Innovations in Community-Based Advanced Illness Care: A Population Health Approach

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TRINITY HEALTH

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Learning Objectives

• Describe an innovative population health community-based advanced illness management program partnered with a Med Advantage Plan
• Define key metrics to validate the program’s clinical and financial outcomes
• Discuss important considerations when Hospice and Palliative Care programs are developing new advanced illness management (AIM) programs
The Need for a New Care Paradigm

- Care not congruent with people’s wishes and is often aggressive even when the prognosis is poor
- Costs at the end of life are burdensome to patients, families, and society
- Care in the final months of life can be improved through the provision of better education, support, communication and coordination

People Centered Care?

Adapted: Johns Hopkins, RWJ Foundation, 2010 (G. Anderson)
Risk Shifting to Providers

ACOs are being used as vehicles both in MSS, as well as risk bearing entities
Clinical integration across health systems is ramping up to manage patient populations
Payor / Provider partnerships and new models are emerging

ACOs & CIOs

Bending the Curve

Advanced Illness Management
- 5% Savings during last days hospice conversion
- Earlier conversation in the hospitalization
- Repeated conversation / goals of care established episodically
- Savings from first visit to the ED / identification of terminal trajectory

Terminal Trajectory Begins

Is this possible?
Advanced Illness Management & Population Health

Provides a bridge to population and risk-based models that incentivizes high value care that supports the transition to shared risk and population-based models

“Prepared, engaged patients are a fundamental precursor to high quality care, lower costs and better health”

The 2015 IOM Report, “Dying in America Improving Quality and Honoring Individual Preferences Near the End of Life”

Population Health Framework

- Providers are accountable for a defined population throughout the continuum of care
  - Focuses on populations at risk (complex patients, frail elderly, palliative care, etc.)
- Utilizes all available methods, data, and means necessary to understand and improve the health status of a population
- Moves away from treating a patient like an event- treats the whole person across their entire episode of care
Caring Across the Continuum

Care management & palliative care, coordinated care, and seamless transitions

New Model Means......

“We don’t discharge patients, we just transition them to another level/ location of care”
Delivery Structure Redesign

- Hospital, Home Health, SNF, Hospice
- Core Support:
  - Palliative Medical Director
  - Advanced Care RN & MSW
- Advanced Illness Person, Family & Active Physicians

Advanced Care Model

- Establishes care management infrastructure
- Focuses on care coordination across all settings
- Emphasizes ongoing support at home
- Ensures advance care planning
- Engages physicians and other care providers
- Provides integrated, dedicated multidisciplinary team-based care
- Addresses the needs of those who are not yet hospice eligible or don’t want hospice
### Distinction between Home Health, Hospice & PC / AIM Models

<table>
<thead>
<tr>
<th></th>
<th>Home Health</th>
<th>Hospice</th>
<th>PC/AIM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Population</strong></td>
<td>Require ADL aid, are homebound and have skilled medical need</td>
<td>Limited to patients with life-limiting illness, w/ &lt;6 month prognosis</td>
<td>Seriously ill with approximate 18-24 month prognosis</td>
</tr>
<tr>
<td><strong>Reimbursement</strong></td>
<td>Medicare, Medicaid, Insurance</td>
<td>Medicare, Medicaid, Insurance, Private Pay</td>
<td>FFS or contracts, no comprehensive benefit</td>
</tr>
<tr>
<td><strong>Service Model</strong></td>
<td>Primarily by a nurse, focused on addressing skilled need, helping with ADLs</td>
<td>Interdisciplinary patient/family driven care, focused on comfort &amp; quality of life</td>
<td>Staffing varies, goal is person-centered care, advance care planning and disease management</td>
</tr>
<tr>
<td><strong>Setting of Care</strong></td>
<td>Home</td>
<td>Home, LTC, ALFs, and inpatient settings</td>
<td>Home and telephone support</td>
</tr>
</tbody>
</table>

### AIM Pilot Project

1-year grant-funded demonstration to develop and test a new community-based advanced illness management (AIM) model

- Interdisciplinary team telephone and home visit care management
- Sample- minimum of 150 seriously ill persons selected from Med Advantage Plan using predictive analytic model
- Location- Mount Carmel Palliative Care, Columbus OH
- “Go Live” date- October 14, 2015- June 2016
Project Innovations

- Data analytics used for patient selection
- Additional risk stratification methods to inform care strategies
- Web-based technology to promote care coordination and communication
- Standardized palliative care training, documentation, care protocols, and measurement
- Relationship with MA Plan to position for shared savings arrangements

Advanced Illness Program

- Dedicated clinical team of specially trained RNs, licensed social workers and NPs with physician oversight
- Serve as a bridge between the health plan, member and member’s health care providers
- Telephone and home visit assessments and protocols to support one-to-one relationships with members, families and health care providers
- Focus on care coordination, referrals to community resources, pain and symptom management, medication management, and facilitate communication and decision-making related to goals of care and advance care planning
### Staffing/Budget

<table>
<thead>
<tr>
<th>Position</th>
<th>Position Description</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Director</td>
<td>Administrative program oversight and supervisory support</td>
<td>.1</td>
</tr>
<tr>
<td>Nurse Navigator</td>
<td>Initial assessment, home visit and care plan support</td>
<td>2.0</td>
</tr>
<tr>
<td>Social Worker</td>
<td>Psychosocial assessment, support, advance care planning, and resource broker</td>
<td>1.5</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>Clinical consultation, Home visits, Care coordination</td>
<td>0.5</td>
</tr>
<tr>
<td>Physician</td>
<td>Oversight, consultation, IDT</td>
<td>0.25</td>
</tr>
<tr>
<td>On-Call Support</td>
<td>Call center staff supporting calls 24/7</td>
<td></td>
</tr>
<tr>
<td>Pharmacy Consultant</td>
<td>Pharmacist to conduct medication profile review</td>
<td>0.25</td>
</tr>
<tr>
<td>Vendor (Turn-Key Health)</td>
<td>Consultation, analytics, mobile palliative care platform</td>
<td></td>
</tr>
<tr>
<td>Items</td>
<td>Laptops, phones for staff, call center technology, education, training</td>
<td></td>
</tr>
</tbody>
</table>

### Training/Education

- Key milestones/deliverables
- Palliative care competency
  - Goals of care / Respecting Choices
  - Programs/webinars offered through CAPC membership curriculum
- Updated program policy & procedures
- Program guidelines/pathways
- Training- Software, clinical support tools, phone assessments/triage, documentation and workflow
Training and Education

Culture change- This isn’t Hospice, this isn’t Home Care.

Re-framing perspective of care and goals is critical
- Teach backs and competency training
- Case Review discussions with all team members
- Establish visit parameters and productivity expectation

Turn-Key Health Overview

- **Key components of the Turn-Key program:**
  - Connects **Payers** (insurance companies, Med Advantage Plans, etc.) with specially trained teams from a network of Hospice and/or Palliative Care **providers** to provide advanced illness management (AIM) to their members
  - **Platform:** Palliative Care Record with built-in assessments
  - **Prediction:** Predictive algorithm to identify potential patients
Predictive Model

Used to identify MA Plan Members who might benefit from AIM

- **End-of-life**
  - Probability of survival < 12-18 months

- **Over-medicalization**
  - Chemotherapy within 14 days of death
  - Unplanned hospitalizations, multiple ER visits, life sustaining treatment, ICU stays within 30 days of death

- **Inappropriate death (annual)**
  - High cost (>$50k/yr.)
  - Multiple re-hospitalizations
  - Prolonged hospital stays (>30 days)
  - Excessive ER utilization

Predictive Modeling

**An Objective Approach to Analyze Risk**
- Leverages internal and external data to predict individual risk for future health utilization
- Utilizes historical and current clinical and administrative data to develop the model and enhance predictive power

**A Tool to Prioritize Workflow**
- Assists in prioritizing workflow and creating efficient population management
- Places focus on patients at highest risk to pre-emptively intervene with scheduling home visits, medication management, or follow-up appointments

**A Means to an End**
- Promotes a more pro-active approach to identifying and managing care of persons with advanced illness management needs
Data & Actionable Information

- Data gathering processes
- Payor and/or Provider
  - Claims
  - Labs
  - Rx
- Healthcare Analytics Engine
- Validate Data
- ID Patients
- Stratify Risk
- Intervention
- Interventions Captured
- Outcomes Refine a Learning Model
- Care Plan Execution

Managing the Population: Platform

- Web-based platform
- Built-in Evidence-based assessments
  - Palliative care focused
  - RN and SW specific
  - Goals of Care/ACP documentation
  - Tied to reporting
- Risk-based care levels
  - Informs care touch model
- Outcomes Metrics and Reporting
  - Utilization, operational, clinical, and patient satisfaction
Palliative Portal

AIM Care Model

Population Identification
- Claims Data Sort
- Risk Stratification

Health Status Assessment
- Phone assessment
  - Social Support
  - Symptom Review
  - Medication Adherence
  - Caregiver Stress

Risk-based Care Levels
- Low
- Stable
- Medium
- Deteriorating
- High
- Unstable/recently hospitalized

Outcomes
- Financial
- Operational
- Clinical
- Customer Satisfaction

Advanced Illness Management
- Education outreach and telephonic support
- NP/MD and IDT home-based support
- RN/SW home-based and telephonic case management
- Low/Stable
- Medium
- High
The Home Visit (RN and SW)

Consultative model focused on:
- Care coordination
- Pain and symptom assessment
- Medication review
- Enhanced understanding of prognosis
- Communication and decision-making related to discussing preferences for end of life care
- Advance care planning
- Need for referrals to community resources and other support services

Risk Stratification - Clinical Support

<table>
<thead>
<tr>
<th>Secondary Stratification Points - Resource Allocation</th>
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<tbody>
<tr>
<td><strong>Low Risk (Managed)</strong></td>
</tr>
<tr>
<td>✓ Symptoms well controlled</td>
</tr>
<tr>
<td>✓ Medication adherence high</td>
</tr>
<tr>
<td>✓ PCP visit scheduled</td>
</tr>
<tr>
<td>✓ Caregiver / Social Support in place</td>
</tr>
</tbody>
</table>

- Education & phone support w/ home assessment as appropriate
- RN/SW visits until low risk achieved
- Intensified RN/SW case management/home visits with NP/MD support PRN
What We Tested

- Patient care experience/program satisfaction
- Ability to identify and risk stratify population
- Patient engagement success indicators
- Advance care planning completion rates
- Symptom improvement
- Medication reconciliation
- More timely access to hospice
- Hospital/ED utilization and cost of care

Weekly Dashboard Sample
Monthly Report Sample

AIM Monthly Report

Calls

<table>
<thead>
<tr>
<th>Calls</th>
<th>Change in setting</th>
<th>No Ans</th>
<th>Success/Completed</th>
<th>Unavailing</th>
<th>Grand Total</th>
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</thead>
<tbody>
<tr>
<td>IN Calls</td>
<td>Phone Calls</td>
<td>1</td>
<td>23</td>
<td>7</td>
<td>7</td>
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<tr>
<td>General Phone Assess</td>
<td>22</td>
<td>68</td>
<td>1</td>
<td>74</td>
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<tr>
<td>Follow-up Notes</td>
<td>19</td>
<td>19</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>27</td>
<td>14</td>
<td>8</td>
<td>52</td>
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<tr>
<td>SW Calls</td>
<td>Phone Calls</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>4</td>
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<tr>
<td>General Phone Assess</td>
<td>2</td>
<td>14</td>
<td>1</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Follow-up Notes</td>
<td>5</td>
<td>19</td>
<td>5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>19</td>
<td>40</td>
<td>5</td>
<td>59</td>
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<tr>
<td>Grand Total</td>
<td>2</td>
<td>64</td>
<td>114</td>
<td>12</td>
<td>152</td>
</tr>
</tbody>
</table>

Home Visits

<table>
<thead>
<tr>
<th>July</th>
<th>NN Visit</th>
<th>SW Visit</th>
<th>A Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>14</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

Patient Engagement (Oct 2015-Present)

- Total Pts Enrolled: 212
- Active Pts Enrolled: 98
- Pts Disenrolled: 114

Change in Disposition (Oct 2015-Present)

- Total Hospitalizations or ED visits: 41
- Hospice Referrals: 41
- Hospice Admits: 34

Principal Diagnoses (Oct 2015-Present)

- Congestive heart failure (CHF): 45
- Other: 4
- Neurologic (cerebral, stroke, etc.): 9
- Cancer: 8
- Pneumonia (CHF): 4
- Chronic obstructive pulmonary disease (COPD): 4
- Demerel): 10
- Coronary artery disease (CAD): 16

Gender and Age Distribution

- Male: 112
- Female: 99

Age Group: 88% > age 80

Number of Records:

- Under 10: 2
- 11-20: 24
- 21-30: 26
- 31-40: 45
- 41-50: 45
- 51-60: 45
- 61-70: 45
- 71-80: 45
- 81-90: 45
- Over 90: 45
Ethnicity and Living Arrangement

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Patients</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>4</td>
<td>3%</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>White</td>
<td>136</td>
<td>97%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>140</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Living Arrangement</th>
<th>Patients</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alone</td>
<td>51</td>
<td>36%</td>
</tr>
<tr>
<td>Family member/Other</td>
<td>43</td>
<td>30%</td>
</tr>
<tr>
<td>Spouse or Partner</td>
<td>56</td>
<td>39%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>142</td>
<td>100%</td>
</tr>
</tbody>
</table>

Palliative Performance Score (PPS)

Over half have a PPS 50 or less and 88% have a PPS of 60 or less:

PPS scale:
- 60%- significant disease; occasional assistance needed
- 50%- extensive disease; considerable assistance required
- 40%- Extensive disease; mainly in bed, mainly assistance
Patient Risk Level
Home Visits (RN & SW)

RN Home Visits
- High: 9%
- Medium: 40%
- Low: 51%

SW Home Visits
- High: 6%
- Medium: 41%
- Low: 54%

Reason for Risk Level

<table>
<thead>
<tr>
<th>Reason for Risk Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advance Care Planning/Goals of Care</td>
<td>10%</td>
</tr>
<tr>
<td>Caregiver Support</td>
<td>7%</td>
</tr>
<tr>
<td>Clinical/Symptoms</td>
<td>8%</td>
</tr>
<tr>
<td>Community Resources Needed</td>
<td>8%</td>
</tr>
<tr>
<td>Medication Management</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
<tr>
<td>Other/illness</td>
<td>1%</td>
</tr>
<tr>
<td>Safety Concerns</td>
<td>8%</td>
</tr>
<tr>
<td>Social Support</td>
<td>7%</td>
</tr>
</tbody>
</table>

Note: Documented for moderate to high risk patients only by both SW and RNs after each visit or call
Medication Reconciliation

Number Of Medications per Patient

Number Of Medications
- 2
- 3
- 4
- 5
- 6
- 7
- 8+  

Complete 142 97%
Incomplete 5 3%
Goals of Care Addressed

- 98% Yes
- 2% No

Change in Code Status

- 62% No
- 38% Yes
- 41
Satisfaction with Symptoms

Project Benchmark: 80%

Patient/Family Satisfaction

Experience with AIM influenced likelihood of recommending MediGold to others

Likely to recommend program to others

Satisfied with services provided by the AIM team

Helpfulness of team to family and caregivers

Helpfulness of team to in managing the symptoms and stresses of illness

Comfortable talking about illness with the MediGold and Mount Carmel team

Average Score
Scale 1-5
n = 28
**Preliminary Utilization and Cost Outcomes**

**Estimated Hospital Savings - $161 PMPM**

**Net Savings on 150 Patients: $24,000/Month**

Enrollees:
- 11 admits (0 re-admits);
- 29 ER visits by 21 patients;
- 31 ICU days (4 patients);

Two Cohorts:
- October to December 2015: 100 enrolled patients.
- January to March 2016: 123 enrolled patients.

Identified but not Enrolled:
- 98 admits;
- 12 readmits;
- 164 ER visits by 79 patients;
- 394 ICU days (56 patients)

As of May 13, 2016, there are 330 members still active on the plan who were previously identified but never enrolled.

**Comparative Hospital Utilization**

<table>
<thead>
<tr>
<th></th>
<th>Enrolled</th>
<th>Ident But Not Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admits</td>
<td>330</td>
<td>395</td>
</tr>
<tr>
<td>Re Admits</td>
<td>72</td>
<td>0</td>
</tr>
<tr>
<td>ER Visits</td>
<td>871</td>
<td>633</td>
</tr>
<tr>
<td>ER Patients</td>
<td>630</td>
<td>481</td>
</tr>
<tr>
<td>ICU Days</td>
<td>930</td>
<td>2398</td>
</tr>
</tbody>
</table>
Hospice Utilization

- Total program enrollment: 201 patients
  - 40 Hospice referrals
  - 34 hospice admissions
  - AIM program’s hospice admission rate = 16.4%
  - Median Hospice LOS - 52 days

Case Example

Dwight- a 90 yr old initially screened as moderate risk, but was having symptoms that prompted a home visit by AIM nurse and SW...

And others...
Key Considerations

... that Hospice and Palliative Care programs should contemplate the following when developing and positioning new AIM programs for

- ACO's
- Population Management Partners
- Clinically Integrated Networks
- Health Plans

Key Considerations

Be prepared to:

- Describe the needs or problems your program will address and how it differs from current case management or other population health programs
  - Plans, population health programs and specialize home care programs think they are already providing specialized palliative care
- Explain the ways in which your program is an innovative, disruptive or a breakthrough approach
- Identify a target a population & stakeholder groups
### Key Considerations Cont’d

- Engage participants and/or obtain referrals
- Measure the financial and non-financial benefits
  - Find someone who understands how to do this
- Differentiate the business and competitive offering
- Sustain and replicate the model
- Overcome potential challenges that could delay implementation or impact the project
- **Build it**—can’t just “add on” to existing Hospice or Home Care duties

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### Morals of Our Story

- Big ideas require small successful steps
- Identifying patients through predictive modeling works!
- “Return to humanity” is just as important as return on investment/ROI
  - Combine stories with data
- Never assume people know what palliative care is
- Be prepared to state The Case Over & Over Again, Over & Over Again, Over & Over Again, Over & Over Again, Over & Over Again...
AIM Team

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