Patient Registries, Alone, Are Not Good Enough!
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Conflict of Interest

Bill Hoberecht, MS
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Have no real or apparent conflicts of interest to report.
Agenda

• Learning Objectives
• Overview of Kaiser Permanente
• Population Health Management at Kaiser Permanente Colorado
• Patient Registries
• Breakthroughs, Lessons Learned & Principles
• Sustained Value Achieved - STEPS
Learning Objectives

• Identify six design principles for developing and implementing clinical registries in a population health management (PHM) system

• Recognize how a flexible registry architecture enables providers to achieve superior population health management outcomes

• Demonstrate the importance of technology in facilitating a team-based approach to population health management
More than Just Registries to Achieve Value

- This presentation outlines six key design principles for developing and implementing clinical registries

  **Treatment**: effective coordination of care

  **Patient Engagement**: exposing PHM information directly to patients

  **Population Health Management**: consistent and scalable decision support

  **Savings**: automation

[Image of a diagram titled "Realizing the Value of Health IT"]

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Introducing Kaiser Permanente

- Financials
  - $56.4B Operating revenue
  - $3.1B Net income
  - $2.2B invested in community (safety-net clinics, community health initiatives)

- Quality
  - 6 Kaiser Permanente regions received top marks in J.D. Power & Associates Study
  - 21 #1 ratings in NCQA’s 2015 Quality Compass

- Innovation
  - 4,000 on-going research studies
  - 20M Secure emails sent
  - 37.4M lab tests viewed on-line

Source: 2014 Kaiser Permanente Annual Report and NCQA 2015 Quality Compass
Kaiser Permanente – Largest USA Integrated Health Care System

- 10.2 million members*
- 18,000+ physicians
- 49,000+ nurses
- 177,000+ employees
- Serving 8 states and the District of Columbia
- 38 hospitals
- 619 medical offices/outpatient facilities
- Scope includes ambulatory, inpatient, ACS, behavioral health, SNF, home health, hospice, pharmacy, imaging, laboratory, optical, dental, and insurance

Source: 2014 Kaiser Permanente Annual Report
*Membership figure from 2015 Third Quarter Financial Results
Survey Question #1

How long have you had a PHM program in place?

1. No active PHM program
2. 0 to 2 years
3. 2 to 5 years
4. 5 to 25 years
Registries For Your Population Health Management Needs

• They are a key selling point for Commercial PHM Tools
  – Registries available “out of the box”
  – Cohort construction capabilities
  – For a time, this was the primary selling point

• Described as:
  – A list of patients, created with well-defined criteria – similar attributes
  – Accompanied by information about each member on the list
  – A tool to enable tracking of all patients who have specific conditions and complete recommended care guidelines

• They are useful
  – Give visibility to patients who need PHM attention
  – Focuses care management teams on a set of patients
Are Registries the Answer to Your Population Health Management Needs?

• A basic registry is an excellent starting point for PHM
  – Gives visibility and organization to information about your patients

• Sufficient for a maturing or expanding PHM program?
  – Introduction of ever increasing volume of manual tasks
  – Depth of data scientist/analytics skills required
  – Enabling coordinated patient communication
  – Cost to maintain accuracy
  – Registries, alone, will introduce frustration and hamper effectiveness
Population Health Management Journey

Initial focus:
Improved management of Cardio Vascular Disease
Increased mammogram screening rates

Expanded into over a dozen wellness & prevention areas, over 100 chronic conditions
Formalized tool-based care pathways

Your focus (on solutions) depends on where you are in this curve

- Technology-enabled rapid variation analysis
- Increased use of predictive analytics

- Increased automation of routine actions
- Incorporation of risk stratification into PHM tools & workflow,
  - Self-enablement and tailoring of cohort generation
  - Introduction of external analytics
Breakthroughs During Population Health Management Journey

• Early:
  – Creation of a registry with relevant information
  – Creation of a care management team

• Along the way:
  – View of all care gaps for an individual
  – Automated outreach based upon clinical rules

• Recent:
  – Role-based presentation of care gaps
  – Care gaps available for viewing by member
  – Automation of routine, high-volume actions
  – External analytics
Registry Enthusiasm Cycle

“Can you make a registry for me?”
“Thanks – this is just what I need!”
“This is a lot of work”
“That registry wasn’t helpful.”
“Not enough time to work the list today.”

Lesson: Registry lists aren’t the full answer – too easily overwhelmed by too much new manual work
Registries Generating Manual Tasks

• Problem: Using a registry as the means of telling clinicians what buttons to click
  – Order a lab
  – Review a result (that is likely negative)
  – Send a standard communication to a patient

• Over reliance on people to perform routine tasks properly, every day.

Lesson: Inefficient and inconsistent execution if we rely on people to execute routine tasks that can be automated.
Lesson: Aligning PHM with organizational goals is essential. Relying primarily on Registry Champions is risky.
Foundations of a Successful PHM Program

• Apply the basics of any enterprise program:
  – Align goals, incentives, processes & tool capabilities, executive sponsorship, local champions, adequate funding, sufficient training, consistent and usable communication, and many others

• Principles from a 20 year journey in PHM
  – Multiple iterations of solution design, and implementation of key capabilities
  – Six principles that build upon basic registry capabilities, resulting in sustained PHM performance
  – Applicable to newly initiated, young, and mature PHM programs
Six Principles For Successful PHM

1. Create a whole patient view
2. Automate Routine Actions
3. Create Actionable & “Cease Action” Care Gaps
4. Provide Advanced Care Gap Management Capabilities
5. Define Registries Broadly, Then Create Subsets
6. Enable Analytic Capabilities From Many Expert Sources

Principles derived from Kaiser Permanente Colorado’s 20 year journey in Population Health Management
Survey Question #2

What is your progress in implementing PHM tools?

1. No progress or just starting

2. Basic registries (lists that drive manual actions) implemented

3. Some advanced capabilities implemented

4. Many advanced capabilities implemented
Create a Whole Patient View

- Breakthrough
  - Integrating a single display of all care gaps in the EMR -- consulted on every encounter.
  - Version available to patients via a secure portal
  - Provider section and care team sections signal responsibility for acting

- Value
  - Essential PHM information is visible for proper care and patient engagement

Principle: Present a patient’s entire care gap status and needs in a single view, used on every encounter and made available to the patient
Automate Routine Actions

- **Breakthrough**
  - Automating routine member communications, labs orders and negative results management

- **Value**
  - Consistent, timely execution of Population Health Management activities
  - Frees clinician time for more valuable activities

**Principle:** Identify manual actions that are routinely performed and devise methods of automating.
Create Actionable & “Cease Action” Care Gaps

- Breakthrough
  - Basing care decisions and actions on **risk stratified care gaps**, not solely upon membership in a registry
  - Defining care gaps as clear actions to take, or as actions not to take
  - Considers the patient’s full health status and incorporates risk stratification

**Principle:** The orientation of the PHM design should be around calculated **care gaps**, not registry lists with manually interpreted metrics.
Provide Advanced Care Gap Management Capabilities

- Breakthrough
  - Allowing manual override or suppression of automatically generated care gaps & registry inclusion

- Value
  - Enables application of clinical judgment, case-by-case

Principle: Create registries and care gaps algorithmically, and provide sophisticated capabilities for authorized users to apply clinical judgment to override or suppress those automatic calculations.
Define Registries Broadly, Then Create Subsets

- **Breakthrough**
  - Defining registries broadly (the “super set”), then create subsets

- **Value**
  - Allows easier reuse of registry capabilities
  - Reduces registry maintenance costs

**Principle:** First, “cast the net wide” and incorporate everyone who may potentially belong in the registry. Then create highly specific sub-sets to meet specific needs.
Enable Analytic Capabilities From Many Expert Sources

- **Breakthrough**
  - Leveraging clinical analytics that were created external to the core PHM system
  - Recognizing that innovation is widespread amongst all solution providers

- **Value**
  - Delivery of new, valuable, proven capabilities rapidly
    - Leverages the considerable expertise in the PHM and analytics community
  - Flexibility to select the best option to achieve PHM program objectives

Principle: Adopt an architecture that can incorporate analytic capabilities from many expert sources
Survey Question #3

What is your progress in achieving tangible PHM benefits?

1. No benefits achieved

2. Achieved tangible benefits, but below expectations

3. Achieved tangible benefits, about what was expected

4. Achieved tangible benefits, more than expected
Major Coronary Events Decreased

- Decreased Events by more than 60% over the past 10 years

**Major Coronary Events**

Principles applied:
- Care Team, not just a provider responsibility
  - Coordinated care
- Enabled by well-defined Care Gaps
  - Risk stratified

Source: Kaiser Permanente internal analysis
Improved Gap Closure Performance

- Whole patient view is available to all members
- Kaiser Permanente Colorado members who view gaps on kp.org close 55% of gaps within 90 days versus 38% who do not view gaps

Members
More Engaged
321,000 Clicks on the Personal Action Plan (care gaps) in 2015

Improved Gap Closure
55% Gaps Closed within 90 days
Reduced Readmissions

- Well-defined care gaps, using LACE scores, enable improved management of higher risk patients
- Principles applied: 1 2 3 4 5

26.5% reduction in targeted populations
Six Principles For Successful PHM

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6. Enable Analytic Capabilities From Many Expert Sources

Applicable to newly initiated, young, and mature PHM programs
Questions

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