



POP HLTH 803
Monitoring Population Health

Fall Semester, 2018

<https://canvas.wisc.edu/courses/118966>

3 credits

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I. COURSE DETAILS

- **Meets in person:** 4:00 PM – 6:30 PM Mondays, 1220 Health Sciences Learning Center (HSLC), from September 10 through December 10, 2018. On November 5, 2018, class will meet at the UW Survey Center, 4327 Sterling Hall
- **Instructional Mode:** All face-to-face (lectures and discussions).
- **Credit Hour Requirements:** Three credits and 135 hours. See: [UW-Madison Credit Hour Policy](#)
 - Class lectures, discussions/presentations - 14 x 2.5 hrs./w = 35.0 hrs.
 - Readings & online video reviews - 12 x 3 hrs./w = 36.0 hrs.
 - Weekly assignments - 12 assignments x 1 hr./assignment = 12.0 hrs.
 - Individual project preparation = 32.0 hrs.
 - Final project paper = 20.0 hrs.
 - Total: = 135 hrs.

II. COURSE DIRECTORS AND TAs

Course Directors

Maureen Durkin, PhD DrPH

Professor and Chair of Population Health Sciences and Pediatrics, and Chair of the Department of Population Health Sciences, School of Medicine and Public Health

Office: Room 707C WARF

Email: maureen.durkin@wisc.edu

Patrick Remington, MD, MPH

Professor of Population Health Sciences and Associate Dean for Public Health, School of Medicine and Public Health

Office: Room 4263 HSLC

Email: plreming@wisc.edu

Teaching Assistant

Laurel Myers

DVM/MPH Candidate for 2020

Email: lmyers5@wisc.edu

Course Instructors

Angela Kempf Rohan, PhD

Senior MCH Epidemiologist / CDC Assignee to the WI Department of Health Services, CDC

Maria Mora Pinzon, MD, MS

Assistant Researcher, Wisconsin Alzheimer's Institute, UW-Madison

Ousmane Diallo, MD, MPH, PhD

Office of Health Informatics, Division of Public Health, WI Department of Health Services

III. COURSE DESCRIPTION

According to the U.S. Department of Health and Human Services, a public health system has three core functions and 10 essential services (<http://www.cdc.gov/nphpsp/essentialServices.html>). This course focuses on the core function of *population health assessment* and the essential service of *monitoring the health status of populations to identify and solve community health problems*. Students will learn how to identify existing sources of data and to use and present data in meaningful ways to increase understanding and improve population health. The goal of the class is to understand the purposes, principles and practice of monitoring population health.

General Format/Instructional Mode

This is a blended learning course, with in-person classroom lectures and discussion, weekly readings, online educational resources, individual writing assignments, group and individual project work; and a final project paper.

Requisites: This course is open by instructor permission to graduate and professional students.

IV. LEARNING OBJECTIVES

After completion of this course, students will be able to:

- Understand the purpose and role of monitoring population health.
- Name, describe in detail and use some of the existing data systems that are used to monitor population health in Wisconsin, the U.S. and globally.
- Understand and use methods for gathering and analyzing existing population health data.
- Complete and present a final project and brief report to monitor a health priority.

V. LECTURE SCHEDULE

Date	Topic/Plan
Week 1 9.10.18	4:00-5:00 Course Overview and introduction to monitoring population health (Durkin) 5:00-6:00 <u>Lecture:</u> Vital statistics (Lisa Walker) 6:00-6:30 County Health Rankings Interactive Exercise (all)
Week 2 9.17.18	4:00-5:00 <u>Lecture:</u> Public health surveillance (Remington) 5:00-5:30 Journal Club (Student led topic discussion) 5:30-6:30 Public Health Surveillance Project Overview (Remington)
Week 3 9.24.18	4:00-5:00 <u>Lecture:</u> Angela Rohan, PhD , Maternal and child health surveillance 5:00-5:30 Journal Club (Student led topic discussion) 5:30-6:30 Project discussion/independent project work (all)
Week 4 10.01.18	4:00-5:00 <u>Lecture:</u> Hank Weiss, PhD, MPH Injury and opioid poisoning surveillance 5:00-5:30 Journal Club (Student led topic discussion) 5:30-6:30 Project discussion/independent project work (all)
Week 5 10.08.18	4:00-4:50 <u>Lecture:</u> Ousmane Diallo, PhD , Using electronic claims data for public health surveillance 4:50-5:40 Lecture: Maureen Smith, MD, PhD , Using electronic health records to monitor population health 5:45-6:30 Project discussion/independent project work (all)
Week 6 10.15.18	4:00-5:00 <u>Lecture:</u> Deborah Ehrental, MD, MPH , Data linkages 5:00-5:30 Journal Club (Student led topic discussion) 5:30-6:30 Project discussion/independent project work (all)

Date	Topic/Plan
Week 7 10.22.18	4:00-5:00 <u>Lecture</u> : Henry Anderson, MD , Environmental health monitoring 5:00-5:30 Journal Club (Student led topic discussion) 5:30-6:30 Project discussion/independent project work (all)
Week 8 10.29.18	4:00-5:00 <u>Lecture</u> : Anne Ziege, PhD , Wisconsin Behavior Risk Factor Surveillance System 5:00-5:30 Journal Club (Student led topic discussion) 5:30-6:30 Project discussion/independent project work (all)
Week 9 11.5.18 Note location change: Sterling	Meet at UW Survey Center, 4327 Sterling Hall 4:00-5:30 <u>Lectures and tour</u> : John Stevenson and Steve Coombs , Principles and methods of collecting survey data to monitor population health 5:30-6:30 Journal Club (Student led topic discussion)
Week 10 (APHA) 11.12.18	4:00-5:00 <u>Lecture</u> : Paul Peppard PhD In-person population health surveillance systems: NHANES and SHOW 5:00-5:30 Journal Club (Student led topic discussion) 5:30-6:30 Project discussion/independent project work (all)
Week 11 11.19.18	4:00-5:00 <u>Lecture</u> : Danielle Sill, MSPH and Abby Klemp, MPH , Wisconsin Immunization Registry 5:00-5:30 Journal Club (Student led topic discussion) 5:30-6:30 Project discussion/independent project work (all)
Week 12 11.26.18	4:00-5:30 Lecture and mock review: Mortality and other event reviews (Rohan, all) 5:30-6:30 Project discussion/independent project work (all)
Week 13 12.3.18	Student Project Presentations
Week 14 12.10.18	Student Project Presentations
Wednesday 12.12.18	FINAL PROJECT PAPER DUE

VI. REQUIRED TEXTBOOK AND OTHER COURSE MATERIALS

Readings will be provided on the Canvas course webpage at least one week before they are due. There is no required course textbook.

Required Readings and Online Videos (to be completed in advance of each session) will be available on the Learn@UW Canvas site.

Homework and Other Assignments

This course will consist of readings, presentations, group discussions, guest lectures, online discussions and other writing assignments.

Assigned readings: The instructors will post reading material on Canvas at least one week before the class session for which it is assigned. Students are expected to read assigned articles thoroughly before the class session.

Weekly Journal Club discussion leader: At least once during the semester, each student will be required to lead a discussion of an assigned journal or other article or set of articles on data sources or other topics related to monitoring population health. The student will provide a brief overview of the content, identify key points and come to class prepared to lead a discussion on the topic with 2-3 well-thought-out questions. This portion of the class session will typically cover about 30 minutes weekly. Discussion leaders, dates and articles will be assigned by the instructors. The articles will be available on Canvas and will be required reading for all.

Weekly assignments and online discussion: During weeks 2-13, students will be expected to post assignment responses (each approximately 250-500 words) to topics discussed in class, including assigned readings, data sets and websites. These responses will be to specific questions or prompts and should be thoughtful and well written. Assignments should be posted to the discussion section on Canvas by 6:00 pm the following Friday of each week's class. See the weekly discussion threads for more details on each week's assignment. Assignments will be worth up to 10 points each and the lowest score will be dropped. In addition, each week during weeks 2-13, students will post at least one online discussion post regarding the upcoming week's lecture topic or readings. Posts can be opinions, reactions, or insightful questions pertaining to the assigned readings or to a relevant external source, and will be worth 2 points each.

Other Readings (NOT assigned, but may be helpful to students as background material and for reference):

- *Wisconsin's State Health Plan* (<http://dhfs.wisconsin.gov/statehealthplan/index.htm#state>).
- *Healthy People 2020* (<http://www.healthypeople.gov/>).
- World Health Organization, Towards a monitoring framework with targets and indicators for the health goals of the post-2015 Sustainable Development Goals (http://www.who.int/healthinfo/indicators/hsi_indicators_sdg_targetindicators_draft.pdf).
- Institute of Medicine: *The Future of the Public's Health in the 21st Century* (http://books.nap.edu/openbook.php?record_id=10548).
- *Communicating Public Health Information Effectively: A Guide for Practitioners*. Parvanta, Remington, Nelson, Brownson (eds). AJPH Press, 2002.
- *Principles and Practice of Public Health Surveillance, 3rd Edition*. Lee LM, Teutsch SM, Thatcher SB, St. Louis ME (eds). Oxford, 2010. (UW-Madison call number: WA105 P9565p 2010)

Final Project

A final project will be required of all students. The goal of the project is to conduct an analysis of a population health issue in Wisconsin or elsewhere using datasets and analyses covered in class. The final project will consist of both a written paper and in-class oral presentation.

Technology

Students will be expected to have access to the internet through this course. Please see the [Learn@UW overview page](#) to ensure your computer has all the recommended software and browsers to be successful in this course. (Note: Although this system check resource was originally created for use with Desire2Learn, which was another learning management system within Learn@UW, it is also reliable for use with Canvas.) Students will be required to upload assignments during this course.

VII. GRADING

Students will be evaluated dependent upon the following:

Final project	100 points (Paper: 80 / Presentation: 20)
Weekly written assignments	110 points (11 assignments @ 10 points per assignment)
Journal article discussion lead	20 points (at least once per semester)
Participation (in class)	28 points (14 classes @ 2 points per class)
On-line Discussions	22 points (11 weeks @ 2 points per week)
Total	280 points

Grading scale: (grades are not curved)

Points earned Letter grade

93 - 100%	A
87-92.9%	AB
80-86.9%	B
77-79.9%	BC
70-76.9%	C
<70	Fail

VIII. OTHER COURSE INFORMATION

Attendance Policy

Students are expected to attend every class. All absences must be cleared before class with Dr. Durkin via email (with PHS 803 in the subject line, please). Students are responsible for content and information provided in all class sessions, even those for which they were not in attendance.

Class Meeting Cancellation Notices: Occasionally, severe weather, illness, or other circumstances may require cancellation of a class meeting. If this is so, students will be informed via an email notice sent to the class email list. It will be the responsibility of each student to ensure that they check the email that they used for their course registration for such a message.

Student Campus Resources: Some of the topics discussed in this course relate to sensitive health and social issues. Many students have had experiences with health issues such as

depression, suicide, violence, or serious health issues. Discussing these issues may be difficult for some students. We recommend that all students be sensitive when discussing these issues. In addition, students should be aware of resources that are available at the UW: <https://www.uhs.wisc.edu/mental-health/getting-started/>

Rules, Rights & Responsibilities: See the Guide's to [Rules, Rights and Responsibilities](#)

Academic Integrity: By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison's community of scholars in which everyone's academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to studentconduct.wiscweb.wisc.edu/academic-integrity/.

Accommodations For Students With Disabilities

McBurney Disability Resource Center syllabus statement: "The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA."
<http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php>

Diversity & Inclusion

Institutional statement on diversity: "Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world." <https://diversity.wisc.edu/>

IX. ADDITIONAL COURSE LECTURERS AND INSTRUCTOR BIOS

Henry Anderson, MD

Adjunct Professor, UW-Madison Department of Population Health Sciences

Steve Coombs

Director of Field Operations, University of Wisconsin Survey Center, UW-Madison

Deborah Ehrental, MD, MPH

Associate Professor of Obstetrics & Gynecology and Population Health Sciences, UW-Madison

Paul Peppard, PhD

Associate Professor of Population Health Sciences and Co-Director the Survey of the Health of Wisconsin (SHOW)

Maria Mora Pinzon, MD, MS

Assistant Researcher, Wisconsin Alzheimer's Institute, UW-Madison

Abby Klemp, MPH

Epidemiologist, Wisconsin Immunization Registry, WI Department of Health Services

Danielle Sill, MSPH

Epidemiologist, Wisconsin Immunization Registry, WI Department of Health Services

Maureen Smith, MD, PhD

Professor of Population Health Sciences and Family and Community Medicine, and Director of the Health Innovation Program (HIP), UW-Madison

John Stevenson

Associate Director, University of Wisconsin Survey Center, UW-Madison

Lisa Walker, Vital Records Section Chief and State Registrar,

Vital Records Office, Wisconsin Department of Health Services

Harold (Hank) Weiss, PhD, MPH, MS

Adjunct Associate Professor, UW-Madison Department of Population Health Sciences

Anne Ziege, PhD

Research Scientist, Behavioral Risk Factor Survey Coordinator/Project Director
Office of Health Informatics, Division of Public Health, WI Department of Health Services

Instructor Profiles

Maureen Durkin, PhD, DrPH, MPH is Professor and Chair of Population Health Sciences and a Waisman Center Investigator at the UW-Madison. She received her undergraduate degree and PhD in anthropology from the University of Wisconsin-Madison, and her MPH and DrPH degrees in epidemiology from Columbia University. Her research interests include the epidemiology of neurodevelopmental disabilities and childhood injuries, both globally and within the United States. She has collaborated in the development of cross-cultural methods for epidemiologic studies of developmental disabilities and methods for surveillance of childhood injuries, and has directed international studies on the prevalence and causes of neurodevelopmental disabilities in low-income countries. She has also investigated neuropsychological outcomes of neonatal brain injuries associated with preterm birth and of metabolic disorders detected on newborn screening. Dr. Durkin is currently a principal investigator on three federally funded projects related to public health surveillance, epidemiology and care integration of autism and other developmental disabilities.

Patrick Remington, MD, MPH received his undergraduate degree in molecular biology and his medical degree from the University of Wisconsin. After completing an internship at Virginia Mason Hospital in Seattle, he trained at the CDC as an Epidemic Intelligence Service Officer (assigned to the Michigan health department); as a Preventive Medicine Resident in the Division of Nutrition at the CDC, and as part of the CDC Career Development Program, when he obtained his MPH in Epidemiology from the University of Minnesota. He was the Chief Medical Officer for Chronic Disease and Injury Prevention in the Wisconsin Division of Health for almost a decade, and joined the Department of Population Health Sciences in 1997. Dr. Remington's current research examines methods to measure the health outcomes and determinants in populations, as well as health disparities by education, race, or region. In addition, he is examining ways to use this information in community health improvement, such as through the publication of the Wisconsin County Health Rankings. Follow him on Facebook (Dr. Patrick Remington) or on Twitter (@plremington).

Ousmane Diallo, MD, MPH, PhD joined the Wisconsin Division of Public Health in 2013 after 10 years of service at the Iowa Department of Public Health. In Iowa, as the chair of the State Epidemiological Workgroup, he led the publication of the State of Iowa Epidemiological Profile, the Burden of Injury reports and other reports on Traumatic Brain injury, Suicide and Disability. He also provided epidemiological support to several councils appointed by the governor, such as the Advisory Council on Brain Injury (ACBI), the Prevention of Disability Policy Council (PDPC), and the Trauma System Advisory Council (TSAC). He mentored and provided guidance to several interns and fellows from the University of Iowa College of Public Health, Des Moines University School of Public Health and CDC EIS officer in emergency preparedness, injury and HIV/AIDS research. Dr. Diallo received his MD degree in Senegal in 1993, an MPH in Epidemiology from Saint Louis University School of Public Health, and a PhD in epidemiology from the University of Iowa College of Public Health in 2016. His research is mainly focused on injury, especially addressing occupational trauma.

Angela Kempf Rohan, PhD received her doctorate in Population Health Sciences at the University of Wisconsin School of Medicine and Public Health. She is a Senior Maternal and Child Health Epidemiologist at the Wisconsin Division of Public Health, and the Centers for Disease Control and Prevention Assignee to Wisconsin in Maternal and Child Health (MCH) Epidemiology, working at the Wisconsin Division of Public Health. She served previously for two years as a CDC/CSTE Applied Epidemiology Fellow, also at the Division of Public Health. As a Senior MCH Epidemiologist Dr. Rohan works on a range of surveillance, evaluation, and data capacity projects, often related to health disparities. She has extensive experience working with publicly available data sets and data query systems.

Maria Mora Pinzon, MD, MS received her medical degree from the Universidad Central de Venezuela - Escuela Jose Maria Vargas in 2008 and a Masters in Clinical Research from Rush University at Chicago in 2013. Over the years, she has participated in multiple research projects in the area of surgery, to the point of successfully publishing and presenting dozens of projects at national and regional meetings. She completed two years of general surgery residency at Loyola University Medical Center in Maywood, Illinois; and during that time continued her involvement in research. Dr. Pinzon's passion for research and knowledge led her to pursue Preventive Medicine, with the desire to bring public health and surgery closer, focusing on the development, management and delivery of affordable quality surgical care to underserved areas. She joined the UW-Preventive Medicine Residency Program in 2016, where she works in University Health Services, and the Office of Health Informatics within the Wisconsin Division of Public Health. You can see some of her academic work at <https://wisc.academia.edu/MariaMoraPinzon> and follow her on twitter for news in Public Health and Global Surgery (@MariaCMoraP).