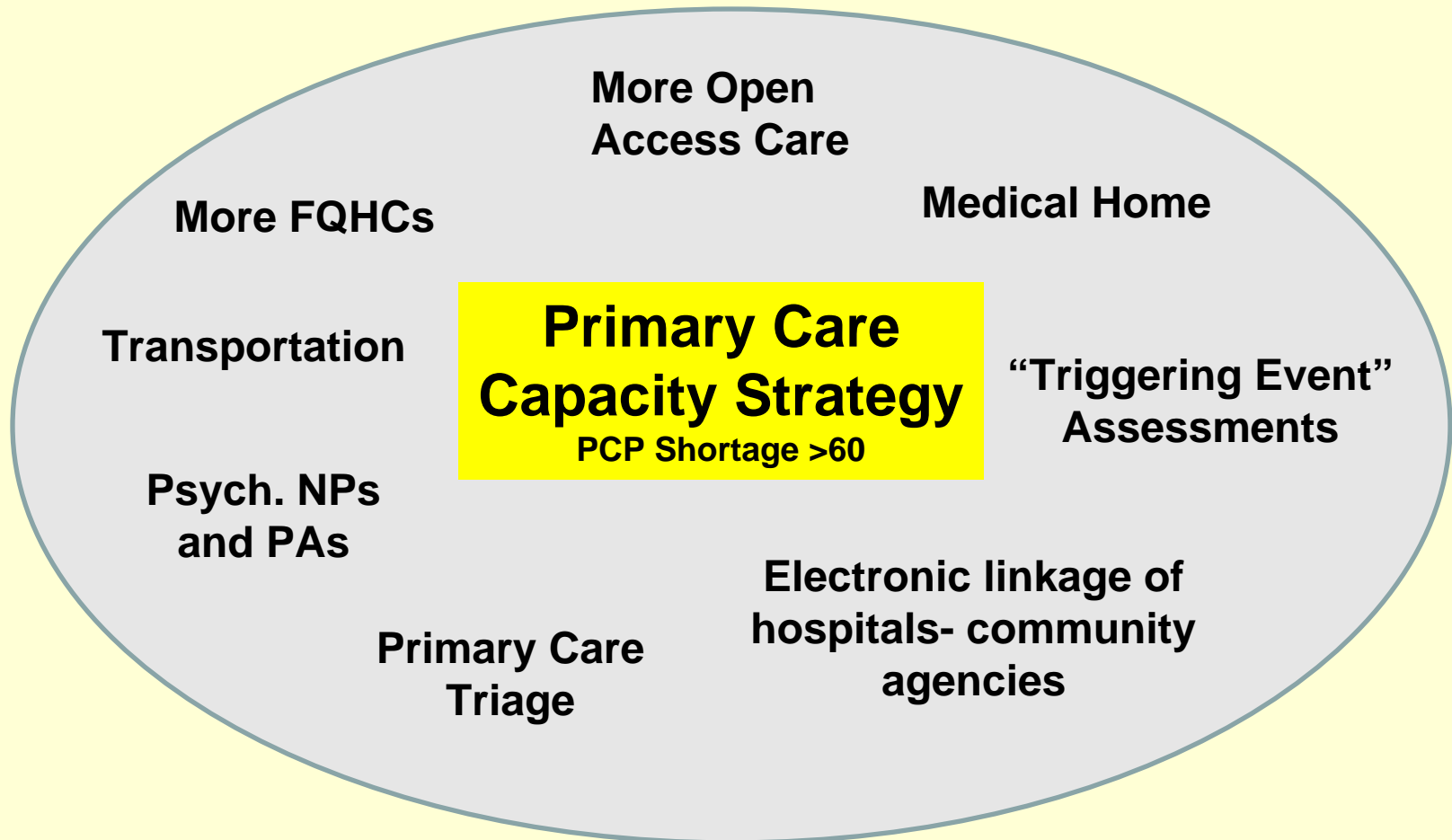
#### **Once patients access the hospital, options narrow:**

**EMTALA:** Any patient presenting at an ED must be provided appropriate medical screening. If the patient has an emergent condition, the hospital is obligated to provide or arrange treatment until the patient is stable.

# Bed Need Analysis

## Bed Need to 2017

Strategies from interviews for reducing discharge rates:



# **Bed Need Analysis**

## **Bed Need to 2017**

### **Length of Stay**

#### **Context:**

**Rochester LOS is above the national average by 0.3 days, but below the NYS average.**

**On a case mix adjusted basis, there is about a 0.6 day difference in ALOS between the lowest (RGH) and highest (Unity)**

**Hospitals are financially rewarded for reducing LOS under case rate payment arrangements.**

# Bed Need Analysis

## Bed Need to 2017

### Length of Stay

#### POTENTIAL FOR REDUCING BARRIERS TO LOWERING LOS

1. Increase in private hospital beds. Research shows:
  - Reductions in LOS
  - Reductions in hospital-based infections
  - Reductions in patient transfers
  - Reductions in falls
  - Increases in average occupancy rates.

# Bed Need Analysis

## Bed Need to 2017

### Length of Stay

#### POTENTIAL FOR REDUCING BARRIERS TO LOWERING LOS

#### 2. Improvement in community-based long term care resources.

- Rochester occupied hospital beds for ALC patients in 50-60 patients/day range.
- Infectious disease, behavioral medicine conditions, ventilator care, and Medicaid eligibility are the major barriers to discharge.
- Last focused study (2004) showed ALOS of 50 days for ALC patients.

# **Bed Need Analysis**

## **Bed Need to 2017**

### **Length of Stay**

#### **POTENTIAL FOR REDUCING BARRIERS TO LOWERING LOS**

#### **Activities that can reduce ALC days in the future**

- **Up to 100 new private long term care beds are targeted for development in Rochester**
- **Regulatory changes under consideration in NYS to enhance Medicaid reimbursement for long term care providers caring for neuro-behavioral patients.**
- **Two new Medicaid teams fielded by Monroe Co. to accelerate Medicaid eligibility**
- **Targeted increase in assisted living capacity in region**
- **Targeted development of LTACH beds**

# **Bed Need Analysis**

## **Bed Need to 2017**

### **Re-directing demand to rural hospitals**

- 1. The 5,030 “low acuity” annual discharges in 2006 from the Central Finger Lakes counties were at a CMI value of 1.4 or below, with a weighted average of 0.89.**
- 2. The rural hospitals are concerned about their future viability if new beds in Monroe County are used to accommodate more referrals from the Central Finger Lakes counties.**

# Bed Need Analysis

## Bed Need to 2017

### Re-directing demand to rural hospitals

**Rural Task Force: preliminarily identified the following barriers to serving more low acuity patients at their institutions:**

- Patient and physician preference
- Availability of physician specialists to perform procedures and care for patients 24/7 at the rural hospitals
- The inability to remotely access consultations supported by integrated electronic records and telemedicine technology
- Financial disincentives for urban hospitals to support managing non-tertiary level patients in the rural hospitals.
- EMS protocols

# Bed Need Analysis

## Bed Need to 2017

### Medical Technology

Among the best meta-studies of the potential impact of technology on the future of how care is delivered was updated by RAND Health in 2008.\* Reviewed neurologic disease, cardiovascular disease, cancer, and aging in terms of:

- ✓ Improved disease prevention [e.g. obesity, diabetes]
- ✓ Improved detection of subclinical disease [e.g. scanning technologies]
- ✓ Treatments for established diseases [e.g. obesity]

\* Rubenstein L, Shekelle P, Stone E, Maglione M, Hirt M, Mojica W, Srikanthan P, Tomizawa T, Morton S, Chao B, Roth E, Breuder T. *Interventions that Increase the Utilization of Medicare-Funded Preventive Services for Persons Age 65 and Older*. Evidence Report prepared for the US Department of Health and Human Services, Health Care Financing Administration “Modeling the Health and Medical Spending of the Future Elderly,” Research Highlights, RAND Health