Managing Risk:
The Challenges of Complex Health & Social Needs Patients

Presented by
Christie Lawrence, MPR
Vice President of Commercial Services

Proprietary & Confidential
Objectives

- The Perfect Storm for Payers & Providers
- Challenges of High-Need / High-Cost Patients
- Identify the Right Risk Factors
- Improve Data Collection Through Existing Tools
- Targeted Care Coordination Programs
- High-Quality System of Care
- Summary
- Questions & Answers
“Hot Spotters” or High-Cost Patients

- 10% of the US population accounts for more than 60% of US Healthcare expenditures, largely tied to 7 chronic conditions, including heart disease, cancer, and diabetes. Atul Gawande calls such patients “hot spotters.”

- Nearly 3 in 4 people 65 years or older have multiple chronic conditions, a status called multi-morbidity.

- Patients with multi-morbidity account for 93% of prescriptions and nearly 80% of physician visits and hospital stays.

- Estimated cost of waste associated with poor care coordination was $25 to $45 billion in 2011.

- Analysis of 9+ million Medicaid and dual eligible claims found costs were on average 75% higher than for matched patients with coordinated care.

“Caring more effectively and efficiently for these high-cost patients represents a clear opportunity to implement the Triple Aim of improving patients’ care experience, enhancing population health, and reducing per capita health care costs.”

According to the National Health Council, chronic diseases are the leading cause of death and disability in the U.S.

- **7 out of 10 deaths** in the U.S. each year are due to chronic diseases.
- **4 of the 5 most expensive health conditions** are – heart disease, cancer, mental disorders, and pulmonary conditions.
- **7 chronic diseases** (cancer, diabetes, hypertension, stroke, heart disease, pulmonary conditions and mental illness) cost $1.3 trillion annually.
- By 2023, the cost number is projected to **increase to $4.2 trillion** in treatment costs and lost economic output per year.
- By 2025, chronic diseases will affect an estimated 164 million Americans – **nearly half (49%) of the population**.
- People age **65 and older will double** to 1.3 billion globally by 2040.

Source: [http://www.nationalhealthcouncil.org/sites/default/files/NHC_Files/Pdf_Files/AboutChronicDisease.pdf](http://www.nationalhealthcouncil.org/sites/default/files/NHC_Files/Pdf_Files/AboutChronicDisease.pdf)
The HHS Goal: The Dept. of Health and Human Services has set a goal of moving 50% of payments toward alternative models by 2018 and 90% linked to quality performance.
The Perfect Storm for Payers & Providers

- Escalating cost of chronic diseases
- Increasing number of high-need complex patients
- Value-based payment programs tied to quality and cost reduction
- Growth in Medicare Advantage (MA) plans
A new nationwide survey by five national healthcare foundations released on 12-9-2016 shows healthcare systems are failing patients with complex medical needs.

“95% of high-need patients surveyed have consistent access to healthcare, but they struggle to get coordinated medical, behavioral, and social services in order to stay healthy and avoid expensive hospital visits.

Specifically, they had limited access to: Care coordinators, assistance in managing functional limitations, emotional counseling, and transportation services.”

High-Need Complex Patient Profile

- High-need patients are adults with **two or more major chronic conditions** like heart failure, stroke, or diabetes requiring insulin.
- May or may not have a functional limitation in their ability to perform functions of daily living.
- Some are **under the age of 65 with a disability**.
- Others are **elderly with multiple functional limitations**.
- Often have **unmet behavioral health and social needs** that exacerbate their medical conditions.

“**Compared with the general population, the high-need population is older, has lower levels of education and income, and includes more women and African Americans.**”

High-Need Complex Patients

High-need complex patients are just 5% of the U.S. population, but they account for 50% of U.S. healthcare spending.

In addition to the challenges of getting care, the Commonwealth Fund survey of high-need patients showed:

- 48% were hospitalized overnight in the past two years
- 47% visited the emergency department (ED) multiple times in the past two years
- 62% did not have adequate help with activities of daily living (ADL)
- 58% did not have an informed and/or up-to-date care coordinators
- 62% experienced stress about their ability to afford housing, utilities or meals
- 59% are worried about being a burden to their family and friends
- 37% felt lonely, left out or isolated from others

Managing Risk = Keys to Success

Because the average annual healthcare spend for high-need adults exceeded $21,000 per person, nearly 3X the average for adults with multiple chronic diseases ($7,526) and more than 4X that of all adults ($4,845), managing high-risk beneficiaries across multiple settings of care will be key to succeeding in a pay-for-performance environment.

Key Strategies:

1. Identify the Right Risk Factors
2. Improve Data Collection through Existing Tools
3. Targeted Care Coordination Programs

Source: [https://www.optum.com/content/dam/optum/resources/whitePapers/Four_steps_population_health_management.pdf](https://www.optum.com/content/dam/optum/resources/whitePapers/Four_steps_population_health_management.pdf)
Source: Effective Management of High-Risk Medicare Populations.” Avalere Health, LLC, September 2014

“Elegant solutions to today’s challenges”
Strategy 1: Identify the Right Risk Factors
Most organizations are not used to being “at risk” financially for the health of their patients; so, this is often a new skill organizations must learn. It also requires predictive analytics tools to help predict “rising risk” patients likely to have an adverse event.

Keeping people healthy & managing high-risk patients is key.

Rising Risk

- Low Risk Patients
- High Risk Patients
- Single Chronic Condition and Complex Patients
- Multiple Chronic Conditions and Complex Patients

Prevention
Key Medical Contributors to High Risk

<table>
<thead>
<tr>
<th>MEDICAL BENEFICIARY-LEVEL CHARACTERISTICS</th>
<th>INCREASE IN HIGH-RISK PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Medicare home health utilization (41 or more visits) in the prior year</td>
<td>16.2%</td>
</tr>
<tr>
<td>High Medicare spending in the prior year (PMPM)</td>
<td></td>
</tr>
<tr>
<td>• Being in the top 10% of spending in the prior year</td>
<td>11.3%</td>
</tr>
<tr>
<td>• Being in the top 20% of spending in the prior year</td>
<td>8.8%</td>
</tr>
<tr>
<td>Diabetes with complications</td>
<td>8.8%</td>
</tr>
<tr>
<td>Neurological or mental health conditions</td>
<td></td>
</tr>
<tr>
<td>• Neurological conditions</td>
<td>8.8%</td>
</tr>
<tr>
<td>• Psychological conditions</td>
<td>6.4%</td>
</tr>
<tr>
<td>Cardiovascular conditions</td>
<td></td>
</tr>
<tr>
<td>• Acute Myocardial infarction</td>
<td>8.6%</td>
</tr>
<tr>
<td>• Vascular conditions without complications</td>
<td>7.5%</td>
</tr>
<tr>
<td>High hospital outpatient (34 or more visits) utilization in the prior year</td>
<td>7.8%</td>
</tr>
<tr>
<td>Kidney disease</td>
<td>6.8%</td>
</tr>
</tbody>
</table>

Source: Avalere Health LLC, Effective Management of High-Risk Medicare Populations, September 2014.
Across these top 9 chronic conditions, depression and anxiety go UNDIAGNOSED 85% of the time!

### Medical Costs per Disease State

<table>
<thead>
<tr>
<th>Chronic Medical Condi.5%tion</th>
<th>PMPM with Behavioral Condition</th>
<th>PMPM Without Behavioral Condition</th>
<th>% Treated for Depression or Anxiety</th>
<th>Expected Depression or Anxiety Prevalence</th>
<th>% Missed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthritis</td>
<td>$871.88</td>
<td>$564.76</td>
<td>7.1%</td>
<td>32.3%</td>
<td>77.9%</td>
</tr>
<tr>
<td>Asthma</td>
<td>$861.99</td>
<td>$470.05</td>
<td>6.8%</td>
<td>60.5%</td>
<td>88.8%</td>
</tr>
<tr>
<td>Cancer (Malignant)</td>
<td>$1,180.96</td>
<td>$1,018.45</td>
<td>5.7%</td>
<td>39.8%</td>
<td>85.7%</td>
</tr>
<tr>
<td>Chronic Pain</td>
<td>$1,210.56</td>
<td>$884.70</td>
<td>5.9%</td>
<td>61.2%</td>
<td>90.4%</td>
</tr>
<tr>
<td>Coronary Artery</td>
<td>$1,305.00</td>
<td>$958.34</td>
<td>5.7%</td>
<td>48.2%</td>
<td>88.1%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>$1,110</td>
<td>$828.18</td>
<td>5.2%</td>
<td>30.8%</td>
<td>83.2%</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>$2,242.85</td>
<td>$1,888.11</td>
<td>7.0%</td>
<td>43.8%</td>
<td>84.1%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>$880.33</td>
<td>$588.04</td>
<td>5.5%</td>
<td>30.5%</td>
<td>82.0%</td>
</tr>
</tbody>
</table>

Depression also increases the risk of a 30-day readmission by 40%.

Use of Non-Medical Factors

According to the Avalere and the SCAN Foundation study, non-Medical factors are as powerful as medical factors in determining health care utilization!

- Avalere’s modeling showed a Medicare beneficiary’s probability of being high-risk, top 20% of Medicare spending, in the subsequent year were increased by:
  - 7% with functional impairment, inability to perform activities of daily living (ADLs)
  - 8% with self-reported fair or poor health
  - 16% high use of home health care in the prior year

**High home health utilization was the strongest single predictor of being high-risk in the prior year.**

Source: Avalere Health LLC, Effective Management of High-Risk Medicare Populations, September 2014.
Avalere and The SCAN Foundation found that when an underlying chronic condition accompanies an inability to care for oneself independently, per capita health care spending can double.

Source: Avalere Health LLC, Effective Management of High-Risk Medicare Populations, September 2014.
Medicare spends almost four times as much for beneficiaries with cognitive impairment, such as Alzheimer’s disease or dementia, than for those who do not have a cognitive impairment.

Source: Avalere Health LLC, Effective Management of High-Risk Medicare Populations, September 2014.
## Key Non-Medical Contributors to High Risk

High-risk is having Medicare spending in the top 20%.

<table>
<thead>
<tr>
<th>NON-MEDICAL BENEFICIARY-LEVEL CHARACTERISTICS</th>
<th>INCREASE IN HIGH-RISK PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-reported fair or poor health status</td>
<td>8.1%</td>
</tr>
<tr>
<td>Having moderate functional impairment</td>
<td>6.9%</td>
</tr>
<tr>
<td>Age 85 and older</td>
<td>8.8%</td>
</tr>
<tr>
<td>Living in a residential setting in the prior year</td>
<td>4.5%</td>
</tr>
<tr>
<td>Living in a nursing home in the prior year</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

Source: Avalere Health LLC, Effective Management of High-Risk Medicare Populations, September 2014.
It is challenging to accurately identify patients to include in specific registries and attribute them to a specific provider. It is extremely challenging to identify patients that will be difficult to manage due to non-medical indicators such as:

- Language barriers
- Cognitive inability to participate in a care protocol
- Physical inability to participate in a care protocol
- Economic inability to participate in care protocols
- Willing and informed refusal to participate in a care protocol (e.g., religious reasons)
- Medication contraindications to participating in a care protocol
- Geographic inability to participate in a care protocol
- Mortality

EMRs must have a specific place for documenting these indicators and a population health management system must have a method for flagging these patient categories. If not, patients will be included in your performance data, and it will count against you.

Source: https://www.healthcatalyst.com/landmark-review-of-population-health-management-companies/
Strategy 2:
Improve Data Collection Through Existing Tools
Avalere states “the greatest gap in population health management tools is the availability of member-level data to better identify clinical and financial risk.”

Three main sources of information that can be leveraged to fill in the gaps and provide a “360-degree view” of the patient:

1. **Administrative Data** – Enrollment and claims-based data files provide patient’s medical condition, healthcare utilization, and cost.

2. **Health Risk Assessments (HRAs)** – A screening tool used by payers / providers to supplement administrative data. These need to be expanded to capture functional/cognitive abilities, social support needs, and to identify lifestyle characteristics.

3. **Clinical Input** – EMR data provides more real-time information about the patient’s status and can aide in risk stratification.
Case Study – Claims Only

Claims data restricts the plan’s understanding of this member’s risk factors to only three characteristics: 1) diabetes, 2) age 91, and 3) high historical Medicare spending.

Jane’s Profile:
- Diabetes
- Age 91
- High Medicare spending in prior year ($128,000)
  - due to $20,000 ED visit and multiple readmissions.

Eight missed characteristics:
- Forgetfulness
- No family in the area
- A history of falls
- Bone loss
- Smoker
- Lives alone
- No exercise
- Improper nutrition

Likelihood of being in top 20% of spending based on claims – 35%

Likelihood of being in top 20% of spending based on additional risk factors – 70%

Source: Avalere Health LLC, Effective Management of High-Risk Medicare Populations, September 2014.
CMS requires MA plans to administer HRAs as part of the annual wellness visit (AWV), and **CMS does NOT require MA plans to use a standard HRA form**. Most plans use a form that is designed for “quick and easy” administration. Enhanced HRAs, often taken in person, can assess LTSS needs by evaluating the following domains:

- ADLS and/or IADLS
- Cognitive function
- Frailty and fall risk
- Having a regular PCP
- Skin issues (e.g., wounds, ulcers)
- Home safety (e.g., whether the member has grab bars in the shower, has a ramp, uses a walker, or has a hospital bed)
- Behavioral / mental health
- Family and caregiver support
- Functional status
- Living situation (e.g., lives alone)
- Transportation
- Nutrition and/or access to proper meals

*Source: Avalere Health LLC, Effective Management of High-Risk Medicare Populations, September 2014.*
Data Source Challenges

• **Claims**: Claims are retrospective, typically 30 – 60 days behind, and do not provide real-time data on which to make care management decisions.
  - **Risk-adjusted Factor (RAF)** – Each payer has their own proprietary algorithm for risk.

• **Hierarchical Condition Codes (HCC)**: HCCs may be incomplete or inaccurate due to poor clinical documentation and may not reflect the patient’s true acuity level. Also creates missed revenue opportunities which hinder payer negotiations when setting contract benchmarks.

• **Clinical**: Often hard to get from disparate EMR/PMS systems. Requires a significant investment to create an aggregate data warehouse with nightly data extraction/aggregation.
  - **Clinical Documentation** - Poor clinical documentation creates havoc with data accuracy, revenue and quality performance. Improvement requires staff training on ICD-10 codes, workflow standardization, and ongoing monitoring / auditing.
Predictive Analytic Solutions

Predictive analytic software solutions offer new ways for organizations to predict risks and financial outcomes for both individuals and systems by intelligently forecasting future medical events as well as uncovering missed Hierarchical Condition Category (HCC) codes that if addressed could add significant revenue.

Sample Solution

Current risk score is calculated based on the claims in 2015 using the CMS-HCC model. The predicted risk score is an estimate, as there may be data errors in members’ eligibility statuses and claims.

Expected risk gain is calculated based on the surfaced risk using ARISE (Accretion Risk Surface Engine). For instance, if a member is expected to have a (CCS) HIV/AIDS (risk score: 4.79) with a probability of 0.5, then the member’s expected risk gain is $65.85.

Expected revenue gain is calculated by multiplying the expected risk gain with $800, which is a per member per month estimate when the risk score is increased by 1.

\[
\text{Expected Revenue Gain (per member per month)} = \text{Expected Risk Gain} \times \$800
\]

\[
\text{Expected Risk Gain} = 0.082 \times 4.58 = 0.37
\]

\[
\text{Expected Revenue Gain} = 0.37 \times 800 = 65.85
\]
Data scientists are pushing the envelope of healthcare machine learning research to improve the accuracy of risk scores. Not only can they predict which members are at risk, they can analyze coding patterns to identify “missed” coding opportunities per member and ones most often missed by providers.
Targeted Patient Outreach

Using integrated claims, pharmacy and other disparate data sources, case managers can easily identify patients with the biggest potential “gain” (e.g., those patients having more chronic conditions that could be documented) which could increase acuity level and subsequent reimbursement.

Sample Solution

Expected Gain & Revenue if coded correctly.
Risk management software solutions can uncover coding patterns by providers and give you a tool to help them understand which codes actually contribute to a higher risk score and ones that do not.

Codes that do not help improve the patient’s risk score.
Strategy 3: Targeted Care Coordination Programs
Patient-Centric, Patient-Focused Model

- Pharmacy
- Home Care & LTC
- Ancillary Providers
- Other Non-Traditional Providers
- Payment
- ACO/CIN Management
- Alignment Structures
- Population HIT/HIE & Data Management & Care Mgmt
- Health Home
- Patient
- Specialists
- Behavioral Health
- Hospitals
- Hospice
- Public Health Agencies

“Elegant solutions to today’s challenges”
Some ACOs have an Ambulatory Intensive Care Unit responsible for care management of patients six months post discharge.
The challenge for any organization is to design and implement an effective program that reduces PMPM costs through reduced demand (e.g., prevention and reduced inpatient and outpatient use) while improving quality.

Avalere conducted an ROI analysis of five transition models and one care coordination model to estimate the cost-effectiveness of certain coordination models targeted at Medicare beneficiaries. The ROI for each program was calculated based on the review of 16 studies/articles related to their efficacy.

“Active care coordination for high-risk populations relies on simple concepts, but the work is hard and extends far beyond traditional disease management.”

Source: Effective Management of High-Risk Medicare Populations.” Avalere Health, LLC, September 2014
# Program Models Reviewed

<table>
<thead>
<tr>
<th>Program Model</th>
<th>Overview</th>
<th>Key Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Care transitions Intervention</strong></td>
<td>Focuses on hospital or SNF to home transitions using a coach to help patient manage their care.</td>
<td>• Transition coaches are advanced practice nurses and meet with the patient in the hospital to introduce personal health record and arrange a home visit.</td>
</tr>
</tbody>
</table>
| **Care Transitions Intervention (Group Visit)** | A new model of care transition which has a group of patients regularly visit PCPs. Goal is to facilitate self-management through education, encouragement and peer/professional support with focus on psychosocial aspects. | • Monthly group visits (generally 8-12 patients) with PCP, nurse, and pharmacist held in physician practice.  
• Visits emphasize self-management, peer support and frequent contact with care team.                                                                                                        |
| **Geriatric Resources for Assessment and Care of Elders (GRACE)** | Focuses on coordinating information sharing during transitions of care to prevent avoidable hospital admissions. Advanced practice nurse, MSW and PCP with geriatric team to coordinate care on an ongoing basis. | • Training of nurse practitioners, MSWs, support staff, PCPs and health center staff.  
• Advanced HRA  
• Frequent care team contact  
• Use of EMR/tracking system.                                                                                                                                                      |
## Program Models Reviewed

<table>
<thead>
<tr>
<th>Program Model</th>
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<th>Key Strategies</th>
</tr>
</thead>
</table>
| **Project RED**        | Focuses on hospital to home transitions. Outlines ways to identify high-risk patients and give providers an 11-step discharge checklist.                                                               | • Hire/train nurse discharge advocates (DAs).  
• Create / teach a personalized discharge plan to the patients.  
• Clinical pharmacist follows up with patients after discharge to reinforce the discharge plan and review medications. |
| **Transitional Care Model** | Focuses on hospital to home transitions. Advanced practice nurse coordinates care up to 3-months post-discharge.                                                                                     | • Transitional care nurse (TCN) conducts an in-hospital assessment.  
• TCN provides patients with comprehensive discharge plan and home follow-up services.  
• Patient has access to TCN via telephone 24/7 for 2 months post-discharge. |
| **Project BOOST**      | Focuses on hospital to home transitions. Model emphasizes patient engagement and discharge education for high-risk patients immediately after discharge.                                                  | • Year-long mentoring program aimed at reducing 30-day admits.  
• Broad assessment of admitted patients.  
• Discharge planning prepared by an interdisciplinary team.  
• Follow-up calls to patients with 72 hours of discharge on how to care for themselves. |

“Elegant solutions to today’s challenges”
Higher program investment does not equal higher financial returns!

<table>
<thead>
<tr>
<th>Program Model</th>
<th>Annual Cost Per Member</th>
<th>Annual Savings Per High-Risk Member</th>
<th>ROI Per Year</th>
<th>PMPM Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care Transitions Intervention (Group Visit)</td>
<td>$678</td>
<td>$4,795</td>
<td>607.02%</td>
<td>$343.06</td>
</tr>
<tr>
<td>Transitional Care Model</td>
<td>$1,492</td>
<td>$5,334</td>
<td>257.48%</td>
<td>$320.14</td>
</tr>
<tr>
<td>Care Transition Intervention</td>
<td>$999</td>
<td>$2,311</td>
<td>131.3%</td>
<td>$109.34</td>
</tr>
<tr>
<td>GRACE</td>
<td>$2,201</td>
<td>$4,291</td>
<td>94.96%</td>
<td>$174.17</td>
</tr>
<tr>
<td>Project RED</td>
<td>$373</td>
<td>$493</td>
<td>32.37%</td>
<td>$10.05</td>
</tr>
</tbody>
</table>

Source: Avalere Health LLC, Effective Management of High-Risk Medicare Populations, September 2014.
The SCAN Foundation created a **ROI Calculator** to help organizations with making the business case to develop and operate “person-centered care” (PCC) programs that serve the high-need older adult.

### Eligible Population

<table>
<thead>
<tr>
<th>Level 1</th>
<th>200</th>
<th>0 to 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 2</td>
<td>200</td>
<td>10% to 20%</td>
</tr>
</tbody>
</table>

**Total 400**

### Launch Costs

<table>
<thead>
<tr>
<th>PMPM</th>
<th>One Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>$140,000</td>
<td></td>
</tr>
</tbody>
</table>

### Operating Costs

<table>
<thead>
<tr>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>$59,354</td>
</tr>
</tbody>
</table>

### Direct Services

| $91 | $36,400 |

### Overhead

| $9 | $3,640 |

### Additional Services

| $51 | $20,250 |

**Total $151 | $60,290**

### Total Operating Costs

| $299 | $119,644 |

### Benefit Savings

<table>
<thead>
<tr>
<th>PMPM</th>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,402</td>
<td>$280,324</td>
</tr>
<tr>
<td>$362</td>
<td>$72,356</td>
</tr>
</tbody>
</table>

### Total Monthly Benefits

| $33 | $13,050 |

**Total $914 | $365,729**

### Net Benefit PMPM

| $615 |

### Net Benefit Per Month

| $246,085 |

### Operating Margin ROI

206%

### Startup Payback (months)

0.57

### Operating Margin ROI

108%

### Startup Payback (months)

1.45

### Delta (Scenario B - Scenario A)

| Total | $148 | ($30,145) |

**Source:** [http://www.thescanfoundation.org/business-case-person-centered-care#calculator](http://www.thescanfoundation.org/business-case-person-centered-care#calculator)
A Proven Care Coordination Program

**Gunderson Health System** in La Crosse, Wisconsin created a successful CMS care coordination demonstration project focused on their 1% to 2% “hot spotters,” most complex patients.

- Integrated delivery system with hospitals including a trauma center, 475 physicians, and 35 clinics in 19 counties in 3 states.
- Hot Spotter program identified 373 complex patients using claims analysis and enrolled them in 2-year care management program.

**Hot Spotter Care Coordination Results:**

- Unplanned charges of $3,100 PMPM prior to care coordination decreased by 51% at 12 months and a cumulative 64% by 24 months to $1,100 PMPM.
- Total PMPM charges of $5,400 prior decreased by 39% within 12 months and a cumulative 60% within 24 months to less than $2,200 PMPM.
- Hospitalizations decreased by more than 50% at 24 months.
- Hospital lengths of stay decreased by 39% at 12 months and 46% at 24 months.

Source: http://www.mayoclinicproceedings.org/article/S0025-6196(12)01043-9/fulltext
Gundersen Hot Spotter care program included 6 design features:

1. Rigorous point-based “tiering” protocol selects appropriate complex candidates for program.
2. Created teams that included both care coordination nurses and social workers.
3. Ongoing face-to-face relationships between care coordinators and patients, including at patients’ medical appointments.
4. Care coordinators viewed their service as complimentary, not competitive with physicians, and strengthened patient-physician relationships.
5. Careful selection of experienced staff earned the trust of patients, clinicians and colleagues. Care coordinators were nurses with on average 27 years of experience.
6. Benefit the surrounding community, employers, insurers, and patients by keeping them out of the hospital.

Source: http://www.mayoclinicproceedings.org/article/S0025-6196(12)01043-9/fulltext
Gundersen’s Hot Spotter point system for medical complexity is modeled after the validated Johns Hopkins Care Coordination Tier Assignment Tool, Version 1.0 Health Care. One point is given for each chronic and severe medical condition that requires management by a care team. Candidates accumulate points by meeting referral criteria listed in the tiering tool.

### Gundersen Care Coordination Tiering Assessment

#### Rubric Assessment:

1. Will patient have primary or follow-up care at Gundersen Health?  
   - YES  
   - NO
2. Is referral primarily pediatric/behavioral health/obstetrics/medical-surgical/regional?  
3. Choose each condition that meets severe and chronic as defined below:
   - a. Allergy/asthma  
   - b. Cardiovascular  
   - c. Dental  
   - d. Otorhinolaryngologic  
   - e. Endocrine  
   - f. Eye  
   - g. Female reproductive  
   - h. Gastrointestinal/hepatic  
   - i. Genetic  
   - j. Genitourinary  
   - k. Hematologic  
   - l. Infections  
   - m. Malignancies  
   - n. Mental health  
   - o. Musculoskeletal  
   - p. Neurologic  
   - q. Nutrition  
   - r. Renal  
   - s. Respiratory (Chronic obstructive pulmonary disease)  
   - t. Rheumatologic  
   - u. Skin  
   - v. Toxic effects
4. Choose each issue that applies to the patient.
   - a. Advanced age, with frailty  
   - b. Cognitive impairment  
   - c. Concerns with caregiver’s ability to meet patient’s needs  
   - d. Difficulty with prescribed treatment plan/medications  
   - e. Frequent hospitalizations, 2 or more in the past year  
   - f. Frequent visits to urgent care and/or ED, 2 or more visits in the past 6 months  
   - g. High level of resource use, medications, visits, treatment, other cost measures  
   - h. Inadequate social support  
   - i. Interpreter needed  
   - j. Prematurity with medical complications  
   - k. Teen/high-risk pregnancy

Care Coordination Tiering Assessment

The score and the care coordination tier are determined by the number of items selected in questions 3 and 4 above.

<table>
<thead>
<tr>
<th>Tier</th>
<th>Sum Score</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>No Action</td>
</tr>
<tr>
<td>1</td>
<td>1-3</td>
<td>The patient does not qualify for services. * A note of non-qualification is sent to the referring personnel.</td>
</tr>
<tr>
<td>2</td>
<td>4-6</td>
<td>Care coordination nurses evaluate the patient’s appropriateness for enrollment.</td>
</tr>
<tr>
<td>3</td>
<td>7+</td>
<td>Patients are automatically enrolled in the program.</td>
</tr>
</tbody>
</table>

It is also payer neutral!

High-need complex patients who are not good at managing their health condition are more likely to visit the ED or have a hospitalization. Use of patient activation scores can more accurately assess risk, manage costs and help systems determine which patients may benefit more from care coordination/management services.

A robust care management platform is required to not only manage the patient care for high-cost complex patients and the case loads of the case managers, but some care management solutions also help risk taking organizations navigate complex quality rating systems, target high ROI measures, improve quality scores and identify patients most likely to respond to care management.

Case managers document touches and track adherence.
Importance of Home Assessments

- Medicare patient was referred to the ACO pharmacist for medication reconciliation and to help determine a way to afford medications.
- CHF, DM, COPD, Anxiety, HTN, Depression and MVA resulting in chronic headaches.
- Upon questioning about migraines, the patient brought out 9 bags of medications.
# Basic Care Management Programs

<table>
<thead>
<tr>
<th>Program Model</th>
<th>Overview</th>
<th>CPT Code &amp; Reimbursement</th>
</tr>
</thead>
</table>
| **Project RED**       | Focuses on hospital to home transitions. Outlines ways to identify high-risk patients and give providers an 11-step discharge checklist. | • Hire/train nurse discharge advocates (DAs).  
                          |                                                                           | • Create / teach a personalized discharge plan to the patients.  
                          |                                                                           | • Clinical pharmacist follows up with patients after discharge to reinforce the discharge plan and review medications. |
| **Transitional Care Model** | Focuses on hospital to home transitions. Advanced practice nurse coordinates care up to 3-months post-discharge. | • Transitional care nurse (TCN) conducts an in-hospital assessment.  
                          |                                                                           | • TCN provides patients with comprehensive discharge plan and home follow-up services.  
                          |                                                                           | • Patient has access to TCN via telephone 24/7 for 2 months post-discharge. |
| **Project BOOST**     | Focuses on hospital to home transitions. Model emphasizes patient engagement and discharge education for high-risk patients immediately after discharge. | • Year-long mentoring program aimed at reducing 30-day admits.  
                          |                                                                           | • Broad assessment of admitted patients.  
                          |                                                                           | • Discharge planning prepared by an interdisciplinary team.  
                          |                                                                           | • Follow-up calls to patients with 72 hours of discharge on how to care for themselves. |
Care Management Programs

• **Transitional Care Management (TCM):**
  CMS Transitional Care Management program (CPT codes 99495 & 99496) that allows reimbursement of non-face-to-face care provided when patients transition from an acute care setting back into the community. **Requires an “interactive” phone call within 48 hours of discharge and then an appointment with PCP within 7 or 14 days.** Reduces 30-day readmissions and generates higher reimbursement for required face-to-face visit for providing a higher level of patient care to high-risk patients.

  - CPT Code 99495 - $165.42
  - CPT Code 99496 - $233.09


• **Advance Care Planning (ACP)**
  CMS Advance Care Planning including the explanation and discussion of advance directives such as standard forms (with completion of such forms, when performed), by the physician or other qualified health care professional: 1st 30 minutes, face-to-face with patient, family members and/or surrogate.

  - CPT Code 99497 – $85.93  1st 30 minutes
  - CPT Code 99498 – $74.83  each additional 30 minutes

  [https://www.cms.gov/Medicare/Medicare-fee-for-service-Payment/PhysicianFeeSched/downloads/FAQ-Advance-Care-Planning.pdf](https://www.cms.gov/Medicare/Medicare-fee-for-service-Payment/PhysicianFeeSched/downloads/FAQ-Advance-Care-Planning.pdf)
Care Management Programs

• **Annual Wellness Visit (AWV):**
  CMS wants each Medicare beneficiary to have an Annual Wellness Visit (AWV) each year to update member’s medical/family history, measurement of height, weight, BMI, and blood pressure, with the goal of health promotion, disease detection and fostering the coordination of the screening and preventive services that may already be covered and paid for under Medicare Part B. The Health Risk Assessment (HRA) helps providers determine acuity level and be proactive.

  **CPT Code 99495 - $117**


• **Chronic Care Management (CCM):**
  CMS Chronic Care Management (CCM) services by a physician or non-physician practitioner and their clinical staff, per calendar month, is for Medicare beneficiaries with 2 or more chronic conditions expected to last at least 12 months or until the death of the patient, and that place the patient at significant risk of death, acute exacerbation/decompensation, or functional decline receive at least 20 minutes a month of care management from a clinical staff under the direction of a physician or other qualified healthcare professional and an individualized comprehensive care plan. *Helps secure patient attribution to providers.*

  **Non-Complex**
  CPT Code 99490 - $43 per enrolled member per month
  
  **Complex CCM**
  CPT Code 99487 - $94 established or substantially revised care plan
  
  **Complex CCM**
  CPT Code 99489 - $47 each additional 30 minutes of clinical staff time

CCM RN Care Coordination Model

CCM Care Coordination
Productivity for one (1) RN:

Each Patient:
• AWV = 1 hour
• ACP = 0.5 – 1 hour
• CCM = 4 hours
  Total: 5.5 – 6 hours

Case Load:
• 5.5-6 hours x 200 patients
• 1100 – 1200 hours / year
• Recruit 10 -15 patients month

Potential Average Annual Revenue per CCM patient: $713 per yr.

Source: Faith Jones, MSN, RN, NEA-BC
Director of Care Coordination & Lean Consulting
HEALTHTECHS3

Annual Revenue for 1 RN: $142,600

“Elegant solutions to today’s challenges”
The SCAN Foundation with support from the Alliance for Health Reform and Health Management Associates, convened a work group of national experts on adults with complex needs. This group developed a goal statement and identified four Essential Attributes of a high-quality system of care that supports transformation from the vantage point of adults with complex care.

“Overarching goal of a high-quality system of care for adults with complex care needs is:

*Individuals are able to live their lives with services and supports reflecting their values and preferences in the least restrictive, most independent setting possible with access to a delivery system that respects and supports their choices and decisions.”*

High-Quality System of Care

**Attribute 1:** Both medical and non-medical patient needs are identified and re-evaluated on an ongoing basis to drive care plans.

**Attribute 2:** Each individual’s needs are incorporated into a care plan that is tailored, safe, and timely.

**Attribute 3:** Patients have a cohesive, easy to navigate delivery system that allows them to access services when needed and avoid ones they do not need.

**Attribute 4:** Constant communication between patients, families and caregivers to ensure needs are being met.

Summary

Accurately assessing and predicting risk and managing the care of high-need complex patients is essential for healthcare organizations to succeed in a pay-for-performance environment.

• **Identify Right Risk Factors:** Assess what data your organization is currently using to identify and risk stratify high-need complex patients and expand it accordingly to include functional, cognitive and non-medical data.

• **Improve Data Collection Through Existing Tools:** Use ALL the data you have and ensure it is captured through accurate clinical documentation. Consider expanded HRAs and software solutions that help “surface” missed coding in order to accurately risk stratify patients.

• **Targeted Care Coordination Programs:** Tailoring care plans to reflect the wishes and needs of high-need complex patients improves the quality of care, patient/family satisfaction, and greatly reduces the cost of care.
  • Home health assessments are extremely effective
  • Use patient activation scores to help determine care management need
  • Collaborate with community resources to provide
  • Evaluate care programs using the ROI Calculator
Questions & Answers

Thank you for your time and interest! Please let me know if you have any additional questions.

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