

# Quality Improvement and Leadership Development for Residents Leading Interprofessional Teams

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# Objectives

- Following this workshop, participants will be able to:
  - Describe the importance of leadership training for residents
  - Describe how leadership skills will positively impact IPE teams
  - Apply lessons learned from one institution's development of a resident resource to their own institution

## Jefferson Health



5 hospitals

Thomas Jefferson University Hospital  
Abington Hospital  
Jefferson Hospital for Neuroscience  
Methodist Hospital  
Abington-Lansdale Hospital



19,000+  
employees



3,923  
physicians/  
practitioners



16  
outpatient  
locations



Sidney Kimmel  
Cancer Center  
(NCI-designated)  
and  
Rosenfeld  
Cancer Center

## Thomas Jefferson University



Sidney Kimmel Medical College  
Jefferson College of Biomedical Sciences  
Jefferson College of Health Professions  
Jefferson College of Nursing  
Jefferson College of Pharmacy  
Jefferson College of  
Population Health  
Jefferson Institute for  
Emerging Health Professions



3,860  
students



# Thomas Jefferson University

## Sidney Kimmel Medical College

(formerly Jefferson Medical College)

- Second largest free-standing private medical college in U.S.
- Residency placement rate — 97% (exceeding national average)
- USMLE (step 1) student pass rate — 98% (exceeding national average)
- Internationally recognized Center for Interprofessional Education

## Sidney Kimmel Cancer Center (NCI-designated)

- One of just 69 nationally
- Cancer Network with members across the region
- One of 8 NCI-designated Prostate Cancer Programs of Excellence
- Melanoma Center of Excellence; Blue Distinction Center for Complex/Rare Cancers

## Jefferson Colleges of:

- **Biomedical Sciences** — 90% of Post-baccalaureate Pre-Professional Program graduates accepted to medical school
- **Health Professions** — OT ranked among nation's top ten by *U.S. News & World Report*; average student licensure pass rate for all reported programs—87%
- **Nursing** — among top 100 Best Graduate Nursing Schools by *U.S. News & World Report*; named a Center for Excellence in Nursing Education by the National League for Nursing; certification pass rate for MSN-NP graduates — 93%
- **Pharmacy** — graduate pass rate on the licensure exam — 98% (exceeding national average)
- **Population Health** — first such designated college in the U.S.

## Jefferson Institute for Emerging Health Professions





# Thomas Jefferson University

SIDNEY KIMMEL  
MEDICAL COLLEGECOLLEGE OF  
BIOMEDICAL  
SCIENCESCOLLEGE OF HEALTH  
PROFESSIONSCOLLEGE OF  
NURSINGCOLLEGE OF  
PHARMACYCOLLEGE OF  
POPULATION  
HEALTH

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# Jefferson Center for InterProfessional Education

Founded in 2007, the **Jefferson Center for InterProfessional Education (JCIPE)** is one of the premier interprofessional education centers in the U.S. Our center is dedicated to improving interprofessional care (IPC) through implementing and evaluating patient-centered education throughout the Thomas Jefferson



## UPCOMING EVENTS

[View all Events](#)

## IN THE NEWS



NLN's Guide to Effective Interprofessional Education Experiences

CONTEXT

# Family Medicine and Primary Care Internal Medicine Residencies

- Family Medicine
  - 10 residents/ year - 30 total
  - Underserved Care Track chosen by 3 residents/ year
- Internal Medicine
  - 37 categorical residents/ year - 120 total
  - Primary Care Track chosen by 2 residents/ year
- Target population for this project is all FM residents and Primary Care Track IM residents

# Residency Practice: Clinical Context

- Jefferson Family Medicine Associates & Jefferson Internal Medicine Associates
- Level 3 Patient Centered Medical Homes
- Serving a racially and economically diverse area of Philadelphia
- Actively engaged in transforming primary care practice to meet Triple Aim outcomes - ACO, CIN, Medicare Shared Savings Program contracts

## JeffAPCT Overview

- Five year HRSA-funded grant
- Leadership team from Family Medicine, Internal Medicine, Physician Assistant Program
- Goal: To improve the health of the population and achieve measurable improvements in Triple Aim outcomes by developing, implementing, and evaluating new PCMH and population health curriculum for Physician Assistants, Medical Students, Primary Care Residents, Clinicians, and Faculty.





# IDENTIFYING CURRICULUM GAPS

# Existing QI Curricula

- Both residency programs have strong QI curricula
  - Didactic curriculum, required team-based projects, protected time
- Quality and Safety Poster Symposium
  - Residents from all departments participate - but family medicine and internal medicine residents are the “stars”

# Needs Assessment

- Strong curricula related to QI, but two main gaps identified:
  - Interprofessional teamwork and collaborative practice
  - Leadership development and project management skills
- Residents often graduate believing that population health, quality, and safety initiatives depend primarily on physicians taking ever greater personal responsibility for more tasks

# Mapping to the IPEC Competencies

1. Values/Ethics for Interprofessional Practice
2. Roles/Responsibilities
3. Interprofessional Communication
4. Teams and Teamwork

Contextualized within a primary care system that is evolving to be **Community and Population Oriented** and **Patient and Family Centered**

IPEC Expert Panel (2011) *Core Competencies for interprofessional collaborative practice*

# Process to address leadership training gap

- Program/Institution leadership resource review
- Literature review
- Resident focus group
- Recruitment of faculty and resident project leads
- First assessment of tools



## Leadership resources at Jefferson

- Formal programs are very focused on faculty - limited opportunities for residents outside of what individual programs provide
- Human Resources Programming for Faculty and Staff: Leadership Academy, Transformative Leadership, New Leader Fundamentals, etc.



# Leadership Curriculum Nationally

- Resident leadership training opportunities often linked to role of chief resident (ACGME, AAFP, ACLGIM, and within programs)
- Curricula for junior faculty development
  - Gap between need and training noted in the literature <sup>1, 2</sup>
- Institute for Healthcare Improvement courses

1. Blumenthal DM, Bernard K, Bohnen J, Rohmer R. "Addressing the leadership gap in medicine: residents' need for systematic leadership development training." *Academic Medicine*. 2012; 87: 513-522. DOI: 10.1097/ACM.0b013e31824a0c47
2. Awad SS, Hayley B, Fagan SP, Berger DH, Brunicardi C. "The impact of a novel resident leadership training curriculum." *The American journal of surgery*. 2004; 188: 481-484. DOI: 10.1016/j.amjsurg.2004.07.024

# THE INTERVENTION

# Pre-Test for Leadership Skills

- 30 Family Medicine residents given modified Organizational Readiness to Change Assessment<sup>1</sup> in June/July 2016
- Will be administered annually to assess changes for individual residents and at the program level
- IRB exemption obtained
- Plan to expand to primary care IM residents next year

1. Helfrich C, Li Y, Sharp ND, Sales AE. Organizational readiness to change assessment (ORCA): Development of an instrument based on the Promoting Action on Research in Health Services (PARIHS) framework. *Implementation Science*. 2009; 4:38. DOI: 10.1186/1748-5908-4-38

# Pre-Test for Leadership Skills (sample questions)

2. I have the skills, knowledge and ability to:

- provide effective management for continuous improvement of patient care
- promote team building to solve clinical care problems
- promote communication among peers and leaders to improve patient care
- provide my QI team with information on our practices' performance measures and guidelines
- establish clear goals for patient care processes and outcomes
- hold team members accountable for achieving results

3. I have the skills, knowledge and ability to:

- propose a quality improvement/practice improvement project that is appropriate and feasible
- provide clear goals for the improvement or change in patient care
- establish a project schedule and deliverables
- collect feedback from team members regarding proposed/implemented changes
- develop and distribute regular performance measures to team members
- lead team discussion on results and implications for continued improvements
- communicate outcomes data to leadership
- conduct longitudinal assessment of project impacts

4. I have the skills & ability to guide my team in order to:

- share responsibility for the success of this project
- have clearly defined roles and responsibilities
- ensure that they can accomplish intervention project tasks within their regular work load
- clearly describe tasks and timelines

8. I am confident in my ability to choose group members in order to build up an effective and efficient team

10. I would be able to delegate the task of accomplishing specific goals to other group members

20. I am able to motivate and give opportunities to any group member in the exercise of his/her tasks or functions

# Resident Focus Group

- Formal training in QI/PI or patient safety?
  - Most don't know of resources
- Does the current QI curriculum address leadership skills?
  - Referenced tools like using Google Docs
- How might leadership training be beneficial?
  - Worried about curricular overload but did see benefit in understanding organizations
- Barriers to completing QI and population health projects?
  - Data access, coming up with ideas for projects
- Summary: lack of understanding of leadership skills, very focused on concrete operational issues

# Initial Toolkit Outline

	Student (MD or PA)	Resident	Preceptor
<b>Parameters</b> (* engages filter for modules below) (**affects other parameters)	<ul style="list-style-type: none"> <li>Time in rotation*</li> <li>Grade level</li> <li>Location*</li> <li>Preceptor / practice needs*</li> <li>Timetable for deliverables*</li> <li>Data accessibility*</li> </ul>	<ul style="list-style-type: none"> <li>Time (1 year?) *</li> <li>PGY level (PGY3 = leadership role) *</li> <li>Practice needs**</li> <li>Timetable for deliverables*</li> <li>Data accessibility*</li> </ul>	<ul style="list-style-type: none"> <li>Type of students available**</li> <li>Experience with QI*</li> <li>Experience with mentoring QI*</li> <li>Needs for MOC / QI in practice**</li> <li>Timetable**</li> <li>EMR/Population health available**</li> </ul>
<b>G&amp;O</b>	<p><b>Overarching:</b> To impact Triple Aim outcomes through improved primary care and population health curricula across the continuum of primary care providers and trainees. To develop and support PCMH transformation. To support faculty development for community-based preceptors.</p> <ul style="list-style-type: none"> <li>To prepare physicians to be stewards of safe, high quality, high value, patient-centered care</li> <li>To teach key principles of quality improvement, patient safety, and systems innovation to all learners in our training programs</li> <li>To develop a culture of safety and quality that learners will carry with them throughout their career               <ul style="list-style-type: none"> <li>To cultivate future leaders in healthcare quality and systems innovation</li> </ul> </li> </ul> <p><i>(May need to tailor objectives as learning objectives rather than project objectives)</i></p>		
<b>Educational Materials</b>	<p><b>Foundation educational materials for all (core didactics):</b></p> <ul style="list-style-type: none"> <li>Basics: What is QI? PDSA background; Basics of TeamSTEPPS/teamwork; QI vs. research; Patient Safety Basics; Pop health basics.</li> <li>QI methods – Choosing a project, designing a QI research question, intervention types, data collection / PHI protection, data analysis, data presentation. Provide QI “case” examples</li> </ul>		
	<ul style="list-style-type: none"> <li>IHI educational modules with quizzes.</li> <li>Ambulatory QI (ambulatory patient safety, error analysis, and QI Improvement tools)</li> </ul>	<ul style="list-style-type: none"> <li>IHI educational modules with quizzes.</li> <li>Ambulatory QI (ambulatory patient safety, error analysis, and QI Improvement tools)</li> <li>Inpatient QI (signout, safe d/c)</li> <li>Transitions of care QI</li> </ul>	<ul style="list-style-type: none"> <li>IHI educational modules with quizzes.</li> <li>Ambulatory QI (ambulatory patient safety, error analysis, and QI Improvement tools)</li> <li>Mentoring QI</li> <li>Practice transformation / PCMH application updates</li> <li>DV-ACO data reporting needs / QI priorities</li> </ul>



# Initial Toolkit Outline (continued)

<p><b>Tools</b></p>	<ul style="list-style-type: none"> <li>• Core reading materials (anticipating needs for individual projects above and beyond basics)             <ul style="list-style-type: none"> <li>• Data sources</li> <li>• Key stakeholders / resources                 <ul style="list-style-type: none"> <li>• Forms / surveys</li> <li>• Project checklists</li> </ul> </li> </ul> </li> </ul>		
<p><b>Product</b></p>	<ul style="list-style-type: none"> <li>• Past project ideas</li> <li>• Data sources</li> <li>• Form for data collection</li> <li>• Plug-in for data analysis</li> <li>• List of ongoing projects (to temporarily be involved in one part of bigger project?)</li> <li>• Timeline</li> </ul>	<ul style="list-style-type: none"> <li>• Past resident projects</li> <li>• Data sources</li> <li>• Form(s) for data collection</li> <li>• Plug-in for data analysis (advanced)</li> <li>• Timeline / deliverables</li> </ul>	<ul style="list-style-type: none"> <li>• Past projects</li> <li>• MOC Project ideas</li> <li>• Mentoring checklist</li> <li>• Plug-in timeline checklist</li> <li>• PCMH/NCQA Application checklist</li> </ul>
<p><b>Outcome measures</b></p>	<ul style="list-style-type: none"> <li>• One figure</li> <li>• Key conclusions, limitations and next steps</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation</li> <li>• Key conclusions, limitations and next steps</li> <li>• Leadership reflections (PGY3)</li> <li>• Leadership survey (PGY1-2)</li> <li>• Paper</li> </ul>	<ul style="list-style-type: none"> <li>• Mentorship portfolio</li> <li>• MOC completion</li> <li>• NCQA application elements</li> </ul>
	<ul style="list-style-type: none"> <li>• Individual project success Y/N</li> <li>• Number of patients effected by project</li> <li>• Initial intent to continue with intervention in practice</li> <li>• RE AIM measure for individual project</li> <li>• Others</li> </ul>		
	<ul style="list-style-type: none"> <li>• Project success</li> <li>• RE-AIM measures?</li> <li>• Passed on to next year Y/N?</li> <li>• Others</li> </ul>		
	<ul style="list-style-type: none"> <li>• MOC Y/C</li> <li>• Mentoring success</li> <li>• Project H/M/L quality (need some metric)</li> <li>• 3, 6 mo maintenance of intervention</li> <li>• Lead to "practice transformation"? Y/N</li> <li>• Others</li> </ul>		
	<ul style="list-style-type: none"> <li>• Composite project success rate</li> <li>• Total number of patients affected by projects</li> <li>• Total number of practices, providers affected by project</li> <li>• RE-AIM Measures composite for projects and overall for grant objectives             <ul style="list-style-type: none"> <li>• Measure of project quality overall                 <ul style="list-style-type: none"> <li>• Survey responses</li> </ul> </li> </ul> </li> </ul>		

# Resident Involvement

- FM PGY3 Leadership Project - help create and launch the Leadership Toolkit
- Feedback after completing IHI Leadership course
  - “I thought I was leading before, but really I was managing”
- Conducted literature review of best practices in IPE-team leadership
- Created a QI Team Leader job description
- Compiled resource list for peers

# Team Leader Job Description

- Encourage fair and equal participation in project by all team members
- Develop agenda for meetings with clearly listed deliverables
- Play lead role in creating project timeline and developing objective milestones
- Ensure that team members are working in collaboration to complete assignments by designated deadlines
- Track project progress
- Demonstrate problem solving, conflict management, and team building skills to ensure productive work environment and achievement of goals
- Coordinate technical assistance per project as needed (data analysis help, interviewing key stakeholders, etc.)



# Leadership Components

- Self-assessment of leadership type and effectiveness as a leader
- Leadership pearls
  - Common team issues with example text
  - Strategies to increase engagement of team members
- Qualities of an effective leader



# Sample QI Components

- QI vs. Research
- PDSA cycle overview, step by step guide, and template
- Measures and data overview
- IRB guidelines
- Checklist for getting started with a project
- Guides for process mapping, literature reviews, etc.
- Poster templates
- Examples from past teams

# Preceptor Resources

- Rubric to evaluate projects
- Tips for mentors
- Quality Improvement Knowledge Application Tool Revised (QIKAT-R) to assess learning

1. Singh MK et al. The Quality Improvement Knowledge Application Tool Revised (QIKAT-R). *Academic Medicine*. 2014; 89(10):1386-1391. DOI: 10.1097/ACM.0000000000000456



# Toolkit- Examples from learning management system

The screenshot shows a learning management system interface. At the top, there is a header bar with a bookmark icon on the left, the text "QI Foundation Course" in the center, and a search icon and a menu icon on the right. Below the header, a blue banner contains the title "WHAT IS QUALITY IMPROVEMENT?" in white, bold, uppercase letters. Underneath the banner, a paragraph of text reads: "What is quality improvement? "Quality improvement" embodies a commitment to continuously improving healthcare quality, focusing on the preferences and needs of the people who use health care services." Below this text, there is a white box with a document icon and the title "What is QI? Core Values and". Below the title bar, there is a dark grey bar with an upload icon on the left and a share icon on the right. The main content area features a bolded heading: "Quality improvement encompasses a set of 6 core values:". Below this heading, there is a vertical list of six colored rectangular buttons, each containing a core value: "Committment to self-reflection" (blue), "Shared Learning" (green), "The Use of Theory" (light green), "Partnership" (orange), "Leadership" (red), and "Understanding of Context" (blue).

QI Foundation Course

## WHAT IS QUALITY IMPROVEMENT?

What is quality improvement? "Quality improvement" embodies a commitment to continuously improving healthcare quality, focusing on the preferences and needs of the people who use health care services.

### What is QI? Core Values and

**Quality improvement encompasses a set of 6 core values:**

- Committment to self-reflection
- Shared Learning
- The Use of Theory
- Partnership
- Leadership
- Understanding of Context



## PDSA Cycles 1: IHI - What's an easy way to learn about PDSA cycles?

What's an easy way to learn about PDSA cycles?



## PDSA Cycles 2: IHI PDSA Cycles in Everyday Life

Robert Lloyd, PhD

From the IHI Open School's online course:

QI100 Lesson 5



# Presenting Your Research Data

By Amy Cunningham, MPH

Key objectives:

1. Learn about the different ways to present data.
2. Understand general tips for effective data presentation.
3. Learn key points about research presentations at conferences.
4. Learn key elements of a good poster presentation.



## Presenting Your Research Data

Amy Cunningham, MPH

Use this template for displaying a PROPOSAL



QI Proposal Poster Template

Powerpoint template

Use this template for displaying a COMPLETED PROJECT

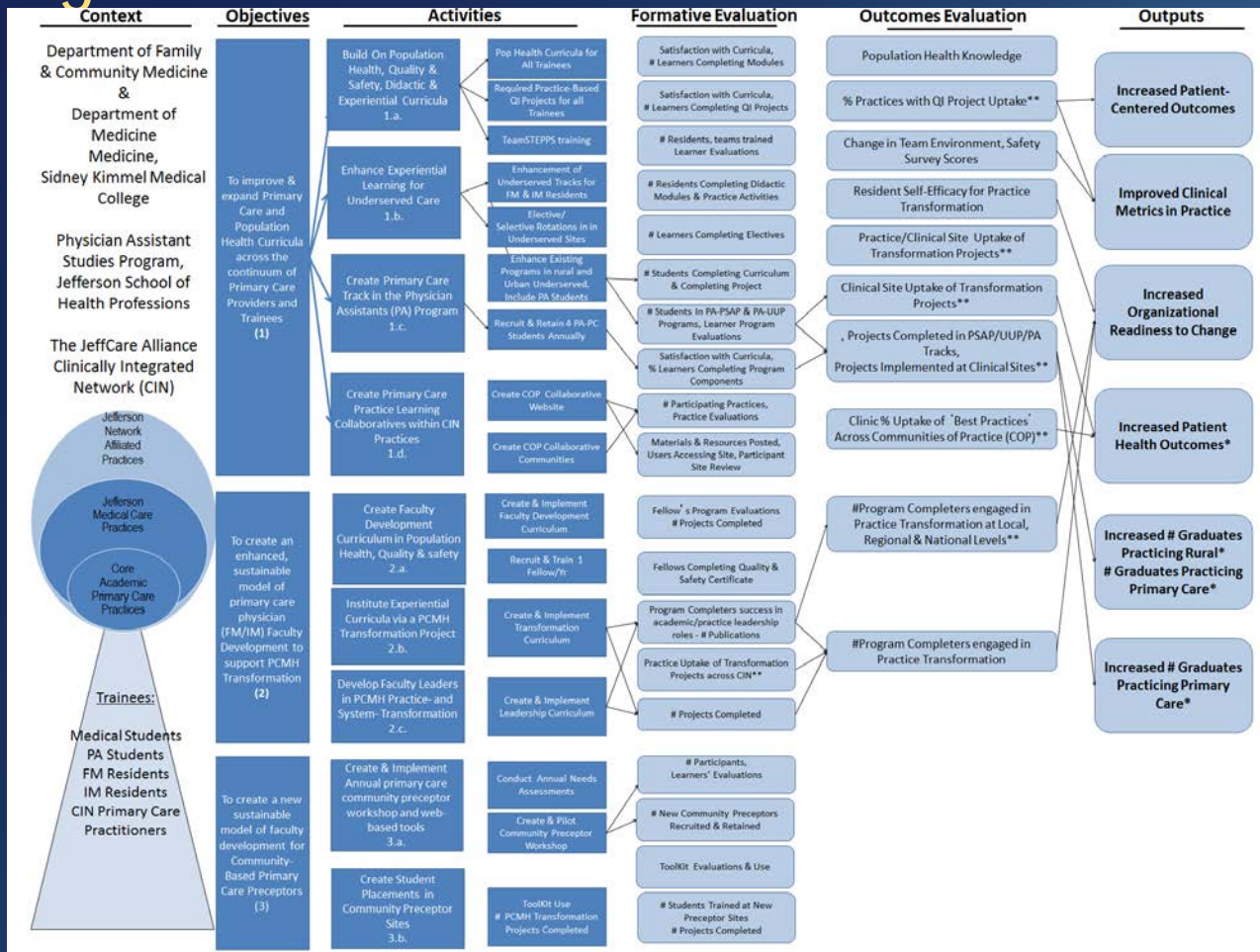


QI Poster Template

Powerpoint template

# EVALUATION

# JeffAPCT Logic Model



# Process Evaluation

- Process evaluations of toolkit implementation
  - Pilot testing in progress
  - Evaluation feedback loops for Acceptability, Usability and Learner satisfaction
  - Modules and courses completed

# Outcomes Evaluation- Teams & Leadership

- Monitoring & Evaluation of residency QI projects for IP “Teamness”
  - Jefferson Teamwork Observation Guide
- Leadership Self-Efficacy and Confidence
  - Longitudinal assessment (yearly) through the modified ORCA<sup>1</sup>

1. Helfrich C, Li Y, Sharp ND, Sales AE. Organizational readiness to change assessment (ORCA): Development of an instrument based on the Promoting Action on Research in Health Services (PARIHS) framework. *Implementation Science*. 2009; 4:38. DOI: 10.1186/1748-5908-4-38



# Outcomes Evaluation- Practice & Patients

- Outcomes of QI Projects yearly
  - Gains in clinical quality
- Patient Level Evaluations
  - Patient Satisfaction through Consumer Assessment of Healthcare Providers and Systems (CAHPS) yearly

## Next Steps

- Continued refinement of tools
- Evaluation of projects
- Yearly survey of residents
- Adding primary care IM residents

# Questions and Feedback

## Small Group Discussion

- What is your curriculum for residents and/or other learners for project management and/or formal leadership education at your institutions?

- What are you learning about effective education to prepare interprofessional teams for quality improvement and safety work?

- What evaluation strategies are you using to assess the effectiveness of your quality and safety education? How are these linked to Triple Aim outcomes? (improving delivery of care, improving the health of populations, reducing total cost of care)

- How can we as educators bring IPE principles to practice environments to better prepare our current and future practitioners to achieve Triple Aim outcomes?



Thank-you!

# Accelerating Primary Care Transformation at Jefferson



## Project Summary

There is clear consensus that a robust primary care system capable of managing the health of populations is critical to the success of our health care system. Yet too few clinicians enter primary care practice, and those in practice often lack key competencies to effectively manage populations.



The goal of **Accelerating Primary Care Transformation at Jefferson (JeffAPCT)** is to measurably improve the health of populations served, create an exceptional experience of care, and decrease costs across our entire population, with a particular emphasis on improving outcomes and decreasing disparities for traditionally underserved segments of our population.

JeffAPCT will develop, implement, and evaluate new curriculum and practice transformation strategies across the full continuum of primary care education, from medical and physician assistant students through primary care residents, practitioners, and faculty. Novel multimedia learning technology will support implementation. JeffAPCT will create infrastructure to support enhanced recruitment of under-represented minority primary care clinicians, and recruitment of primary care clinicians into rural and urban underserved practice sites.

### Specific Objectives:

1. To impact Triple Aim outcomes through improved/expanded primary care and population health curriculum across the continuum of primary care providers and trainees
2. To create enhanced, sustainable models of primary care physician faculty development to support PCMH Transformation
3. To create a new, sustainable model of faculty development for community-based primary care preceptors (MD/DO, PA, NP, others).

[▶ FOR PRECEPTORS](#)[▶ FOR RESIDENTS](#)[▶ FOR STUDENTS](#)