



# PUBH 703

## Quality Improvement in Public Health and Healthcare

(Credit Hours: 3)

### *Public Health Leadership Program*

UNC Gillings School of Global Public Health

Spring 2017

Thursdays, 12:30 to 3:15 PM

#### **Faculty:**

Kathy Bradford, MD  
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ODL  
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#### **Course Description**

The importance of integrating quality improvement (QI) and population health education into medical and public health curricula is increasingly being recognized. This course was created in 2013 by HRSA funding for the EMPHasis Project (Education in Medicine and Population Health: a system of interdisciplinary study) which emphasizes population health and primary care training by building a successful 15-year collaboration between the UNC Chapel Hill School of Medicine (SOM) and UNC Chapel Hill Gillings School of Global Public Health (SPH).

This quality improvement course is one of the key strategies EMPHasis uses to enhance the current MD-MPH Program. Further, just as effective QI is of necessity an interdisciplinary activity, the course is designed for both MD-MPH students, public health students, and students in other health-related disciplines. The course was piloted in the Spring 2013 with 16 MD-MPH and Health Policy and Management Masters students and will be offered each spring semester for up to 35-40 students to a broader array of Gillings School departments.

The course combines theory, practical application, and real-world perspective. A primary focus is on practical experience using QI methods and tools. Students will explore foundational concepts in QI and see it applied in healthcare settings.

#### **Course Objectives**

By the end of the course, students will be prepared to:

1. Describe and compare major QI Models (e.g. Lean, MFI, Six Sigma) and measures
2. Select and apply key QI tools in the context of process improvement (e.g. driver diagrams, PDSA cycles, process flow/value stream maps, run charts)
3. Describe the different approaches to establishing leadership, teamwork, and culture change in organizational settings
4. Analyze a healthcare setting in need of improvement within UNC Healthcare and recommend a plan for improvement.

## **Required Materials**

Course readings for each session are posted on Sakai and are linked directly on the class schedule. From time to time, other readings, assignments, web links to materials, etc. will also be posted on Sakai. Web-based modules are offered through The IHI Open School, with free registration for students.

## **Strategies for Teaching and Learning**

The typical class session begins with a brief student-facilitated discussion of readings for the week. This discussion is followed by a didactic presentation on the topic of the session. The lecture is followed by question and answer session and facilitated class discussions or exercises to apply the content. Numerous guest speakers from public health and medical settings add diverse perspectives and extensive expertise to the course. Much of the learning occurs outside of class through completion of a personal improvement project, attending QI team meetings at UNC, and working on a QI Group Project. Class time will also be reserved for some group meetings for the QI Group Project.

## **Assignments and Student Deliverables**

### *Quality Improvement Group Project*

Students will apply their knowledge in quality improvement to a team-based project with a department at the UNC Hospital. Students will be divided into teams of 3-5 based on their project preferences. Throughout the semester, the team is expected to collaborate with the hospital department to identify a clinical process, create a value stream map of the process, measure key process attributes, identify opportunities for improvement, and work with the managers and leaders at the clinical site to plan for improvements based on this knowledge. Time will be allocated at the end of some classes to work on the projects.

The deliverables for this project will include a summary report in the SBAR format (Situation, Background, Assessment, & Recommendation) and a presentation to the class summarizing the problem, their evaluation, and recommendations for improvement. Both the presentation and the accompanying report should incorporate concepts, tools, and data display and analysis techniques that were learned in the class. Both report and presentation are expected to be submitted on Sakai at a date designated during class. This project is 30% of the total student grade.

### *Class Participation and Attendance*

It is expected for students to complete the readings prior to class, attend class, and actively contribute to the discussions. The readings assigned per class are in the schedule and attendance will be taken at each class. Class time will be allocated for discussions of the articles assigned for that day. We have high expectations for students to engage in class discussion. This class emphasizes active learning and student participation is crucial for this class' success. Note that class participation and attendance is 25% of the total student grade.

### *IHI Open School Certificate of Completion*

Students are required to complete several modules within the Institute for Healthcare Improvement Open School. Students are encouraged to complete the full Basic Certificate of Completion though not all modules are required for the class. These courses are offered free of charge. To access these courses, go to <http://www.ihl.org/offerings/IHIOpenSchool/Courses/Pages/OpenSchoolCertificates.aspx> and register online. The modules provide useful context for what is being discussed in class. Once you have completed all of the courses, upload the documentation of completed modules onto Sakai by the final class day. Completion of all required modules is 20% of the total grade.

### *Personal Improvement Project*

Each student will identify a personal improvement project, something about their own lives that they want to improve. They will work on this improvement independently throughout the semester using QI tools and approaches. Specific QI tools used will include driver diagram, fishbone diagram, PDSA cycles, and annotated run chart, among others. Students are expected to submit a presentation with detailed notes. The personal improvement project is 10% of the total grade.

### *Facilitation of Discussion of Readings*

It is important for students to read and consider the supplemental out-of-class materials assigned. Students will be assigned to facilitate a brief (5-10 minute) discussion of a current healthcare topics in the news. Students may refer to healthcare blogs, Kaiser Health News, industry and mainstream media for items to prompt class discussion. They should be prepared to present the issue, summarize the published information from the media, and then facilitate a critical discussion. This responsibility constitutes 10% of the total student grade.

### *Improvement team visit and reflection*

Students will have the opportunity to observe quality improvement in a local context. Students will attend an improvement team meeting at the UNC hospitals, clinics or other network. They will then write a 2-page reflective statement about their impressions and experience attending the meeting. This paper should also incorporate QI methodological information learned in class and other tools. If the QI Project involves participating with an active QI team, that team engagement can be the source of the two-page reflection. The reflection must be submitted on Sakai within one week after the visit. The reflective paper is worth 10% of the total student grade.

When arranging to attend a QI meeting, please email Kathy and Jill and the contact who runs that team to arrange and assure the meeting will be happening the day you have chosen. Please let the instructor know your interests so we can tailor the experience to your individual learning goal. QI team meetings available for attendance include the following: These opportunities will be updated once the semester begins. Examples of meetings include:

Meeting	Time	Location	Contact
Pediatric Rapid Response Committee	3 <sup>rd</sup> Monday of each month, 3pm	PICU Conference room	afsaneh_pirzadeh@med.unc.edu
Pediatric Clinical Operations Council	3 <sup>rd</sup> Tuesday	Women's Hospital Conference Rm4 Ground Floor	kbradfor@med.unc.edu
EMPower Collaborative State Call NC, SC	Friday at 1PM.	Call in conference number – ask Jill	jawinkle08@email.unc.edu
Neurology and Neurosurgery Quality Improvement Council	Monthly- Friday at 12:30	POB 2 <sup>nd</sup> floor	kbradfor@med.unc.edu

## **Grading**

### *Deliverables*

<b>Assignment</b>	<b>Due Date</b>	<b>Weight</b>
Class Participation and Attendance	Throughout	25%
Facilitating Readings	Throughout	5%
Personal Improvement Project	February 9,16 or 23th	10%
QI Group Project	April TBD	30%
IHI Open School Module Certificate of Completion	April 20 (strongly encourage completion prior to assigned class)	20%
Improvement Team Meeting Reflection	April 20nd	10%

*1% will be deducted from each assignment per day late.*

### *Grading Scale*

**High Pass/Honors:** 93-100

**Pass:** 75-92

**Low Pass:** 65-74

**Fail:** <65

## **UNC Honor Code**

Abiding the UNC Honor Code is expected in this class. Your papers and projects must be original work and plagiarism will not be tolerated. Please take the time to read the UNC rules on plagiarism:

<http://www.unc.edu/depts/wcweb/handouts/plagiarism.html>.