PUBH 6750 Topics in Healthcare Administration SECTION 001

Understanding Clinical Quality Using Administrative Data Fall 2018

COURSE & CONTACT INFORMATION

Credits: 2 Meeting Day(s): Tuesdays Meeting Time: 1:25-3:20 PM Meeting Place: Mayo D199

Instructor: Helen Parsons, PhD Email: pars0100@umn.edu Office Phone: 612.625.0404 Office Hours: TBD Office Location: Mayo A369

Instructor: Stephanie Jarosek, PhD Email: herb0079@umn.edu Office Phone: 612.625.5683 Office Hours: TBD Office Location: Mayo A369

Instructor: Schelomo Marmor, PhD Email: marm0014@umn.edu Office Phone: 612.301.2174 Office Hours: TBD Office Location: Mayo C261

COURSE DESCRIPTION

This is an introductory course designed for students interested in learning how to effectively use administrative data (e.g., billing or claims data, clinical registries, enrollment records) to inform program development, program or policy evaluation and mandatory reporting.

During the course, students will learn about quality frameworks; payment systems and how they translate into available administrative data; common coding and billing systems; structure of administrative data; common data available from each source; approaches for linking data across sources; reporting considerations; strategies for risk adjustment and applications to current local and national quality improvement programs.

The course will provide practical, hands-on training for individuals to lead teams who analyze and report outcomes using administrative data-- - without the need to analyze the data themselves.

COURSE PREREQUISITES

There are no pre-requisites for this course.

COURSE GOALS & OBJECTIVES

The goal of the course is to develop future healthcare leaders who are informed about the source, structure, strengths and limitations of administrative data. In other words, we want to develop healthcare leaders who ask the right questions to appropriately evaluate the validity and reliability of reports and metrics developed using administrative data.

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

- 1. Evaluate frameworks for evaluating healthcare quality and developing quality metrics
- 2. Understand predominate payment and coding systems used to reimburse healthcare services in the United States
- 3. Evaluate the strengths and limitations of administrative data for evaluating healthcare quality
- 4. Describe how administrative data can be used for quality measurement (e.g., developing measures)

5. Examine how the payment systems associated with different sectors of healthcare (physician, hospitals services, post-acute care, etc.) affect the availability of administrative data to measure quality

- 6. Articulate how quality and value-based programs are implemented, measured and could be improved across healthcare settings
- 7. Ensure protection of patient data when it is used for quality reporting purposes
- 8. Design a plan for directing analysts to conduct quality measurement using available administrative data

METHODS OF INSTRUCTION AND WORK EXPECTATIONS

Course Workload Expectations

Understanding Clinical Quality Using Administrative Data 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, and 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 (<u>https://z.umn.edu/studentconduct</u>).

COURSE TEXT & READINGS

There are no required textbooks for the course. A variety of journal articles, websites, policy documents and book chapters are assigned as readings to complete prior to class. Additional readings from the literature may be added during the course.

COURSE OUTLINE/WEEKLY SCHEDULE

Week	Topic(s)	Readings	Activities/Assignments
Week 1 September 4 th , 2018 Instructor: Helen Parsons	Course Introductions Quality Frameworks;	Quarterly. 83(4): 691-729.	In-class Case Study
	Strengths/Limitations Administrative Data	^{5 of} 2. Burstin H., Leatherman S.& D. Goldmann. 2016. The evolution of healthcare quality measurement in the United States. J Intern Med. 279: 154-159.	Assignments Due Introduce yourself on Canvas (Not graded; Due 11:59PM Sept 7th)
		3. McGlynn E. 1997. Six challenges in measuring the quality of healthcare. 16(3): 7-21.	
		4. Virnig BA, McBean M. 2001. Administrative Data for Public Health Surveillance and Planning. Annu. Rev. Public Health. 22:213–30.	
		5. Meaningful Measures: Tools and Resources (Read main resource page and fact sheets) https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment- Instruments/QualityInitiativesGenInfo/MMF/Shareable-Tools.html	
Week 2 September 11 th , 2018 Instructor: Stephanie Jarosek	Overview of US Payment Systems-How they Trans into Administrative Data		In-class Case Study
		 2. Crossen M. MedPAC Report to the Congress: Medicare Payment Policy. March 2017 (Chapters 1-2) <u>http://www.medpac.gov/docs/default-source/reports/mar17_entirereport224610</u> <u>adfa9c665e80adff00009edf9c.pdf?sfvrsn=0</u> 3. Agency for Healthcare Research and Quality. 2018. Selecting Quality and Resource Use Measures: A Decision Guide for Community Quality Collaborative. https://www.ahrq.gov/professionals/quality-patient- safety/quality-resources/tools/perfmeasguide/perfmeaspt1a.html 	Assignments Due Week 2 (Group 1) Reading Discussion (Presented In-class)

Week 3 September 18 th , 2018 Instructor: Schelomo Marmor	Introduction to Data Coding Systems	1. Reinhardt, U.E., 2006. The pricing of US hospital services: chaos behind a veil of secrecy. Health Affairs, 25(1), pp.57-69.	In-class Case Study
		2. Kleinke, J. D. "Dot-gov: market failure and the creation of a national health information technology system." Health affairs 24, no. 5 (2005): 1246-1262.	Assignments Due Week 3 (Group 2) Reading Discussion
		 Basic Introduction to ICD-10-CM. https://www.cms.gov/medicare/coding/icd10/downloads/032310_icd10_slides.pdf 	(Presented In-class)
		4. New Medical-Billing System Provides Precision; Nine Codes for Macaw Mishaps, Wall Street Journal, September 13, 2011.	Week 2 (Group A) Case Synthesis (Due 11:59PM Sept. 17 th)
		5. Khera, R., Dorsey, K.B. and Krumholz, H.M., 2018. Transition to the ICD-10 in the United States: An Emerging Data Chasm. JAMA.	
		6. Centers for Medicare & Medicaid Services. Code Set Overview. https://www.cms.gov/Regulations-and-Guidance/Administrative- Simplification/Code-Sets/index.html	
Week 4 September 25 th , 2018 Instructor: Helen Parsons	Common Administrative	1. Riley G. 2009. Administrative and claims records as sources of health care cost data. <i>Medical Care</i> . 47:S51-S55.	In-class Case Study
	Data Sources	2. Data sources for the national health care quality report. Hurtado MP, Swift EK, Corrigan JM, Eds. In: <i>Envisioning the National Health Care Quality Report.</i> Institute of Medicine. 2001: Chapter 4.	Assignments Due Week 4 (Group 3) Reading Discussion (Presented In-class)
		3. Hofer I, Gabel E, Pfeffer M, Mahbouba M, Majajan A. 2016. A systemic approach to creation of a perioperative data warehouse. <i>Anesthesia & Analgesia</i> . 122(6): 1880-1884.	Week 3 (Group B) Case Synthesis (Due 11:59PM Sept. 24 th)
		4. Department of Health and Human Services. Healthdata.gov (read "About" and select 2-3 datasets that you are interested in learning more about. Prepare a short background on their source, contents and availability for discussion). (www.healthdata.gov)	
Week 5 October 2 nd , 2018 Instructor: Stephanie Jarosek	Identifying Cohorts	1. White, KL. 1997. The Ecology of Medical Care: Origins and Implications for Population-Based Healthcare Research. <i>Health Services Research</i> , 32(1): 11-21.	In-class Case Study
		2. (focus on Introduction and Discussion) Bruckel, J., Liu, X., Hohmann, S. F., Karson, A. S., Mort, E., & Shahian, D. M. 2017. The denominator problem: national hospital quality measures for acute myocardial infarction. <i>BMJ Qual Saf</i> , 189–199. doi:10.1136/bmjqs-2015-004888.	Assignments Due Week 5 (Group 4) Reading Discussion (Presented In-class)
		3. Module 7. Measuring and Benchmarking Clinical Performance. Content last reviewed May 2013. Agency for Healthcare Research and Quality, Rockville, MD. <u>http://www.ahrq.gov/professionals/prevention-chronic-</u> care/improve/system/pfhandbook/mod7.html	Week 4 (Group C) Case Synthesis (Due 11:59PM October 1st)

Week 6 October 9 th , 2018 Instructor: Schelomo Marmor	Risk Adjustment/ Comorbidities	 Casalino, Lawrence, Robin R. Gillies, Stephen M. Shortell, Julie A. Schmittdiel, Thomas Bodenheimer, James C. Robinson, Thomas Rundall, Nancy Oswald, Helen Schauffler, and Margaret C. Wang. "External incentives, information technology, and organized processes to improve health care quality for patients with chronic diseases." Jama 289, no. 4 (2003): 434-441. Kronick, Richard, Tony Dreyfus, Lora Lee, and Zhiyuan Zhou. "Diagnostic risk adjustment for Medicaid: the disability payment system." Health care financing review 17, no. 3 (1996): 7. Romano, P.S., Roost, L.L. and Jollis, J.G., 1993. Presentation adapting a clinical comorbidity index for use with ICD-9-CM administrative data: differing perspectives. Journal of clinical epidemiology, 46(10), pp.1075-1079. Chronic Conditions Warehouse. Condition Categories. (Pick 2 conditions of interest and examine the codes used to identify them using ICD-9/ICD-10.) https://ccwdata.org/web/guest/condition-categories 	In-class Case Study Assignments Due Week 6 (Group 5) Reading Discussion (Presented In-class) Week 5 (Group D) Case Synthesis (Due 11:59PM October 8th)
Week 7 October 16 th , 2018 Instructor: Helen Parsons	Inpatient Services	 MedPAC. Hospital acute inpatient services payment system. MedPAC Payment Basics. <u>http://medpac.gov/-documents-/payment-basics</u> Chen M, Grabowski DC. Hospital Readmissions Reduction Program: Intended and Unintended Consequences. Med Care Res Rev. 2017; Epub ahead of print. doi: 10.1177/1077558717744611 Squitieri L, Waxman DA, Mangione CM, et. 2018. Evaluation of the Present-on- Admission Indicator among Hospitalized Fee-for-Service Medicare Patients with a Pressure Ulcer Diagnosis: Coding Patterns and Impact on Hospital-Acquired Pressure Ulcer Rates. Health Serv Res. 53 Suppl 1:2970-2987. Centers for Medicare and Medicaid Services. Hospital Inpatient Quality Reporting Program. https://www.cms.gov/Medicare/Quality-Initiatives-Patient- Assessment-Instruments/HospitalQualityInits/HospitalRHQDAPU.html Centers for Medicare and Medicaid Services. Hospital Compare. (Review all sections of the hospital compare website including "About the Data-Measures") https://www.medicare.gov/hospitalcompare/About/What-Is-HOS.html 	In-class Case Study Assignments Due Week 7 (Group 6) Reading Discussion (Presented In-class) Week 6 (Group E) Case Synthesis (Due 11:59PM October 15th)

Week 8 October 23 rd , 2018 Instructor: Schelomo Marmor	Physician Services	1. Schneider, Eric C., and Cornelia J. Hall. "Improve quality, control spending, maintain access—can the merit-based incentive payment system deliver?." New England Journal of Medicine 376, no. 8 (2017): 708-710.	In-class Case Study Assignments Due
		 Centers for Medicare and Medicaid Services. Quality Payment Program. https://qpp.cms.gov/ Read about both the MIPS and APM program as well as measures used to determine payment. 	Week 8 (Group 7) Reading Discussion (Presented In-class)
		 MedPAC. Physician and other Health Professional Payment System. http://medpac.gov/-documents-/payment-basics/page/2 	Week 7 (Group F) Case Synthesis (Due 11:59PM October 22nd)
		4. Physician Quality Reporting System (PQRS) Overview https://www.cms.gov/Medicare/Quality-Initiatives-Patient- Assessment-Instruments/PQRS/Downloads/PQRS_Overview FactSheet_2013_08_06.pdf	Critical Review of a Peer-Reviewed Article Using Administrative Data (Due 11:59PM October 26 th)
		5. Rubin, R., 2018. How Value-Based Medicare Payments Exacerbate Health Care Disparities. JAMA.	
Week 9 October 30 th Instructor: Stephanie Jarosek	Outpatient Services	1. MedPAC payment basics: Outpatient hospital services payment system. http://medpac.gov/-documents-/payment-basics/	In-class Case Study
		2. Hospital Outpatient Quality Reporting Program (CMS website). <u>https://www.cms.gov/Medicare/Quality-Initiatives-Patient-</u> <u>Assessment-Instruments/HospitalQualityInits/</u> HospitalOutpatientQualityReportingProgram.html	Assignments Due Week 9 (Group 8) Reading Discussion (Presented In-class)
		3. Measures: Hospital Outpatient Quality Reporting Program (QualityNet website) <u>https://www.qualitynet.org/dcs/ContentServer?</u> <u>c=Page&pagename=QnetPublic%2FPage%2F</u> <u>QnetTier2&cid=1228775181731</u>	Week 8 (Group G) Case Synthesis (Due 11:59PM October 29th)
		4. Roh, J, Rothenberg, C, Patel, A, et al. 2017. Quality of septic shock care in the emergency department: perceptions versus reality. The Joint Commission Journal on Quality and Patient Safety, 43(10) : 548-549.	
Week 10 November 6 th , 2018	Midterm/Special Topics	To be Determined	Midterm (Closed Book, 1 hour Exam)

Week 11 November 13 th , 2018 Instructor: Stephanie Jarosek	Post-Acute Care	1. Mechanic, R. 2014. Post-acute care—the next frontier for controlling Medicare spending. New England Journal of Medicine, 370: 692-694. DOI: 10.1056/NEJMp1315607	In-class Case Study Assignments Due
		2. Meyers DJ, Mor V, Rahman M. 2018. Medicare advantage enrollees more likely to enter lower-quality nursing homes compared to fee-for-service enrollees. Health Affairs, (1): 78-85.	Week 11 (Group 9) Reading Discussion (Presented In-class)
		3. Huckfeldt, P. J., Weissblum, L., Escarce, J. J., Karaca-Mandic, P., & Sood, N. 2018. Do Skilled Nursing Facilities Selected to Participate in Preferred Provider Networks Have Higher Quality and Lower Costs? <i>Health services research</i> .	Week 9 (Group H) Case Synthesis (Due 11:59PM November 12th)
		 MedPAC Payment Basics. http://medpac.gov/-documents-/payment-basics/page/2 Review payment basics for Skilled Nursing Facilities, Home Health Services and Hospice. 	
		5. About Nursing Home Compare Data (website) https://www.medicare.gov/Nursing HomeCompare/Data/About.html	
Week 12 November 20 th , 2018	Thanksgiving Week No class	N/A	N/A
Week 13 November 27 th , 2018 Instructor: Schelomo Marmor	Prescription Drug Utilization	1. Shrank, W.H., Porter, M.E., Jain, S.H. and Choudhry, N.K., 2009. A blueprint for pharmacy benefit managers to increase value. The American journal of managed care, 15(2), p.87.	In-class Case Study Assignments Due Week 13 (Group 10) Deading Discussion
		2. Martin, A.B., Hartman, M., Benson, J., Catlin, A. and National Health Expenditure Accounts Team, 2015. National health spending in 2014: faster growth driven by coverage expansion and prescription drug spending. <i>Health Affairs</i> , <i>35</i> (1), pp.150-160.	Reading Discussion (Presented In-class) Week 11 (Group I) Case Synthesis (Due 11:59PM November 26th)

Week 14 December 4th, 2018 Instructor: Helen Parsons	Alternative Payment Models	1. Pan J. Messy but fair: the ACA's hospital value-based purchasing program and the notice-and-comment process. <i>Journal of Legal Medicine</i> . 2017; 37;325-369.	In-class Case Study
		2. Newcomer L, Gould B, Page RD, Donelan SA, Perkins M. Changing physician incentives for affordable, quality cancer care: results of an episode payment model. <i>Journal of Oncology Practice. 2014;</i> 5:322-326.	Assignments Due Week 14 (Group 11) Reading Discussion (Presented In-class)
		3. Medicare Learning Network. Hospital Value-based Purchasing. 2017. <u>https://www.cms.gov/Outreach-and-Education</u> /Medicare-Learning-Network-MLN/MLNProducts/ <u>downloads/Hospital_VBPurchasing_Fact_Sheet_ICN907664.pdf</u>	Week 13 (Group J) Case Synthesis (Due 11:59PM December 3rd)
		4.MedPAC. Accountable Care Organizations. MedPAC Payment Basics. http://medpac.gov/-documents-/payment-basics	
		5. Centers for Medicare and Medicaid Services. Next Generation Acountable Care Organization Models. 2018. <u>https://innovation.cms.gov/initiatives/Next-Generation-ACO-Model/https://innovation.cms.gov/initiatives/Next-Generation-ACO-Model/</u>	
Week 15 December 11 th , 2018	Final Group Presentations		Assignments Due Final Group Presentation

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/. 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

This class consists of lectures and interactive learning including class discussions, small group case-studies and group presentations. The main objectives of the course will be achieved through a combination of individual and group work that build on knowledge learned throughout the course of the semester. It is expected that students will read assigned articles prior to class to facilitate active, informed discussions.

Student performance will be evaluated based on the following criteria:

Critical review of a peer-reviewed article using administrative data (25%)

Instructors will provide an article that utilizes administrative data for evaluating healthcare quality. Students will critically evaluate the source of the data, balance/accuracy of presentation, clarity of discussion and impact on healthcare delivery.

• Synthesize weekly reading for leading class discussion (10%)

Each week a small group of students will be assigned to synthesize the weekly readings in order to lead the class discussion around specific weekly topics. Instructors will provide guidance to focus the discussion. Students will be asked to briefly present 4-5 slides and submit talking points and slides at the end of each class.

Synthesize weekly case study (10%)

A case study will presented each week for in-class discussion. Each week, one small group of students will be assigned to submit a written report of the key problem identified through the case study, possible avenues for analysis to understand the issue, and a recommendation on future action.

• Midterm (25%)

The midterm will consist of a combination of multiple-choice answers, short-responses and one longer-format essay on an applied healthcare quality issue using administrative data.

• Final group project (30%)

The final group project will draw on a real-world problem proposed by a partnering healthcare organization. The project will focus on a challenge in effectively measuring, monitoring or maintaining quality according to proposed or current quality metrics (at the local or national level). Students will define the problem, evaluate potential data sources, and propose strategic plans to address the quality metric. We plan to have students present their findings directly to the healthcare partner during the final presentations to gain real world feedback on proposed solutions.

Note: Individual grading criteria for each assignment can be found within the assignment on Canvas

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%	А	4.000
90 - 92%	A-	3.667
87 - 89%	B+	3.333
83 - 86%	В	3.000
80 - 82%	В-	2.667
77 - 79%	C+	2.333
73 - 76%	С	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
Scholastic Dishonesty, Plagiarism, Cheating, etc.	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 https://z.umn.edu/dishonesty The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: https://z.umn.edu/integrity. 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. Indiana University offers a clear description of plagiarism and an online quiz to check your understanding (

COUNCIL ON EDUCATION FOR PUBLIC HEALTH (CEPH) KNOWLEDGE DOMAINS

Knowledge Domain	Course Learning Objectives	Assessment Strategies
Explain public health history, philosophy and values	Understand predominate payment and coding systems used to reimburse healthcare services in the United States	Assignment: Synthesize weekly reading for leading class discussion
Explain the critical importance of evidence in advancing public health knowledge	Evaluate the strengths and limitations of administrative data for evaluating healthcare quality Describe how administrative data can be used for quality measurement (e.g., developing measures)	Assignment: Critical review of a peer-reviewed article using administrative data
Explain the social, political and economic determinants of health to population health and health inequities	Design a plan for directing analysts to conduct quality measurement using available administrative data	Assignment: Final group project which will focus on a challenge in effectively measuring, monitoring or maintaining quality according to proposed or current quality metrics (at the local or national level)- and understanding variation within the measures.

NATIONAL CENTER FOR HEALTH CARE LEADERSHIP (NCHL) HEALTHCARE LEADERSHIP COMPETENCIES FOR COMMISION ON THE ACCEDITATION OF HEALTH CARE MANAGEMENT EDUCATION (CAHME) ACCREDITATION

Competency	Course Learning Objectives	Assessment Strategies
L2.3 Improves Performance Makes specific changes in the system or own work methods to improve performance; Does something better, faster, at lower cost, more efficiently	Design a plan for directing analysts to conduct quality measurement using available administrative data	Assignment: Final group project which will focus on a challenge in effectively measuring, monitoring or maintaining quality according to proposed or current quality metrics (at the local or national level)- and understanding variation within the measures
L3.3 Recognizes Multiple Relationships Makes multiple causal links; several potential causes of events, several consequences of actions, or multiple- part chain of events (A leads to B leads to C leads to D); Analyzes relationships among several parts of a problem or situation (e.g., anticipates obstacles and thinks ahead about next steps, in detail, with multiple steps	Evaluate the strengths and limitations of administrative data for evaluating healthcare quality Describe how administrative data can be used for quality measurement (e.g., developing measures)	Assignment: Critical review of a peer-reviewed article using administrative data
L6.4 Facilitates Group Interactions Uses varied communication management techniques, brainstorming, consensus building, group problem solving and conflict resolution; Demonstrates good meeting management techniques (e.g., agenda development, time management)	Articulate how quality and value-based programs are implemented, measured and could be improved across healthcare	Assignment: Synthesize weekly case study
L12.1 Recognizes the Potential of Information Systems in Process and Patient Service Improvement Is familiar with current technology for patient tracking (especially registration, billing and records management), financial automation and reporting, and reimbursement management; Is open to automation of paper-based processes	Understand predominate payment and coding systems used to reimburse healthcare services in the United States	Assignment: Synthesize weekly reading for leading class discussion