

# PUBH 6863

Understanding Health Care Quality  
Fall 2018

## COURSE & CONTACT INFORMATION

**Credits:** 2

**Meeting Day(s):** Mondays

**Meeting Time:** 3:35-5:30

**Meeting Place:** D330

**Instructor:** Mary Butler

**Email:** butl0092@umn.edu

**Office Phone:** 612-624-6124

**Office Location:** Mayo D381

**Office Hours:** Students are encouraged to meet with the instructor whenever they have any questions or problems. Dr. Butler does not keep formal office hours. Instead, students should make an appointment to see her.

## COURSE DESCRIPTION

As America experiments with programs to encourage value-based purchasing of health care and evidence-based practice, it behooves us to better understand what quality means and how we assess it. This course examines the multiple dimensions of quality and the issues surrounding determining when it exists and how to encourage it. In contrast to courses in quality improvement, which start with an assumption that the problem that needs to be fixed is already defined and understood, this course challenges assumptions and encourages deeper thinking about quality. It includes ways to assess quality the strength of evidence supporting quality efforts like guidelines, and the issues around implementing programs and policies designed to assure and improve quality. Exercises provide a stimulus to active participation in the explorations.

## COURSE PREREQUISITES

Graduate or professional school student, or instructor permission.

## COURSE GOALS & OBJECTIVES

At the end of this course, students should be able to:

1. Distinguish between structural, process, and outcome-oriented approaches.
2. Distinguish between appropriateness and effectiveness, and describe their relationship to structural, process, and outcome-oriented approaches.
3. Discuss the implications of these alternative approaches.
4. Provide examples of how to apply each approach to given health care problems.
5. Distinguish between quality assessment, assurance, and improvement.
6. Discuss the implications of practice variation data for health policy.
7. Describe what is involved in selecting criteria for inclusion in a practice protocol, guideline, or clinical pathway.
8. Describe the elements of a Total Quality Management or Continuous Quality Improvement approach.
9. Discuss the role of evidence-based medicine in contemporary practice.
10. Outline a process review.
11. Outline an outcomes analysis.
12. Outline an intervention to change practice behavior and describe how to evaluate it.
13. Discuss the strengths and weaknesses of large scale programs designed to improve quality, including data sources.
14. Discuss the implications of value-based purchasing in health care.

## METHODS OF INSTRUCTION AND WORK EXPECTATIONS

### Course Workload Expectations

PubH 6863 is a 2 credit course. The University expects that for each credit, you will spend a minimum of three hours per week attending class or comparable online activity, reading, studying, completing assignments, etc. over the course of a 15-week term. Thus, this course requires approximately 90 hours of effort spread over the course of the term in order to earn an average grade.

### Learning Community

School of Public Health courses ask students to discuss frameworks, theory, policy, and more, often in the context of past and current events and policy debates. Many of our courses also ask students to work in teams or discussion groups. We do not come to our courses with identical backgrounds and experiences and building on what we already know about collaborating, listening, and engaging is critical to successful professional, academic, and scientific engagement with topics.

In this course, students are expected to engage with each other in respectful and thoughtful ways.

In group work, this can mean:

- Setting expectations with your groups about communication and response time during the first week of the semester (or as soon as groups are assigned) and contacting the TA or instructor if scheduling problems cannot be overcome.
- Setting clear deadlines and holding yourself and each other accountable.
- Determining the roles group members need to fulfill to successfully complete the project on time.
- Developing a rapport prior to beginning the project (what prior experience are you bringing to the project, what are your strengths as they apply to the project, what do you like to work on?)

In group discussion, this can mean:

- Respecting the identities and experiences of your classmates.
- Avoid broad statements and generalizations. Group discussions are another form of academic communication and responses to instructor questions in a group discussion are evaluated. Apply the same rigor to crafting discussion posts as you would for a paper.
- Consider your tone and language, especially when communicating in text format, as the lack of other cues can lead to misinterpretation.

Like other work in the course, all student to student communication is covered by the Student Conduct Code (<https://z.umn.edu/studentconduct>).

## COURSE TEXT & READINGS

(Materials are available on the Moodle site. Some topic areas are subject to rapid change. Links for current blogs and websites may be made available on the moodle site prior to the related class. I will also make such material available by email to the class to assure students are aware of any changes. )

Andrade (2016) propensity scores simply explained. J Clinical Psychiatry 78:2-3.

Angus, DC (2015) Fusing Randomized Trials with Big Data: The Key to Self-learning Health Care Systems? JAMA 314: 767

Baker & Chassin (2016) Measuring and Improving Quality. JAMA 315(24) 2733-34

Berwick, DM. (2015) Measuring surgical outcomes for improvement: was Codman wrong? JAMA 313:469 2015

Berwick, DM (2008). The science of improvement. JAMA 299(10):1182-1184

Berwick DM. (1989) Continuous improvement as an ideal in health care. *New England Journal of Medicine*. 320:53-56.

Berwick DM, Nolan TQW, Whittington J. (2008) The triple aim: care, health, and cost. *Health Affairs*. 27:759-769.

Bishop TF. (2013). Pushing the Outpatient Quality Envelope. JAMA 309(13):1353-1354

Blot K (2014) Prevention of Central Line-Associated Bloodstream infections through quality improvement interventions: a systematic review and meta-analysis

- Boyd et al. (2005) Clinical practice guidelines and quality of care for older patients with multiple comorbid disease: implications for pay for performance. *JAMA* 294(6):716-24
- Brook RH. (2009). Assessing the appropriateness of care—its time has come. *JAMA* 302(9):997-998.
- Cabassa & Baumann (2013) A two-way street: bridging implementation science and cultural adaptations of mental health treatments. *Implementation Science* 8:90
- Chassin MR. (2013) Improving the quality of health care: what's taking so long? *Health Affairs*. 32:1761-1765.
- Chee et al., (2016) Current state of value-based purchasing programs *Circulation* 133(22): 2197-2205
- Djulbegovic, B; Guyatt, GH (2014) Evidence-based practice is not synonymous with delivery of uniform health care *JAMA* 312(13): 1293-4
- Feinmann J (2008) Cutting out human error *BMJ* 337:a2370
- Fisher ES. (2003). Medical care—is more always better? *New England Journal of Medicine*. 349(17):1665-7.
- Gagliardi et al., (2015) Developing a checklist for guideline implementation planning: review and synthesis of guideline development and implementation advice. *Implementation Science* 10:19
- Gawande (2007) A Life-Saving Checklist. *The New Yorker* Dec 10
- Hemkens (2016) Routinely collected data and comparative effectiveness evidence: promises and limitations. *CMAJ* 188(8): E158-59
- Horton, R. (2015) Offline: What is medicine's 5 sigma? *Lancet* 385 (9976) 1380
- Kane, R. L., & Radosevich, D. M. (2011). Conducting Health Outcomes Research. Chapters 1 and 3, Sudbury, MA: Jones & Bartlett Learning, LLC.
- Kaplan GS, Patterson SH, Ching JM, Blackmore CC. (2014) Why Lean doesn't work for everyone. *BMJ Quality and Safety*. 23:970-973.
- Kizer KW. (2003). The volume-outcome conundrum. *New England Journal of Medicine* 349(22):2159-2161.
- Mathias JS & Baker DW. (2013). Developing Quality Measures to Address Overuse. *JAMA* 309(18):1897-1898
- McGlynn, EA, Adams, JL (2014) What makes a good quality measure? *JAMA* 312(15), 1517-8
- Miksad & Abernethy (2018) Harnessing the power of real-world evidence (RWE): a checklist to ensure regulatory-grade data quality. *Clinical Pharmacology & Therapeutics* 103(2):202-205
- Moberg et al. (2018) The GRADE Evidence to Decision (EtD) framework for health system and public health decisions. *Health Research and Policy Systems*. 16:45
- Mountford, J., & Davie, C. (2010). Toward an outcomes-based health care system: a view from the United Kingdom. *Journal of the American Medical Association*, 304(21), 2407-2408.
- Quanstrom & Hayward (2011) Lessons from the mammography wars. *NEJM* 363(11) 1076-79
- Radley DC and Schoen C (2012) Geographic variation in access to care--the relationship with quality. *NEJM*, 367(1):3-6
- Rauh, S.S. (2011). The savings illusion--why clinical quality improvement fails to deliver bottom-line results. *NEJM* 365 (26) e48

Stukel TA, Fisher ES, Wennberg DE, Alter DA, Gottlieb DJ, & Vermeulen MJ. (2007). Analysis of observational studies in the presence of treatment selection bias: Effects of invasive cardiac management on AMI survival using propensity score and instrumental variable methods. *JAMA*, 297(3), 278-285.

Tricco AC, Soobiah C, Antony J, et al (2016) A Scoping review identifies multiple emerging knowledge synthesis methods, but few studies operationalize the method. *J Clin Epidemiol*; 73: 19-28

Tugwell P, J Knottnerus JA (2015) Is the 'Evidence-Pyramid' now dead? *Journal of Clinical Epidemiology*, 68: 1247–1250

Walter LC, et al., (2004). Pitfalls of converting practice guidelines into quality measures: Lessons learned from a VA performance measure. *JAMA*, 291(20), 2466-2470.

Wennberg JE (2001) Time to tackle unwarranted variation in practice *BMJ*342:d1513

Wharam, JF & Sulmasy D. (2009). Improving the quality of health care: who is responsible for what? *JAMA*, 301(2), 215-217.

## COURSE OUTLINE/WEEKLY SCHEDULE

| Week                | Topic   | Readings  | Activities/Assignments   |
|---------------------|---|---|--|
| Week 1 September 10 | <ul style="list-style-type: none"> <li>• Introduction and Overview</li> </ul>   | <ul style="list-style-type: none"> <li>• McGlynn 2014</li> <li>• Wharam &amp; Sulmasy 2009</li> </ul>   | <ul style="list-style-type: none"> <li>• Participate in creating quality map</li> </ul>  |
| Week 2 September 17 | <ul style="list-style-type: none"> <li>• What Is Evidence?</li> </ul>   | <ul style="list-style-type: none"> <li>• Angus 2015</li> <li>• Djulbegovic &amp; Guyatt 2014</li> <li>• Horton 2015</li> <li>• Tricco 2016</li> <li>• Tugwell 2015</li> </ul>                   | <ul style="list-style-type: none"> <li>• Class discussion</li> </ul>   |
| Week 3 September 24 | <ul style="list-style-type: none"> <li>• Appropriateness/ Process Approaches</li> </ul>   | <ul style="list-style-type: none"> <li>• Bishop 2013</li> <li>• Brook 2009</li> </ul>   | <ul style="list-style-type: none"> <li>• Journal club discussion</li> </ul>  |
| Week 4 October 1    | <ul style="list-style-type: none"> <li>• Quality of Care versus Quality Improvement</li> </ul>                                      | <ul style="list-style-type: none"> <li>• Baker &amp; Chassin 2016</li> <li>• Berwick 2015</li> <li>• Berwick 2008</li> <li>• Blot 2014</li> <li>• Feinmann 2008</li> <li>• Rauh 2011</li> </ul> | <ul style="list-style-type: none"> <li>• Brief writing assignment (Due Oct 5, noon)</li> </ul> <p>How does quality improvement in medical care differ from an automobile production line? Should this worry us? If not, why not? If so, what is one step we could take to address the concern?</p> |
| Week 5 October 8    | <ul style="list-style-type: none"> <li>• Outcomes and Effectiveness</li> </ul>  | <ul style="list-style-type: none"> <li>• Andrade 2016</li> <li>• Hemkens 2016</li> <li>• Kane 2011</li> <li>• Mountford &amp; Davie 2010</li> <li>• Stukel 2007</li> </ul>                      | <ul style="list-style-type: none"> <li>• Class discussion</li> </ul>   |
| Week 6 October 15   | <ul style="list-style-type: none"> <li>• Electronic Health Records and Quality<br/>Guest Speaker: Aylin Altan, OptumLabs</li> </ul> | <ul style="list-style-type: none"> <li>• Miksad &amp; Abernethy 2018</li> </ul>   | <ul style="list-style-type: none"> <li>• Class discussion</li> </ul>   |
| Week 7 October 22   | <ul style="list-style-type: none"> <li>• Variation and Volume</li> </ul>  | <ul style="list-style-type: none"> <li>• Fisher 2003</li> <li>• Kizer 2003</li> <li>• Mathias &amp; Baker 2013</li> <li>• Radley &amp; Schoen 2012</li> <li>• Wennberg 2001</li> </ul>          | <ul style="list-style-type: none"> <li>• Journal club discussion</li> </ul>  |

|                     |   |  |   |
|---------------------|---|--|---|
| Week 8 October 29   | <ul style="list-style-type: none"> <li>Parameters, Protocols, Guidelines, and Pathways</li> </ul>   | <ul style="list-style-type: none"> <li>Boyd 2005</li> <li>Djubegovic 2014</li> <li>Gawande 2007</li> <li>Moberg 2018</li> <li>Quanstrom &amp; Hayward 2010</li> <li>Walter 2004</li> </ul>       | <ul style="list-style-type: none"> <li>Brief writing assignment (Due Nov 2, noon)<br/>Do guidelines improve practice? Why and why not?</li> </ul>   |
| Week 9 November 5   | <ul style="list-style-type: none"> <li>The Federal Government's Approach to Health Care Quality<br/>Guest Speaker: Jennifer Lundblad, Stratis Health</li> </ul> | <ul style="list-style-type: none"> <li>National healthcare quality &amp; disparities report (AHRQ)</li> <li>National Quality Strategy (AHRQ)</li> <li>CMS QIO program progress report</li> </ul> | <ul style="list-style-type: none"> <li>Class discussion</li> </ul>  |
| Week 10 November 12 | <ul style="list-style-type: none"> <li>Value-based Purchasing</li> </ul>  | <ul style="list-style-type: none"> <li>Chee 2016</li> <li>Various blogs and updates</li> </ul>   | <ul style="list-style-type: none"> <li>Brief writing assignment (Due Nov 16)<br/>What would a behavioral economist have to say about prospective vs retrospective payments? What might be implications for job satisfaction and/or burn-out?</li> </ul> |
| Week 11 November 19 | <ul style="list-style-type: none"> <li>Implementation Science</li> </ul>  | <ul style="list-style-type: none"> <li>Cabassa &amp; Baumann 2013</li> <li>Gagliardi 2015</li> </ul>   | <ul style="list-style-type: none"> <li>Class discussion</li> </ul>  |
| Week 12 November 26 | <ul style="list-style-type: none"> <li>Changing Provider/System Behavior<br/>Guest Speaker: Gordon Mosser (late of ICSI)</li> </ul>                             | <ul style="list-style-type: none"> <li>Berwick 1989</li> <li>Berwick 2008</li> <li>Chassin 2013</li> <li>Kaplan 2014</li> </ul>  | <ul style="list-style-type: none"> <li>Class discussion</li> </ul>  |
| Week 13 December 3  | <ul style="list-style-type: none"> <li>Wrap-up, muddy ideas, and other loose ends</li> </ul>  | <ul style="list-style-type: none"> <li>TBD</li> </ul>  | <ul style="list-style-type: none"> <li>Class discussion (and possible class presentations)</li> </ul>   |
| Week 14 December 10 | <ul style="list-style-type: none"> <li>Class presentations</li> </ul>   | <ul style="list-style-type: none"> <li>none</li> </ul>   | <ul style="list-style-type: none"> <li>Class presentations</li> <li>FINAL PAPER is due Dec 18</li> </ul>  |

## SPH AND UNIVERSITY POLICIES & RESOURCES

The School of Public Health maintains up-to-date information about resources available to students, as well as formal course policies, on our website at [www.sph.umn.edu/student-policies/](http://www.sph.umn.edu/student-policies/). Students are expected to read and understand all policy information available at this link and are encouraged to make use of the resources available.

The University of Minnesota has official policies, including but not limited to the following:

- Grade definitions
- Scholastic dishonesty
- Makeup work for legitimate absences
- Student conduct code
- Sexual harassment, sexual assault, stalking and relationship violence
- Equity, diversity, equal employment opportunity, and affirmative action
- Disability services
- Academic freedom and responsibility

Resources available for students include:

- Confidential mental health services
- Disability accommodations
- Housing and financial instability resources
- Technology help
- Academic support

## EVALUATION & GRADING

Most sessions will have several core (required) readings, which you must read before coming to class. The suggested readings are for learning more about a topic and are optional. Readings are available online via direct link (found on the course's Moodle site). A reference list including all readings (both required and optional) is at the end of the syllabus.

Most sessions include PowerPoint presentations. Copies of the slides will be available on the course Moodle site.

The course grade will be based on participation in discussions, small group work, short reflection papers (1-2 pages) and a final project.

We will use two types of smaller group work. For sessions 3 and 7 we will run a journal club where assigned papers are discussed and critiqued. Each student will lead the discussion on one paper. For sessions 4, 8, and 10, students will write short 1-page thought piece answering the day's writing prompts. These pieces are not intended to be research papers with citations. Approach them as prompts to spur making connections or thinking more deeply about the topic. (We may also draft and critique a research study (QI or Implementation) in class depending on how the end of the semester plays out.)

For the final project, each student (or team of students\*) will develop a presentation and a paper on value-based purchasing. The paper should link principles from quality assurance to the topic. You should discuss your outline with Dr. Butler no later than three weeks prior to that session (December 11).

You (or your team) will use the following criteria to assess the topic you have chosen:

- How does it work? What is the underlying theory behind it? What does it assume?
- What are the rules? How are rates determined?
- What types of measures are used?
- Where do the measures come from?
- Does the system seem fair? What is done about case mix? Can clinicians/organization affect the measures they are accountable for?
- Are enough cases captured to provide a solid estimate?
- From preliminary studies, how well does it work?
- How does this approach fit with ideas about quality?
- Would you recommend adopting it? Wholesale? If not, how would you emend it?

\*The performance expectation for teams will be higher than for individuals

The final grade will be based on: the final paper (30%) and class presentation (10%), class participation (10%), journal club presentations (20%), and brief written pieces (30%). Students are expected to participate actively in the class exercises. Allowance are made for the differences in clinical and content knowledge that can affect the level of participation, but everyone should be involved.

**The final paper is due Dec 18.**

### Grading Scale

The University uses plus and minus grading on a 4.000 cumulative grade point scale in accordance with the following, and you can expect the grade lines to be drawn as follows:

| % In Class | Grade | GPA   |
|------------|-------|-------|
| 93 - 100%  | A     | 4.000 |
| 90 - 92%   | A-    | 3.667 |
| 87 - 89%   | B+    | 3.333 |
| 83 - 86%   | B     | 3.000 |
| 80 - 82%   | B-    | 2.667 |
| 77 - 79%   | C+    | 2.333 |
| 73 - 76%   | C     | 2.000 |
| 70 - 72%   | C-    | 1.667 |
| 67 - 69%   | D+    | 1.333 |
| 63 - 66%   | D     | 1.000 |
| < 62%      | F     |       |

- A = achievement that is outstanding relative to the level necessary to meet course requirements.
- B = achievement that is significantly above the level necessary to meet course requirements.
- C = achievement that meets the course requirements in every respect.
- D = achievement that is worthy of credit even though it fails to meet fully the course requirements.
- F = failure because work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I (Incomplete).
- S = achievement that is satisfactory, which is equivalent to a C- or better
- N = achievement that is not satisfactory and signifies that the work was either 1) completed but at a level that is not worthy of credit, or 2) not completed and there was no agreement between the instructor and student that the student would receive an I (Incomplete).

| Evaluation/Grading Policy                                | Evaluation/Grading Policy Description   |
|--|---|
| <b>Scholastic Dishonesty, Plagiarism, Cheating, etc.</b> | <p>You are expected to do your own academic work and cite sources as necessary. Failing to do so is scholastic dishonesty. Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis (As defined in the Student Conduct Code). For additional information, please see <a href="https://z.umn.edu/dishonesty">https://z.umn.edu/dishonesty</a></p> <p>The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: <a href="https://z.umn.edu/integrity">https://z.umn.edu/integrity</a>.</p> <p>If you have additional questions, please clarify with your instructor. Your instructor can respond to your specific questions regarding what would constitute scholastic dishonesty in the context of a particular class-e.g., whether collaboration on assignments is permitted, requirements and methods for citing sources, if electronic aids are permitted or prohibited during an exam.</p> <p>Indiana University offers a clear description of plagiarism and an online quiz to check your understanding (<a href="http://z.umn.edu/iupLAGIARISM">http://z.umn.edu/iupLAGIARISM</a>).</p> |
| <b>Late Assignments</b>                                  | <p>Assignments are expected to be submitted on time. Brief written pieces received within 1 week of the due date will receive 50% credit. Late final papers will be penalized at 1 grade level per day; that is, an A-level paper will receive a B if one day late.</p>   |
| <b>Attendance Requirements</b>                           | <p>Students are expected to attend class, or give prior notice of attendance conflicts.</p>   |

