Discussion Topics

Overview...
- Population Health Management Philosophy
- Population Health Management Segmentation Trends
- Infrastructure to support integrated population management

Implementation considerations in the design and integration of a care management program

Case Studies
- Delivery System Reform Incentive Payment Program (DSRIP)
- Comprehensive Joint Replacement (CJR)
- Medicaid

Key Trends and Facts
- In 2005, 133M Americans were living with at least one chronic condition. By 2020 that number is expected to increase to 157M.
- 80% of people over 65 have at least one chronic condition and 50% have at least two.
- More than 75% of healthcare costs are due to chronic conditions.
- 75% of hospital days, office visits and prescription drugs are attributed to those with chronic conditions.
- The health care needs of these patients are complex, requiring numerous providers and caregivers to be involved in their care which often results in care that is fragmented, difficult to coordinate and leads to frequent hospitalizations.

As the number of people with chronic conditions increases, health care costs, including long term and homecare expenditures, are also expected to increase.
The Spectrum of Care is Vast...

...as are the Barriers to Care Coordination

Guiding Principles

1. Establish a solid foundation of team-based care across medical, behavioral, and social service
2. Efficient and effective episode delivery initiatives
3. Assure that patients get the right care at the right time, while avoiding unnecessary services
4. Develop a robust data infrastructure and advanced analytical capabilities
5. Improve access to care
6. Improve chronic condition management, particularly for those with chronic disease
7. Support provider practice transformation by transitioning from the traditional fee-for-service payment to value-based payment
8. Eliminate health disparities
9. Avoid duplication, develop a highly efficient integrated delivery system
Care Management is a Strategic Priority

People Centered Health System

Episode Care
Efficient & effective episode delivery initiatives

Population Health Management
Efficient & effective chronic condition management initiatives

Community Health & Well-being
Eliminate health disparities and impacting the social determinants of health

Better health Better care Lower costs

Geisinger’s population health management philosophy: Team-based care

Advanced medical home team patient, provider, payer

Primary prevention Disease management Case management

Well Chronic conditions Complex conditions

Data analytics: PM; gaps in care; provider profiling

Physician Led, Team Based Care
Team based roles
Team members operating at the top of the license
Accountable for coordinating acute, chronic, preventative, end of life care

Building a care management model
- Understand Current State & Improvement
- Design and Build
- Implement
Understand Current State & Improvement Opportunities

- Assess your Organizational care management capabilities and gaps
- Look for Opportunities to achieve cost effective quality outcomes
  - Care continuum structure (inpatient and ambulatory) and maturity
  - Medical neighborhood collaboration
  - CM staff management and training
  - Assess performance compared to benchmarks for cost, utilization, and clinical quality and provider quality metrics
  - Assess efficiency analytics and Advanced Rx Benefit and Advanced Clinical Quality analytics
  - Understand regulations that govern CM delivery

Care Management Design: the three pillars

1. Structure and strategy
2. Processes
3. Population Health Analytics & Tools

Design Element 1

1. Design CM Structure
Clinically Integrated Network Design

- Governance
- Data & Clinical Decision Management
- Care Coordination
- Community & Partner Engagement
- Medical (UM) Management
- Care Management
- Project Management Office
- Finance Management
- Population Health Shared Service Organization Model

Population Health Shared Service Organization Model

- Chief of Operations
- Medical Director
- Finance Management
- Project Management Office
- Care Management Organization
- Community & Partner Engagement

Geisinger Clinical Enterprise Model

- Case Continuum
- Enterprise Pharmacy
- Patient Medical Trajectory Management
  - Medical Management
    - Utilization Management
    - Transfer Center/Placement
    - Call Center
  - Care Management
    - Inpatient CM
    - Outpatient CM
    - Disease Management
    - Transition Coaches & Navigators
  - Communication & Engagement
    - Stakeholder engagement
    - Community
    - New Technologies

Goals:
- To understand the clinical status of our population
- To connect with the optimal resource(s) within the system
- To improve health and reduce total cost of care
- To improve the experience of the patient/family and professionals

Leadership Model - Restructuring responsibilities for managing patient trajectories under a single leadership model that is coordinated across all Geisinger entities.
Target Population Demographics

- Patient demographics: gender, age, race, ethnicity, education, language and median household income
- Health conditions among population being served
- Health conditions affecting the counties being served
- Unique health needs of the population and potential limitations and barriers
- Methods for identifying the most vulnerable individuals—frail elders, socioeconomic risk factors, utilization based risk factors, complex medical and behavioral needs
- Community partnerships and resources
- Long term care partnerships

Build CM Staffing Model and Ratios

Care Manager RN
- Manage highest risk complex chronic conditions
- Specialized CM: ESRD, oncology, pediatrics, maternity

Health Manager RN
- Self management education
- Behavior change

Social Workers
- Coordinating social & community resources
- Medical care needs
- Address needs with behavioral and psychosocial needs

Community Health Associate
- Hospital discharge
- Medical record review
- Provider follow up

Transitions of Care RN
- Follow patients on high risk and complicated medication regimens
- Address care gaps related to meds
- Suggest best combination of meds

Pharmacists
- PSI/Consult
- Specialized CM for pediatrics, maternity, ESRD and oncology

CM Staffing Model Ratios

- The ratios apply to both the embedded and remote based care management models
- The focus is typically complex chronic care management and moderate to high risk disease management and transitions of care
- The CM caseload varies between 125 to 150
- The HM caseload varies between 225 to 250
- Transitions of Care is dependent on discharges/month, 50% discharges are high risk
- Reduce case loads by using non-clinical workers for low risk
- Pharm D for biologics and consulting
- Specialized CM for pediatrics, maternity, ESRD and oncology
There are 6 core steps to designing CM processes

**Process**

1. Design the **delivery** model
2. Define the population **segment** being considered for CM
3. Design Standardized CM **workflows**
4. Design comprehensive **assessments**
5. **Integrate** CM with team, community and medical neighborhood
6. Emphasize **Care Transitions** strategy

**Step 1: Delivery Model:**

- Embedded, Remote, Hybrid
- Transition of Care Services
- Chronic Condition Support
- Embedded and Remote Care Managers
- Patient and/or caregiver
- Primary Care Physician
- Wellness Intervention
- Program monitoring and evaluation
- Analytics, identification and risk stratification
- Quality Support Services
Step 2: Segmentation based on Payer

<table>
<thead>
<tr>
<th>Health Plan</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complex Case Management</td>
<td>Asthma, Diabetes &amp; CAD</td>
</tr>
<tr>
<td>Behavioral Health, serious mental illness</td>
<td>Transitions of care</td>
</tr>
<tr>
<td>Active Treatment Oncology</td>
<td>Trauma</td>
</tr>
<tr>
<td>High risk pregnancy / NICU</td>
<td>Coordinate with payer – NICU, transplant, high risk pregnancy, rare conditions</td>
</tr>
<tr>
<td>Transitions of care</td>
<td>Medicaid</td>
</tr>
<tr>
<td>Medicare</td>
<td>Bundles of Care</td>
</tr>
<tr>
<td>Transitions of care</td>
<td>HF, COPD, Diabetes, Asthma, COPO</td>
</tr>
<tr>
<td>ESRD &amp; oncology</td>
<td>Substance abuse/Behavioral Health</td>
</tr>
<tr>
<td>EOL &amp; frail elderly</td>
<td></td>
</tr>
</tbody>
</table>

Step 2: Segmentation based on Risk

Program Pathways

<table>
<thead>
<tr>
<th>% of population</th>
<th>% of health care costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complex Case Management</td>
<td>5%</td>
</tr>
<tr>
<td>Care Management</td>
<td>20%</td>
</tr>
<tr>
<td>Care Coordination &amp; Disease Management</td>
<td>25%</td>
</tr>
<tr>
<td>Population Management</td>
<td>50%</td>
</tr>
</tbody>
</table>

Step 2: Segmentation Based on ‘The Bridges to Health’ Model

Center for Medicare and Medicaid Services

<table>
<thead>
<tr>
<th>Healthy</th>
<th>Material and Fetal Health</th>
<th>Acutely ill with likely return to health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longevity, staying healthy</td>
<td>Healthy babies, lower maternal risk</td>
<td>Return to health, minimal suffering</td>
</tr>
<tr>
<td>Maternal and Fetal Health</td>
<td>Acutely ill with likely return to health</td>
<td>Limit disease progression</td>
</tr>
<tr>
<td>Acute Condition normal function</td>
<td>Chronic Condition including mental</td>
<td>Autonomy, rehabilitation</td>
</tr>
<tr>
<td>Chronic Condition including mental</td>
<td>Short-term before dying</td>
<td>Comfort, dignity, caregiver support</td>
</tr>
<tr>
<td>Short-term before dying</td>
<td>Limited reserves with exacerbations</td>
<td>Maintain function, advance planning</td>
</tr>
<tr>
<td>Limited reserves with exacerbations</td>
<td>Long course of decline from dementia or frailty</td>
<td>Caregiver support, skin integrity, mobility, advance planning</td>
</tr>
</tbody>
</table>
Step 3: Standardized Workflows and Training
Reliable care management to every patient every time

• Assess the existent staff for their CM competencies and training
• Build Policies and Procedures: Risk Stratification, Discharge planning, Medication reconciliation
• Build Care Paths: Standards of Care and interventions related to chronic disease management
• Build Workflows to guide CM on the referral, enrollment process and Case Closure process
• Build Self-management activity policies and education

Step 4: Comprehensive assessments and care paths based on ‘Whole Person Approach’

• Driving issue behind case
• Self-care skills
• Physical and psychosocial gaps
• Readiness to change
• Family/social supports
• Barriers to care

Step 5: Integrating the Care Manager with the Team and the Medical Neighborhood

• Embed in primary care practice and link via EHR or telephonic
• Patient sees CM in practice or with specialist OR CM is Office based for remote engagement
• CM trains with all practice team members
• Access to EHR and scheduling
• Joins staff meetings
• Form relationships with key community resources – home health, health homes, retail pharmacies, AAA, etc.
Top Priority Connections in the Medical Neighborhood

**Home Health**
- Identify preferred HF agencies
- Visit and share contact information
- Identify deliverables (weekend visits for example)

**Community Pharmacies**
- Identify services
- Home delivery
- "Packaged" medication
- Automated refills

**Community Agencies**
- Regional resource list

**Skilled Nursing Homes**
- Identify preferred SNFs and share with inpatient Discharge Planners
- SNF list
- CM visit and potentially "round" on patients

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Step 6: Transitions of Care

<table>
<thead>
<tr>
<th>Ambulatory-Based CM</th>
<th>Skilled Nursing Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM 24 – 48 hr call</td>
<td>First week &quot;intensity&quot;</td>
</tr>
<tr>
<td>Medication reconciliation</td>
<td>Family Conference</td>
</tr>
<tr>
<td>Patient specific Action Plan</td>
<td>Home PT visit prior to discharge</td>
</tr>
<tr>
<td>&lt; 7-14 day PCP follow-up, depending on risk</td>
<td>We have found that CM alone has less impact than with a redesigned SNF model with AP RNs</td>
</tr>
<tr>
<td>&lt; 3 day for highest risk (HF, COPD)</td>
<td></td>
</tr>
<tr>
<td>WB &amp; blue tooth scale</td>
<td></td>
</tr>
<tr>
<td>Home care services &amp; DME</td>
<td></td>
</tr>
<tr>
<td>Targeted Home visits</td>
<td></td>
</tr>
<tr>
<td>Frequent follow up</td>
<td></td>
</tr>
</tbody>
</table>

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Phased Approach to Care Management Design

<table>
<thead>
<tr>
<th>High Risk Coordinated Care</th>
<th>Condition Management</th>
<th>Care Management Across the Continuum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value-Add Interventions</td>
<td>Value-Add Interventions</td>
<td>Value-Add Interventions</td>
</tr>
<tr>
<td>- High risk care</td>
<td>- Medicare risk chronic condition management</td>
<td>- Improved outcomes</td>
</tr>
<tr>
<td>- Care management for high-risk patients</td>
<td>- Nursing home management</td>
<td>- Reduced readmissions</td>
</tr>
<tr>
<td>- Focused targeted conditions</td>
<td>- More efficient specialists</td>
<td>- Improved &quot;control&quot; measures</td>
</tr>
<tr>
<td>- Pharmacy management</td>
<td>- Primary care providers</td>
<td>- Reduce unnecessary testing</td>
</tr>
<tr>
<td>Expected Impact</td>
<td>- Hospital admissions</td>
<td>- Improved outcomes</td>
</tr>
<tr>
<td>- Reduced readmissions</td>
<td>- Hospital admissions</td>
<td>- Reduced readmissions</td>
</tr>
<tr>
<td>- Decrease cost per case</td>
<td>- Improvement in test utilization</td>
<td>- Decrease readmissions</td>
</tr>
</tbody>
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Design Element 3

Define Population Health Analytics & Tools

3

Identify Data Needs

• Predictive modeling (medical and social determinants)
  – EHR data
  – ADT feeds
  – Eligibility, Provider referral data
  – Biometric data
  – Medical claims
  – Pharmacy data
  – Health Risk Assessment (HRA) data
• Real time referrals to care management

Identify Success Metrics

Program Impact

Phase 1
• All cause admissions /1000
• All cause 30-day readmissions /1000
• All cause & ACSC ED rates /1000
• Provider visits post D/C < 3, < 7, and < 14 days
• CM outreach post D/C and ED within 48 hrs
• Quality Measures

Phase 2
• Patient Experience

Phase 3
• Advance Directives/POLST, Hospice Length of Stay
• CM Care Gap Closure

Monitoring Population Performance
• Progression reports
• What % of the population is CM impacting
• Population outcomes
• Evaluating impact on population

Monitoring Staff Performance
• Monthly caseload reports
• Care gap closure

Staff Performance Evaluation
• Staff Performance Evaluation
CASE SUMMARY:

Delivery System Reform Incentive Payment Program (DSRIP)

DSRIP

- Sponsored by CMS
- Five-year population-based health management program; year one began in April 2015
- $8B across 5.8M Medicaid members available to NYS through DSRIP: 25 Performing Provider Systems (PPS)
- Funding must be earned by meeting performance and outcomes measures (State wide performance matters)
- Information technology (interconnectivity) and expanded care management are critical to the success of the program
- Key theme is collaboration! Communities of eligible providers are required to work together to develop DSRIP Project Plans

DSRIP Partner Composition

- Performing Provider System (PPS) – a group of providers spanning the continuum of care that have agreed to work together in the DSRIP program as members of a regional network supporting one or more NYS counties
- Regional Health Information Organization (RHIO) – establishes a system of electronic interconnectivity permitting the sharing of clinical data among authorized participating health care providers with a given network
Target Population Challenges

Key Challenges

- Lack of Access to Care
- Opportunities in Care Transitions
- Improvements to Practice Effectiveness
- Complex Socioeconomic Profile

A comprehensive county-wide care management strategy that integrates and builds on existing assets is essential to the success of DSRIP goals.

CM Starting Point Exists ...

... however, the efforts need to be standardized, staff needs to be augmented and success metrics need to be tracked

Existing Assets

- Existing network of:
  - Health Homes, Hospitals, MCO CM and CM agencies
  - FQHCs: existing commitment to serve the Medicaid and uninsured population
  - Complement of RNs, social workers, peers/lay people involved in care management
  - Promising pilots programs: EMT pilots

More is needed

- Need to expand to managing larger populations
- Staffing capacity has been constraint in the existing programs
- Warm handoffs from IP to OP setting
- Standardization of care management protocols, best practices lacking
- Data-driven performance management
- Consistent connectivity between hospitals and SNFs and CM entities
- Stronger coordination with MCOs

Care Model Delivery Model

<table>
<thead>
<tr>
<th>Care Model Recommendation</th>
</tr>
</thead>
</table>

1) Recruitment and Hiring
- Customized job descriptions
- Posting openings on appropriate forums
- Interviewing and job offer onboarding

2) Design and Build Activities
- Creation of policies and procedures
- Care Paths, Workflows and Self-management activity policies

3) Immersion Training for CM's
- Web-based curriculum + Immersion training at Geisinger Medical Homes
- Group learning and discussion

4) Embedding in PCP/Post Acute Settings
- Provider Engagement
  - Identify clinical champions
- Contracting
- Presentation of program to Provider groups
Lessons Learned

1. Team communication is essential. A lot of moving pieces. Try to over-communicate in every possible scenario.
2. Population segmentation decisions important - Who receives services? All high risk vs DSRIP patients only?
3. Medical neighborhood engagement to prevent duplication of services
4. For embedded model provider engagement contracts should be done early so nurses have high volume provider practices to be embedded at. Make sure provider practices have space and that the CM role is introduced correctly
5. Hiring candidates is easy. Hiring the right candidates is hard ... and takes a long time. Some states have a nursing shortage especially bachelors prepared.
6. Care managers are essential to a successful population health program. It is important to ensure you have the right fit and training.
7. Set expectations early on with IT vendor regarding compatibility with EMR and data sharing capabilities

CJR Case Summary

The CJR model of care will include the following components:

- As lead entities, hospitals are accountable for the quality and cost of a LEJR for the 90-day duration of the episode of care.
- Coordination of care among hospitals, physicians, and post-acute care providers is required to succeed in CJR.
- The episode of care begins with an admission to a hospital participating in CJR for any Medicare patient receiving a lower extremity joint replacement.
- The episode includes all related items and services paid under inpatient and outpatient with the exception of certain exclusions.
Design Care Management For CJR

**EVALUATE CURRENT STATE**
- Baseline evaluation
- Opportunity assessment

**PLAN**
Develop plan using clinical recommendations that combine the baseline evaluation findings with the OA to identify targeted populations

**DESIGN**
- Establish CJR program goals, define measures of success, org structure, define pop segmentation and risk stratification criteria, design and develop CM delivery models, confirm staffing models, CM workflows.

**Implementation**
Consider Care Management staffing models – Practice Based, Remote, Hybrid

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Aligning Population Health Priorities for CJR

**Opportunities**
- Build on previous population health efforts
- Reduce complications & cost of care in CJR
- Reduce High Utilization of Inpatient Rehab/SNF
- Reduce readmissions and associated penalties

**Phase 1 Priorities**
- Establish scalable capabilities
- Pursue approach that can be improved within targeted populations over time and scaled across additional populations
- At a below target price
- Target key best practice elements
- Standardize High Cost Implants
- Appropriate coding of 469 / 470
- Increase discharge destination to home
- Socialization with post acute partners
- Patient engagement to shift discharge destination
- Reduce readmissions below National Average
- Target Key Transitions of Care best practices
- Focused Care Management for highest risk patients

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Targeted post-acute care management care paths for 6 conditions in Phase 1.

- **Very High Risk** 2%
  - Appointment scheduling
  - Transition of care workflows
  - Medication review
  - Discharge instruction review
  - Symptom monitoring
  - Medication adherence
  - Comorbid condition management

- **High Risk** 3%
- **Moderate Risk** 15%
- **Low Risk** 80%
GHP Medicaid Case Summary

Applying population health strategies for the most vulnerable

Considerations for Launch of Medicaid

2012

Financial ROI
- 12% - 60% Payer Mix Improvement
- 5% - 10% Rating Increase (MCO>FFS)
- 1% - 2% Health Plan Margin
- Economies of scale

Member Experience
- Trusted Geisinger Quality Brand
- Integration with Community Resources
- Increased Geographic Access
- Increased Afterhours Access

Improved Outcomes
- 2% - 10% Reduced Utilization
- Commercial & Medicare Capacity
- Enhanced Medical Management Model
- ProvenHealth Navigator opportunities

GHS & Medicaid Benefits

Strategic Positioning
- Portfolio Diversification
- "Exchange" Continuum
- Non-Profit / charitable benefit
- National / Commonwealth Recognition

GHP has seen significant growth in Medicaid membership

![Chart showing growth in Medicaid membership](chart.png)
Understanding the Population:

People: Demography Mix

Problems: Diagnosis and Conditions

Model: Population Management Approach

People: Demographics

- Geography: by county—understanding what are the resources available?
  - Example: Urgent Care vs. ER

- Understanding where they are/what we have: Aligning case management resources with membership needs
  - Example: member penetration by region, MH/norm, FQHC relationships

- Who are they? Age/Sex/PCP: Peds effort different than adult (SSI, high risk pregnancy)

Faces of Medicaid & Top Areas of Focus

- Pregnant Women (Healthy Beginnings)
  - Pregnancy, prenatal visits, post-partum care, family planning
  - Example: <br>Healthy Beginnings Plus Site, group visits

- Young Alabama (TANF)
  - EPSDT—well-child visits, immunizations, dental care, <br>Medical home/Pediatric Bundle

- Special Needs Children (TANF & SSD)
  - Children with special needs/disabilities

- Addict with Disability (SSI & ICF)
  - Hepatitis C, Center of Excellence, <br>Special health care needs, solid coordination with managed <br>care entities

- Routine health care, peer-to-peer support, <br>Solid coordination with managed care entities

- Outcomes: <br>Provide evidence of community support

- Support: <br>Community Health and Compliance
Problem: Disease and Conditions

- Disease Burden: New chronic conditions added to referral criteria for high risk case management
  - Example: New conditions: Hepatitis C, High Risk Pregnancy, Children with Medical Complexity, Behavioral Health

39.2% of all physical health index stays had a primary behavioral health diagnosis within one year of inpatient stay*

*OMAP-OMHSAS Behavioral Health/Physical Health Readmission Study: overall data, not GHP Specific

Problem: Chronic Conditions

GHP & Geisinger Joint Population Health Management Strategy

Provider / Payer Partnerships
- Joint operational teams with GHP and Women’s Health, Pediatrics as well as Primary Care service lines

Focus on High Utilization Areas
- Inpatient Admissions – Ambulatory Care Sensitive Conditions
- Readmissions
- ED usage
- Therapies – PT, OT, Speech
- Durable Medical Equipment – wheelchairs, splints, beds
- Pharmacy – increase generic utilization
Leveraged Claims Data to help the Clinical Teams

Monthly report outlining all readmissions for trends
- By Member
- By Facility- volume driven
- By Condition- pain, respiratory and kidney failure, pancreatitis, cellulitis, transplant complications, GI hemorrhage, sepsis
- Case Management Enrollment- 40% in case management

Created a new Special Needs Unit (SNU)

Outcomes Demonstrated to Date
Clinical/Quality Performance

<table>
<thead>
<tr>
<th>Category</th>
<th>Measured Nationally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Child Visits**</td>
<td>Adult Access for Preventive Health Services**</td>
</tr>
<tr>
<td>Annual Monitoring for Persistent Medications**</td>
<td>Asthma Medication Adherence**</td>
</tr>
<tr>
<td>Diabetes Care – Blood pressure, A1C control**</td>
<td>Poor Diabetes Control**</td>
</tr>
<tr>
<td>Controlling High Blood Pressure**</td>
<td>Diabetes Screening in High Risk Populations</td>
</tr>
<tr>
<td>Appropriate Medication Therapy for Rheumatoid Arthritis</td>
<td>Cervical Cancer Screening in Young Females</td>
</tr>
<tr>
<td>Beta Blocker Use after Myocardial Infarction</td>
<td>Asthma Medication Management**</td>
</tr>
<tr>
<td>COPD Medication Management</td>
<td></td>
</tr>
<tr>
<td>Prenatal and Postpartum Care**</td>
<td></td>
</tr>
<tr>
<td><strong>NorthEast Zone Best in Class – GHP, Aetna, &amp; AmeriHealth</strong></td>
<td></td>
</tr>
</tbody>
</table>

Emergency Department Visits

ED rates 754/1000 (12% reduction over last year)

Impact on our Medicaid members

M.R. – 19-year old female with history of congenital muscular dystrophy, chronic respiratory failure, failure to thrive, scoliosis, osteoporosis and wheelchair bound. Receives 16 hours of skilled nursing a day, 7 days a week.
- 3 hospital admissions in 2 months
- 2 emergency department visits
- Mom struggling to manage daughter at home (father works away during the week)

Transitioned to our Comprehensive Care Clinic
- CM organized team meeting during last admission
- Medication management for anxiety/air hunger
- Advanced illness discussions with family – placed on limited code and hospice referral
- Increases home health aide support while mom is alone
- PCP or CM talk with mom – 3 times/week

No admissions or ED in last 3 months