Outpatient Case Study: Improving Quality & Care Gap Closure Through Primary Care Rooming Redesign

Carrie Pollick
CarePATH Application Analyst
Our Footprint

• Mercy Health is a Catholic healthcare ministry serving Ohio and Kentucky.

• Mercy Health is one ministry serving seven regions in Ohio and Kentucky, pursuing one Mission to improve the health of our communities, emphasizing people who are poor and under-served. Together, our passion is to make lives better and make healthcare easier.
Our Impact

Communities We Serve
• Mercy Health — Cincinnati
• Mercy Health — Kentucky
• Mercy Health — Lima
• Mercy Health — Lorain
• Mercy Health — Springfield
• Mercy Health — Toledo
• Mercy Health — Youngstown

Serving Through Our Partners
• Akron — Summa Health

Facts & Stats
• Nearly 500 Places to Receive Care
• 23 Hospitals
• 7 Senior Health and Housing Facilities
• 7 Home Health Agencies
• Over 33,500 Employees
• 1,300 Employed Providers
• $10.1 Billion/Year in Economic Impact in Ohio

In 2017:
• 6.8 Million Patient Encounters
• $6.8 Billion Total Assets
• $4.7 Billion in Net Operating Revenue
Our Mission in Action

Investing over $1 million a day

• In 2017, Mercy Health invested $384 million to benefit the communities where we provide care, most of it targeted to help people who are poor and under-served.
  – $267 million directly benefited the poor and under-served
  – $80 million went to benefit the broader community
CarePATH Overview

CarePATH is Mercy Health’s branding of Epic Systems EHR

CarePATH is a comprehensive, safety-oriented, patient-centered clinical information system using Epic information technology.

The “PATH” in CarePATH is:
Patient-centered Access to Team-based Healthcare
Informatics Governance Structure

- Build is governed by the clinically led CarePATH Informatics Committees
- Recommendations for system changes come from the end users and are vetted with the respective system committees
- Inpatient Informatics is co-chaired by two providers (medical and surgical) and two nurse leaders
- Ambulatory Informatics is co-chaired by both providers and a RN
- Currently have 15 certified Physician Builders, including two from our Connect partner and three working to certify
Recent Accolades

2018 HIMSS Davies Award Recipient

HIMSS Stage 7 Certifications
- All Mercy Ambulatory Practices
- 7 Acute Care facilities

Most Wired Advanced Winner

System Uptime Recognition from Epic

Epic Summa Cum Laude for Honor Roll
Outpatient Case Study:
Improving Quality & Care Gap Closure Through Primary Care Rooming Redesign
Primary Care Rooming - Problem

- Ever-increasing list of responsibilities/tasks needing completion within Primary Care
  - Much of this landing on the shoulders of Rooming staff

- Crucial tasks being missed
  - Data Capture incomplete / quality measures not being met
  - Annual screenings being missed
  - Low care gap closure rate
Primary Care Rooming – Opportunity/Goals

• Streamline and standardize Primary Care Rooming workflow
  ‒ Across entire system, employed and affiliate offices

• Easily identify tasks needing completion
  ‒ Blood Pressure Recheck
  ‒ Depression and Fall Risk screenings
  ‒ Height and weight documentation
  ‒ Smoking status and counseling documentation
  ‒ Reviewing allergies and medications

• Increase care gap closure
  ‒ A1C, Breast Cancer Screening, Colorectal Cancer Screening, Pneumococcal Vaccine

• Make Rooming workflow more efficient to not add extra time
<table>
<thead>
<tr>
<th>Month</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-Feb</td>
<td>Information Gathering</td>
</tr>
<tr>
<td>March</td>
<td>Redesign of User Interface for Rooming Staff</td>
</tr>
<tr>
<td></td>
<td>Regular Workgroup meetings</td>
</tr>
<tr>
<td>April</td>
<td>User Acceptance Testing</td>
</tr>
<tr>
<td></td>
<td>Training</td>
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<tr>
<td></td>
<td>Pilot</td>
</tr>
<tr>
<td>May</td>
<td>Go-Live</td>
</tr>
<tr>
<td>September</td>
<td>Post-live Enhancements</td>
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</tbody>
</table>
Primary Care Rooming – Planning

- **Scope**
  - Primary Care, Family Medicine, Internal Medicine, Geriatrics & Pediatrics Departments
  - 300+ departments, 1200+ users

- **Clinical Staff survey**
  - 578 responders
  - What activities/tasks are most common and in what order?
  - What is most time consuming within Rooming workflow?

- **Series of work sessions with rooming staff and practice managers**
  - Demo build / feedback / repeat

- **Involve experts from Quality Programs**
  - What additional opportunities do we have to improve outcomes?
Primary Care Rooming – Health IT Overview

• Consolidated behind-the-scenes system build
  - Standardization across 300 “like” departments
  - More agile for implementing future enhancements

• Completely redesigned the User Interface for Rooming staff
  - Increase Efficiency
  - Activities organized based on feedback to streamline flow through visit
  - Quick access to pertinent information to save time not digging through the Chart

• Developed new tools to improve quality / care gap closure
  - Visit Checklist prominently displayed to see what is needed/missing this visit
  - Order Set to pend orders related to closing care gaps
Primary Care Rooming – Build Consolidation

- Pre-Requisite to Project:
  - Each individual department had its own configuration record
    - Any system enhancements would have to touch 300+ records
      - Time consuming to make enhancements
      - Prone to errors if a department is missed
    - Similar departments could have slightly different build
  - Reduced from 300+ to 11 configuration records
    - Still needed to account for regional differences for placing orders/ancillary system
    - Set us up to deploy enhancements related to this project, ensure experience is consistent for training and support, and set us up to be more agile for implementing future enhancements
Primary Care Rooming – UI Redesign

BEFORE

AFTER
Primary Care Rooming – UI Redesign

• A temporary on-screen informational/help section guided users through the transition to the new user interface design:
Primary Care Rooming – UI Redesign

- Based on survey results that Medication Review and pending Refills was the most time consuming, so we developed a faster workflow for pending Medication Reorders after completing Medication Review:
Primary Care Rooming – New Tools

- Simple yet powerful solution to improve data capture and quality measures
- Save time not searching the chart to determine what screenings are due
- Checklist rules evaluating real-time what’s due for the patient during today’s visit
  - Highly flexible

<table>
<thead>
<tr>
<th>For More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation of Visit Checklist Items</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Maintenance: Use Rooming Staff HM SmartSet to Pend Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSH testing</td>
</tr>
<tr>
<td>Potassium monitoring</td>
</tr>
<tr>
<td>Creatinine monitoring</td>
</tr>
<tr>
<td>HIV screen</td>
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<tr>
<td>DTaP/Tdap/Td vaccine (1 - Tdap)</td>
</tr>
<tr>
<td>Pneumococcal med risk (1 of 1 - PPSV23)</td>
</tr>
<tr>
<td>Cervical cancer screen</td>
</tr>
<tr>
<td>Flu vaccine (1)</td>
</tr>
</tbody>
</table>
**Primary Care Rooming – New Tools**

- Current list of Visit Checklist Rules for Primary Care Rooming

<table>
<thead>
<tr>
<th>Blood Pressure Recheck Rule</th>
<th>Smoker Details Missing Years Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Measurement Due Rule</td>
<td>Smoker Details Missing Quit Date Rule</td>
</tr>
<tr>
<td>Weight Measurement Due Pediatrics Rule</td>
<td>Tobacco Cessation Due Rule</td>
</tr>
<tr>
<td>Height Measurement Due Rule</td>
<td>Tobacco History Not Reviewed Within Last Year Rule</td>
</tr>
<tr>
<td>Height Measurement Due Pediatrics Rule</td>
<td>Fall Risk Screening Due Rule</td>
</tr>
<tr>
<td>Allergies Not Reviewed This Encounter Rule</td>
<td>Depression Screening PHQ2 Due Rule</td>
</tr>
<tr>
<td>Medications Not Reviewed This Encounter Rule</td>
<td>Depression Screening PHQ9 Due Rule</td>
</tr>
<tr>
<td>Smoking Status Unknown Rule</td>
<td>MyChart Status Inactive</td>
</tr>
<tr>
<td>Smokeless Tobacco Unknown Rule</td>
<td>MyChart Status Inactive Pediatrics Rule</td>
</tr>
<tr>
<td>Smoker Details Missing Packs per Day Rule</td>
<td></td>
</tr>
</tbody>
</table>
Primary Care Rooming – New Tools

- Staff encouraged to work top-down through Rooming workflow and use checklist as a spot-check before handing off to provider
Primary Care Rooming – New Tools

Weight: Needs to be documented every 12 months for adults and every visit if under 18 or if Medicare AWV
- RED X if weight needs to be documented

Explanation of Visit Checklist Items

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- RED X if weight needs to be documented.

Health Maintenance Orders

- TSH testing: 01/01/1980
- Potassium monitoring: 01/01/1980
- Creatinine monitoring: 01/01/1980
- HIV screen: 01/01/1995
- DTAp/Tdap/Td vaccine (1 - Tdap): 01/01/1999
- Pneumococcal med risk (1 of 1 - PPSV23): 01/01/1999
- Cervical cancer screen: 01/01/2001
- Flu vaccine (1): 07/01/2018

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Primary Care Rooming – New Tools
Primary Care Rooming – New Tools
Primary Care Rooming – New Tools

Currently 14 Care Gap orders are included in the Order Set and are included/hidden based on appropriateness for patient and due date
Primary Care Rooming – Implementation

• User Acceptance Testing
  • Feedback from approx. 100 participants
  • Increased awareness, lowered Anxiety
  • Minor build tweaks based on feedback
  • A few issues identified and resolved prior to go-live

• Mandatory Training
  • Series of live webinars w Q&A
    • 13 webinars offered
    • 1200+ attendees
    • Recorded webinar available
Primary Care Rooming – Implementation

• Pilot
  • 1 pilot site (with both Internal Medicine and Pediatrics) 2 weeks prior to go-live
  • Minor issues reported and corrected before big bang

• Go-Live
  • Educated Service Desk (Tier 1 call center) so they could provide 1st call resolution where possible to expected questions/issues
  • Project Team command center to review and address any issues specific to this project
  • 21 tickets; majority -> Education

• Post-Live
  • Tracked enhancement requests throughout project
  • Reconvened the workgroup to review and prioritize enhancements which were added to the system in September (4 months post-live)
  • Gave users time to use the new tools and further refine needs
Primary Care Rooming – Lessons Learned

• End-User Engagement
  • Involving users throughout the planning, data gathering and build process was key to developing a successful solution and gaining buy-in from the start
  • User Acceptance Testing reduced anxiety and increase awareness and buy-in
  • Next time will engage providers more heavily as they were directly impacted by the changing workflows of their Rooming staff; provider awareness and support is important

• Planned Enhancement Phase
  • Going into the project with a plan for post-live optimization allowed us to stay on track with a tight build timeline while not losing good ideas for future development

• Mandatory Training
  • Not always easy to operationalize, but was key for awareness and minimize disruption
Primary Care Rooming – Results

✅ • Streamline and standardize Primary Care Rooming workflow
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Primary Care Rooming – Results

CMS 139: Falls Screening for Future Fall Risk
Primary Care Rooming – Results

- Depression Screening
  - Screening for Depression improved 28% between May 2017 and April 2018
Primary Care Rooming – Results

Medications Reviewed

[Graph showing the percentage of medications reviewed from January 2017 to May 2018. The percentage ranges from 93% to 99%.]
Primary Care Rooming – Results

Allergies Reviewed

Jan-17  Feb-17  Mar-17  Apr-17  May-17  Jun-17  Jul-17  Aug-17  Sep-17  Oct-17  Nov-17  Dec-17  Jan-18  Feb-18  Mar-18  Apr-18  May-18
Primary Care Rooming – Results

MyChart Patient Portal Activation Rate – Primary Care

May 2017 saw the largest patient portal monthly activation increase compared to previous months (+.8%).

As of 7/31/2018 we are currently at 48.9% across Primary Care.
Primary Care Rooming – Results

CMS 138: Preventive Care and Screening Tobacco Use

[Graph showing trends from Jan-2017 to Dec-2017 with a significant increase in Sept-2017]
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Primary Care Rooming – Results

• Care Gap Closure:

Are you aware the new Rooming SmartSet will allow Mercy Health to close care gaps for our patients and improve their health?

Answered: 105  Skipped: 1

- Yes
- No
- 25-35 hours/week
- 40 hours/week
Primary Care Rooming – Results

• Care Gap Closure:
  • HM Rooming SmartSet has the highest monthly utilization rate of any Order Set and has seen 39,910 total uses since inception
Primary Care Rooming – Results

• Care Gap Closure:
  • By pending preventative care orders for providers, Rooming staff can help improve likelihood that necessary orders are signed and completed.
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Primary Care Rooming – Results

• Care Gap Closure:
  • For quality measures looking for whether or not a test was done and what the value was, clinical staff can’t impact the value, but by pending orders can impact whether or not the test gets ordered/completed.

May 2016 – April 2017 Vs May 2017 – April 2018

The year following the HM Rooming Smartset still saw fluctuation for this measure, but overall numbers were higher than previous 12mo
Primary Care Rooming – Results

• Care Gap Closure:
  • The Visit Checklist advises staff to do a BP recheck if the first reading is high and with proper technique will improve capture of 2nd reading, possibly eliminating “false positive” patients from the denominator of this quality measure
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Primary Care Rooming – Results

What sections in the Patient Info report do you use while rooming a patient?

Answered: 559  Skiped: 13

- Recent vitals
- Recent labs
- Open standing orders
- Open future orders
- Completed Health...
- Recent Outpatient...
- Future appointments
- Most recent CCB%
- PCMH Flowsheet data
- Document filed to patient
Primary Care Rooming – Results

Testimonials:

“This isn't so bad...”
Primary Care Rooming – Results

Testimonials:

“This isn't so bad…”

"I've been working in Epic 17 years and this is by far the best upgrade for MA workflow that I've ever seen”
Primary Care Rooming – Next Steps

• Continue to modify Rooming workflow/build to improve data capture, quality measures and patient care gap closure

• Continue to monitor use of Rooming SmartSet and look for opportunities for re-education / increased adoption

• Explore opportunities to incentivize rooming staff based on usage data around visit checklist and SmartSet

• Extend Rooming improvement beyond Primary Care (Q4 2018)
  • Obstetrics
  • Gynecology
  • Cardiology
  • Endocrinology
  • Pulmonology
  • Sleep Medicine
Key Contributors

Mark Binstock, MD, MPH
Hazel Garcia-Desamito, MD, CPC
Anna McCarthy, RN
Anita Mattingly, BSN, RN
Danyelle Clutter, MBA

Associate Medical Information Officer
Senior Clinical Content Specialist
CarePATH Ambulatory Clinical Lead
Director of Operations, Lorain Market
CarePATH Application Coordinator
THANK YOU

Contact Information:
Carrie Pollick: capollick@mercy.com