

**Course Title:** Introduction to Outcomes Research, Fall 2017

**Course Number:** CRN 17348 – EPID 0563

**Course Location:** SPH Building, 683 Hoes Lane West, Piscataway, NJ, Room 334  
& Room 741(Newark) Lifesize

**Course Date & Time:** Mondays 6:10 pm to 9:00 pm

**Course Instructor:** Kitaw Demissie, MD, PhD  
Department of Epidemiology, Rutgers School of Public Health  
683 Hoes Lane West- Room 212, Piscataway, NJ 08854  
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**Office Hours:** By Appointment Only

**Required Course Text:** No assigned textbook

**Course Description:** During the past few years, there has been an explosion of interest in measuring the outcomes of medical care. The science of measuring outcomes and of integrating that process into the routine care of patients has come to be known as *outcomes research*. Public health practitioners are expected to play a major role in evaluating the outcomes of medical care as the nation's health care system is rapidly changing and as the "Affordable Care Act" is being implemented. This course is designed to introduce students to the principles of health outcomes research and to practical applications of these principles.

**Selected Department Competencies Addressed:** The following competencies are addressed in this course for the MPH degree in Epidemiology:

- Critique epidemiologic literature, assess its strengths and weaknesses and determine if conclusion(s) are supported.
- Formulate a specific hypothesis and determine an appropriate study design and analysis plan.
- Design, implement and assess ordinary data collection systems for public health research.
- Appropriately analyze and interpret epidemiologic data, including large national and state level datasets.
- Communicate and present study findings to professional audiences.

Please visit the Department webpages on the School of Public Health's website at <http://sph.rutgers.edu/> for additional competencies addressed by this course for other degrees and departments.

**Course Objectives:** At the completion of this course, students will be able to:

- Discuss the concepts of clinical outcomes, patient satisfaction and quality of life issues.
- Describe and perform case mix adjustments on real life study problems.
- Identify over and/or underutilization of health services by conducting a small area analysis.
- Discuss the concepts of quality of health care organizations.
- Describe the principles of cost-effectiveness analysis and pharmaco-economics.
- Evaluate the efficacy of newly introduced medical technologies through meta-analytic techniques.
- Discuss the utility of case-control methodology in outcomes research.
- Apply decision analysis techniques to evaluate the usefulness of alternative clinical and public health interventions.
- Describe and carry out a community health needs assessment.

**Course Requirements and Grading:** Students' final grade will be computed using a combination of the following assessments:

1. Class Attendance and Participation will count for 20% of the grade
2. Midterm will count for 30% of the grade
3. Project on an important outcomes research issue will count for 50% of the grade

### **Class Discussions**

The class meets between 6:00 and 9:00 pm and the meeting time is divided into two sessions. The first part of the meeting takes about half of the time (1.5 hours) and is a formal lecture on a specific outcomes research topic. The second half of the class is a journal club discussion on the topic of that day's lecture. A student will be assigned to lead the journal club discussion and all students are expected to come to class after reading the assigned journal club article. The purpose of the journal club is to demonstrate to students how the concepts taught in that class are used in practice.

### **Class Project**

In a group of two students each, you will be expected to choose one project area from the list of topics covered during the course. Students will be required to identify a data source on the research topic and are encouraged to start thinking about a specific research question in their research area of choice early during the semester. Students should make a decision on their topic by October 30th, 2017 and submit a one page description of their proposed project plan. At the end of the semester, each group is expected to make a 15minute podium presentation of their final projects as well as submit an independent final report. The report should be a maximum of 20 double-spaced pages and contain the

following sections: Introduction and Background, Specific Aims, Methodology, Results and Discussion. Students within a group are responsible for submitting their individually written report.

**Course Schedule:**

<b>Date and Topic</b>	<b>Instructor</b>	<b>Reading Assignments</b>
Week 1 – Monday, Sept 11  <b>Overview of Outcomes Research</b>	Kitaw Demissie, MD, PhD  Dept of Epidemiology, Rutgers School of Public Health	
Week 2 – Monday, Sept 18  <b>Measuring Health</b>	Kitaw Demissie, MD, PhD  Dept of Epidemiology, Rutgers School of Public Health	Article 1:
Week 3 – Monday, Sept 25  <b>Case Mix Adjustment</b>	Kitaw Demissie, MD, PhD  Dept of Epidemiology, Rutgers School of Public Health	Article 2:
Week 4 – Monday, Oct 2  <b>Meta-Analysis</b>	Kitaw Demissie, MD, PhD  Dept of Epidemiology, Rutgers School of Public Health	Article 3:
Week 5 – Monday, Oct 9 <b>Small Area-Analysis</b>	Stephen Marcella, MD, MPH  Dept of Epidemiology, Rutgers School of Public Health	Articles 4 and 5
Week 6 – Monday, Oct 16  <b>Clinical Outcomes</b>	George G. Rhoads, MD, MPH  Dept of Epidemiology, Rutgers School of Public Health	Articles 6
Week 7 – Monday, Oct 23  <b>Midterm Exam</b>	In Class Midterm Examination	No Article Summary of Projects
Week 8 – Monday, Oct 30  <b>Quality of Life/Patient Satisfaction</b>	Larry Radican, PhD, MPH  Merck & Co., Inc Global Outcomes Research	Article 7

Week 9 – Monday, Nov 6	Larry Radican, PhD, MPH	Article 8
<b>Decision Analysis</b>	Merck & Co., Inc. Global Outcomes Research	
Week 10 – Monday, Nov 13	Bernadette West, PhD,	Article 9
<b>Community Needs Assessment</b>	Department of Health System and Policy, Rutgers School of Public Health	
Week 11 – Monday, Nov 20	Andrew Miller, MD, MPH	Article 10
<b>Healthcare Quality Measurement</b>	Healthcare Quality Strategies, Inc	
Week 12 – Monday, Nov 27	Ryan Saadi, MD, MPH	Article 11
<b>Succeeding in the Changed Global Pharmaceutical Market</b>	Johnson & Johnson Global Market Access, Oncology	
Week 13 – Monday, Dec 4	Francis Weng, MD, MSCE	Article 12
<b>Renal Outcomes</b>	Robert Wood Johnson Barnas Health Renal and Pancreas Transplant Division	
Week 14 – Monday, Dec 11	Ritesh N. Kumar, PhD	Article 13
<b>Health Technology Assessment</b>	Merck & Co., Inc. Global Outcomes Research	
Week 15 – Monday, Dec 18		
<b>Student Presentations</b>	All Students	Final Report

Grades will become available on December 25, 2017

**School of Public Health Honor Code:** The School of Public Health Honor Code is found in the student bulletin ([sph.rutgers.edu/academics/catalog/index.html](http://sph.rutgers.edu/academics/catalog/index.html) ). Each student bears a fundamental responsibility for maintaining academic integrity and intellectual honesty in his or her graduate work. For example, all students are expected to observe the generally accepted principles of scholarly work, to submit their own rather than another's work, to refrain from falsifying data, and to refrain from receiving and/or giving aid on examinations or other assigned work requiring independent effort. In submitting written material, the writer takes full responsibility for the work as a whole and implies that, except as properly noted by use of quotation marks, footnotes, etc., both the ideas and the works used are his or her own. In addition to maintaining personal academic integrity, each student is expected to contribute to the academic integrity of the school community by not facilitating inappropriate use of her/his own work by others and by reporting acts of academic dishonesty by others to an appropriate school authority. It should be clearly understood that plagiarism, cheating, or other forms of academic dishonesty will not be tolerated and can lead to sanctions up to and including separation from the Rutgers School of Public Health.

**Policy Concerning Use of Recording Devices and Other Electronic Communications Systems:**

When personally owned communication/recording devices are used by students to record lectures and/or classroom lessons, such use must be authorized by the faculty member or instructor who must give either oral or written permission prior to the start of the semester and identify restrictions, if any, on the use of mobile communications or recording devices.