Session Objectives

- Describe the population management issues that hospitals face
- Apply the IHI framework to help them manage the population they serve
Introduction

Various Changes in the US and around the world are causing us to look closer at population management. During this session, we will discuss an overall approach to population management based on research and development work at IHI and knowledge gained from work in the Triple Aim for the last eight years. With a focus on leadership, high risk high cost populations and an approach to integrated data support.
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Delivery Transformation Continuum

Providers can choose from a range of care delivery transformations and escalating amounts of risk, while benefitting from supports and resources designed to spread best practices and improve care.

Tools to Empower Learning and Redesign: Data Sharing, Learning Networks, RECs, PCORI, Aligned Quality Standards

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July 30-31, 2012
**ACO**

- August 2013: ~488 ACOs (> double July 2012)
- Slightly more CMS than commercial ACOs
- Major commercial: Aetna, BCBS, Cigna, United
- Cover ~37-43M Medicare or commercial patients
- Where are most ACOs?
  - Texas, Florida, California have high ACO penetration
  - South, Great Plains, and Midwest tend to have low ACO activity
  - Associated with greater hospital risk sharing (capitation), larger integrated hospital systems, and PCPs practicing in large groups

Gamble & Punke. All you need to know about ACOs. September 3, 2013. Becker’s Hospital Review.

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**Health System Priorities**

**Sustainability, Cost & Appropriateness** – focus on cost containment, efficiency gains/eliminating waste, disinvestment in ineffective care, value for money

i. Healthcare is the Pac-Man of provincial budgets, comprising 30-35% of total expenditures

ii. What health value we achieve for what we spend is questionable...

iii. Healthcare tends to equate productivity with service volumes, not health outcomes...

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Health System Priorities

Access, Wait Times & Integration –
shift from an acute-model to a chronic care model;
improving access to primary healthcare teams;
disease prevention, health promotion & public health

i. 16 million (1 in 2) Canadians have a chronic disease. Of those, 1 in 7 has a “high-impact, high-prevalence” chronic illness*

ii. Patients take avoidable trips to the ED and return to hospital for care they should receive at home or in their communities

iii. People often don’t know how

*higher burden among First Nations, Inuit, Métis people

What would you do if?

- Your state decided to limit its annual all-payer per capita total hospital cost growth to 3.58%.
- Your state will shift virtually 100% of its hospital revenue over the five year model into global payment models.
- You will achieve a number of quality targets designed to promote better care, better health and lower costs.
Questions-For Discussion

- How does a hospital fit in the new population-centric world?
- What is your business model for population health?

Maryland

- This model will require Maryland to limit its annual all-payer per capita total hospital cost growth to 3.58%, the 10-year compound annual growth rate in per capita gross state product.
- Maryland will shift virtually 100% of its hospital revenue over the five year model into global payment models.
- Maryland will achieve a number of quality targets designed to promote better care, better health and lower costs.
- [http://dhmh.maryland.gov/SitePages/Medicare%20Waver%20Modernization.aspx](http://dhmh.maryland.gov/SitePages/Medicare%20Waver%20Modernization.aspx)
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Reducing the per capita cost of health care.

**IHI Triple Aim**

- System designs that simultaneously improve three dimensions:
  - Improving the health of the populations;
  - Improving the patient experience of care (including quality and satisfaction); and
  - Reducing the per capita cost of health care.

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**Triple Aim Populations**

- **Defined Populations**: Triple Aim for a defined population that makes business sense (e.g. who pays, who provides)
- **Community-Wide Populations**: Solving a health problem within the community and creating a sustainable funding source
Managing Services for a Population

- Community Resources
- Needs Assessment for Segment
- Goals Coordination
- Delivery of Services at Scale
- Population Outcomes

Integrator

Platform

Goals Coordination

Portfolio of work for Managing Defined Populations

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<td>Primary Care Redesign</td>
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<td>Care Management (High Risk High Cost)</td>
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<td>Specialist Involvement</td>
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<td>Integrated Data Support</td>
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<td>Governance and Leadership</td>
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<td>Patient Engagement &amp; Activation</td>
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<td>Community Involvement</td>
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<tr>
<td>Contracting &amp; Financial Risk Management</td>
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</table>
Building Blocks for Population Management

**Aim:** Apply the Triple Aim to a population served by your organization or a population of interest in your region.

Choose a relevant *Population* for improved health, care and lowered cost
Articulate a *Purpose* that will hold your stakeholders together
Choose *Measures* that will show improvement for the population
Develop a *Portfolio* (group) of projects that will yield Triple Aim results
- No individual project can accomplish the Triple Aim but a portfolio of projects that are executed well can move closer to the aims.
Identify and develop the *Leadership and Governance* for a Triple Aim effort
Develop a brisk and realistic plan for *Execution* on projects and accountabilities for results

Elements of the Learning System to Manage Your Work

- **Set up/Build Infrastructure**
  - Identify your population
  - Articulate your statement of purpose (aim) and measures for a defined system plotted over time
  - Theory/Concept design/Strategic plan
  - Portfolio of projects and investments
- **Methods:** PDSA cycles, sequential testing of changes, Shewhart time series charts, informative cases, observational studies, multiplicative scale up
- **Management** and integration of the learning during testing and scale up
Activities of a Population Management Learning System (need revised slide)

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STRATEGIC AIM: Better Health/Better Value

(Jeff/Karen)

Manage Populations around the Triple Aim

Primary Drivers

- Integrated Data Support
- Primary Care Medical Home
- Care Coordination for populations
- Partnership with Providers
- Partnership with Community

Secondary Drivers

- Develop data analytics tools and models to identify and stratify high risk populations; measure results
- Map and connect data through the HIE to manage the care continuum
- Promote effective utilization of services
- Access to care
- Develop and implement prevention strategies
- Implement evidence-based models to manage high risk / high cost populations
- Strengthen the health system’s global risk infrastructure
- Develop models to facilitate complex care and effective disease management
- Manage transitions across the care continuum
- Develop and utilize patient and family advisory groups
- Promote integration to achieve changes in provider culture, redesign payment methods and incentives and meet demands of health care reform
- Build relationships with public health and human services – behavioral health payment models
- Identify social determinants of health to support Regional Health Improvement Plans
- Expand Healthy Lives wellness program to CentralOregon employer community
Leadership and Governance

Health Care In Transition

Optimizing the Current Model
- Technical Leadership:
  - Problem solving through expertise

Transforming the Organization
- Adaptive Leadership
  - New beliefs & behaviors
  - New relationships
  - New customers

Models

- Clinical Model: Episode Care → Coordinated Care → Patient Directed Care
- Business Model: Fee for Service → Bundled Payment/Capitation → Disruptive Innovation?
- Infrastructure: Segmented → Integrated → Cloud

Adapted from The Second Curve, Ian Morrison 1996
Why Update the Leadership Structure and Process?

- Uncertainty is UP
- New and More Stakeholders
- The Financial Questions are New
- Leaders Matter

Leaders and Boards must “learn their way” into a new organizational structure.

New Mental Models

```
“Volume”
- Patient Satisfaction
- Increase Top Line Revenue
- Complex All-Purpose Hospitals and Facilities
- Quality Departments and Experts

“Value”
- Persons as Partners in their Care
- Continuously Decrease Per Unit Cost
- Care Organized by Business Model
- Quality in Daily Work for Everyone
```
High-Impact Behaviors

- Person-centeredness: Be consistently person-centered in word and deed.
- Frontline Engagement: Be a regular, authentic presence at the frontline and a visible champion of improvement.
- Relentless Focus: Remain focused on the vision and strategy.
- Transparency: Require transparency about results, progress, aims, and defects.
- Boundarylessness: Encourage and practice system-thinking and collaboration across boundaries.

Exercise

How Leaders Should Navigate Challenges
1. Choose and Review the Case Statement
2. Together identify how the leaders could behave to address the challenge in this statement
3. Prepare to give a quick summary to the group
Case I. Reducing Hospital Use

Ben Logan Regional Medical Center has a high readmission rate, with 62% of the readmissions come from the population with geriatric frailty syndrome. The leaders know that there are ways to reduce hospital use and help keep these patients in the community, but they are concerned about dropping revenue if bed days drop. What leadership behaviors would help the leader decide what to do and execute on it?

Case 2. At Risk Patients and the ED

The leaders of the Model Alpha Health System (3 hospitals, 5 large ambulatory practices and a home health agency) are seeing that 8% of patients seen in the ED are frequent users of the Emergency Department services. Many are indigent patients or on Medicaid. The leaders want to begin signing contracts to be at risk for patient care across the continuum, but they are concerned that there is inadequate support for patients in the community. What would be your leadership approach in this situation and what behaviors would be helpful?
Case 3. Physicians on Board

At Model Alpha, 10% of their physicians are employed by the system and the rest are in private practice in the community. There are five large practices affiliated with the system, three are multispecialty. Preventive care in the ambulatory practices for adults is spotty at best, with only 20% of patients receiving all recommended preventive services. As the clinical leader of the system, what would you do and which high impact behaviors would you employ?

What Behaviors are Missing?
References:

Overall Approach to Improving Outcomes for High-Risk High-Cost Populations

Rebecca Ramsay, BSN, MPH
Community Care Director, CareOregon
Faculty – IHI Triple Aim
Guiding Principles

1. Identification of individuals at high risk for future cost
2. Impactability of the identified individuals
3. Cost effectiveness of your intervention or redesign – have to understand the cost drivers in your population/region
4. Potential interventions or redesign – what we are currently doing isn’t working, so how can we change it?

Percent of Total Health Care Expenses Incurred by Different Percentiles of U.S. Population: 2002

Sources: Statistical Brief #73, March 2005, Agency for Healthcare Research and Quality
Persistence In Spending

Figure 1. Persistence in the level of health care expenditures, U.S. civilian noninstitutionalized population, 2008 to 2009

Source: Centers for Medicare and Medicaid Services, National Health Care Expenditures and Receipts, 2008-2009

Figure 3. Impact of Behavioral Health Comorbidities on Per Capita Costs among Medicaid-Only Beneficiaries with Disabilities

Clarifying Multimorbidity Patterns to Improve Targeting and Delivery of Clinical Services for Medicaid Populations
Cynthia Boyd, Bruce Leff, Carlos Weiss, Jennifer Wolff, Allison Hamblin, and Lorie Martin CHCS DECEMBER 2010
4 Step Process for HR HC Patients

Based on our change package and our experience working with teams to re-design care for HR/HC patients we have developed the following 4 step process:

- **Step One: Segment & Identify Your HR HC population.**
- **Step Two: Understand Needs and Root Causes. How do you delve into peoples’ stories’?**
- **Step Three: Co-create and Execute a Care plan with 5 People. What did you learn about their capabilities?**
- **Step Four: Scale to 25**

Segmentation
CareOregon

Our Vision: Healthy Oregonians regardless of their income or social circumstances.

- Publicly financed health plan for low-income citizens
  - Medicaid: Mom’s and Children, Disabled/ Chronically Ill
  - Medicaid/ Medicare “Special Needs” Plan
- 180,000 Members
- Not for Profit
- Contracted network
  - 50% Safety Net PCPs
  - Diverse Private practice PCPs
  - Major metro and rural hospitals

- Began building population programs for complex members in 2003
- Participant in IHI Triple Aim Initiative since May 2007

CareOregon Population Segments

Members who are served within a regional Coordinated Care Organization (CCO)

Members who receive primary care from one of 30 practices engaged in the implementation of PCPCH

Members who are also receiving regular mental health services from a community mental health agency

Members who are in the top five or ten percent of health care expenditures

CareOregon Member Population

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Identification

- Threshold approach
- Clinical knowledge
- Predictive modeling

Identification Method

CareOregon Enterprise Population (approx 180K individuals)

HR/HC Definition – Threshold Criteria using claims (approx 8000 Individuals)

Primary Care Involvement (approx 100-200 Individuals per clinic)

Clinical Knowledge & Input
## Utilization Threshold Criteria Using Claims Data

### Regional Target Population – Three Counties

Cost / Counts Profiles Clinic Assignment CaraOregon Mols examined as of Aug 1, 2012

<table>
<thead>
<tr>
<th>Utilization Type Groups</th>
<th># Insurance</th>
<th>% Insurance</th>
<th>Avg Total Paid Cost per 12 mos</th>
<th>% Paid Cost, ED visits per 12 mos</th>
<th>% Paid Cost, IP Visits per 12 mos</th>
<th>Total Paid Cost \ SBP10,000</th>
<th>% Paid Cost, SBP10,000 per 12 mos</th>
</tr>
</thead>
<tbody>
<tr>
<td>No inpatient/6+ ED vis</td>
<td>3240</td>
<td>70%</td>
<td>$2,866</td>
<td>$1</td>
<td>$72</td>
<td>$56,496,444</td>
<td>32%</td>
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<tr>
<td>No inpatient/0-5 ED vis</td>
<td>5600</td>
<td>13%</td>
<td>$5,916</td>
<td>$1</td>
<td>$802</td>
<td>$55,735,041</td>
<td>11%</td>
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<tr>
<td>No inpatient/0</td>
<td>1423</td>
<td>3%</td>
<td>$10,187</td>
<td>$1</td>
<td>$3,045</td>
<td>$14,510,725</td>
<td>5%</td>
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<tr>
<td>1+ ED visits</td>
<td>2144</td>
<td>4%</td>
<td>$9,993</td>
<td>$4,181</td>
<td>$892</td>
<td>$10,491,557</td>
<td>7%</td>
</tr>
<tr>
<td>1 inpatient/0-5 ED vis</td>
<td>2311</td>
<td>4%</td>
<td>$15,953</td>
<td>$7,513</td>
<td>$609</td>
<td>$55,410,011</td>
<td>11%</td>
</tr>
<tr>
<td>1+ inpatient/0</td>
<td>1114</td>
<td>4%</td>
<td>$46,546</td>
<td>$33,732</td>
<td>$4,072</td>
<td>$52,490,798</td>
<td>24%</td>
</tr>
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</table>

Mean age: 44 yrs  
Mean AG PS 12 mos = 31.5

6178 high cost members/12 mos

### Clinic View of Target Population

**Multiple High Volume Complex Patient Clinics**

<table>
<thead>
<tr>
<th>Multnomah County Health Department-NE Clinic Population</th>
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<tbody>
<tr>
<td>Population Segment</td>
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<tr>
<td>-------------------------------------</td>
</tr>
<tr>
<td>No inpatient/6+ ED vis</td>
</tr>
<tr>
<td>1 Non-OB patient and 0-5 ED visits</td>
</tr>
<tr>
<td>2+ Non-OB inpatient OR 1 Non-OB inpatient AND 6+ ED visits</td>
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</tbody>
</table>

249 high cost members/12 mos
### Appendix E: Survey of Existing Software (Vendo-rama)

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Models</th>
<th>Input/Data Source</th>
<th>Output</th>
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<tbody>
<tr>
<td>Health Dialog</td>
<td>PARR algorithm</td>
<td>• Patient demographics</td>
<td>Risk score on a scale of 0 to 1.0</td>
</tr>
<tr>
<td></td>
<td>PARR1, PARR2, PARR++</td>
<td>• Inpatient data</td>
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<tr>
<td></td>
<td></td>
<td>• Hospital utilization</td>
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<tr>
<td></td>
<td></td>
<td>• Primary Diagnosis</td>
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<td></td>
<td></td>
<td>• Secondary Diagnoses (up to 5)</td>
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<td></td>
<td></td>
<td>• Diagnostic Cost Groups</td>
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<td></td>
<td></td>
<td>• Hierarchical Condition Category (DCG-HCC)</td>
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<td></td>
<td></td>
<td>• Community characteristics</td>
<td></td>
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<td></td>
<td></td>
<td>• Data on hospital of current admission</td>
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<tr>
<td>Health Dialog</td>
<td>Combined Predictive Model</td>
<td>• Patient demographics</td>
<td>Risk score on a scale of 0 to 1.0</td>
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<td></td>
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<td>• Inpatient</td>
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<td>• Outpatient</td>
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<td></td>
<td>• Accident &amp; Emergency (A&amp;E)</td>
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<td></td>
<td></td>
<td>• General Practitioner</td>
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<td></td>
<td></td>
<td>• Community characteristics</td>
<td></td>
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<tr>
<td>Johns Hopkins</td>
<td>Adjusted Clinical Groups (ACO) Case Mix</td>
<td>• Age</td>
<td>Risk score on a scale of 0 to 1.0</td>
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<td>System</td>
<td>• Gender</td>
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<td></td>
<td></td>
<td>• Diagnostic (ICD) only</td>
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<td>• Pharmacy (NDC) only</td>
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<td></td>
<td>• ICD + NDC</td>
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**Risk: “4 square”**

- **High Concurrent/Low Predictive:** "Regression to the mean"
  - Cross

- **High Concurrent/High Predictive:** Main target - can demonstrate ROI
  - Checkmark

- **Low Concurrent/Low Predictive:**
  - Cross

- **Low Concurrent/High Predictive:** Avoiding avoidable care
  - Checkmark

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Relying on Providers’ Clinical Intuition

Providers/Care Teams as predictive models:

- Who is on a steady health decline trajectory?
- Who, without more intensive assistance NOW, is going end up in the ED or the hospital?
- Who keeps you up at night?
- For whom do you need some extra intel? Eyes and ears in the home?

Step #1 Identify Your HR/HC Population

Discussion Questions
- What population did you decide on as your high risk/high cost segment?
- How did you choose them: threshold, clinical, risk prediction or other? What criteria are you using?
- Why are you focused on this population?
Questions

4 Step Process

- Step One: Identify Your High Risk population.
- Step Two: Understand Needs and Root Causes. How do you delve into peoples' stories’?
- Step Three: Co-create and Execute a Care plan with 5 People What did you learn about their capabilities?
- Step Four: Scale to 25
Step Two: Understand Needs and Root Causes

- Using data systems
- Using clinic personnel
- Using patient interviews
- Using third party data to understand personal behavioral and economic issues
- Consider GIS mapping

Understanding Root Causes for Risk and Cost
Where is the $$$ going?
% of Total Billed Charges by Service

(State of Oregon Medicaid Data)

2009 Total Billed Charges = $1,630,851,673

Hospitalizations and ER admits amount to 43% of Billed Charges

* Outpatient Behavioral includes mental health services and ER and non-ER chemical dependency services

Very High Prevalence of Mental Health and Addictions
(State of Oregon Medicaid Data)

CareOregon Tri County Claims Data: 21% or 13,440 Adults have 1+ chronic condition PLUS substance abuse or schizophrenia + bipolar disorder; 3% or 1920 have both.
Understanding Hospital Admissions

**CareOregon Non-Dual Hospital Admissions - Total Paid by Type**

- **Potentially Avoidable**
- **Admissions thru the ED**
- **OB-related Admissions**
- **Elective Admissions**

**Effect of Substance Use and Mental Illness on Cost/Utilization**

Average 12 mos TOTAL cost, ED and Hosp utilization by group

**Adults with Diabetes**

- DM and Substance Use: $18,511 (ED visits: 3.9, IP stays: 1.1)
- DM w/o Substance Use: $8,064 (ED visits: 1.3, IP stays: 0.39)

**Adults with CHF**

- CHF and Complex Mental Health: $40,651 (ED visits: 4.0, IP stays: 2.6)
- CHF w/o Complex Mental Health: $27,302 (ED visits: 1.6, IP stays: 1.4)

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Understanding Root Causes for Risk and Cost

Data

Root Cause

Care Team

Patient

*High Cost/High Risk = meet Level 1 or Level 2 criteria

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Understanding the Root Causes: Ask the Care Team

Count of Qualitative Themes from PCP Notes
PCP's were asked: What is driving this patient's non-Primary Care utilization?

Understanding Root Causes for Risk and Cost

Data

Root Cause

Care Team

Patient
Understanding Root Causes: Ask the Patients

15 Case Review Method

1. Identify 15 patients that meet your high risk – high cost criteria
2. Use a semi-structured set of questions to gain insight into patient perspectives
3. Identify similarities, differences, and common themes
4. Come together as a design team/leadership team to discuss what was learned
5. Build next steps based on what you learn

“Act for the Individual to LEARN for the population”

What Did CareOregon Learn About Root Causes?

- High prevalence of childhood and life trauma (relevance of the ACE study); often translates into distrust of health care providers
- Most clients have had an overwhelmingly negative experience with the healthcare system; most clients primarily identify as ill and as a patient
- Prevalence of SA and mental health conditions; mild cognitive deficits common
- Lack of timely access to psychiatric assessment and mental health respite services
- Care coordination needs extensive (particularly between sites of care)
- Many cant afford or do not have access to non-medical items or services critical to optimal health and self management (ie transportation, stable housing, healthy food, medications, place to exercise, etc)
Examples of understanding cost drivers and system/patient barriers

- Using the HARMS-8 Chinle identified knowledge deficits, medication refill barriers, and lack of home health assistance as cost drivers; underlying this was an obvious clinical driver of UTIs

- CareOregon identified cognitive deficits, substance use, and unstable mental health conditions as cost drivers

Step 2 - In Summary, With Your Identified High Risk Population:

1. Review claims data to see trends and issues
2. Talk to care team who are managing high risk patients
3. Interview high risk patients
4. The goal is to get a better understanding
5. This may cause you to segment the population further
Questions

4 Step Process

- Step One: Identify Your High Risk population. Who did you reach?
- Step Two: Understand Needs and Root Causes. How did you delve into peoples’ stories’?
- Step Three: Co-create and Execute a Care plan with 5 People. What did you learn about their capabilities?
- Step Four: Scale to 25
Step Three: Co-create and Execute a Care plan with [5 People]

- Start with what matters to the person
- Include an identified family member or friend in planning discussion if preferred
- Identify the person’s life and health goals together
- Identify the person’s care preferences together
- If the goal is big, start by outlining steps and doing the first step
Who is D.T.?

- Lives alone in a single room apartment, has daughters and an ex-wife who live in other states. Doesn’t have a lot of social interaction but has two cats that he adores.
- Cardiology NP refers him to our outreach worker upon discharge. NP goal: no 30-day readmission.
- Everywhere in his chart it is written that D.T. is usually belligerent, uncooperative, non-compliant, and verbally abusive.

Case Study: D.T.

<table>
<thead>
<tr>
<th>Resources and Capabilities</th>
<th>Socially Determined Risk Factors</th>
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<tbody>
<tr>
<td>- Good Medicaid insurance coverage</td>
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<td>- Committed care team with timely, reliable access</td>
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<tr>
<td>- Stable living situation</td>
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<td>- State-sponsored caregiver who D.T. trusts</td>
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<tr>
<td>- Living in poverty</td>
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<td>- Low health literacy</td>
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<td>- Demonstrates challenging interpersonal behaviors (from care team perspective)</td>
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<tr>
<td>- Demonstrates inability to effectively advocate for himself</td>
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<tr>
<td>- Demonstrates difficulty with basic planning and problem solving (cognitive impairment?)</td>
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</tbody>
</table>
## Case Study: D.T.

<table>
<thead>
<tr>
<th>Patient Goals and Preferences</th>
<th>System Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Does not like to be hospitalized or referred to the ED</td>
<td>• Care providers do not treat him with respect or offer him privacy</td>
</tr>
<tr>
<td>• Wants to live alone with his cats</td>
<td>• Has not been able to get an appropriate wheelchair</td>
</tr>
<tr>
<td>• Likes to be able to get out of his apartment and “move around outside”</td>
<td>• Care providers don’t talk to one another</td>
</tr>
<tr>
<td>• Desires privacy and respect from care providers</td>
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</tr>
<tr>
<td>• Wants to be in touch with daughters more frequently</td>
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</tr>
</tbody>
</table>

## D.T.: Co-Created Care Plan (Part 1)

### Plan for D.T.

- With permission, go through D.T.’s cupboards and refrigerator to assess daily diet habits
- Go grocery shopping with D.T. and his caregiver; teach about sodium and fluid related to CHF and connect to his desire to stay out of the hospital; teach about daily weights, offer scale and self management tools
- Role model advocacy with visiting care providers (home health, case worker) by setting up regular visiting times based on D.T.’s preferences; also requiring a phone call prior
- Accompany D.T. to medical appointments to provide care coordination and opportunity to role model “respectful” communication on both sides
- Work with health plan and DME provider to replace wheelchair
- Teach D.T. how to use Facebook to connect with daughters
D.T.: Co-Created Care Plan (Part 2)

- Set ideal dry weight
- Develop Lasix sliding scale protocol—outreach worker to reinforce teaching and appropriate PCP communication
- Refer to outpatient palliative care team
- Develop End-of-Life plan

Acting with the Individual to Learn for the Population

- Building trust/rapport is paramount
- Engaging around what matters to the individual
- Think outside the “medical services” box—what are the socially or behaviorally determined risk factors?
- Who else can help? Recognize that what the individual might need most might be something you are not in the position (or trained) trained to provide
- Don’t forget about the influence of health literacy, esp related to medication management
- Try to step into the shoes of your patient
4 Step Process for High Risk Population

- Step One: Choose a High Risk population.
- Step Two: Understand Needs and Root Causes of that same population.
- Step Three: Co-create and Execute a Care plan with 5 People to learn from them.
- Step Four: Design a system to care for 25 based on learning from working with 5.

5X Scale-up – Reduce cost and improve care for socially complex

<table>
<thead>
<tr>
<th>Number of people</th>
<th>System issues to address</th>
</tr>
</thead>
</table>
| 5                | 1. ID common system barriers  
                    2. Form a team of volunteers  
                    3. Find people through referrals |
| 25               | 1. Full time team  
                    2. Redesign of practice  
                    3. Cooperation of hospitals for data  
                    4. Assess outcomes |
| 125              | 1. Grant funding for operations  
                    2. Consistent population outcomes |
| 625              | 1. ?? |
| 3125             | 1. ?? |
| 15,625           | 1. ?? |
Before we go any further.

- Determine full scale at project setup and the milestones to reach full scale

What is Full Scale?

- 850,000 = Medicaid beneficiaries in Oregon
  (15 Community Care Organizations, largest approximately 160,00 beneficiaries)
  - 5% high risk/high cost = 42,500 (largest CCO = 8,000)
  - top 1% = 8,500 (largest CCO = 1,600)

- Estimating frail older adults in a community of 100,000
  >65yrs of age = 13,000 (100,000 x 13% over 65 years of age)
  # of frail older adults = 650 to 1300 (13,000 x (5 to 10%))

What is your best estimate of full scale?
Major Change Areas for HRHC

- Patient Identification/recruitment
- Patient Engagement
- Caring for Patients
- Community Support

Things to Consider to “Scale-up”

- Determine full scale at project setup and milestones to reach full scale
- Different changes may require different scale-up strategies
- Consider different dimensions of structure
  - Information technology
  - Physical (e.g. space, equipment, capacity)
  - Human resources (i.e. workforce organization and capabilities)
  - Financial
  - Learning system
  (these are not the only things you will consider during scale up)
Structural Issues for Scale-up

<table>
<thead>
<tr>
<th>Example at 25</th>
<th>IT</th>
<th>Human Resources</th>
<th>Physical</th>
<th>Funding</th>
<th>Learning System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Identification/recruitment</td>
<td></td>
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<tr>
<td>Patient Engagement</td>
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<tr>
<td>Caring for Patients</td>
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<tr>
<td>Community Support</td>
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Structural Scale-Up Issues

<table>
<thead>
<tr>
<th>Complex Patients</th>
<th>5 to 25</th>
<th>125</th>
<th>250-625</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning System</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Use existing funding for reallocated positions – shifting resources</td>
<td>Use for small grant to demonstrate ROI</td>
<td>“Work to create efficient processes and take advantage of centralizing infrastructure costs”</td>
<td></td>
</tr>
<tr>
<td>• Track progress using sticky notes &amp; visual management system</td>
<td>• Share early results with whomever has financial risk to get further funding support</td>
<td>• Work with payers to secure funding by articulating ROI</td>
<td></td>
</tr>
<tr>
<td>• Create an excel database</td>
<td>• Consider multi-payer/multi-organizational funding approaches</td>
<td>• Design funding models that rely on positive financial performance (ie withholds or P4P)</td>
<td></td>
</tr>
<tr>
<td>• Interview providers and patients to learn about impact</td>
<td>• Set up a formal visual management system</td>
<td>• Look for population-based capitation/global payment opportunities</td>
<td></td>
</tr>
<tr>
<td>• Get project staff together once per week to review data and conduct case-based learning conferences</td>
<td>• Allocate part-time admin/data entry staff</td>
<td>• Conduct regular learning retreats and cross-organizational learning collaboratives</td>
<td></td>
</tr>
<tr>
<td>• Conduct intentional PDSA cycles – document results</td>
<td>• Create run charts with operational measures(# engaged patients, # patients that decline, # visits per day per staff, etc)</td>
<td>• Continue to use process improvement metrics to refine interventions and program</td>
<td></td>
</tr>
<tr>
<td>• Learn from outliers – huge successes and huge failures</td>
<td>• Learn from outliers – huge successes and huge failures</td>
<td>• Formalize a “community of practice” across project team and front line staff</td>
<td></td>
</tr>
<tr>
<td>• Begin to document best practices (or PDSA cycles that go really well)</td>
<td>• Begin to document best practices (or PDSA cycles that go really well)</td>
<td>• Conduct regular learning retreats and cross-organizational learning collaboratives</td>
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</table>

Institute for Healthcare Improvement
Innovation College
July 30-31, 2012
### Structural Scale-Up Issues for Key Change Ideas

#### Key Change Areas

<table>
<thead>
<tr>
<th>Key Change Areas</th>
<th>5-25</th>
<th>25-100</th>
<th>&gt;100</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Identification/recruitment</strong></td>
<td>• Use claims or admission encounters to ID frequent flyers</td>
<td>• Land on a standard set of enrollment criteria (critical for future program eval)</td>
<td>• Create formal patient ID process and standardize “triage” function/role</td>
</tr>
<tr>
<td></td>
<td>• Ask providers for complex/costly patient referrals</td>
<td>• From ROSA testing, determine most feasible and reliable method of identification (might be a combo)</td>
<td>• Consider centralized “triage” function/role</td>
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<tr>
<td></td>
<td>• Do chart reviews</td>
<td>• Develop methods to “flag” eligible patients in EMR or registry</td>
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<tr>
<td><strong>Patient Engagement</strong></td>
<td>• Focus onremedying each individual patients’ barriers and challenges</td>
<td>• Look for most common barriers to engagement and formalize interventions</td>
<td>• Develop standard case review and supervision process</td>
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<tr>
<td></td>
<td></td>
<td>• Develop case closure/graduation criteria</td>
<td>• Spend most time on optimal “typologies”</td>
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<td></td>
<td>• Carefully look at engagement “failures” and do root cause analysis</td>
<td>• Develop a “decline-reconsider” strategy and look for small engagement windows of opportunity for toughest clients</td>
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<tr>
<td></td>
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<td>• Explore patient “typologies” to determine ideal candidates for intervention/program</td>
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<td></td>
<td></td>
<td>• Use culturally-specific staff or known community members</td>
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<tr>
<td><strong>Caring for Patients</strong></td>
<td>• Temporarily reallocate a portion of existing staff or use volunteers/students to help with pilot</td>
<td>• Allocate staff from other duties if trends have been promising</td>
<td>• Develop standard case review and supervision process</td>
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<tr>
<td></td>
<td>• Keep a log of workforce development needs and train ad hoc</td>
<td>• Collaborate and share staff resources across organizations</td>
<td>• Create formal orientation and workforce training plan</td>
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<tr>
<td></td>
<td>• Recruit for relevant experience</td>
<td>• Hire new staff if funding has been secured</td>
<td>• Address potential for staff burnout</td>
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<tr>
<td></td>
<td>• Include primary care in program planning</td>
<td>• Consider non-traditional workforce</td>
<td>• Formalize primary care participation and look at specialty and home health roles</td>
</tr>
<tr>
<td><strong>Community Support</strong></td>
<td>• Begin building a registry of potential partners by tracking the other organizations/agencies that are serving each patient</td>
<td>• Choose one or two community stakeholders and formalize collaboration (including those with valuable data)</td>
<td>• Develop partnership with acute care system, mental health and addictions providers</td>
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<tr>
<td></td>
<td>• Have new partners serve a few individuals on a trial basis</td>
<td>• Formalize referral processes</td>
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<td></td>
<td>• Predict and match demand with capacity</td>
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<td></td>
<td></td>
<td></td>
<td>• Continue to partner with community resource agencies critical to patient population</td>
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</table>
# Population Management IT Strategy

*A big thanks to Jacquelyn Hunt for her work on this material*

<table>
<thead>
<tr>
<th>Category</th>
<th>Typical User</th>
<th>Perspective</th>
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</thead>
</table>
| Strategic    | ACO, strategy, clinical, operations, quality, and finance leaders            | • Strategic planning  
• Business & network development  
• Budget development  
• Operations & personnel management  
• Resource allocation and performance |
| Mezzanine     | Care consultant, case manager, care navigator, clinical pharmacist, nutritionist, behavioral coach, disease management support staff | • Typically involves a specifically defined population spanning more than one provider  
• Conducts activities to support high risk, complex cases  
• More involved in social determinants |
| Front Line    | Physician, nurse practitioner, physician assistant, nurses, medical assistant, front desk & back office staff | • Care and well being of patients in their panel  
• Primary partners in the continuous, connected patient relationship  
• Undergoing immense change |
| Patient & Family | Patient, care giver, family, consumer                                        | • Responsible for their own health and often the well being of family and loved ones  
• Interested in navigating the complexities healthcare delivery with few impediments  
• Increasingly technically savvy and hungry for knowledge about their own or a loved one’s health  
• May not be accustomed to consuming health information in the manner historically provided by the healthcare system |
### Population Management IT Strategy

#### Core Categories of IT Capabilities to support Population Management/ACO

- Comprehensive, accurate and timely data & attribution
- Cost of care insights
- Care coordination & management of high risk, complex cases
- Care & disease management
- Patient engagement campaign management
- Performance management
- Financial modeling & support

#### Challenges facing leaders:

- Pre-existing HIT challenges:
  - Underlying financial, operational and political investments required for successful EHR implementation
  - ICD-10, hiring & retaining skilled talent, security
  - Pressure to limit cost
  - High CIO turn over
  - Growth, partnerships, mergers & acquisitions
- ACO related challenges
  - Evolving business models to deliver on high value care
  - Technology solutions are immature and rapidly evolving
  - New partnerships forged to create ACOs causes confusion and shifting in the stakeholders needing to be involved in IT decisions
Population Management IT Strategy

- Start by creating ACO IT Foundational Guiding Principles
- Example questions to consider when constructing guiding principles:
  - Is there an operational population management strategy that will guide and leverage the organization’s IT investment?
  - Will technology be used to enhance the patient-care team relationship or work around it?
  - What is the organization’s position on central/shared vs. clinic-based competencies and resources?
  - Is the patient considered part of the care team to be supported through technology investment?
  - Will the organization wait for mature ACO IT solutions or enter into a development partnership?

Population Management IT Strategy

Draft process to engender stakeholder buy-in & confidence:
1. Summarize the anticipated 3-year ACO strategy & contracts
2. Determine budget sources and allocation for ACO IT investment
3. Design, gather approval, communicate and socialize a governance process for IT decision making
4. Create guiding principles
5. Draft an initial list of ACO IT requirements
6. Conduct a gap analysis between existing and required capabilities
7. Create a scoring system that considers short- and long-term priorities
8. Identify a candidate list of ACO IT vendors/solutions
9. Send out ACO IT requirements as an RFI
10. Conduct deep dive assessments of the most viable alternatives
11. Present results in a visual display of capabilities against product cost
## Questions

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## Portfolio of work for Managing Defined Populations

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<thead>
<tr>
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<tbody>
<tr>
<td>Primary Care Redesign</td>
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<td>Care Management (High Risk High Cost)</td>
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<td>Specialist Involvement</td>
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<td>Integrated Data Support</td>
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<tr>
<td>Governance and Leadership</td>
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<tr>
<td>Patient Engagement &amp; Activation</td>
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<tr>
<td>Community Involvement</td>
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<tr>
<td>Contracting &amp; Financial Risk Management</td>
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