

# **“Quality Improvement 201”**

## **Context-Relevant QI Leadership Training for the Busy Clinician**

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# Disclosures

- **No commercial relationships to disclose, nor anything to be discussed related to off-label use of meds. So there.**

# Objectives

At the end of this workshop, attendees will be able to:

- **Describe essential curricular elements of a clinician QI leadership program**
- **Develop a training program for future clinician QI leaders in the context of their busy activities, using existing resources**
- **Evaluate the success of the curriculum and make changes to fit the needs of their own institution**

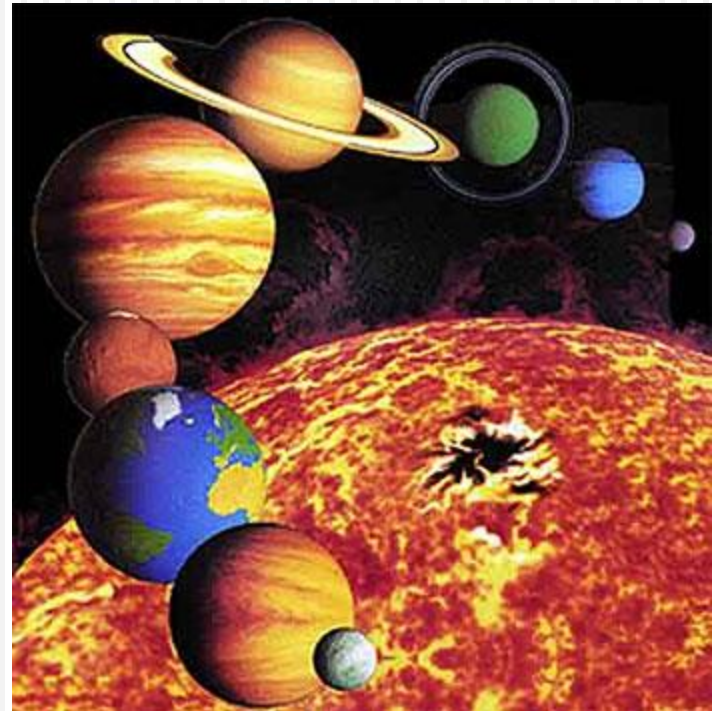


UMASS  
Medical School

UMassMemorial

# Project Genesis

- **New Center for the Advancement of Primary Care**
- **History of cross-departmental collaboration**
- **HRSA Academic Administrative Units in Primary Care grant**
- **New focus on quality at level of hospital system: “beyond the Joint Commission”**



# HRSA AAU grant

- Family Medicine, General Pediatrics, General Internal Medicine collaboration
- 3 years
- Goal: teach QI principles to learners at every level
  - ▣ Medical Students
  - ▣ Residents
  - ▣ In-house faculty
  - ▣ Community faculty ← **Quality Scholars program**
- Budget for: Core faculty support; admin support; teaching materials; dissemination (travel)

# Partners

- **Clinical system: Office for Quality and Patient Safety**
  - ▣ Recently finished JC visit
  - ▣ Small cadre of physician quality officers
  - ▣ Interested in increasing QI/PS activity
  - ▣ Natural link to resources, collaborators
- **Medical School: Office of Medical Education**

# Curriculum development process

- **Internal needs assessment:**
  - ▣ **Develop leadership for future QI projects – serve as a nucleus for eventual “critical mass”**
  - ▣ **Develop educators to teach QI to learners**
  - ▣ **MDs interested, but not to the point of becoming “gurus”**
  - ▣ **Interest from School of Nursing as well**
- **Internal resource assessment:**
  - ▣ **Administrative leadership**
  - ▣ **Physician Quality Officers**
  - ▣ **Several quality experts with varied training**
  - ▣ **Educators**
  - ▣ **CAPC faculty and staff**
  - ▣ **Program evaluator**

# Curriculum Development Process

- **External resource assessment:**
  - **Informal survey of known national experts**
  - **Academic Pediatric Association QI SIG query**
  - **Literature/online resource review (more later)**
    - **VA Quality Scholars (VT)**
    - **Intermountain Healthcare**
    - **IHI**
    - **Healthcare Improvement Skills Center**

# Critical Design Elements

- Feasible “while riding the bike”
- Immediately useful and meaningful to participants
- Balance of project-based, didactic instruction
- Respect scholars’ time commitment, but recognize need for some protected time
- Buy-in from clinical departments: access resources, free up faculty
- Focus this year on primary care: fulfill grant requirements, start with focused group

# Curriculum Development

- **Review of similar programs:**
  - ▣ VA Quality Scholars
  - ▣ Intermountain Health Care
  - ▣ IHI
- **Project-based**
- **Low cost to promote sustainability**
- **Adult learning principles**
  - ▣ Didactic balanced with hands-on
  - ▣ Simulations
  - ▣ Group discussion

# Curriculum Components

- **On-line modules**
- **QI project work**
- **Between learning session readings/exercises**
- **Didactic presentations by faculty**
- **Simulations**
- **Group discussion**
- **Project presentations**

# Candidate Selection

- **Medicine, Family Medicine and Pediatrics Department Chairs were asked to recommend candidates (at least 2 per dept)**
  - **“Primary Care”**: broadly defined
  - **Expressed interest in QI**
  - **Looking to improve QI skills**
  - **Willing to assume a QI leadership role within their practice setting after the program ends**
  - **Willing to work with residents on their QI projects**
  - **Able to give 10% time commitment to program**
  - **Lead a QI project within practice setting**

# Our Scholars



# Faculty

- **Cross System/Interdisciplinary**
  - ▣ **Family Medicine, Medicine, Pediatrics, Specialists**
  - ▣ **Physicians**
  - ▣ **Nurses**
  - ▣ **Organizational Development**
  - ▣ **Quality and Patient Safety Department**
  - ▣ **Medical School Faculty**
  - ▣ **System QI Leaders**



# Project Based

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- **Just in time learning**
- **Experiential learning**
- **Value added to practice site**
- **Variation on “train the trainer” model**

# Just In Time Learning

- **Pre-work**
- **Bi-weekly learning sessions tied to project stages**
- **Weekly mentor contact**
- **Current articles**
- **E-mail contact**
- **Continuous modification using bi-weekly feedback from Quality Scholars**

# Reading List

- Quality by Design
- Change Agents' Handbook
- The TEAM Handbook
- IOM: To Err Is Human
- IOM: Crossing the Quality Chasm
- Berwick: Escape Fire
- The Green Book (Clinical Microsystems)

# Additional Resources

- **Gawande: “The Checklist”**
- **Kenney: The Best Practice**
- **IHI White Paper on Lean**
- **Time Management Using Quality Tools by Patrick M. Courtney**
- **Memory Jogger II, Healthcare Edition – Goal/QPC**
- **QI Macros for Excel**

# On-line Training Modules

- **Core faculty evaluated several quality improvement on-line training programs**
  - ▣ **Basic QI tools/methods**
  - ▣ **Project management**
  - ▣ **15 – 30 minute segments**
  - ▣ **Case-based**
  - ▣ **Web-based**
  - ▣ **User friendly**



# IHI Open School

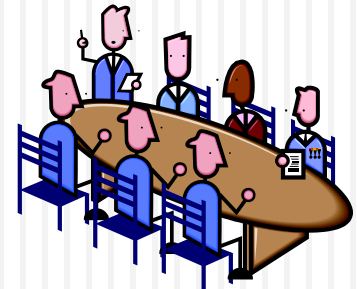
- **Met criteria**
- **New modules added since course began**
- **Tied in with UMMS Open School Chapter**
- **Connected Quality Scholars to IHI resources including white papers, tools and health care setting application examples**
- **[www.ihl.org](http://www.ihl.org)**

# Healthcare Improvement Skills Center

- **Developed through combined efforts:**
  - ▣ **University of Missouri, Columbia, Academy for Post Graduate Medical Care Education**
  - ▣ **Case Western Reserve University Division of Information Technology Services**
  - ▣ **Institute for Healthcare Improvement**
- **Met criteria**
- **Stronger case based examples**
- **CME/CEU option**
- **[www.improvementskills.org](http://www.improvementskills.org)**

# Bi-weekly Learning Sessions

- **20 learning sessions**
  - ▣ **15 sessions with focused QI/project management content**
  - ▣ **3 sessions project update presentations**
  - ▣ **2 sessions for final project presentations**
  - ▣ **All sessions included QS feedback/evaluation**
  - ▣ **Session format continuously adjusted as needed**



# Learning Sessions 1 - 3

- **LS 1 – Overview of the program**
  - ▣ **Review of pre-work, getting established, project “5 P’s” assessment**
- **LS 2 – Systems Thinking**
  - ▣ **QI project ideas, QI team members, discussion of project 5 P’s assessment**
- **LS 3 – Project Management**
  - ▣ **Aim statements, timelines, data choices/sources, FOCUS-PDSA, Gantt charts**

# Learning Sessions 4 - 5

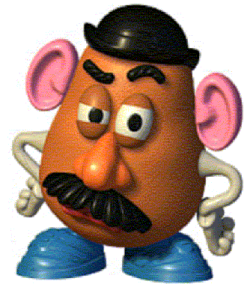
- **LS 4 – History of QI**
  - ▣ **Placing QI in context:**
    - Healthcare settings (especially UMMMC)
    - Individual/professional responsibility for CQI
  - ▣ **Process improvement map flow charts**
- **LS 5 – Effective Meeting Skills and Change Concepts**
  - ▣ **Report out on project activities to date: aim statement, process map, team membership, meeting times**
  - ▣ **Exploration of change concepts, meeting tools**

# Learning Sessions 6 - 8

- **LS 6 – Measurement and Monitoring**
  - ▣ Run charts, control charts, surveys, data sources; establishment of project measures; project updates
- **LS 7 – Project Storyboards, Data Walls and Playbooks**
  - ▣ Project update presentations
- **LS 8 – Teamwork**
  - ▣ Teamwork simulation; understanding team dynamics, evolution of teams, team leadership, working across silos

# Learning Sessions 9 -11

- **LS 9 – Project Updates**
  - ▣ **Project discussion and problem solving roadblocks**
- **LS 10 – Introduction to Lean – Part 1**
  - ▣ **Mr. Potatohead Spud Spectacular simulation**
- **LS 11 – Conflict Management/Negotiation Theory**
  - ▣ **Silence Kills/Dialogue Heals; project updates**



# Learning Sessions 12 - 13

- **LS 12 – Lean Principles and Six Sigma**
  - ▣ **Use of lean and six sigma in healthcare settings and UMMMC**
  - ▣ **Project updates**
- **LS 13 – UMMMC Office For Quality, and National Linkages**
  - ▣ **Introduction to the Quality and Patient Safety Office, Physician Quality Officer role, NQF measures, national incentive programs and quality organizations**
  - ▣ **Project updates**



# Learning Sessions 14 - 16

- **LS 14 – Patient Centered Care**
  - ▣ **Patient experience, patient satisfaction and the inclusion of the patient voice in improvement efforts**
  - ▣ **Project updates**
- **LS 15 – Project Updates**
  - ▣ **Project discussion, problem solving; discussion of roadblocks**
- **LS 16 – The Business Case for QI**
  - ▣ **Understanding and using ROI to prioritize QI initiatives; project updates**

# Learning Sessions 17 - 20

- **LS 17 – Leading Change**
  - ▣ **The human factor, root cause analysis, Kotter’s principles**
- **LS 18 – Final Project Preparation**
  - ▣ **Project discussion and problem solving roadblocks**
- **LS 19/20 – Project Presentations at UMMMC Quality Symposium**



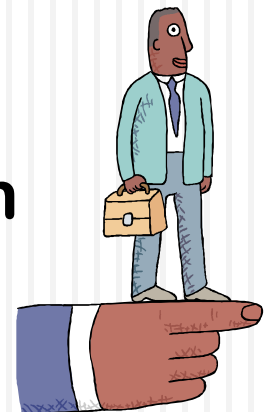
# Mentors

- **Clinical System and Medical School Faculty and QI Leaders**
- **Paired with QS based on project and professional development needs**
- **Weekly contact, with bi-weekly face to face meetings**



# Mentor Guidance

- **Help Quality Scholar reflect on improvement work, project goals and professional growth**
- **Broad themes addressed:**
  - ▣ **Working in/leading QI teams**
  - ▣ **Using a systems approach**
  - ▣ **Resident project mentoring**
  - ▣ **Understanding and valuing inclusion of patients in improvement efforts**



# Quality Scholars Web Page

- **Calendar**
- **Articles**
- **Resource links**
- **Podcasts of learning sessions**
- **QI tool templates**



# Evaluation

- **Bi-weekly scholar evaluations of material**
- **Monthly contact between mentors and course leadership**
- **Project progress monitored by course leaders, mentors**
- **Pre-program assessment of Quality Scholar knowledge base and working environment**

# Pre-Program Assessment

- 26 knowledge questions
- Total Score range: 3 – 51
- QS Scores range: 24 – 37.5
- Overall mean: 31.5
- Median: 31.3



# Pre-Program Assessment

How often do the following things currently happen in your medical practice?	Never	Rarely	Sometimes	Most of the Time	Always
Providers in your office are open to staff ideas about how to improve office processes.			6	4	
Staff are encouraged to express alternative viewpoints in your office.		1	4	5	
Staff are afraid to ask questions when something does not seem right.	2	3	4	1	
It is difficult to voice disagreement in your practice.	3	4	3		
Staff feel like their mistakes are held against them.		4	5	1	
Providers and staff talk openly about office problems.		1	2	6	1

# Pre-Program Assessment

To what extent do you currently feel confident...	Not at All	Somewhat	Moderately	Very
being identified as a leader for quality projects in your practice?		6	3	1
using models of improvement to achieve quality project goals in your practice?	1	6	3	
effectively identifying a team of staff in your practice to work on a quality improvement project?		7	3	
mentoring a resident in your practice in the development of his/her own quality improvement project?	2	7	1	
To what extent do you think <u>each of the following</u> has been effective.....	Not at All	Somewhat	Moderately	Very
The national patient safety goals have been effective in improving patient safety in the US healthcare system.	1	7	2	
The Core Measures have been effective in improving quality of care to patients with these conditions (heart failure, myocardial infarction, pneumonia, childhood asthma, surgical patients).		7	3	

# Individual Session Feedback

- **Project discussion highly valued**
- **Request for more prominent presentation of session objectives**
- **Initial 2- 3 sessions covered some material that felt redundant with pre-work**
- **Hands-on practice of concept, tool or technique very helpful**
- **Project and between work deadlines are helpful in keeping the project work moving forward**

# Individual Session Feedback

- **Quality Scholars had varying levels of clinical as well as quality improvement experience resulting in some content being too elemental and other content being too advanced. This was most evident in the Measurement Learning session.**
- **Program flexibility allowed for adjustments based on individual session feedback such as the structure and order of learning sessions.**

# Lessons Learned

- **10% protected time (provided by departments) critical to allow scholars to commit to learning sessions, project work**
- **Selecting scholars:**
  - ▣ **Experience vs. enthusiasm; mix of both**
- **Never underestimate the value of project discussion time (>> didactic learning)**
- **Quality Scholar networking an asset for general support and project completion**

# More lessons learned

- **Difficult to convince physicians that they can't "do it all"!**
- **Challenging to convince participants to limit the scope of their 9-month project**
- **Much easier to convey the importance of systems thinking (?participant selection bias)**
- **Patient/parent involvement: no major attitude change needed, but harder in practice**

# More Lessons Learned

- **Early assignment of mentors important in helping scholars properly scope their project**
- **Mentor support helped keep the scholar and project on track while meeting individual learner needs**
- **Managing the time balance between didactic presentation and project implementation for extensive “just in time” learning is challenging**
- **Reinforcement of team, systems approach, project scope and the patient voice are critical elements for successful movement to a continuous quality improvement culture**

# Additional Benefits

- **This approach provides the larger system with additional leadership resources for current and future improvement efforts**
- **Expansion of improvement work**
- **Supports system change to a continuous quality improvement culture in alignment with enterprise goals**

# Next Steps

- **Establish on-going funding for Quality Scholar program**
- **Begin recruitment of next class**
- **Provide venue for on-going contact and networking of Quality Scholar graduates**
- **Analyze program evaluations and make necessary program adjustments**

# Now it's your turn:

**Design a program for your organization:**

- **What are the needs and resources at your organization?**
- **What might critical elements of a useful program for your organization be?**
- **Fishbone diagram exercise**

# Our contact info

- Center for the Advancement of Primary Care: [www.umassmemorial.org/CAPC](http://www.umassmemorial.org/CAPC)
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