McMaster University

Family Medicine

David Braley Primary Care Research Collaborative

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Quality Improvement in Primary Care: When, how, and getting started

Watch a recording of the session here

Dr. Dale Guenter, Professor, DFM

Dr. Kat Cottrell, PGY3 Research Scholar, DFM

November 15th, 2022

Michael G. DeGroote SCHOOL OF MEDICINE

McMaster University

Family Medicine

Quality Improvement in Primary Care:
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Conflicts?

Drs. Guenter and Cottrell both have teaching roles in the InQuiry curriculum of the McMaster Family Medicine curriculum, and would love to entice more people from research to be involved in delivering this curriculum to our family physicians of the future. (Ulterior Motive)

You Will…

- Locate Quality Improvement in the Cycle of Scientific Knowledge
- Know what QI can achieve, what research can achieve, and when to use which
- Know how to get started on QI

And now, over to YOU…

Have you worked on a QI project before?

QI

is Trial
(and error)
…and try again

QI

makes a **process less variable**, more reliable, meet a target consistently

Decrease variability, increase quality

And now, over to YOU…

What is one QI activity in your everyday life recently?

Research

- Explores/describes an issue systematically

  (observation)

- Or tests a hypothesis or new intervention

  (experiment)

QI

- Meeting a standard of performance that is mandated or generally agreed upon.
- Decreasing variability, increasing reliability of performance.
- Trying small scale interventions to see which ones work well.
- Systematic approach to trial and error.
- Identifying and fixing problems in a sustainable way.

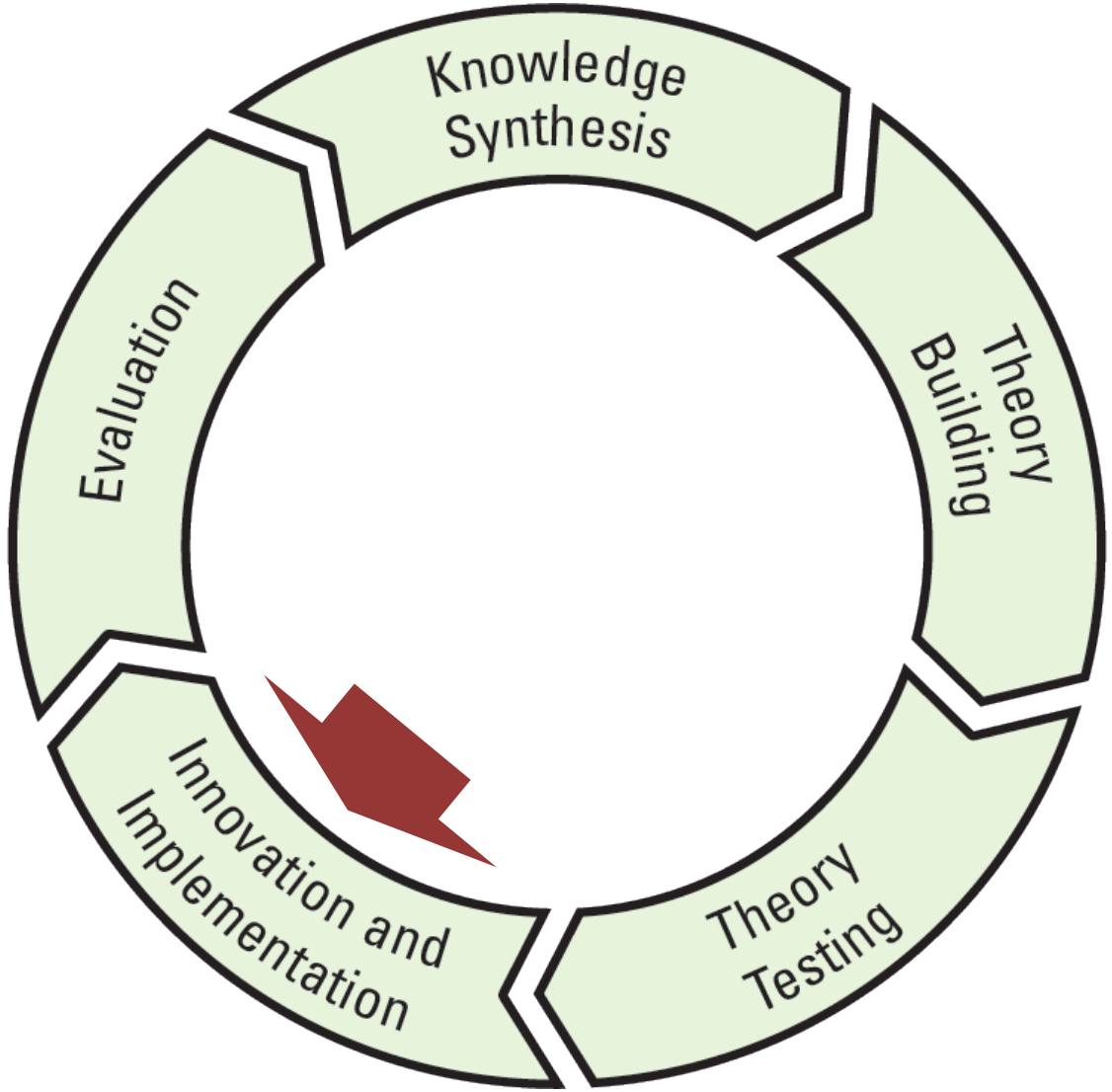
Research

- Research concludes with a statement of what is (probably) true

QI

- QI is **implementation,** aims to make something work *more reliably* in the local context. It starts small.

Life Cycle of Scientific Knowledge



Allison Brown
Gina Agarwal
Matt Greenway
2016

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InQuIRe

Integrated Quality Improvement in Residency

FAMILY MEDICINE

Program Handbook

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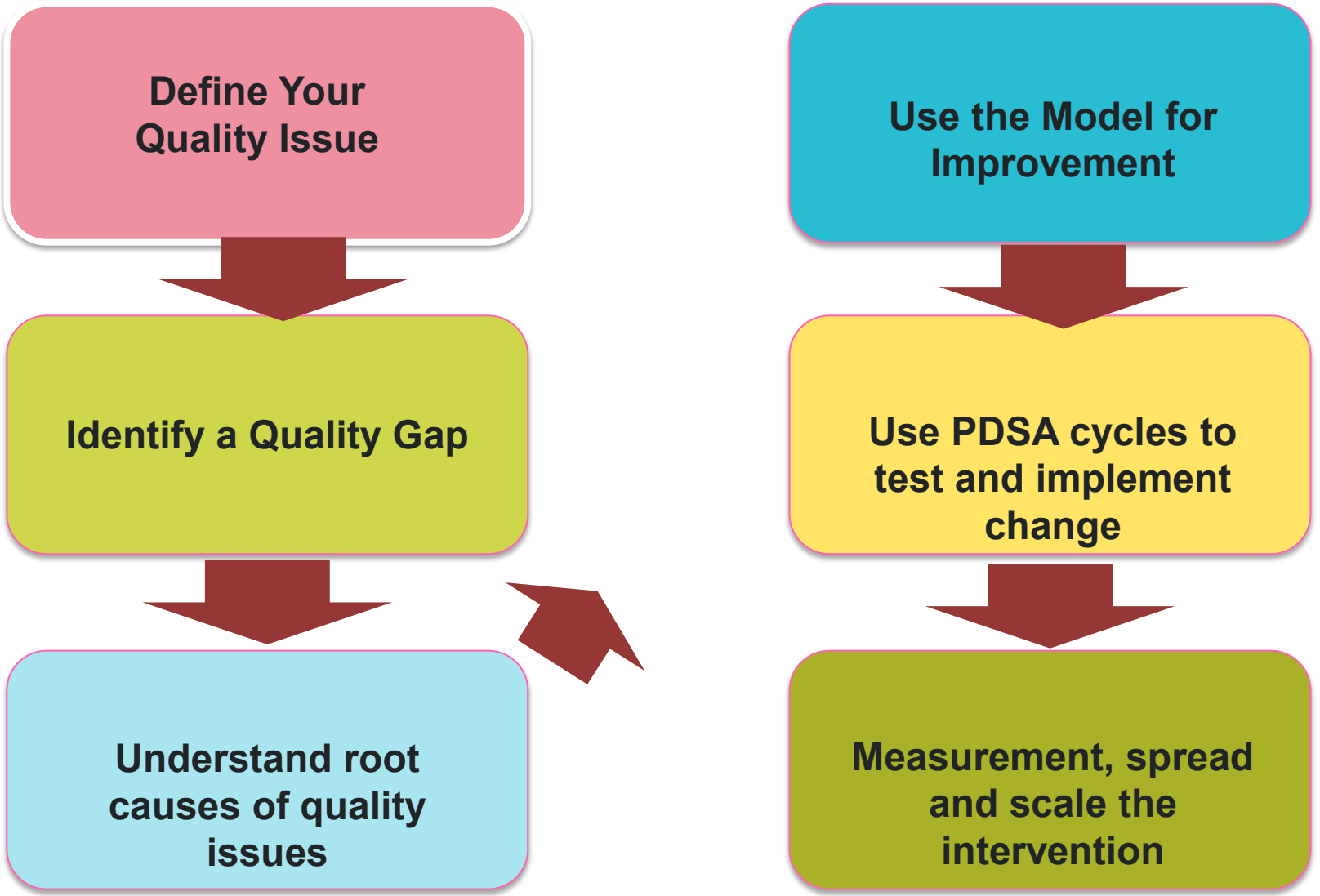
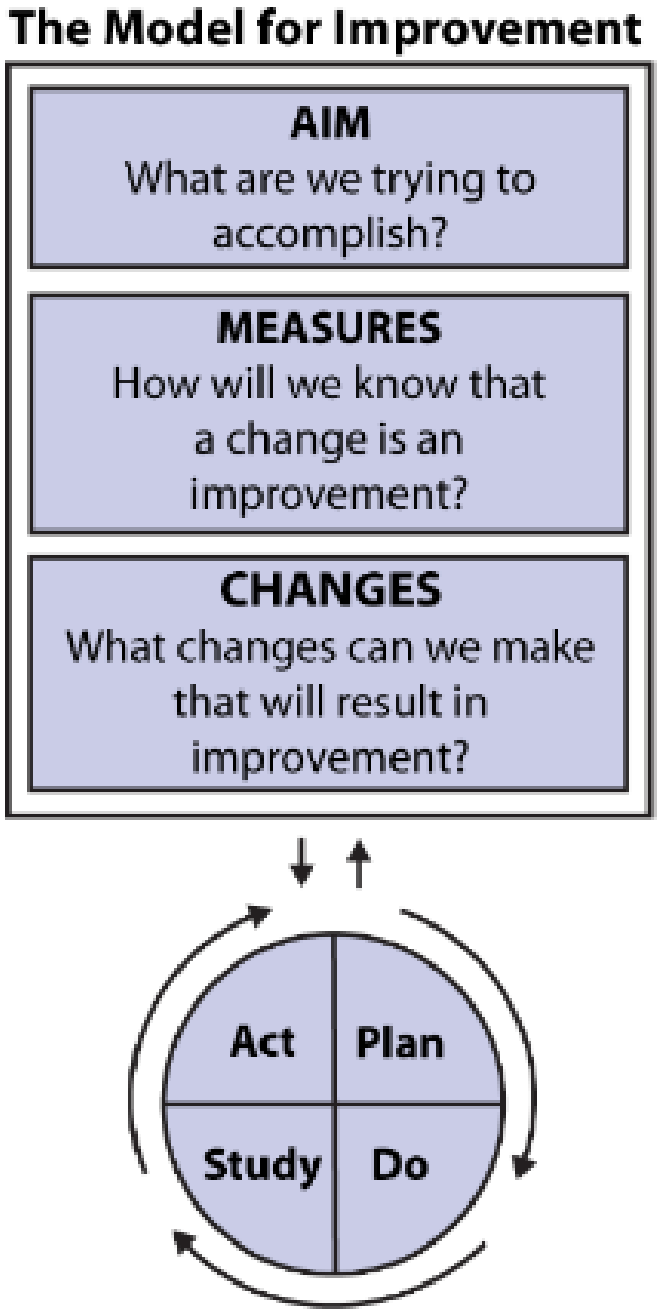

Define Your Quality Issue
Identify a Quality Gap
Understand root causes of quality issues
Use the Model for Improvement
Use PDSA cycles to test and implement change
Measurement, spread and scale the intervention

And now, over to YOU…

Returning to the QI activity in your everyday life…

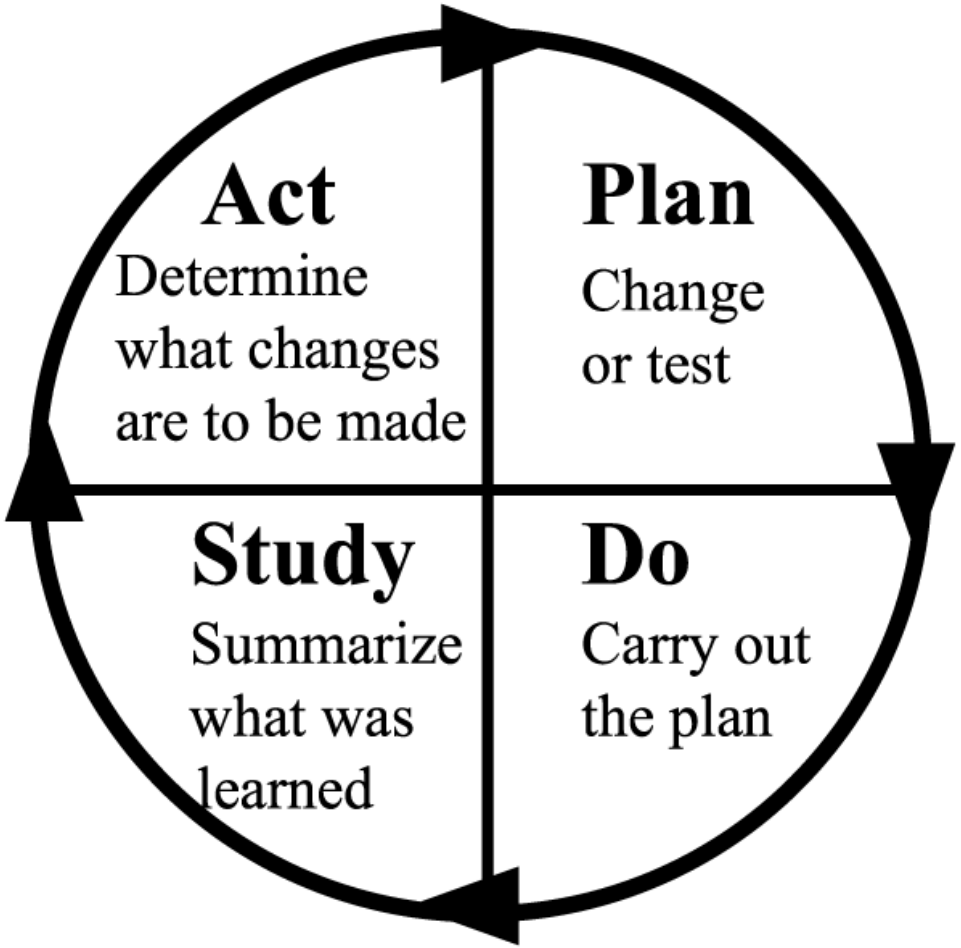
What are the causes of the process problem?

Model for Improvement



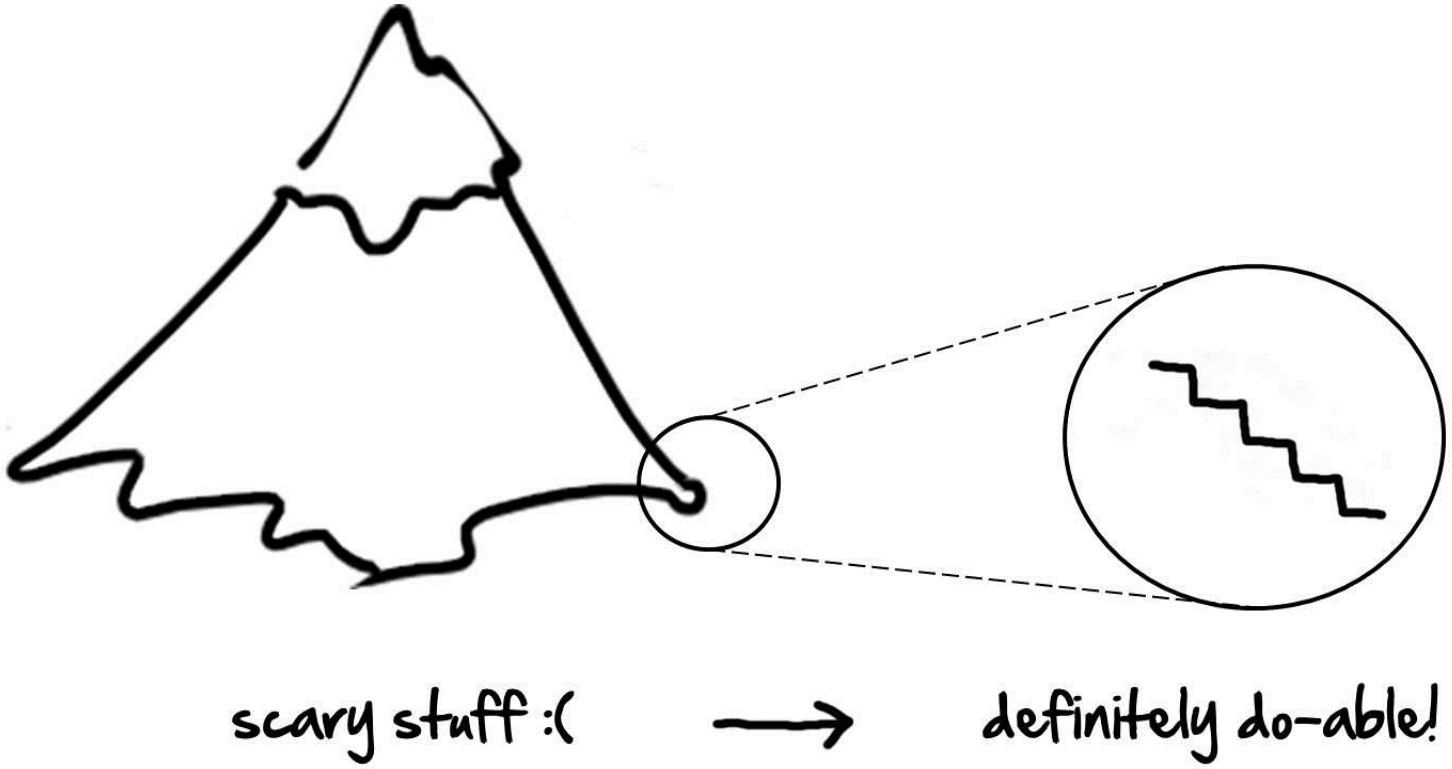
© 2012 Associates in Process Improvement

Iterative cycles PDSA



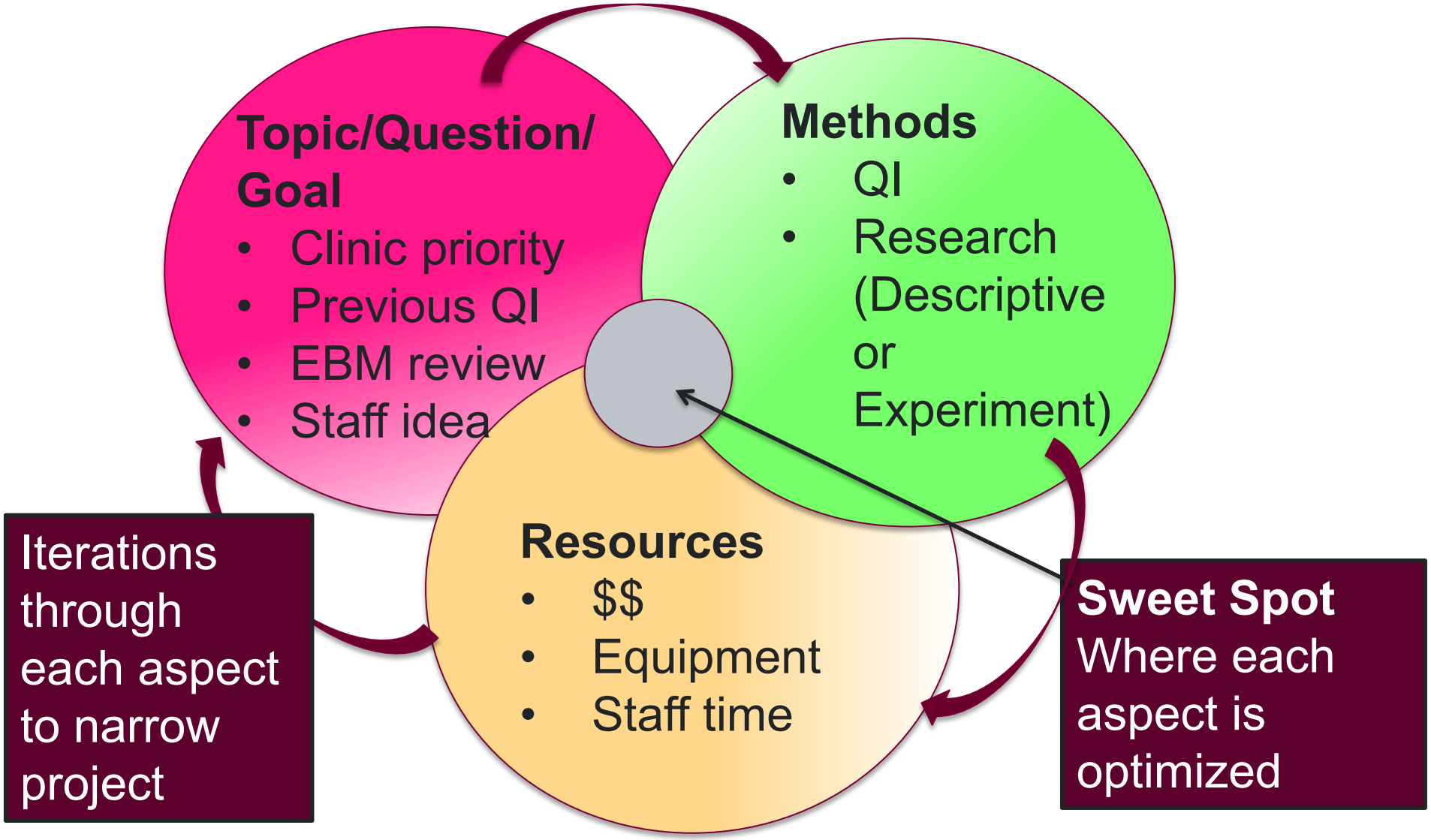
Source: Langley *et al*. (1996)

Think Big
Start Small



think big, start small
© The Work Experiment 2011

Developing the project



Domains of health care quality

Project Charter

- Aim Statement
- The Problem (in detail)
- Rationale (why is this important?)
- Intervention
- Measures
- PDSA cycles
- Expected challenges

CPSO Example QI Project Topics

- Children are overdue for 18-month immunizations: Identify target population of children less than two years of age to determine how many are up to date with their 18-month immunizations; develop interventions to address the gap; remeasure after six months.
- Pacemaker patients have not received required follow-up during COVID: Improve follow-up of pacemaker patients by defining the target population, developing communication strategies and assessing outcomes (number of patients who received appropriate and timely follow-up).
- Implement patient satisfaction surveys to capture the patient experience.
- Increase use of secure eForms from 9 to 25 per week and re-evaluate quarterly.
- Prescribe nature to target population at least once a week per provider, using an evidence-based online nature prescription tool embedded in the Group's EMR; after three months, measure number of prescriptions per provider.

What makes this QI, or Research (and who cares)?

> JMIR Med Inform. 2020 Jul 27;8(7):e16764. doi: 10.2196/16764.

Embedding "Smart" Disease Coding Within Routine Electronic Medical Record Workflow: Prospective Single-Arm Trial

Dee Mangin [1], Jennifer Lawson [1], Krzysztof Adamczyk [1], Dale Guenter [1]

Affiliations + expand

PMID: 32716304 PMCID: PMC7418012 DOI: 10.2196/16764

Free PMC article

What makes this QI, or Research (and who cares)?

Methods

We used a single-arm prospective trial design with preintervention and postintervention data analysis to assess the effect of the intervention on disease recording volume and quality. The MUSIC network holds data on over 75,080 patients, 37,212 currently rostered. There were 4 MUSIC network clinician champions involved in gap analysis of the disease coding process and in the iterative design of new interface tools. We leveraged terminology standards and factored EMR workflow and usability into a new interface solution that aimed to optimize code selection volume and quality while minimizing physician time burden. The intervention was integrated as part of usual clinical workflow during routine billing activities.

What makes this QI, or Research (and who cares)?

> BMC Palliat Care. 2021 Jul 30;20(1):122. doi: 10.1186/s12904-021-00817-z.

Advance care planning conversations in primary care: a quality improvement project using the Serious Illness Care Program

Abe Hafid [1], Michelle Howard [2], Dale Guenter [2], Dawn Elston [2], Shireen Fikree [2 3], Erin Gallagher [2], Samantha Winemaker [4], Heather Waters [2]

Affiliations + expand

PMID: 34330245 PMCID: PMC8325252 DOI: 10.1186/s12904-021-00817-z

Free PMC article

What makes this QI, or Research (and who cares)?

McMaster University HEALTH SCIENCES

Department of Family Medicine

What is a Resident? Assessing Patient Understanding of Medical Residents at a Teaching Family Practice in Hamilton, ON.

Alex Hunting, MD
Department of Family Medicine, McMaster University

CONTEXT

Studies have shown in different medical contexts that patients do not fully understand what residents are [1-6]. In the context of a small family medicine clinic in British

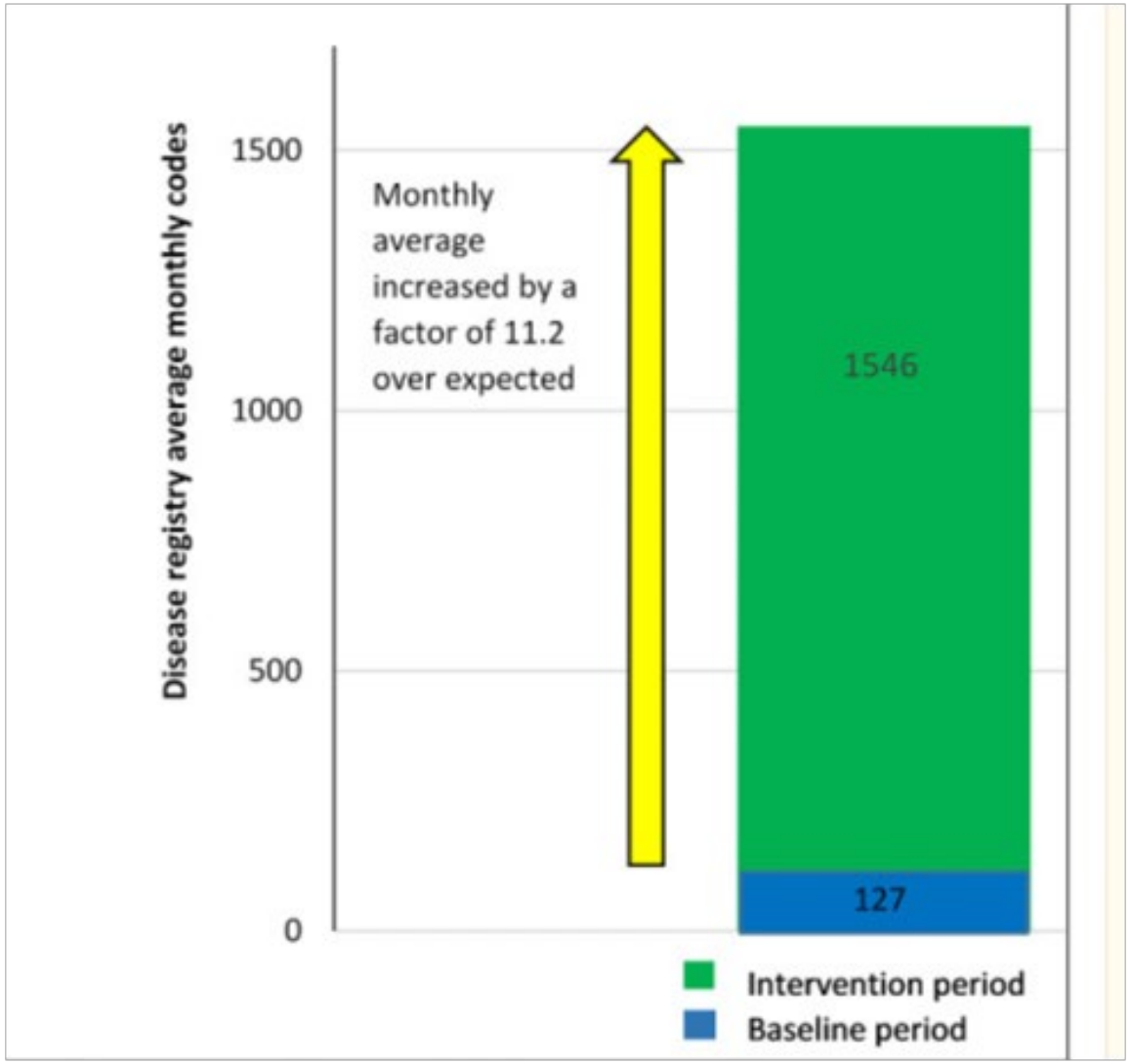
METHODS

A descriptive study consisting of a questionnaire completed by 162 English-speaking adult patients attending MFP over a 3 week period. The main outcome measured was patients' understanding of family medicine residents' level of education, responsibilities and degree of supervision.

Patient characteristics significantly associated with increased knowledge about residents included age >65, female sex, and completion of university.

CONCLUSIONS

What makes this QI, or Research (and who cares)?



And now,
over to
KAT

and then
YOU…

Personal
Experiences

Q&A Discussion

McMaster University

Family Medicine

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Faculty of Health Sciences

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