New Models for Rural Post-Acute Care

Mark Lindsay MD
Assistant Professor Mayo Clinic College of Medicine
Objectives

• Understand **Post-acute Transitional Care** as a **tremendous opportunity** for critical access hospitals

• Where are your **obstacles** and how do you become a key player in Transitional Care (Post-acute care)?

• Recognize the **value** of **partnering** rather than competing with acute care hospitals

• Describe **power** of quality “bundle(s)” in healthcare

• Recognize the power and potential of applying bundles to chronic disease and population health and be able to apply to your own journey **MENDS**
Healthcare Journey
Midwest Experience with Integration
Lessons Learned in Post-Acute Care
Roz Savage Journey
Across Pacific
Post Acute Care Gap and Opportunity

- **1 in 5** Medicare patients is readmitted
- National CAH average daily census is **4.2**
- **Avoidable** hospital readmissions (Ouslander 2010)
- Link of *nurse staffing* and *mortality* (Needleman 2011)
- Swing bed days only represented **3.6%** of total inpatient *revenues*
- **CAHs outperform** urban hospitals in *AHRQ* and *HCAHPS* surveys
- Rural facilities consume fewer CMS resources per capita
Application of Triple Aim to Post-Acute Care

- Improving patient experience of care
- Improving health of populations
- Reducing per capita cost of healthcare

(IHI Triple Aim)
Post-acute care opportunities: What about Rural Post-Acute Care?

- Long Term Acute Care Hospitals
- Inpatient Rehab
- Skilled Nursing Facility
- Hospice/ Home health
- Swing beds in critical access hospitals???
Eau Claire Experience: Why Transitional Care?

- Utilization Management Role in 2000
- Eau Claire acute care hospital challenges
- Effectiveness of traditional utilization??
- Establishing high quality post-acute care far more effective
- Complex respiratory post-acute program experience in a non-Mayo facility (SNF)
- Underutilized critical access hospitals in Bloomer and Osseo
  - Low census
  - Poor financial performance
Bloomer Transitional Care Pilot

- Prior to Transitional Care, TCU: Bloomer had 10 consecutive quarters with net negative NOI
- System CEO engaged
- Physician resistance present but not insurmountable
- Some nurses not on board
Benefits

- After TCU: 9 of next 10 quarters positive NOI, doubled bed days
- Eau Claire Acute Hospital $3.0 Million impact in 2003
- Physician engagement
- Bloomer: highest employee satisfaction
Keys to Implementation

- Focused on *early adaptors*
- Leadership buy in with *strategic prioritization*
- Emphasized what is in it for key stakeholders: *Physicians, nursing, therapy, CEO, CFO, others*
Expansion to Osseo

Challenges

- On verge of closing
- Initially no respiratory therapists
- No long term viability plan
Cardiac Surgery and post-acute care at Osseo Transitional Care

Challenges

- **Census of 2** on day of Osseo visit with Cardiac surgery Chair
- **Outcomes poor** in Post-acute literature for Cardiac Surgery
- **Potential Geographic challenges** for patients not from Osseo
Benefits

- Respiratory Therapy growth from no RTs to 24/7 coverage
- Attract new nurses and therapy staff
- Impact ER and ambulatory care
- Outpatient pulmonary rehab

Osseo Growth Transitional Care (Swing Bed Days)
Expanding Respiratory Capacity to care for More Patients locally

Role of NPPV in CHF and COPD

Early Recognition of Sepsis

Parkinson’s and Aspiration

Asthma Education
New Model

- Establish new post-acute pathways
- Reduce severity adjusted LOS and bottlenecks
- Increase revenues and margin per hospital bed day

- High quality TCU
- Care for more challenging and complex patients locally
- Improve revenues, margin, and long-term viability

Create a new Virtual Bed Tower (VBT)
- 365 Medicare bed days beyond mean geometric LOS transferred to post-acute care/TCU = 1 bed added to VBT without costs of bricks and mortar
- New hospital construction $400/ sq ft or $1M/hospital bed
Care Coordination
A comprehensive approach

- Transition Evidence
  Best Practices

- Transitional Care
  Coordination Model

- Transitional Bundle

- Team Bedside
  Rounds

- Real Time Data Base
  And Reporting

- Training and Education

- Transitional Nurse
  Care Coordinator
Transitional Care Dashboard

Admission Types

Functional Assessment % Improvement

PG-Likelihood of Recommending Hospital

PG- Overall Rating of Care Given
Transitional Care and passing the “Mom and Matt test”
Transitional Care expanded to 11 Mayo Clinic Health System Critical Access Hospitals in Mn, Wi, and Ia

- **Win Win Win** for acute care hospitals, critical access hospitals, and most importantly *patients*
- **Value Triple AIM**
Mayo Transitional Care Locations

Mayo Transitional Care is provided within Mayo Health System hospital settings in the following communities:

- Barron, Wis.
- Bloomer, Wis.
- Cannon Falls, Minn.
- Decorah, Iowa
- Lake City, Minn.
- Osseo, Wis.
- Sparta, Wis.
- Springfield, Minn.
- St. James, Minn.
- Waseca, Minn.
Transitional care helps patient return to health — and home

Carl Sutton often jokes about his “bucket list” — the things he wants to do before he dies. “Being dead is not on that list!” says Sutton, a good-humored 75-year-old from Cody, Wyo. “Neither is living in a nursing home.”

But last spring, those looked like his only options. Sutton says he began feeling “puck” during the last week of March 2011. His feet had swollen two sizes, and he’d lost interest in eating. Then came a day when he couldn’t get out of his chair. His wife took him to the local hospital. When doctors couldn’t figure out what was causing his symptoms, Sutton was transferred to a larger hospital in Billings, Mont. Doctors there also were stumped.

“Then a smart cookie called Mayo Clinic,” says Sutton. “Mayo said, ‘Put him on an airplane and get him here now.”’

A Mayo MedAir air ambulance brought Sutton to Saint Marys Hospital in Rochester, where he underwent more testing.

“They put me through every test or scan they could think of, and I think they invented a few,” says Sutton, who finally received a diagnosis of polycystic nodules. The condition causes the vessels and arteries to become inflamed, which limits their ability to effectively transport blood throughout the body. If not detected and treated, the condition can lead to organ damage.

By the time Sutton was diagnosed, his kidney and colon were already damaged, forcing doctors at Mayo Clinic to remove a kidney and part of his colon. Sutton’s weight plummeted to less than 90 pounds.

“I was nothing but skin and bones,” says Sutton, who weighed close to 145 pounds before his illness. “The doctors weren’t sure I would even survive. But they didn’t know Wyoming people. We’re survivors.”

On the road to recovery

Gradually, Sutton’s health began to improve. He began putting on weight, and when he reached 98 pounds was transferred to the transitional care program at Mayo Clinic Health System in Cannon Falls. The program provides patients with 24-hour nursing care, meals and physical and occupational therapy. A physician monitors each patient’s care and coordinates any additional therapy the patient may need. Social workers, diettitians and pharmacists round out the team.

“We work together with Mayo Clinic staff to develop a plan of care for each patient that comes into our program,” says Curt Beissel, a physical therapist. “Transitional care ensures continuity of care throughout a patient’s healing process.”

When Sutton arrived in Cannon Falls, he couldn’t walk, talk or feed himself. Beissel and Keith Kaiser, an occupational therapist, immediately began working to change that.

“Initially we worked on simple range-of-motion exercises with Carl while he was lying in bed, with the goal of moving toward seated activities,” says Beissel. “He made progress every day, and within two weeks he was able to stand. Once he could stand, it was like someone lit a fire under him.”

Soon after Sutton stood, Beissel and Kaiser helped him take his first steps in over two months.

“That was a big, big deal,” remembers Sutton. “Once I got those two steps I could see that I could do more.”

Beyond physical therapy

Six days a week, Sutton “did more” in three-hour therapy sessions with Beissel, Kaiser and their colleagues. The team worked to strengthen Sutton’s muscles, improve his balance and coordination and reintroduce him to activities of daily living such as eating and getting dressed.

“One of the things that really helped my recovery was going outside,” says Sutton. “Seeing the blue sky, trees and flowers was such a big change from looking at four white walls all day. Keith teased me that by going outside I was getting my batteries charged, and that I ran about 50 percent on solar energy.”

Kaiser and Beissel also teased Sutton about his Wyoming roots, about being a cowboy — or anything else they thought would make him smile.

was a resounding “yes,” which led to daily trips outside the medical center.

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Mayo Transitional Care Program
Growth from Mayo Clinic

- **Referrals** from Mayo Clinic to Mayo CAH Transitional Care increased by **over 500%**

- **Transitional Care** and **respiratory** patient days increased by **200%** and **800%** respectively from 2009 to 2011

- Net Revenue + Cost Avoidance/ Centralized Resources Approximately **20/1 return**

- **Improved patient flow** at system level
Patient Outcomes

<table>
<thead>
<tr>
<th>Discharged to:</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Previous setting</td>
<td>72</td>
</tr>
<tr>
<td>SNF</td>
<td>14</td>
</tr>
<tr>
<td>Hosp. &gt; 30 days</td>
<td>2</td>
</tr>
<tr>
<td>Hosp. &lt; 30 days</td>
<td>6</td>
</tr>
<tr>
<td>Home</td>
<td>68</td>
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<tr>
<td>Rehab</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
</tr>
<tr>
<td>Asst. Living</td>
<td>2</td>
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</table>
Patient Satisfaction

- Rated care as very good 94%
- Willingness to recommend 92%
95.3% rated Excellent Care

Less than 4% readmission

“GRHS adapting well to changing health care”, The McLeod County Chronicle, 10/14/2015
By Lori Copler
Learning from Mistakes

Don’t attempt something too large

Ice fishing without cloves is dangerous

Can’t make a snowman when it is 0 degrees

Don’t jump out of a perfectly good plane
Transitional Care Growth Usually occurs rapidly

- Midwest CAH part of system
- Only 3% admitted back to Acute Care

Growth Transitional Care in 1st Year (Swing Bed Days)
Client Name Transitional Care

supports patients recovering from an acute illness or surgery who no longer require acute hospital care but are not yet ready to go home.

Contact us for a tour.

Transitional Care

Name of Client Here

Client Name Transitional Care is supported with evidence based best practices through a partnership with Allevant Solutions developed by Mayo Clinic and Select medical.

for more information visit WEBADDRESS.COM

Your Care. Your Team. Your Home.
## Financial Analysis CAH

### VOLUME ASSUMPTIONS:
- Additional Swing Bed Days: 248% Increase, 1,000
- Ancillary Charges per Additional Day: 57% of Baseline, $700

### NON-MEDICARE ASSUMPTIONS:
- Non-Medicare Days (% of New Days): 0.0%
- Non-Medicare Reimbursement per Day: $700

### TIMING ASSUMPTIONS:
- Ramp-Up Time Period: 5 Year (20% / 40% / 60% / 80% / 100%)

### ADDITIONAL STAFFING ASSUMPTIONS:
- 0.0 Respiratory Therapists Shifts per Day
- 1.0 Other Nursing Shifts per Day
- No Hospitalist
- 0.0 Other Care FTEs

### RESULTS BY YEAR ($000's)

<table>
<thead>
<tr>
<th></th>
<th>Year #1</th>
<th>Year #2</th>
<th>Year #3</th>
<th>Year #4</th>
<th>Year #5</th>
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<tbody>
<tr>
<td>Estimated CAH MC</td>
<td>496</td>
<td>690</td>
<td>868</td>
<td>1,035</td>
<td>1,193</td>
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<tr>
<td>Hospital Non-MC</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hospitalist Professional</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Total Reimbursement</td>
<td>496</td>
<td>690</td>
<td>868</td>
<td>1,035</td>
<td>1,193</td>
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<td>Revenue / Additional Day</td>
<td>$2,480</td>
<td>$1,726</td>
<td>$1,447</td>
<td>$1,294</td>
<td>$1,193</td>
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<td>Additional Staffing</td>
<td>73</td>
<td>75</td>
<td>77</td>
<td>80</td>
<td>82</td>
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<tr>
<td>Hospitalist Costs</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Ancillary Costs</td>
<td>89</td>
<td>178</td>
<td>267</td>
<td>357</td>
<td>446</td>
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<td>Allevant Contract</td>
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<td>Depreciation Expense</td>
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<tr>
<td>Total Costs</td>
<td>402</td>
<td>493</td>
<td>584</td>
<td>677</td>
<td>768</td>
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<tr>
<td>Cost / Additional Day</td>
<td>$2,011</td>
<td>$1,234</td>
<td>$975</td>
<td>$845</td>
<td>$768</td>
</tr>
<tr>
<td>NET MARGIN IMPACT</td>
<td>94</td>
<td>197</td>
<td>284</td>
<td>358</td>
<td>425</td>
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</table>

### Net Margin Impact by Payor (000's)

- Medicare Net Margin
- Non-Medicare Net Margin

- Year #1: $94
- Year #2: $197
- Year #3: $284
- Year #4: $358
- Year #5: $425

- Medicare Net Margin: $426
- Non-Medicare Net Margin: $359
### PPS Financial Impact
139 IL Hospitals

<table>
<thead>
<tr>
<th></th>
<th>Sum of Patients</th>
<th>Average of ALOS</th>
<th>Average of Geometric Mean</th>
<th>Sum of Average Total Charge</th>
<th>Sum of Charges Not Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grand Total</strong></td>
<td>14,503</td>
<td>21.59</td>
<td>7.21</td>
<td>$1,224,471,533</td>
<td>$1,025,806,165</td>
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</tbody>
</table>

Over 14,000 patients with LOS > 15 days beyond the GMLOS resulting in over $1 Billion in unpaid charges. Opportunity to improve access to PAC benefiting PPS at $500 – $2,000 per day

<table>
<thead>
<tr>
<th>DC</th>
<th>DC</th>
<th>DC</th>
<th>DC</th>
<th>DC</th>
<th>DC</th>
<th>DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average of Home</td>
<td>25.07%</td>
<td>2.26%</td>
<td>40.82%</td>
<td>0.95%</td>
<td>23.02%</td>
<td>7.87%</td>
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</table>
What are some of the perceived Obstacles to growing Transitional Care?

- **Bundled payments**
- Less expensive to care for these patients in **SNFs** (OIG report)
- Our emphasis is "acute care"
- We could **lose staff**
- "We don’t want to take care of long term care patients?"
- "**My job is hard enough as it is**"
Sometimes I feel that I have the worst job in the world!

Ya... Right!
Reality of Transitional Care

- **Highly rewarding** for staff
- Culture shift
- Care for more **patients locally**
- Revenues, revenues, revenues
- “Golden Moment”
Decision Drivers for Transitional Care

Critical Access Hospitals

- Bed capacity
- Maximize existing resources at your CAH
- Positively impacts financials, quality, and culture
- Leadership support

PPS Hospitals

- Cost avoidance opportunity
  - Inadequate post-acute options
  - Readmission rates greater than 12%
- Create win/win collaboration with critical access hospitals
Measure of Success

**Critical Access Hospitals**

- Swing bed volume growth
- Increase in revenue with positive net margin impact and ROI
- Improvement in employee and patient satisfaction (e.g., highest employee satisfaction in system)
- Improved patient quality and safety measures

**PPS Hospitals**

- Cost avoidance opportunity of more than $1 million dollars per year (200 bed facility) ($500 to $2K cost avoidance opportunity per bed day)
- Reduce hospital readmissions to less than 10%
Golden Moment, Role of Bundles in Rural Healthcare, Population Health And Wellness
Quality Bundles and Population Health

- “Golden moment” and synergy with Transitional Care
- Bundles and high reliability
- Power of Framingham study
- Mayo Case Study Population Health (bundles)
- Application for you and your rural communities
- MENDS Treatment: Personal and Community Golden Nugget
Bundle Use in Healthcare

- **Ventilator Bundle:** IHI
  - High compliance with the Ventilator Bundle has greatly reduced and ventilator associated pneumonia (VAP) (Resar, et al., 2005)

- **Central Line Bundle:** IHI
  - High compliance with the Central Line Bundle has greatly reduced central line associated bloodstream infections (CLABSI) (IHI, 2012)
Bundle Effect: Teamwork

• The term *synergy* comes from the Greek word *synergos* meaning "working together"

• **95% compliance** on 3-4 simple bundle elements (**All-or-None Methodology**) requires **high reliability** and impacts other unmeasured factors contributing to positive outcomes

(Resar, Griffin, Haraden & Nolan, 2012)
Bundle Measurement: All-or-None

- If any element of the bundle is missing, no credit is given
- Emphasis is on **high reliability** and **teamwork** required to achieve this level of performance
Ventilator Bundle and Transparency

- Teamwork and reliability
- Only can accomplish 100% compliance with overlapping checks and balances
FDR and Epidemic of Cardiovascular Deaths leads to Framingham Study
Framingham Study

• Key Research Milestones

  ➢ Link of **cigarette smoking** (1960), blood pressure (1961), cholesterol level (1961) to risk of **heart disease**
  ➢ **Physical activity reduces** risk of **heart disease**, **obesity increases** risk of heart disease (1967)
  ➢ **High blood pressure** increases risk of **stroke** (1970)
  ➢ **Lifetime risk** of developing **high blood pressure** in middle aged adults is **9 in 10** (2002)
  ➢ Lifetime risk of becoming **overweight** exceeds **70 percent**, that for **obesity** approximates **1 in 2** (2005)
  ➢ **Sleep Apnea** tied to increased risk of **stroke** (2010)
  ➢ Framingham heart study finds **fat** around the **abdomen** associated with **smaller, older brains** in middle-aged adults (2010)

  [www.framinghamheartstudy.org](http://www.framinghamheartstudy.org)
Inactivity

Poor Diet

Fuel for Chronic Disease

Poor Sleep Quality

Bad habits, Isolation

Stress
Health and Wellness Best Practices

- Dean Ornish MD
  - Nutrition
  - Stress management
  - Fitness
  - Love and support

http://ornishspectrum.com/proven-program/

- Caldwell Esselstyn MD
  - Plant based diet
  - No added oil
  - No meat or dairy

http://www.dresselstyn.com/site/
Colavita Extra Virgin Olive Oil
First Cold Pressed
Health and Wellness Best Practices

- Amit Sood MD
- Mindfulness and resiliency training
- Author Mayo Clinic Guide to Stress Free Living

http://stressfree.org
Role of Bundle in Population Health
Hypertension in Diabetes: Case Study

- Hypertension in Diabetes
- Mayo Clinic Enterprise Project
- Transparency
- Bundle elements
  - Standardized blood pressure process
  - Patient identified goal
  - Team based order set
Role of Bundle in Population Health
Hypertension in Diabetes: Case Study

Goal Prescription

Patient Name ___________________________ DOB __/__/____
Date goal set __/__/____ Current blood pressure: __/____
Goal blood pressure: less than 130/80

☐ Use DASH (Dietary Approaches to Stop Hypertension) Diet
☐ Walk 30 minutes 4 days per week
☐ Practice deep breathing 4 days per week  ☐ 5 mins  ☐ 15 mins
☐ Use deep breathing DVD
☐ Reduce tobacco use from _____ to no more than ______ per week
☐ Reduce alcohol from _____ to no more than _____ drinks per week
☐ Other: ________________________________

How likely are you to follow through with this?  1  2  3  4  5
Not likely  Very Likely

Physician signature ___________________________ Patient signature ___________________________

Please bring this with you to your next visit

Additional resources can be found at http://www.mayoclinic.com
Role of Bundle in Population Health Hypertension in Diabetes: Case Study

- **Significant reduction** in proportion of patients that had blood pressure >130/80
- Used **existing resources**
- Leveraged care team with **empowered nursing** (important with projected physician shortages)
- **Patient engagement** key (patient identified goal)
- Local customization of process

Lindsay M., American J. of Med. Quality, 11 Jan 2013
Role of Bundle in Population Health
Hypertension in Diabetes: Case Study
MENDS Treatment: More energy, weight loss, cholesterol reduction, improved blood flow, blood pressure reduction and a lot more
Power of Framingham Calculator for You And Your Community

Case study: 54 yo healthcare provider

- Elevated BMI 28
- Hypertension > 150/95 and as high as 200/100
- Total Cholesterol 230
- LDL Cholesterol 154
- HDL Cholesterol 53
- 30 year risk Framingham calculator 52%
My Framingham Experiment

- BMI 28 to 23
- Weight 178 to 150
- LDL Cholesterol 154 to 80
- Total Cholesterol 230 to 148
- Systolic blood pressure 150 to 120
- HDL Cholesterol unchanged
- Framingham Calc: 30 year risk from 52% to 24%
MENDS: Potential Components of Bundle

- **M**indfulness and Stress Reduction
- **E**xercise
- **N**utrition
- **D**evelop healthy habits, hobbies and connections
- **S**leep hygiene and correction of sleep disorders
What is Mindfulness and how it can be a Powerful Tool
Gardening: New Hobby
Establishing healthy habits, hobbies and connections
Help Erase the Stigma of Mental Illness!

Compassion, Kindness, Acceptance, Educate, Loved
Questions?
lindsay.mark@mayo.edu
References


CDC website. 2013 http://www.cdc.gov/chronicdisease/overview/index.htm


References


Ouslander et al. “Potentially Avoidable Hospitalizations of Nursing Home Residents: Frequency, Causes, and Costs.” 2010

Rural Assistance Center. 2013: www.raconline.org


Society of Hospital Medicine (2013). http://www.hospitalmedicine.org/AM/Template.cfm?Section=Issues_in_the_Spotlight1&Template=/CM/ContentDisplay.cfm&ContentID=13117