Using ED and Readmissions Data to Develop Strategies that Reduce Cost and Improve Care
Vision: A local health-care system that makes people healthier and saves money, by delivering the right care, in the right place, and at the right time for everyone in the community.

Mission: We are an independent organization working to improve health care in Rochester and the Finger Lakes region, by analyzing the needs of the community, bringing together stakeholders and organizations to solve health problems, and measuring results.

<table>
<thead>
<tr>
<th>System Performance</th>
<th>Capacity Management</th>
<th>Community Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality and efficiency—Making the best use of health-system resources</td>
<td>Infrastructure optimization—Achieving the right number and type of facilities</td>
<td>Patient responsibility—Educating and engaging consumers to improve their own health and require less care</td>
</tr>
<tr>
<td>The right care.</td>
<td>In the right place.</td>
<td>At the right time.</td>
</tr>
</tbody>
</table>
FLHSA’s Role: Redefining Community Health Planning

- Objective, collaborative and community-oriented
- Design solutions and set priorities
- Move the performance needle
- Report progress
Data Analysis on Hospital Capacity

• Characteristics of High Performing Health Systems
  – Rochester Region Comparisons
  – Use rates

• Impact of utilization drivers on future capacity requirements
  – Population and Demographics

• Disparities
Characteristics of High Performing Health Systems

Coronary Artery Bypass Grafting (CABG) per 1,000 Medicare Enrollees (2005)

Source: Dartmouth Atlas of Health Care, Hospital Referral Regions with Medicare populations between 80,000 and 135,000 (n=58)

<table>
<thead>
<tr>
<th>Rochester HRR</th>
<th>Actual</th>
<th>Percentile</th>
<th>Rank (n of 306)</th>
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<tr>
<td>Rochester Hospital Referral Region</td>
<td>3.9</td>
<td>25</td>
<td>78</td>
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Characteristics of High Performing Health Systems

COPD Discharges per 1,000 Medicare Enrollees (2005)

Source: Dartmouth Atlas of Health Care, Hospital Referral Regions with Medicare populations between 80,000 and 135,000 (n=58)

<table>
<thead>
<tr>
<th>Characteristics of High Performing Health Systems</th>
<th></th>
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<tbody>
<tr>
<td>CA-San Jose:</td>
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<tr>
<td>Rochester HRR</td>
<td>Actual</td>
</tr>
<tr>
<td>Percentile</td>
<td>56</td>
</tr>
<tr>
<td>Rank (n of 306)</td>
<td>171</td>
</tr>
</tbody>
</table>
Characteristics of High Performing Health Systems

Medicare Utilization Profile for HRR Rochester, N.Y. (2005)*

- All Surgical Discharges: 18
- Inpatient CABG: 25
- All Hospital Discharges: 30
- All Medical Discharges: 34
- Inpatient Coronary Angiography: 35
- Bacterial Pneumonia Discharges: 44
- Discharges for CHF: 47
- Discharges for Diabetes: 53
- Discharges for COPD: 56

*Source: Dartmouth Atlas of Health Care
Prevention Quality Indicators

All PQI Hospitalizations – Discharges, 2006

Monroe County Hospitals*

- All Discharges: 106,801
  - PQI Discharges: 9,419 (9% of all discharges)

Patient Days

- Patient Days: 62,595
- Beds: 171.89

Charges (not costs)

- Charges: $133,494,396
- Patient Days: $1,628,488,166

In 2006, preventable hospitalizations filled 172 beds and accounted for 9% of all charges.

*Includes HH, RGH, Unity, SMH, Lakeside

AHRQ Prevention Quality Measures, 2006
African Americans are twice as likely to rate their health as fair or poor than whites.
Disparities

Years of Potential Life Lost (YPLL) by Race/Hispanic Origin, 2004-2006

As a measure of premature mortality or early death, the YPLL data reflect African Americans die at younger ages significantly more than whites and Latinos due to many leading causes of death. YPLL is also a measure of lost productivity or contributions to society, and suggests economic loss as a result of early mortality.

NYS DOH, Vital Statistics Files 2004-2006
The 2020 Capacity Recommendations

- The 140 bed recommendation is based upon anticipated changes in the drivers of inpatient utilization realized through targeted demand management/reduction initiatives:
  - Improvement (reduction) in use rates to move the Rochester region closer to the best practices observed in other, similar regions
    - Impact on 2017 need: -70 beds
  - Improvement (reduction) in average length of stay
    - Impact on 2017 need: -60 beds
  - Improvement (reduction) of in-migration of low acuity cases
    - Impact on 2017 need: -18 beds
  - Total improvement (reduction) due to demand management:
    - Impact on 2017 need: -148 beds
Why This Is Important

If inpatient demand at the three Rochester systems is not able to be reduced, the new capacity recommended by the 2020 Commission and approved by the NYSDOH will be insufficient to meet the needs of the region when it becomes available.
Community Investment Goals

To catalyze change in the regional health care system

• In order to drive these changes, the Commission created specific goals for the community

  – A decrease of 15% in the number of low acuity (non-urgent) visits to emergency rooms

  – A decrease of 25% in the number of admissions for Ambulatory Sensitive Conditions that are manageable in outpatient settings

  – A decrease of 20% in the number of low acuity admissions to Monroe County hospitals of residents from outlying communities
Community Investment Recommendations

*To address the establishment of collaborative initiatives on community-wide issues*

- Understanding that such changes are not under the control of any one institution or stakeholder group, the Commission recommended collaborative approaches to achieving the community goals
  - Hospitals, payers and other community stakeholders will develop and initiate processes and programs in response to the goals
  - Resources will be obtained commensurate with the scope of the initiatives related to these recommendations to ensure their long-term success
  - Community stakeholders will engage collaboratively to address community-wide issues
Reducing Avoidable Admissions

• PQI – Prevention Quality Indicators – The condition causing the admission is sensitive to the ambulatory care provided (i.e., the hospitalization is potentially avoidable)

• Scope (yearly average)
  – 2004-2006 – 15,689 PQI discharges (12.7%)
  – 2004-2006 - 86,198 PQI hospital days
  – 2004-2006 - 295 hospital beds in region filled with PQI admit
  – 2004-2006 - Hospital charges for PQI admits - $157 million

TARGET – Eliminate 3,922 PQI Admissions by 2014
Reducing Avoidable Admissions: Insurance status as a variable

All PQI Hospitalizations by Insurer, 6-County Finger Lakes Region, 2004-06

Data Source: NYS Dept of Health, SPARCS
Reducing Avoidable Admissions: Geography as a variable

Prevention Quality Indicator (Adults) 2004-2006 Hospitalizations per 100,000 by Zip Code

Prevention Quality Indicator 2004-2006 Hospitalizations
- 2,790 to 6,420 (Worst)
- 1,790 to 2,790
- 1,290 to 1,790
- 750 to 1,290
- 0 to 750 (Best)

*The measures that can be used with hospital inpatient discharge data to identify “ambulatory care sensitive conditions” (ACSCs). ACSCs are conditions for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease. Even though these indicators are based on hospital inpatient data, they provide insight into the quality of [and access to] the health care system outside the hospital setting. Although other factors outside the direct control of the health care system, such as lack of patient adherence to treatment recommendations, can result in hospitalization, the PQIs provide a good starting point for assessing quality of health services in the community.* (AHRC Guide to Prevention Quality Indicators version 3.1, March 2007)

Rates are age-adjusted
Data Source: NYS DOH SPARCS files
Reducing Avoidable Admissions:
Age as a variable

Adult PQI Rates Finger Lakes Region
2004-06 Average by Age Group

Hospitalizations /
100,000 18 & older

Data Source: NYS Dept of Health, SPARCS files
Reducing Avoidable Admissions:
Ethnicity as a variable

Adult PQI Rates Finger Lakes Region
3 Year Averages by Race/Ethnicity

Rates are age-sex adjusted to 2000 U.S. standard population 18 & older
Data Source: NYS Dept of Health, SPARCS files
Reducing Avoidable Admissions: SES as a variable

Adult PQI Rates Finger Lakes Region
2004-06 by Socio-Economic Status

Rates are age-sex adjusted to 2000 U.S. standard population 18 & older
Data Source: NYS Dept of Health, SPARCS files
Reducing Avoidable Admissions:
Having a doctor as a Variable

- Access as a variable
  - 18% of Latinos do not have access
  - 15% of African Americans do not have access
  - 6% of Caucasians do not have access

Monroe County Adult Health Survey, 2006 (N=2,545)
Reducing Avoidable Admissions: Disease Condition as a Variable

<table>
<thead>
<tr>
<th>Condition</th>
<th>Hospitalizations per 100,000 population, age adjusted</th>
<th>Percent of All PQI Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory Conditions</td>
<td>657.7 (&lt;US)</td>
<td>43%</td>
</tr>
<tr>
<td>Heart Conditions</td>
<td>439.3 (&lt;US)</td>
<td>29%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>153.7 (&lt;US)</td>
<td>10%</td>
</tr>
<tr>
<td>Pediatric Asthma</td>
<td>81.5</td>
<td>31%</td>
</tr>
<tr>
<td>Other</td>
<td>278.0</td>
<td>18%</td>
</tr>
<tr>
<td>All Adult PQIs</td>
<td>1,528.7 (&lt;US)</td>
<td>100%</td>
</tr>
</tbody>
</table>
# PQI Discharges Volumes: Race/Ethnicity as a Variable

## 6 Counties

<table>
<thead>
<tr>
<th>Condition</th>
<th>Total</th>
<th>AA/NL</th>
<th>L</th>
<th>W/NL</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
</tr>
<tr>
<td>Respiratory PQI</td>
<td>4,660</td>
<td>518</td>
<td>11%</td>
<td>422</td>
</tr>
<tr>
<td>Circulatory PQI</td>
<td>3,570</td>
<td>532</td>
<td>15%</td>
<td>360</td>
</tr>
<tr>
<td>Diabetes PQI</td>
<td>1,313</td>
<td>358</td>
<td>27%</td>
<td>188</td>
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</table>

## Monroe County

<table>
<thead>
<tr>
<th>Condition</th>
<th>Total</th>
<th>AA/NL</th>
<th>L</th>
<th>W/NL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
</tr>
<tr>
<td>Respiratory PQI</td>
<td>3,066</td>
<td>472</td>
<td>15%</td>
<td>377</td>
</tr>
<tr>
<td>Circulatory PQI</td>
<td>2,514</td>
<td>515</td>
<td>20%</td>
<td>298</td>
</tr>
<tr>
<td>Diabetes PQI</td>
<td>965</td>
<td>343</td>
<td>36%</td>
<td>147</td>
</tr>
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</table>

## Central Subarea

<table>
<thead>
<tr>
<th>Condition</th>
<th>Total</th>
<th>AA/NL</th>
<th>L</th>
<th>W/NL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
</tr>
<tr>
<td>Respiratory PQI</td>
<td>1,594</td>
<td>46</td>
<td>3%</td>
<td>45</td>
</tr>
<tr>
<td>Circulatory PQI</td>
<td>1,056</td>
<td>17</td>
<td>2%</td>
<td>62</td>
</tr>
<tr>
<td>Diabetes PQI</td>
<td>348</td>
<td>15</td>
<td>4%</td>
<td>41</td>
</tr>
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</table>
PQI Discharges Rates & Ratios: Race/Ethnicity as a Variable

Caution must be used in interpreting rates for Latinos due to small numbers.
## PQI Discharges Volumes: SES as a Variable

<table>
<thead>
<tr>
<th>6 Counties</th>
<th>Total</th>
<th>1-2 High</th>
<th>4-5 Low</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>Respiratory PQI</td>
<td>4,432</td>
<td>1,500</td>
<td>34%</td>
</tr>
<tr>
<td>Circulatory PQI</td>
<td>3,434</td>
<td>1,218</td>
<td>35%</td>
</tr>
<tr>
<td>Diabetes PQI</td>
<td>1,280</td>
<td>330</td>
<td>26%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Monroe County</th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>1-2 High</td>
<td>4-5 Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>Respiratory PQI</td>
<td>3,050</td>
<td>1,414</td>
<td>46%</td>
<td>1,213</td>
<td>40%</td>
</tr>
<tr>
<td>Circulatory PQI</td>
<td>2,528</td>
<td>1,176</td>
<td>47%</td>
<td>1,034</td>
<td>41%</td>
</tr>
<tr>
<td>Diabetes PQI</td>
<td>975</td>
<td>308</td>
<td>32%</td>
<td>559</td>
<td>57%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Central Subarea</th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>1-2 High</td>
<td>4-5 Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>Respiratory PQI</td>
<td>1,382</td>
<td>86</td>
<td>6%</td>
<td>676</td>
<td>49%</td>
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<tr>
<td>Circulatory PQI</td>
<td>906</td>
<td>42</td>
<td>5%</td>
<td>487</td>
<td>54%</td>
</tr>
<tr>
<td>Diabetes PQI</td>
<td>305</td>
<td>22</td>
<td>7%</td>
<td>140</td>
<td>46%</td>
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</tbody>
</table>
PQI Discharges Rates & Ratios:
SES as a Variable

PQI Rates & Ratios by SES,
6 County Finger Lakes Region, 2007

Rate ratios compared to High

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency
### PQI-Related Patient Days and Beds

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<tr>
<th></th>
<th>6 Counties</th>
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<th>Monroe County</th>
<th></th>
<th></th>
<th>Central Subarea</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Days</td>
<td>Beds</td>
<td>Days</td>
<td>Beds</td>
<td>Days</td>
<td>Beds</td>
<td></td>
<td>Beds</td>
</tr>
<tr>
<td>Respiratory PQI</td>
<td>25,473</td>
<td>70</td>
<td>17,091</td>
<td>47</td>
<td>8,382</td>
<td>23</td>
<td></td>
<td></td>
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<tr>
<td>Circulatory PQI</td>
<td>19,784</td>
<td>54</td>
<td>14,355</td>
<td>39</td>
<td>5,429</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes PQI</td>
<td>9,950</td>
<td>27</td>
<td>7,862</td>
<td>22</td>
<td>2,088</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55,207</strong></td>
<td><strong>151</strong></td>
<td><strong>39,308</strong></td>
<td><strong>108</strong></td>
<td><strong>15,899</strong></td>
<td><strong>44</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Seeing a PCP After Chronic Disease Discharge

**Target - 90% at 3-5 days**

# days to any PCP office visit involving evaluation and management billing codes for members 18 or older, and the cumulative % of patients discharged with index diagnoses being seen in office

<table>
<thead>
<tr>
<th># of Days Post Discharge</th>
<th>Cumulative % of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COPD</td>
</tr>
<tr>
<td>4</td>
<td>14%</td>
</tr>
<tr>
<td>7</td>
<td>27%</td>
</tr>
<tr>
<td>10</td>
<td>37%</td>
</tr>
<tr>
<td>14</td>
<td>44%</td>
</tr>
<tr>
<td>21</td>
<td>53%</td>
</tr>
<tr>
<td>30</td>
<td>59%</td>
</tr>
</tbody>
</table>

Source: Focused Medical Analytics based on Blue Choice and Blue Choice Senior 2008 data
Conclusions from FLHSA Data

- Patients with PQI admits are generally older and insured
- Rochester’s inner city has significantly higher rates of PQI admits
- African-Americans (1.8) and to a lesser degree Latinos (1.3) experience increased PQI admits
- Lower socioeconomic status is an important contributor (2) to PQI admit
- Reaching the target reduction in PQI admits requires decreasing PQI admits in the white population as well as in underserved minority populations
Conclusions from FLHSA Data

- Diabetes is most influenced by ethnicity and SES
- Respiratory diseases and cardiac diseases are those most responsible for PQI admits
- Interventions effective for all populations but especially effective in older, urban, lower SES, minority populations should be a major focus of our attention
Lessons from National Studies

- Of Medicare patients discharged from a hospital, 19.6% are readmitted by 30 days and 34% at 90 days. 90% viewed as preventable (1)
- 50.2% of those readmitted did not see a physician between discharge and rehospitalization (1)
- Most frequent causes of readmission – heart failure and pneumonia (1)
Lessons from National Studies

- Medicare hospitalization rates, cost of care, and hospital days were inversely correlated to frequency of primary care visits during the last 6 months of life (2)
- More primary care visits were associated with fewer preventable hospitalizations for heart failure and COPD specifically (2)
- Comprehensive discharge planning for elderly with Heart Failure reduced readmission rates by 25% (3)
Lessons from National Studies

- In 2006, only 31.9% of hospitalized patients were seen by a PCP, and only 39.8% seen by any physician that had attended to the patient in the preceding year (4)
- With hospitalist movement growing, the numbers in 2009 are likely much higher
- By incorporating case managers into their practices, Geisinger Health System has reduced readmissions by 20% (Personal Communication – Robert Spahr, MD. Sr. VP-Service Quality)
Conclusions from National Data

- Rehospitalization is the low hanging fruit of PQI hospitalization reduction
- Most admissions are related to cardiovascular and respiratory diseases
- Major factors in reducing Medicare re-hospitalizations are:
  - Having a primary care practitioner
  - Seeing that practitioner often post discharge
  - Having a team to coordinate/case manage care
Reducing PQI Admissions: Potential Interventions

Patient Admitted with PQI Diagnosis

Improved Hospital Discharge Planning
- Hospital-administered
- Includes med reconciliation, condition-specific education, enhanced d/c planning, phone follow-up

Coaching Patients to be More Engaged
- “Improving Transitions in Care” Program, Eric Coleman, MD (3)
- Can be funded by community effort
- Involves pt/family activation using coaching rather than case management
- Can be delivered across hospital settings

Reduced Readmissions

Earlier return to treating physician, more engaged patient/family, improved access to practitioners, adherence to evidence-based guideline-directed care

Providing Practice-Based Case Management
- Health plan funded
- Embedded case managers (CM) in primary care practices
- 1 CM/700-800 Medicare pts; 15-20% high risk pt load
- Personalized link to support svc
- Transitions follow up
- Direct phone line access to CM

Can be funded by community effort

Can be delivered across hospital settings

Involves pt/family activation using coaching rather than case management

Earlier return to treating physician, more engaged patient/family, improved access to practitioners, adherence to evidence-based guideline-directed care

Reduced Readmissions

Can be delivered across hospital settings

Can be delivered across hospital settings
Reduce Potentially Preventable Hospitalizations

Three Initiatives

Transitions Coaching

Embedded Care Managers

Discharge Planning

Reduce readmissions and avoidable ED visits

Reduce preventable hospitalizations by 25% by 2014
Care Transitions Program℠ Description

• A four week program in which patients with complex care needs and family caregivers receive specific tools and work with a “Transitions Coach™” to learn self-management skills.
• This program has four conceptual domains, or “Pillars.”
• Contact between the coach and the patient occurs in three ways:
  1. The first patient visit in the hospital before discharge
  2. One follow-up home (or SNF) visits (ideally 24-48 hours post-discharge)
  3. Three follow-up phone calls (ideally at 2, 7, and 14 days post-discharge)
     – Each visit and phone call has a specific goal that includes addressing the unique needs / goals of the patient
Progress to Date

• Training Learning Collaborative – Training for 14 coaches September 2010 - Excellus sponsored

• Funding – Excellus, MVP and Monroe Plan begin reimbursing for coaching services October 2010

• Coaches Deployment – November 2010

• Learning Collaborative to continue training – FLHSA December 2010

• Funding – HEAL grant to begin reimbursing for coaching services to non-covered patients Dependent on state release of funding
## PQI Aggregate Coaching Data

<table>
<thead>
<tr>
<th>Measure</th>
<th>Oct – Dec 2010</th>
<th>Jan – Feb 2011**</th>
<th>Totals to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients agreeing to coaching in hosp</td>
<td>219</td>
<td>234</td>
<td>453</td>
</tr>
<tr>
<td>Patients who Accepted Coaching (Patients seen at home)</td>
<td>130</td>
<td>128</td>
<td>258</td>
</tr>
<tr>
<td>Acceptance rate</td>
<td>59%</td>
<td>55%</td>
<td>57%</td>
</tr>
<tr>
<td># completing program</td>
<td>104</td>
<td>77</td>
<td>181</td>
</tr>
<tr>
<td>% completing</td>
<td>80%</td>
<td>60%</td>
<td>70%</td>
</tr>
<tr>
<td># readmitted to hospital in 30d*</td>
<td>15</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>% readmitted in 30 d</td>
<td>14.4</td>
<td>10.5%</td>
<td>12.7%</td>
</tr>
<tr>
<td>#/% T&amp;R from ED in 30 d*</td>
<td>6/6</td>
<td>1/1.3</td>
<td>7/3.9</td>
</tr>
</tbody>
</table>

* - based on coaches knowledge of visits, not health plan data  
** - includes Monroe Plan Data; # completing program, hospitalization and ED data based only on January enrollees
Reduce Potentially Preventable Hospitalizations

Three Initiatives

Transitions Coaching

Embedded Care Managers

Discharge Planning

Reduce readmissions and avoidable ED visits

Reduce preventable hospitalizations by 25% by 2014
The Care Manager

• Works in collaboration with all members of an interdisciplinary team of physicians, hospital discharge planners, RN’s, CSW and coaches to facilitate the effective transition after hospitalization discharge

• Serves as the single point of contact for identified patients with chronic conditions that put them at risk for readmission

• Coordinates services and act as the liaison between the practice and community agencies
Progress To Date:

• Secured funding to pilot 9 Care Managers in PCP Setting
• Projected Hire Date: February 2011
• Confirmed Pilot sites
• Training and Orientation February 2011
• Functions Defined:
  1. Identifying at-risk patients
  2. Interface with medical and social support - community services
  3. Medication reconciliation / management
  4. Self-management skills
  5. Caregiver support and education
  6. Coordination with other providers
Reduce Potentially Preventable Hospitalizations

Three Initiatives

- Transitions Coaching
- Embedded Care Managers
- Discharge Planning

Reduce readmissions and avoidable ED visits

Reduce preventable hospitalizations by 25% by 2014
Four Community Standards for Discharge Planning

Creation of a region-wide set of discharge/transition standards that, when fully implemented, will enhance patient safety and safe transition from hospital to community-based setting and lead to a reduction in the number of avoidable hospital readmissions.
Four Community Standards for Discharge Planning

1. Patient/Family centrality to the discharge planning process
2. Medication reconciliation
3. Information transfer
4. Post-discharge follow up
Progress To Date

- URMC pilot on complex surgical floor
- Unity piloting “teach backs”
- RGH examining readmission circumstances; social, medical, home care plan
- Risk Assessments
- Looking ahead: Transportation, Indigent Medications, Patient liaison and Transition Coaches Implementation and Risk Assessment
Treated & Release (T&R) ED Visits by 6 County Finger Lakes Region* Residents, 2006-07 Avg.

<table>
<thead>
<tr>
<th>Average T&amp;R ED Visits, 6 County Finger Lakes Region, 2006-07</th>
<th>Monroe County</th>
<th>Central Subarea</th>
<th>6 Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults (15+)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avg Annual</td>
<td>150,691</td>
<td>72,327</td>
<td>223,017</td>
</tr>
<tr>
<td>Avg Daily</td>
<td>413</td>
<td>198</td>
<td>611</td>
</tr>
<tr>
<td>Avg per hour</td>
<td>17</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Peak interval</td>
<td>10am-12pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peds (0-14)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avg Annual</td>
<td>31,483</td>
<td>15,454</td>
<td>46,936</td>
</tr>
<tr>
<td>Avg Daily</td>
<td>86</td>
<td>42</td>
<td>129</td>
</tr>
<tr>
<td>Avg per hour</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Peak interval</td>
<td>6pm-8pm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data Source: NYS Dept of Health, SPARCS Files

*The six-county Finger Lakes region comprises Livingston, Monroe, Ontario, Seneca, Wayne, and Yates counties.

- There are two types of ED visits:
  - Treated & Admitted: results in a hospital admission, ~20%
  - Treated & Released: patient is not admitted, ~80%
Adult T&R ED Visit Rates by ZIP Code

ED Visits by ZIP Code
Age 15 and older
2006

Hospitals
- Unity - Park Ridge
- Lakeside Memorial
- Rochester General
- Highland
- Strong Memorial
- Newark Wayne
- Clifton Springs
- F.F. Thompson
- Geneva General
- Soldiers & Sailors
- Nicholas Noyes

ED Visits by ZIP Code
Rate per 1,000 population
- Greater than 300.0
- 225.0 to 300.0
- 150.0 to 225.0
- 70.0 to 150.0
- 0.0 to 70.0

# ED Discharges from Facilities by County
- Monroe = 163,583
- Central Subarea = 120,461
- Livingston = 11,312
- Ontario = 75,426
- Wayne = 24,299
- Yates = 9,424

Source: NYSDOH - SPARCS
ED Visits by ZIP Code
Age 0-14
2006

Ped T&R ED Visit Rates by ZIP Code

Source: NYSDOH - SPARCS
T&R ED Visits – Age as a Variable

Percent Annual Average Treated & Release ED Visits,
6 County Finger Lakes Region, 2006-07

**Adults**
(N=233,017)

- 15 to 24: 20%
- 25 to 44: 35%
- 45 to 64: 25%
- 65 to 74: 5%
- 75 plus: 5%

Data Source: NYS Dept of Health, SPARCS Files

**Peds**
(N=46,936)

- 0-1: 41%
- 2-6: 33%
- 7-14: 26%

Calculations by Finger Lakes Health Systems Agency
T&R ED Visits – Peds by Age

Ped T&R ED Visits by Age, 6 County Finger Lakes Region, 2005-06 Avg

Data Source: NYS Dept of Health, SPARCS Files  Calculations by Finger Lakes Health Systems Agency
T&R ED Visits – Race/Ethnicity as a Variable

Adult & Ped T&R ED Visits by Race/Ethnicity, 6 County Finger Lakes Region, 2005-06 Avg

Data Source: NYS Dept of Health, SPARCS Files  Calculations by Finger Lakes Health Systems Agency

N=263,118
T&R ED Visits – SES as a Variable

Adult & Ped T&R ED Visits by SES, 6 County Finger Lakes Region & Subareas, 2006-07 Avg

Data Source: NYS Dept of Health, SPARCS Files  Calculations by Finger Lakes Health Systems Agency

N=269,953
SES Across the 6 County Finger Lakes Region

Socio-Economic Status by ZIP Code

- 5 - Low SES
- 4
- 3
- 2
- 1 - High SES
Timing of T&R ED Visits: Not Just an After-Hours Problem

% Distribution Adult & Ped T&R Visits/Hour,
6 County Finger Lakes Region, 2006-07

Data Source: NYS Dept of Health, SPARCS Files  Calculations by Finger Lakes Health Systems Agency
T&R ED Visits – Top 20 Reasons for Adults Visiting the ED

- **Respiratory Symptoms** – Respiratory and other chest symptoms (1), Asthma (18)
- **Gastrointestinal Symptoms** – Abdominal and pelvic symptoms (2), Digestive symptoms (17), Gastroenteritis (20)
- **Poorly defined Symptoms** – General symptoms (3)
- **Trauma** – Back pain (4), Head and neck pain (5), hand trauma (6), Open head wounds (7), non-specific injury (8), Sprains and strains (9), ankle and foot (11), leg (13), joint problems (14), General pain syndromes (15), Upper limb (19)
- **Infections** – Urinary (10), Cellulitis (16)
- **Medication and drug related problems** – Medication adverse events (12)
T&R ED Visits – Top 20 Reasons for Peds Visiting the ED

- **Acute infections** – Otitis media (1), upper respiratory infections (2), fever (3), pharyngitis (7), strep throat (14), pneumonia (19)
- **Nausea, diarrhea and abdominal pain** – Gastroenteritis and colitis (4), vomiting (10), other GI/Pelvic symptoms (18)
- **Trauma** - Forehead and eyebrow (5), head (9), face/scalp/neck (11), open wound of head (15), finger (16), ankle/foot (17), lip (20)
- **Asthma/Pulmonary** – Acute asthma (6), croup (12), unspecified asthma (13)
- **Other unknown disease** – (8)
Scope: ED Visits from 6-County Finger Lakes Residents

ED Visits, 6-County Finger Lakes Region, Annual Avg. 2005-06
N= 321,566

- Treated & Admitted: 18% (N=58,449)
- Treated & Released: 82% (N=263,118)

• What proportion of T&R visits were for conditions that might have been prevented or avoided with better access to primary care?
Analytic Tool: NYU ED Algorithm (1)

- **Non-emergent** – Medical care is not required within 12 hours
- **Emergent-primary care treatable** – Treatment is required in 12 hours, but care could have been provided effectively and safely in an ambulatory care setting
- **Emergent-ED care needed: preventable/avoidable** – Immediate care in an ED setting is needed, but the condition could potentially have been prevented or avoided with timely and effective ambulatory care
- **Emergent-ED care needed: not preventable/avoidable** – Immediate care in an ED setting is needed and the condition could not have been prevented or avoided with ambulatory care

Classification of T&R ED Visits w/ the ED Algorithm

Treated & Released, Annual Avg. 2005-06
N= 263,118

Unclassified*
44%
(N= 114,506)

Classified
57%
N= 148,612

Injury 30%
(N=79,786)

Psych 4%
(N=10,419)

Drug/Alcohol 2%
(N=4,433)

Unclassified 8%
(N=19,869)

*The algorithm separates out visits with a primary diagnosis involving mental health, substance abuse, or injury since these conditions are difficult to classify.
Percent of T&R Visits that are Primary Care-Related

Treated & Released, Annual Avg. 2005-06
N= 263,118

Classified by ED Algorithm
57%
N=148,612

Primary-Care Related – Potentially Preventable
45%
(N=117,146)

Emergent – Not Preventable/Avoidable
12%
(N=31,467)

Non-Emergent
19%
(N=50,339)

Emergent/PC Treatable
20%
(N=52,060)

Emergent – Preventable/Avoidable
6%
(N=14,747)

Total Classified Potentially Preventable T&R in 2005-6: 117,146
2014 Target Reduction: 15% = 17,572 visits
### Classified T&R Visits by Demographic Characteristics

<table>
<thead>
<tr>
<th>Percent Distribution of Classified Treat and Release ED Visits, 6 County Finger Lakes Region, Annual Avg 2005-06</th>
<th>Primary Care-Related (N=117,145)</th>
<th>Emergent - ED Care Needed - Not Preventable/ Avoidable (N=31,467)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>69,127</td>
<td>59%</td>
</tr>
<tr>
<td>Male</td>
<td>48,019</td>
<td>41%</td>
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<tr>
<td><strong>Age Groups</strong></td>
<td></td>
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<tr>
<td>0-14</td>
<td>23,007</td>
<td>20%</td>
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<tr>
<td>15-24</td>
<td>20,254</td>
<td>17%</td>
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<tr>
<td>25-44</td>
<td>35,711</td>
<td>30%</td>
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<tr>
<td>45-64</td>
<td>23,291</td>
<td>20%</td>
</tr>
<tr>
<td>65+</td>
<td>14,883</td>
<td>13%</td>
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<tr>
<td><strong>Patient Residence</strong></td>
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<tr>
<td>Monroe County</td>
<td>75,579</td>
<td>65%</td>
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<tr>
<td>Central Subarea</td>
<td>41,568</td>
<td>35%</td>
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<tr>
<td><strong>Race/Ethnicity</strong></td>
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<td></td>
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<tr>
<td>African American/Non-Latino</td>
<td>26,846</td>
<td>23%</td>
</tr>
<tr>
<td>Latino</td>
<td>9,453</td>
<td>8%</td>
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<tr>
<td>White/Non-Latino</td>
<td>76,513</td>
<td>65%</td>
</tr>
<tr>
<td>Other</td>
<td>2,696</td>
<td>2%</td>
</tr>
<tr>
<td>Unknown</td>
<td>1,638</td>
<td>1%</td>
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<tr>
<td><strong>Socioeconomic Index</strong></td>
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<tr>
<td>1 - High</td>
<td>6,945</td>
<td>6%</td>
</tr>
<tr>
<td>2</td>
<td>18,951</td>
<td>16%</td>
</tr>
<tr>
<td>3</td>
<td>30,833</td>
<td>26%</td>
</tr>
<tr>
<td>4</td>
<td>25,174</td>
<td>22%</td>
</tr>
<tr>
<td>5 - Low</td>
<td>34,919</td>
<td>30%</td>
</tr>
</tbody>
</table>

*Source: NYS Department of Health, SPARCS Files*
Reducing Primary Care-Related ED Visits – Insurance Status as a Variable

- ~60% of Treated & Released ED visits were made by 6-County Finger Lakes residents who had private insurance (N=299,648).
- ED use for ambulatory care sensitive conditions did not significantly vary by insurance status.
- Insurance is not the driver in use of the ED for primary care.

Data Source: NYS Dept of Health, SPARCS
Reducing Primary Care-Related ED Visits – Age as a Variable

- Visits from adults 15-44 represent 48% of all primary care-related visits (N=111,929).

Data Source: NYS Dept of Health, SPARCS files

The 6-County Finger Lakes Region comprises Livingston, Monroe, Ontario, Seneca, Wayne, and Yates counties.
Reducing Primary Care-Related ED Visits – Age as a Variable

Classified ED Use Rates by Type of ED Visit by Pediatric Age Groups, 6-County Finger Lakes Region, 2005-06

• On average from 2005-06, visits from children 0-14 represented 20% of all primary care-related visits (N=23,006).

Data Source: NYS Dept of Health, SPARCS files

The 6-County Finger Lakes Region comprises Livingston, Monroe, Ontario, Seneca, Wayne, and Yates counties.
Reducing Primary Care-Related ED Visits – Race/Ethnicity as a Variable

African American/non-Latinos (2.6x) and Latinos (2.0x) are more likely to make primary care-related ED visits than White/non-Latinos.
Reducing Primary Care-Related ED Visits – Socioeconomic Status (SES) as a Variable

- On average from 2005-06, individuals with the lowest SES (5) were almost 5 times as likely to make a primary care-related ED visit than those with the highest SES (1).
Conclusions from FLHSA Compiled Data

• The primary focus to reduce primary care-related ED visits is on patients of lower SES, especially African Americans and Latinos ages 15 to 44, and newborns (ages 0-1).

• The majority of ED visits are made by white, mid- and lower SES individuals. Interventions must target this group as well.

• Insurance status is not the major driver of ED use.

• Peak time for ED visits is afternoon and early evening; times that office practices are or can be “open.”

• Visits are for symptoms and trauma in adults; infections, trauma and symptoms in children.

• We need more local data on reasons why people seek primary care in the ED and potential barriers to receiving care in the schools, physician offices and urgent care centers.
Lessons from National Studies

- Population drivers of ED use include race/ethnicity, low income, fair/poor health, being enrolled in an HMO, and proximity to an ED (2).
- African-Americans, and Medicaid or uninsured patients constitute a disproportionate share of ED visits for ambulatory care sensitive conditions – a trend that does not appear to be explained by either differences in disease prevalence or severity (3).
- Patients were more likely to list medical necessity, convenience, a preference for the ED, and affordability than limitations of insurance as reasons for going to the ED (4).
- Interventions should be multifaceted.
Lessons from National Studies

• Influence of insurance coverage on ED use under debate
  – The rise in ED use appears to be driven by non-poor individuals who have insurance and a usual source of care (5).
  – Uninsured patients are slightly more likely to make non-urgent ED visits than those with private insurance (6).
  – Low-income, uninsured, and Medicaid patients depend more on EDs than people with Medicare or private coverage (7).
  – Available data do not support assumptions that uninsured patients are a primary cause of ED overcrowding, present with less acute conditions than insured patients, or seek ED care primarily for convenience (8).
Issues to Keep in Mind

• The Institute for Healthcare Improvement ED reduction collaborative and the California Quality Collective found patient and physician focus groups to be important ways of understanding reasons for patients preferentially using the ED as a source of urgent care.

• Programs to provide primary care to uninsured using the ED have been successful in reducing ED and hospital use.

• Reducing ED use will influence hospital margins; especially focusing on reducing ED use in those with insurance. We understand this is a complex issue for hospitals.
Reducing Avoidable ED Use Interventions

- Telemed acute visits for children 1-18
- Educational intervention for children 0-1
- Providing Resources for Primary Care moving toward Patient Centered Medical Home model of care
Progress to Date

- Educational tool chosen and practice identified for educational intervention (OB office)
- Telemed expansion already expanded in Rochester school district
- Standardization of telemed coding being implemented
- PCP Resources identified in HEAL funding:
  - Practice consultants
  - IT resources
  - Learning collaborative on care management
A comprehensive long range plan to address the health service needs of the 65 and older population

Create a vision for a local system that makes health care more accessible for older adults, minimizes disparities, and that is financially viable

Address:
- The aging population
- Caregiver decline
- Financial instability
- Workforce shortage
Recommendations

- Increase the array of home and community based services
- Rebalance Long Term Care
- Improve access to care
- Change the current reimbursement system
- Enhance support for “informal” caregivers
- Enhance transportation services to maintain independence
- Expand housing options
- Increase the number of trained workers dedicated to geriatric health and community based services
High Blood Pressure Collaborative

- RBA Healthcare Planning Team desired a project to implement and test “transformed” health care – movement to the Wagner Model
- Partnered with the FLHSA to staff the project
- Convened a multistakeholder coalition of 63 community organizations to direct and champion the efforts in the community
- Has 6 workgroups:
  - Best Practice
  - Behavior Change
  - Measurement
  - Plan Design
  - Communication
  - Community Engagement
Population Segmentation into Stages of Disease*
*arrows indicate desired direction of population shift
# Health Care Transformation

<table>
<thead>
<tr>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILOED EFFORTS BY Stakeholders</td>
<td>INTEGRATION OF CARE</td>
</tr>
<tr>
<td>Care is determined by today’s problem and time available today</td>
<td>Care is determined by a proactive plan to meet health needs, with or without visits</td>
</tr>
<tr>
<td>Quality defined as avoiding “bad” events</td>
<td>Continuous quality improvement incorporated into daily practice</td>
</tr>
<tr>
<td>Care to separate individuals</td>
<td>Population based care</td>
</tr>
<tr>
<td>Rewarded for volume</td>
<td>Rewarded for quality</td>
</tr>
<tr>
<td>Passive patient role</td>
<td>Engaged patients</td>
</tr>
</tbody>
</table>
Consequences of High Blood Pressure:

Initiation of Dialysis
New Renal Dialysis Cases
Monroe Co Residents 18 & Older

Rates are age-sex adjusted to standard 2000 U.S. population distribution: R-squared for trend is .08
Data Source: IPRO/ESRD Network of New York; calculations by FLHSA
New Renal Dialysis Case Rate
Monroe Residents by Age Group

Data Source: IPRO/ESRD Network of New York; calculations by FLHSA
New Renal Dialysis Case Rate Monroe
18 & Older Residents by Race/Ethnicity

New Cases per 100,000

- Black, non-Latino
- Latino
- White, non-Latino

Rates are age-sex adjusted to the 2000 standard U.S. population distribution
Data Source: IPRO/ESRD Network of New York; calculations by FLHSA
New Renal Dialysis Case Rate Monroe
18 & Older by Socio-Economic Status

Rates are age-sex adjusted to the standard 2000 U.S. population distribution
Data Source: IPRO/ESRD Network of New York; calculations by FLHSA
Conclusions: Kidney Failure

• Kidney Failure rates have been constant over the past three years

• The cost of dialysis for a year is $75,000

• The cost to the community for initiation of dialysis yearly is in excess of $21,500,000

• Those at risk of renal failure are:
  - Elderly
  - African-Americans and Latinos
  - The most socially disadvantaged
Consequences of High Blood Pressure:

Stroke
Stroke Hospitalization Rate
Monroe Residents 18 & Older

Rates are age-sex adjusted to 2000 standard U.S. population; R-squared for trend line is .13
Data Source: NYS Department of Health, Inpatient SPARCS files
Stroke Hospitalization Rates
Monroe Co Residents by Age Group

R-squared for 45-64 trend is .01, 65-74 trend .05, 75-84 trend .01, 85+ trend .86
Data Source: NYS Department of Health, Inpatient SPARCS files
Stroke Hospitalization Rate
Monroe Residents by Race/Ethnicity

Rates are age-sex adjusted to the standard 2000 U.S. population distribution
Data Source: NYS Department of Health, Inpatient SPARCS files
Stroke Hospitalization Rates
Monroe Residents by Socio-Econ Status

Socio-economic status is based on ZIP code SES using 2000 Census of Population data
Rates are age-sex adjusted to standard 2000 U.S. population
Data Source: NYS Department of Health, Inpatient SPARCS files
Conclusions: Stroke

- Hospitalization rate for Stroke is unchanged over the past five years

- Those most at risk are:
  - Elderly
  - African-Americans and Latinos (the disparity is increasing)
  - The most socio-economically disadvantaged (the disparity is increasing)
Consequences of High Blood Pressure:

Heart Failure
Heart Failure Hospitalization Rate
Monroe County Residents 18 & Older

Rates are age-sex adjusted to the standard 2000 U.S. population distribution
R-squared trend line .69
Data Source: NYS Department of Health, Inpatient SPARCS files
Heart Failure Hospitalization Rate
Monroe Residents by Race/Ethnicity

Hospitalizations per 100,000

2005 2006 2007 2008 2009 2010 2011 2012 2013

Black, non-Latino Actual
Latino Actual
White, non-Latino Actual

Black, non-Latino Trend
Latino Trend
White, non-Latino Trend

Rates are age-sex adjusted to the standard 2000 U.S. population distribution
R-squared Black, non-Latino .11, R-squared Latino .93, R-squared White, non-Latino .87
Data Source: NYS Department of Health, Inpatient SPARCS files
Heart Failure Hospitalization Rates
Monroe Residents by Socio-Econ Status

Socio-economic status is based on ZIP code SES using 2000 Census of Population data
Data Source: NYS Department of Health, Inpatient SPARCS files
Conclusions: Heart Failure

• Admissions for Heart Failure are remain relatively constant

• Those most at risk are:
  - Elderly
  - African-Americans and Latinos
  - The most socio-economically disadvantaged and the disparity is increasing
Consequences of High Blood Pressure:

Coronary Artery Disease
Coronary Artery Disease Hospitalization Rate
Monroe Residents 18 & Older

Hospitalizations Per 100,000

2005 2006 2007 2008 2009 2010 2011 2012 2013

Actual  Trend

Rates are age-sex adjusted to 2000 standard U.S. population; R-squared for trend line is .93
Data Source: NYS Department of Health, Inpatient SPARCS files
Coronary Artery Disease Hospitalization Rates
Monroe Co Residents by Age Group

- Actual
- Trend Line

Hospitalizations per 100,000

- 45 to 64 Yrs Old
- 65 to 74 Yrs Old
- 75 to 84 Yrs Old
- 85 & Older

R-squared for 45-64 trend is .95, 65-74 trend .94, 75-84 trend .88, 85+ trend .92
Data Source: NYS Department of Health, Inpatient SPARCS files
Coronary Artery Disease Hospitalization Rates
Monroe Residents by Socio-Econ Status

Socio-economic status is based on ZIP code SES using 2000 Census of Population data
R-squared Low SES .72; Moderate SES .94; High SES .95; Rates are age-sex adjusted to standard 2000 U.S. population
Data Source: NYS Department of Health, Inpatient SPARCS files
Conclusions: 
Coronary Artery Disease

• The number of admissions for CAD are falling

• Those most at risk are:
  - Elderly
  - African-Americans and Latinos
Community-wide HBP Registry Data

• Monroe County patients for whom BP data available – 56,864

• Participating Systems:
  - Jordan Health System
  - RGH
  - Unity
  - URMC
  - Westside
Key Facts

- Number of patients reported on - 56,864
  - New patients (<1%) – 458
  - Established patients – 56,406

- % with no BP in last 13 months 10%
- % with BP read in last 13 months 90%

- Patients with BP <140/90 63% (Nt’l avg 56%)
- Patients with BP ≥140/90 37%
Patients with High Blood Pressure Seen in Participating Practices During the Last 3 Years per 1000 Population 18 & Older by ZIP Code
Patients with High Blood Pressure Seen in Participating Practices During the Last 3 Years with Blood Pressure Data in Registry per 1000 Population 18 & Older by ZIP Code
Monroe County Population ≥18
569,120

Monroe County Population ≥18 with High blood pressure diagnosis (30% based on national data) 170,740 est.

Patients ≥18 with Dx HBP seen in participating practices* in past 3 years 97,400

Patients with HBP not seen in participating* practices within past 3 years

Patients with HBP not seen in non-participating practices – no clinical or demographic data
Not Available

Patients with HBP seen in non-participating practices – no clinical or demographic data
Not Available

New patients 1st seen in last 6 months 460

Dx HBP No BP read in 13 months 10% - 5,370

Dx HBP BP read Within 13 months 90% - 51,040

BP < 140/90 Not Available

BP ≥ 140/90 Not Available

Community Engagement
Education & Lifestyle Support

Community Engagement to Find, Educate & Encourage Care

Best Practice to Recruit Practices with EMRs

Measure of Community Engagement Success

Practice Quality Improvement Opportunities

Measure of Best Practice Success
Monroe Co Residents 18 & Older with BP Data in Registry by Selected Characteristics

- New Patients: 458
- Established Patients: 56,406
- Established Patients With one or more Chronic Conditions Noted: 30,152

December 31, 2010 registry as of April 2011
Monroe Residents 18 & Older in HBP Registry by Age Distribution Compared to County Population

December 31, 2010 registry as of April 2011
Monroe Co Residents in HBP Registry Distribution by Socio-Economic Status Compared to County Population

SES is based on Patient ZIP Code SES based on 2000 Census of Population data
December 31, 2010 registry as of April 2011
Monroe Co Residents 18 & Older in HBP Registry
Established Patients Reading & Control Rates by SES

Socio-economic Status

% with No Recorded BP reading in last 13 months
% with BP reading with BP<140/90

SES is based on patient ZIP code SES from the 2000 Census of Population
Dec 31, 2010 registry as of April 2011
Conclusions:

• Aggregated community wide practice reporting represents > 30% of patients with HBP

• New patient measure can serve as an evaluation of community engagement

• Most patients are being seen – those that are not can be viewed as QI Opportunity

• 36% of patients have not reached goal BP and can be viewed as QI opportunity

• Additional practices with EMR should be recruited
Progress to Date

- Practices engaged to provide data and participate with changes in office management of Hypertension
- Community awareness with targeting of minority neighborhoods
  - Church outreach
  - Barbershop screenings
- Communication plan for broad public campaign
- Measures agreed upon with sources identified
- Educational institutions engaged for participation in screenings
- Center for Community Health involved to direct behavior change efforts
The triangle represents our agency’s role as a fulcrum—the point on which a lever pivots—boosting the community’s health by leveraging the strengths of all stakeholders. The fulcrum is also a point of equilibrium, reflecting our ability to balance the needs of consumers, providers and payers on complex health matters. The inner triangle also evokes the Greek letter delta—used in medical and mathematical contexts to represent change—with a forward lean as we work with our community to achieve positive changes in health care.

Give me a lever long enough and a fulcrum on which to place it, and I shall move the world. —Archimedes
Cost distribution of care (Working Americans)

Population Segmentation into Stages of Disease*
*arrows indicate desired direction of population shift

Well

At Risk

Early Disease

Advanced Disease
The Chronic Care Model*

Community Resources and Policies

Health System/Plan
Organization of Health Care

Self-Management Support
Delivery System Design
Decision Support
Clinical Information Systems

Productive Interactions

Informed Activated Patient

Prepared, Proactive Practice Team

Quality and Value Outcomes; ROI; Engaged, Satisfied Participants

*Wagner, E, MacColl Institute
PQI Discharges Volumes: Race/Ethnicity as a Variable

Respiratory, Circulatory, & Diabetes PQI Discharge Volume by Race/Ethnicity, Monroe County, 2007

N=6,917

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency

Respiratory, Circulatory, & Diabetes PQI Discharge Volume by Race/Ethnicity, 6 County Finger Lakes Region, 2007

N=9,951

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency

Respiratory, Circulatory, & Diabetes PQI Discharge Volume by Race/Ethnicity, Central Subarea, 2007

N=3,034

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency
PQI Discharges Volumes: SES as a Variable

Respiratory, Circulatory, & Diabetes PQI Discharge Volume by SES, Monroe County, 2007

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency

Respiratory, Circulatory, & Diabetes PQI Discharge Volume by SES, 6 County Finger Lakes Region, 2007

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency

Respiratory, Circulatory, & Diabetes PQI Discharge Volume by SES, Central Subarea, 2007

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency
Circulatory PQI Rates & Percentages: Age as a Variable
Circulatory PQI Rates & Percentages: Race/Ethnicity as a Variable
Circulatory PQI Rates & Percentages:
SES as a Variable

Graphs showing Circulatory PQI Rates by SES, All Regions, 2007 and Percent Circulatory PQI Cases by SES, All Regions, 2007.

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency
Diabetes PQI Rates & Percentages: Age as a Variable
Diabetes PQI Rates & Percentages: Race/Ethnicity as a Variable
Diabetes PQI Rates & Percentages: SES as a Variable

Diabetes PQI Rates by SES, All Regions, 2007

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency

Percent Diabetes PQI Cases by SES, All Regions, 2007

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency
Respiratory PQI Rates & Percentages:
Age as a Variable
Respiratory PQI Rates & Percentages: Race/Ethnicity as a Variable

Respiratory PQI Rates by Race/Ethnicity, All Regions, 2007

Includes rates for chronic obstructive pulmonary disease (COPD) and asthma.

Data Source: NYS Department of Health, SPARCS Files Calculations by Finger Lakes Health Systems

Percent Respiratory PQI Cases by Race/Ethnicity, All Regions, 2007

Includes rates for chronic obstructive pulmonary disease (COPD) and asthma.

Data Source: NYS Department of Health, SPARCS Files Calculations by Finger Lakes Health Systems Agency
Respiratory PQI Rates & Percentages: SES as a Variable

Respiratory PQI Rates by SES, All Regions, 2007

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency

Percent Respiratory PQI Cases by SES, All Regions, 2007

Data Source: NYS Department of Health, SPARCS Files
Calculations by Finger Lakes Health Systems Agency
Reducing PQI Admissions - Intervention

- It’s all about improving chronic disease management and care transitions.
- The low-hanging fruit is reducing readmission by improving care transitions for Medicare patients with heart disease, respiratory disease and diabetes.
- Three types of interventions have come to the fore.
Reducing PQI Admissions: Potential Interventions

Patient Admitted with PQI Diagnosis

Improved Hospital Discharge Planning
- Hospital-administered
- Includes med reconciliation, condition-specific education, enhanced d/c planning, phone follow-up

Coaching Patients to be More Engaged
- “Improving Transitions in Care” Program, Eric Coleman, MD (3)
- Can be funded by community effort
- Involves pt/family activation using coaching rather than case management
- Can be delivered across hospital settings

Providing Practice-Based Case Management
- Health plan funded
- Embedded case managers (CM) in primary care practices
- 1 CM/700-800 Medicare pts; 15-20% high risk pt load
- Personalized link to support svc
- Transitions follow up
- Direct phone line access to CM

Earlier return to treating physician, more engaged patient/family, improved access to practitioners, adherence to evidence-based guideline-directed care

Reduced Readmissions
Reduce Potentially Preventable Hospitalizations

Three Initiatives

- Transitions Coaching
- Embedded Care Managers
- Discharge Planning

Reduce readmissions and avoidable ED visits

Reduce preventable hospitalizations by 25% by 2014
Why patient coaching?

The Chronic Care Model

Community
Resources and Policies

Health System/Plan
Organization of Health Care

Self-Management Support
Delivery System Design
Decision Support
Clinical Information Systems

Informed, Activated Patient

Productive Interactions

Quality and Value Outcomes; ROI; Engaged, Satisfied Participants

Prepared, Proactive Practice Team

Wagner, E, MacColl Institute
Care Transitions Program℠ Description

- A four week program in which patients with complex care needs and family caregivers receive specific tools and work with a “Transitions Coach™” to learn self-management skills.
- This program has four conceptual domains, or “Pillars.”
- Contact between the coach and the patient occurs in three ways:
  1. The first patient visit in the hospital before discharge
  2. One follow-up home (or SNF) visits (ideally 24-48 hours post-discharge)
  3. Three follow-up phone calls (ideally at 2, 7, and 14 days post-discharge)
     - Each visit and phone call has a specific goal that includes addressing the unique needs / goals of the patient
The implementation of the Coaching Transitions ProgramSM comprises four distinct components:

- Acquiring funding for the project
- Training patient coaches founding a community-wide learning collaborative
- Staffing the organization and operations of the learning collaborative and engaging with member organizations to integrate Coaching Transitions ProgramSM into their work
- Evaluation of the effects of coaching across the community (e.g., readmission rates), quality of coaches, and success of the collaborative
Evaluation Measures

• Care Transitions Measure (CTM-3)$^{1,2}$
• Patient Activation Assessment (PAA)
• Hospital PQI Readmission & ED visit data
  – Baseline
  – Post intervention
• Risk stratification
  – Age
  – Race/Ethnicity
  – ZIP code
  – Discharge diagnosis
  – Status post-discharge (destination post-hospitalization)
Progress to Date

• Training Learning Collaborative – Training for 14 coaches September 2010 - Excellus sponsored

• Funding – Excellus, MVP and Monroe Plan begin reimbursing for coaching services October 2010

• Learning Collaborative to continue training – FLHSA December 2010

• Funding – HEAL grant to begin reimbursing for coaching services to non-covered January 2011
Progress to Date

- Organizations involved to date:
  Excellus, MVP, Monroe Plan, VNS, Lifetime Care, Ibero, Lifespan, Jewish Family Services

Discharge Planners from Hospitals:
Rochester General, Strong Memorial, Unity preparing

- Community and Professional Education:
  Co-Chairs: Nancy Adams, MCMS, Executive Director
  William Armbruster, AARP, Associate State Director
Progress to Date

- Evaluation and Specifications
  Chair: Patricia Campbell, RN, MPH, Program Officer
  Rochester Community Area Foundation

  Members from all community organizations involved
Deliverables

• 14 Active coaches by end of 2011
• 12% reduction in 30 day readmissions
• Implementation of a community wide Coaching Learning Collaborative
Reduce Potentially Preventable Hospitalizations

Three Initiatives

- Transitions Coaching
- Embedded Care Managers
- Discharge Planning

Reduce readmissions and avoidable ED visits

Reduce preventable hospitalizations by 25% by 2014
Charge and Scope of the Embedded Care Management Workgroup

1. Identify ideal characteristics of a practice based case manager
2. Identify appropriate outcome metrics
3. Identify community practices
   - Cultural readiness for embedded CM
   - Technical capabilities
   - Sufficient practice volume
Work Group Structure

1. Local facilities
2. Private Practice
3. Home care
4. Local FQHC input
5. Major local payers
6. Identify community practices
Evidence

Discovery into National and International Best Practices

1. Guided Care - Johns Hopkins
2. Evercare pilot - United Health Care
3. Community Care of North Carolina (CCNC)
4. Community Matron Model – NHS (UK)
5. Physicians Group Practice/ Accountable Care - Geisinger
Embedded Care Manager Implementation

• Distinguishing ECM from Rochester Medical Home Initiative Pilot (RMHI)

• ECM does not require NCQA Accreditation
• ECM does not require EMR
• ECM will not be scored based on performance reporting measures

• Main goal is to promote practice redesign and cultural change in practices unable/unwilling to attain PCMH designation
Key Functions of ECM similar to PCMH

1. Identifying at-risk patients
2. Interface with medical and social support - community services
3. Medication reconciliation / management
4. Self-management skills
5. Caregiver support and education
6. Coordination with other providers
7. Provider’s “wingman”
The Care Manager

• Works in collaboration with all members of an interdisciplinary team of physicians, hospital discharge planners, RN’s, CSW and coaches to facilitate the effective transition after hospitalization discharge

• Serves as the single point of contact for identified patients with chronic conditions that put them at risk for readmission

• Coordinates services and act as the liaison between the practice and community agencies
Progress To Date:

• Secured funding to pilot 5 Care Managers in PCP Setting

• Projected Hire Date: January 2011

• Confirming Pilot sites and assessing practice readiness

• Criteria:
  – Must have mechanism to track and report
  – Must have 1000 Medicare Patients
  – Must have mechanism to Risk Assess
  – Must be connected with a system
Challenges

1. Effective integration into the workflow of the office
2. Established office based-case management curriculum
3. Effective coordination between multiple caregivers
4. Knowing available community resources
5. Harnessing the power of IT to manage patients
6. Finding the right skills to fill the position
7. Short implementation time
Deliverables

• 5 Care Managers in PCP Practices
  -training and maintenance
• 12% Reduction in Readmissions
Reduce Potentially Preventable Hospitalizations

Three Initiatives

- Transitions Coaching
- Embedded Care Managers
- Discharge Planning

Reduce readmissions and avoidable ED visits

Reduce preventable hospitalizations by 25% by 2014
Four Community Standards for Discharge Planning

Creation of a region-wide set of discharge/transition standards that, when fully implemented, will enhance patient safety and safe transition from hospital to community-based setting and lead to a reduction in the number of avoidable hospital readmissions.
Four Community Standards for Discharge Planning

1. Patient/Family centrality to the discharge planning process

2. Medication reconciliation

3. Information transfer

4. Post-discharge follow up
Progress To Date

• URMC pilot on complex surgical floor

• Unity piloting “teach backs”

• RGH examining readmission circumstances; social, medical, home care plan

• Risk Assessments

• Looking ahead: Transportation, Indigent Medications, Patient liason and Transition Coaches Implementation and Risk Assessment
Progress To Date

RHIO
- Mapping and loading ADT messages from local hospitals
- Clifton Springs Hospital is piloting ED Landing Page
- Subscription Model pilot scheduled for fourth quarter 2010 to inform PCP when a patient is admitted to ED
- EMS pre-hospital care clinical document is being provided in a standardized format and available on patient virtual health record (VHR)
- VHR will be available on Smart Phones
- Senior Summary on VHR documents care provided by social service agencies
- Piloting patient portal to include Advance Directives
- Pilot electronic referrals with first EHR vendor
Deliverable

Achieve a 15% reduction in 30-day PQI-related readmissions compared to 2009-2010 across the six County Finger Lakes Region
The triangle represents our agency’s role as a fulcrum—the point on which a lever pivots—boosting the community’s health by leveraging the strengths of all stakeholders. The fulcrum is also a point of equilibrium, reflecting our ability to balance the needs of consumers, providers and payers on complex health matters. The inner triangle also evokes the Greek letter delta—used in medical and mathematical contexts to represent change—with a forward lean as we work with our community to achieve positive changes in health care.

Give me a lever long enough and a fulcrum on which to place it, and I shall move the world. —Archimedes