Engaging Learners Across Health Professions in Improving Care Together

Tuesday December 11, 2012

Objectives

After this session, participants will be able to:

- Explain key strategies needed to engage multiprofessional learners in quality improvement.
- Describe at least one specific activity you can use to get your learners from different health professions to work together to improve care.
- Give examples of resources to support interprofessional quality improvement projects.
Introductions: IHI Open School Advisors

**Wendy Madigosky, MD, MSPH**
Director, Foundations of Doctoring Curriculum; University of Colorado Anschutz Medical Campus School of Medicine
*IHI Open School Faculty Network Advisor*

**James Moses, MD, MPH**
Associate Program Director, Boston Combined Residency Program in Pediatrics; Boston Medical Center
*IHI Open School Academic Advisor*

Introductions: Expert Panel

**Peter Davey, MD**
Lead Clinician for Clinical Quality Improvement, Population Health Sciences Division, Medical Research Institute, University of Dundee, UK

**Vicki Tully**
Safety, Governance and Risk Educational Co-ordinator, University of Dundee Medical School, UK
Introductions: Expert Panel

Daniel Alyeshmerni, MD
Quality Improvement Chief Resident
Georgetown University/DC VA Medical Center

Gouri Gupte, PhD, BMS
Assistant Professor, Health Policy and Management
Boston University, School of Public Health

Overview

- Overview - IHI Open School
- Integrating interprofessional QI experiences into the curricula
- Engaging learners in QI through IHI Open School Chapters
- Lessons in guiding experiential QI learning
The IHI Open School

IHI Open School Courses

- **18** online courses in quality improvement, patient safety, leadership, patient- and family-centered care, population health, and managing health care operations
- **23.5** contact hours for nurses, physicians, pharmacists
- **FREE** for students, faculty, residents
- Available by **subscription** to health professionals
- **Translations**: Spanish and Portuguese
Course Use by Discipline

- Nursing
- Medicine
- Pharmacy
- Other
- Allied Health Professions
- Health Administration
- Dentistry
- Physician Assistant
- Business Administration
- Engineering
- Social Work

IHI Open School Chapters

521 Chapters

US Chapters in 48 states
International Chapters in 57 countries
113,903 student and residents registered on IHI.org
Disciplines Represented in Chapters

- Allied Health Professions
- Business
- Dentistry
- Engineering & Health Informatics
- Health Policy, Public Health, Health Sciences, & Healthcare Administration
- Medicine
- Nursing
- Law
- Social Work
- Other
- Physician Assistant
- Pharmacy
- Occupational & Physical Therapy
- Other

IHI Open School
Quality Improvement Practicum

- Learner-driven QI initiatives/projects in a clinical setting with active mentoring and coaching by a faculty advisor with experience in leading QI

- Recommendations:
  - Teams should include learners from different backgrounds.
  - Teams should include 2-3 members, but interprofessional group projects can be up to 6-7 members if this helps inclusivity of other professional groups.
IHI Open School
Quality Improvement Practicum

Learner(s) complete required courses

Learner(s) identify faculty, health system sponsor(s), and project

Learner(s) create charter, cause and effect diagram, 2 PDSA cycles, run charts, summary

Learner(s) complete project

IHI Open School approves project & awards Practicum Certificate of Completion

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Integrating Interprofessional QI into the Curricula: The Dundee Experience

*Peter Davey, Lead Clinician for Clinical Quality Improvement, Population Health Sciences Division, Medical Research Institute, University of Dundee, UK*

*Vicki Tully, Safety, Governance and Risk Educational Co-ordinator, University of Dundee Medical School, UK*

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Interprofessional Safety Workshop

- Final-year medical and nursing students learn together about adverse events within a one-day workshop.
- Use the IHI Global Trigger Tool with real anonymised case notes to facilitate identification of triggers/adverse events.
- Facilitated by nurses, medical staff, and staff from our NHS Tayside Patient Safety team who routinely use the IHI Global Trigger Tool in practice.
Process

- Nursing and medical students bring complementary knowledge and skills to this activity.
  - They identify triggers/adverse events, but many other clinical issues are discussed and learning is shared in relation to the patient case, adverse events, teamwork, and communication.

- One case provides ample content for two hours of discussion and feedback.
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Age 85
Severe pulmonary fibrosis

26/12 12.10pm
26/12 16.30pm
28/12 04.00am
Asystolic Cardiac Arrest during CT Scan

- 60 hours after consultant decision not to resuscitate.
- 30 hours after family spoke to doctors in the early hours of the morning to emphasise that they did not want him resuscitated.

Lessons Learned

- Nursing students do not like taking time out of clinical practice to “play doctors.”
- Interprofessional education assignments need to be designed so that each profession will be in their comfort zone for part of the assignment.
- The IHI Trigger Tool works well because:
  - Nursing students lead on clinical practice.
  - Medical students lead on technical issues.
- You don’t need high fidelity simulation -- just a good case and some tables and chairs.
Conclusion/Future Plans

- This model is easily adaptable for other educational institutions as only a few teaching resources are required.
- University of Dundee will launch an Interprofessional Educational Strategy in 2013 with a case-based discussion about safety & human factors with 600 first-year nursing, dentistry, and medical students learning together.

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Engaging Learners in QI through IHI Open School Chapters

Daniel Alyeshmerni, MD
Quality Improvement Chief Resident
Georgetown University/DC VA Medical Center

Igniting Students and Trainees

- System dysfunction is never more evident than when one is in training.
  - Because of the unfortunate nature of our training system, trainees are often blamed for system errors
- Because of this frontline view, there is a tremendous will for change among trainees.
- They are tremendously agile in their thought processes and are not attached to an ingrained status quo.
- They rarely have the opportunity to work in an interprofessional manner.
The Georgetown Story

- Interprofessional Chapter of 70 members

Getting There from Here…

Partnership with institutional leadership, secure a mandate

- Georgetown Center for Patient Safety
- Georgetown Masters in Health System Administration
- Georgetown School of Medicine
  - Remove barriers
  - Buy faculty time
  - Encourage learners to participate
Create a Guiding Coalition

IHI Open School working group

- Flattened hierarchy
- Motivated and passionate volunteers
- Weekly meetings with focused project updates
- Interprofessional representatives

Focus on a Big Opportunity

- Engage students/trainees in projects that are central to the strategic plan of your health care organization.
- In our case:
  - Resident handoffs
  - Central line blood stream infections
  - Hospital readmissions
  - DVT prophylaxis improvement
  - Post discharge communication with community primary care physicians
  - Hand hygiene
  - Central line air embolism prevention
  - Private partnership with an industry partner
Build Will, Sustain Momentum

Be tenacious, but don’t declare victory too soon
- Communicate often
- Monthly chapter meetings with project status reports, actionable items lists
- Broadcast success, celebrate short- and long-term wins
  - Academic publications
  - Departmental newsletters
  - Local and national research competitions
- Permanently change your home institution’s culture

Project Example: CLABSI

Team structure:
- Health system administration student: Project manager, Daniel Bitman, BS
- Physician champion: Medicine resident, Daniel Alyeshmerni, MD
- Nursing champion: Elizabeth Giunta, RN
- Medical student: Orlando Sabbag, MSIII Peter Aleksandrov, MSIII
- Nursing student: Lindsay Gingras

Barriers: Time, focus, maintaining momentum

Results:
- On vascular surgery unit, CLABSI rate ~ 3.2/1000 device days to 0 CLABSI rate for over one year.
Lessons Learned

- Institutional leadership buy-in is essential to removing barriers, protecting trainee and faculty time, and securing a mandate.
- Recruit a guiding coalition of volunteers to lead your Chapter.
- Have your Chapter work on key strategic institutional initiatives and longitudinal projects.
- Communicate and meet often, obtain project progress reports, and formulate actionable items lists.
- Be tenacious and celebrate success, but don’t declare victory too soon.

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Developing Interprofessional Partnerships for Learner-Driven QI

Gouri Gupte, Assistant Professor, Health Policy & Management
Boston University, School of Public Health

James Moses, MD, MPH
Pediatric Director of Quality and Safety, Boston Medical Center and Associate Program Director, Boston Combined Residency Program in Pediatrics

Setting

Boston University School of Public Health
Boston Medical Center
Background: School of Public Health

- Lean management course
- Operations management course
- Practicum
- Project experience

Learner-centered approach

Boston Medical Center

- Safety net provider to underserved communities in Boston area
- Resource constrained
- Imperative is to improve quality, lower costs without robust infrastructure in place to do so
Residency QI

- ACGME mandate
- Best practice undefined
  - What does it take for resident QI to be successful?
- Local context:
  - Department of Pediatrics
    - 3 resident-driven QI projects in specific clinical areas per year
      - Ambulatory, Inpatient, Pediatric ED
  - Department of Medicine
    - PGY2 and PGY3 quality improvement curriculum
    - QI projects

Partnership

Boston University School of Public Health + Boston Medical Center
Project Examples

- 16 projects across GIM and Pediatrics
- Pediatric-specific projects:
  - Ambulatory
    - Decreasing wait times
  - Inpatient
    - Increasing percentage of patients with asthma who are discharged from hospital with medications in hand
  - Pediatric ED
    - Increasing percentage of patients seen for asthma who receive their Asthma Action Plan in their preferred primary language

Didactic→Experiential Curriculum

- SPH
  - Lean management course
  - Operations management course
  - Basic lean tools: Process mapping, fishbone, muda

- BMC/Clinical Site
  - ‘Just in time’ training with practicum experience
    - IHI OS modules/IHI QI Practicum
  - Process actively facilitated by faculty in health care setting
Defining Roles

- **Students**
  - Have basic knowledge of QI
  - Can be on front lines to engage staff
  - Key role in:
    - Baseline measurement
    - Testing interventions via PDSAs
    - Data analysis and reporting (run charts)

- **Residents**
  - Clinical system experts
  - Can direct efforts from afar if learning from measurement is facilitated
  - Project managers

Win-Win

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<th>School of Public Health</th>
<th>Boston Medical Center</th>
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<td>Practicum opportunity</td>
<td>Resource→Resident QI</td>
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<td>Practice based learning</td>
<td>↑ Department QI capability</td>
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<td>Mentorship</td>
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<td>Soft skills</td>
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<td>QI skills</td>
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**Long-Term Benefits**

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<th>Job opportunities</th>
<th>Culture change</th>
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<td>Resume builder</td>
<td>Improved care</td>
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Challenges

- Not much funding available
- Human resources alignment
- Commitment from students in project completion
- Mentorship
- Protected time

Specific Strategies

- Faculty interested/knowledgeable
- Student interest
- Mentorship from SPH and BMC
- Champion on projects
- Passion for QI
Lessons Learned

- Interprofessional partnership with learners begins with interprofessional collaboration with faculty.
- Pairing faculty who ‘teach’ with faculty who ‘do.’
- Viable role for students/learner driven QI in health care organizations.
- Active faculty/mentorship is necessary for success.

Overall Lessons Learned

- Play to the strengths of the student’s discipline.
  - The Dundee experience
- A good case can bring everyone together.
  - Poor quality of care is poor quality regardless of role
- Don’t forget the power of students to be catalysts for change and collaborative improvement.
- Leverage interprofessional relationships at the faculty level to identify opportunities for students to create improvement together.
- Find activities that are a win-win — ones that use student skills and also help the faculty or organization.
Questions/Comments?

Thank you!