Should you consider yourself a high quality physician if you work in an organization that is not systematically trying to improve the care it provides?
#Let’sChange
Quality Improvement in Resident Clinic

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OBJECTIVES

1. Recognize the importance of Quality Improvement

2. Review basic QI concepts

3. Describe the challenges of implementing a residency QI curriculum

4. Review our current outpatient QI curriculum
“ALL improvement will require change

.... but NOT all change will result in improvement.”
Why do QI?

1) Patient Care
2) PCMH
3) ACGME
4) ABIM - MOC
Burning Bridge without Burning Bridges
The Model for Improvement

AIM
What are we trying to accomplish?

MEASURES
How will we know that a change is an improvement?

CHANGES
What changes can we make that will result in improvement?

© 2012 Associates in Process Improvement
The PDSA Cycle for Learning and Improving

<table>
<thead>
<tr>
<th>Act</th>
<th>Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>- What changes are to be made?</td>
<td></td>
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<tr>
<td>- Next Cycle?</td>
<td></td>
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<tr>
<td>- Objective</td>
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<tr>
<td>- Question and predictions (why)</td>
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<tr>
<td>- Plan to carry out the cycle (who, what, where, when)</td>
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<tr>
<td>- Plan for data collection</td>
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<table>
<thead>
<tr>
<th>Do</th>
<th>Study</th>
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<tbody>
<tr>
<td>- Carry out the plan</td>
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<tr>
<td>- Document problems and unexpected observations</td>
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<tr>
<td>- Begin analysis of the data</td>
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<td>- Complete the analysis of the data</td>
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<tr>
<td>- Compare data to predictions</td>
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<tr>
<td>- Summarize what was learned</td>
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Implementing QI in resident clinic 2012-2013

- Interns 4+1 schedule
- QI time during clinic week
- Didactics with Darlene Tad-y
- Clinic projects
Clinic projects 2012-2013

Diabetes Self-Management
Hypertension
CAD Pharmacy co-visits
Do No Harm
PCMH
POCO
Depression
# Quality Improvement Project H&P

## Problem Statement

What is the problem?
Where is it happening?
Who is experiencing this? And in what context?
How frequently?
I know this because.....

## SIPOC Analysis

<table>
<thead>
<tr>
<th>Suppliers</th>
<th>Input</th>
<th>Processes</th>
<th>Output</th>
<th>Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements</td>
<td>Problems</td>
<td></td>
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</table>

## Fishbone/Process Map

What does the current Process look like?

## Labs/Rads

### Metrics

What are the objective measures?
What are the goals for those measures?
How well are you performing?

## PDSA cycles

What interventions will you do?
How will you know if your “treatment” worked?
How will you implement those interventions?
Ambulatory Quality Improvement Initiative Summary
University of Colorado Internal Medicine Residency Program

Name: __________________________  Clinic: __________________________  Faculty mentor: __________________________

1. Briefly summarize your quality improvement project (5-6 sentences).

2. Please describe the insights you have gained from doing this project with respect to:
   a. Engaging key stakeholders (i.e., who were the care team members that were part of the effort)?
   b. Your role as an intern/resident doing QI work?
   c. The role of quality improvement in healthcare in general.

3. What lessons can others learn from your QI initiative?
What went well?
What went well?

Brandon Combs - Do No Harm

Noelle Northcut - CAD

Katy Trinkey - CAD & HTN

Adam Abraham - POCO

Danielle Loeb - PCMH & Depression

Rich Penaloza - Diabetes
What went well?

“I initially felt that my role as an intern doing QI work was a bit limited in that I came into a new clinic, approached new patients and was just trying to get a feel for learning new medicine and managing patients and didn’t initially have a sense where things need improvement. ...I developed more of an understanding of how important my role in QI could be in my own clinic as I stumbled upon multiple clinic-wide shortcomings. I think that I can use this knowledge and newfound confidence throughout the rest of my residency to improve the clinic experience for residents and to improve patient outcomes.
What went well?

“Small tasks can be beneficial, changes don’t have to be monumental to be meaningful. For example, a follow up phone call to patients who have not been scheduled in the pharmacy hypertension clinic despite a referral, is a simple task to inch us closer to blood pressure improvement.”

“As I see it, QI is designed to analyze specific processes in our practice environments (whether that be based in the outpatient or inpatient setting) and implement small interventions to see if they result in measureable improvement. The practice can then gradually change overtime, implementing the interventions that work, and discarding the interventions that do not work.”
The Road Home: How Our Clinic is Becoming a Patient Centered Medical Home

**TODAY’S CARE**

- My patients are those who make appointments to see me.
- Patients’ chief complaints or reasons for visit determines care.
- Care is determined by today’s problem and time available.
- Care varies by scheduled time and memory or skill of doctor.
- Patients are responsible for coordinating care.
- I know I deliver high quality care because I’m well trained.
- Acute care needs met through next available visit and walk-ins.
- It’s up to the patient to tell us what happened to them.
- Clinic operations center on meeting the doctor’s needs.

**MEDICAL HOME CARE**

- Our patients are those who are registered in our medical home.
- We systematically assess all our patients’ health needs to plan care.
- Care is determined by a proactive plan to meet patient needs.
- Care is standardized according to evidenced-based guidelines.
- A prepared team of professionals coordinates all patients’ care.
- We measure our quality and make rapid changes to improve it.
- Acute care needs met through today visits or non-visit contacts.
- We track test results and consults, and follow up after ED & hospital.
- A team works at the top of our licenses to serve patients.
Physicians
- Unaware of quality measures
- Unaware of patient’s co-morbidities (MI, low LVEF)
- Limited time to review med list
- Unaware of changes in medications by other providers which may lead to lapses in adherence to quality measures
- Inexperience with using medications
- Multiple providers and poor communication leading to uncoordinated care
- Lack of knowledge about proper dosing to achieve maximal effect

Patients
- Non-compliance with medications
- Lack of knowledge regarding importance of meds and effects on their health
- Prohibitive cost of meds
- Lack of insurance
- Infrequent access to PCP
- Lack of motivation/hopelessness about health

Pharmacy
- Pharmacy not involved in medication management
- Limited communication with physicians
- Unaware of comorbidities and acute medical issues that could change dosing or change of drugs

Equipment:
- BP inaccurate 2/2 cuff or poor technique
- Lab tests resulted too late to act on
- Lab tests inaccurate 2/2 mis-calibration

Knowledge/Communication:
- Lack of awareness regarding medications
- Barriers to coordinated communication between physicians, pharmacy, staff, patients
- Multiple providers without coordination/ownership of CAD management
- Lack of follow-up regarding adherence to medications
- Lack of reminders to providers to consider if all CAD medications are prescribed

Staff:
- Not performing or recording BP and alerting providers about abnormal lab values
- Not reminding providers to consider if CAD medications have been addressed

Methods:
- Process not automated
- Process has too many barriers to ordering necessary medications

Electronic Medical Record:
- No automated meno/reminds for physicians regarding medications
- Medication list disorganized, not presented in coherent or accessible way
- No flags to report when a CAD medication has been discontinued
- Meds not listed as a group
- EMR cumbersome and difficult to use

Poor management of CAD
What were the challenges?
<table>
<thead>
<tr>
<th>Resources</th>
<th>Learning</th>
<th>Doing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>People</strong></td>
<td>Educators</td>
<td>Project Leaders Staff</td>
</tr>
<tr>
<td><strong>Time</strong></td>
<td>Education Didactics</td>
<td>Coordinating Intern Schedules</td>
</tr>
<tr>
<td><strong>Money</strong></td>
<td>FTE support Support for Education Time</td>
<td>Supported Time to Do QI projects</td>
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</tbody>
</table>
What were the challenges?

#Let’s Change

• Clinics new to QI
• Intern buy-in
• Limited and varied experience among faculty and educators
• Clinic willingness to change
• No uniformity amongst change
• PCMH coordination
Where are we now?

• Didactics
• Personal Improvement Project
• Integration into team projects
Where are we now?

Ambulatory Curriculum

July - December

• 105 - Human Side to QI
• 101 - Fundamentals of Improvement
• 102 - Model for Improvement
• 103 - Measuring for Improvement
• 104 - Putting it All together
• 106 - Tools
Where are we now?
Personal QI projects

Personal Opportunity Statement (Lesson 1)
My fiancé and I would like to be home owners

Aim Statement (Lesson 2)
We will budget our finances to save up at least $20,000 towards purchasing a 3-4 bedroom home in Evergreen, Cherry Creek, or Morrison, Colorado by August 2014

Measures (Identify one outcome, two to four process, and one or two balancing; Lesson 3)
Outcome Measure:
1) How much have we actually saved towards purchasing a home?

Process Measures:
1) Create a monthly budget along with an income statement and balance sheet for our household.
2) Make changes in our lifestyles that coincide with our budget. This includes limiting the amount of times that we eat out to 2 times per week or a cumulative of $100/week. Also limit unnecessary purchases (i.e. entertainment).
3) Set up a specific amount of income (at least 10-20% our our income) that is allocated to our goal and is invested in a brockeraage account that has a rate of return of 5-10% per year
4) We have to do our due diligence with homes in our areas of interest including pricing, amenities, etc.
5) Improve our credit score to qualify for a better interest rate on a mortgage and to increase the amount that we can qualify for to put towards purchasing a home. This includes making sure that our credits cards are all paid off and all payments are made on time.

Balancing Measure:
1) Make sure that we have fun-money (15% income) available so that we are still going out with friends and family at least four times a month.
2) Make sure that we have at least 10% of our income available for emergencies.

Changes to Test (Lesson 4)
Set up our bank account that will automatically allocate 10-20% of our income towards a brockeraage account for purchase of a home and 10% to a savings account for emergencies.
The PDSA Cycle for Learning and Improving
Intern integration into team projects

QI Project leader/team leader

QI Project

QI educators

Intern clinic week

Intern clinic week

Intern clinic week
Where are we going?

*If we were to dream*

- All team members complete IHI training
- Dedicated FTE
- Incorporate interprofessionals
THANK YOU

Jean Kutner
Karen Chacko
Darlene Tad-y
Eva Aagaard
Danielle Loeb
QUESTIONS?

QUALITY

THE RACE FOR QUALITY HAS NO FINISH LINE—SO TECHNICALLY IT’S MORE LIKE A DEATH MARCH.