

EPIDEMIOLOGY AND PUBLIC HEALTH

EPH 100a and EPH 101b, Professional Skills Series Staff

The Professional Skills Series is intended to prepare M.P.H. students for leadership positions as public health professionals. Material covered includes public speaking, presentation skills, professional writing, negotiation and conflict resolution, and networking and social media. Attendance at 4 sessions is required (elective for Advanced Professional M.P.H. and Accelerated M.B.A./M.P.H. students), and some homework is a part of the program. Although no credit or grade is awarded, satisfactory performance will be noted on the student's transcript. o Course cr per term

EPH 500b, Public Health Practicum Chandra Kelsey and Susan Nappi

This course is one of the options available to students to fulfill the practice requirement for the M.P.H. degree. The course design combines experiential learning and guided classroom discussion. Students are assigned to a field placement in an appropriate setting that affords the opportunity to apply public health concepts and competencies learned in the classroom through a practice experience that is relevant to the students' areas of specialization. Emphasis is placed on situating students in community-based organizations and other public health service settings such as local or state health departments, where they can work on authentic public health problems and issues. This course provides a means for students to gain exposure to the mission and activities of diverse public health organizations and thus may help to inform their decisions about professional work pursuits upon completion of the M.P.H. degree. Open only to second-year M.P.H. students, Advanced Professional M.P.H. students, and Accelerated M.B.A./M.P.H. students. Not open to auditors.

EPH 501a or b, U.S. Health Justice Concentration Practicum Danya Keene

This is the practicum course for the U.S. Health Justice Concentration. All students participating in the U.S. Health Justice Concentration complete a practicum. (With additional approval of the Office of Public Health Practice, this course can also be used to meet the Applied Practice Experience requirement for graduation.) This practicum experience addresses the objectives of the concentration and is conducted in partnership with a public health or other community organization. Students who choose to complete the practicum during an academic term enroll in this course (in lieu of EPH 500). Prior to the practicum, students complete a work plan and project description that will be reviewed by a faculty adviser and their preceptor at the partner organization. Possible projects may include evaluation, needs assessment, advocacy, public health communication, and/or service provision. Projects should be focused on understanding and ameliorating social or structural determinants of health inequality. During the practicum, students participate in biweekly group reflection meetings with concentration faculty and other concentration students. Upon completion of the practicum, students produce a minimum of two tangible work products or deliverables. These projects and deliverables must be distinct from the students' thesis work or work completed in other independent study courses. Open only to students in the U.S. Health Justice Concentration.

EPH 505a, Biostatistics in Public Health Michael Wininger

This course provides an introduction to the use of statistics in medicine and public health. Topics include descriptive statistics, probability distributions, parameter estimation, hypothesis testing, analysis of contingency tables, analysis of variance, regression models, and sample size and power considerations. Students develop the skills necessary to perform, present, and interpret statistical analyses using R software.

EPH 507a, Social Justice and Health Equity Danya Keene

This course outlines the social and structural determinants related to health inequities in the United States and globally. Conceptual, theoretical, methodological, and empirical approaches to understanding social justice and health equity are explored, with a focus on health determinants including health care, social class, poverty, oppression and power, stigma and discrimination, and neighborhood and social factors. The course takes a multidisciplinary approach, integrating methods and research from epidemiology, social sciences, and medicine to explore the individual, interpersonal, community, and societal influences that lead to healthy and unhealthy outcomes.

EPH 508a, Foundations of Epidemiology and Public Health Leah Ferrucci

This course presents an introduction to epidemiologic definitions, concepts, and methods. Topics include history of epidemiology, descriptive epidemiology and burden of disease, measurement of disease frequency and association, study design (ecologic, cross-sectional, case-control studies, cohort, intervention, public health surveillance and programs), selection and information bias, confounding, effect modification, measurement validity and screening, random variation and precision, and causal inference. This course also covers skills for quantitative problem-solving, understanding epidemiologic concepts in the published literature, and key developments and readings in the field of modern epidemiology.

EPH 509b, Fundamentals of Epidemiology Linda Niccolai

The purpose of this course is to provide M.S. and Ph.D. students with foundational knowledge in epidemiologic research and approaches for statistical analysis. This course first presents an introduction to the study of epidemiology for public health and the role of biostatistics. Students learn the appropriate calculation and interpretation of basic measures of disease frequency and association. This course introduces the concept of causal inference in epidemiologic research, including theoretical frameworks and analysis approaches to minimizing error due to confounding, effect modification, bias, measurement, and sampling variability. The course introduces each of the main study designs used in epidemiologic research (e.g., randomized trials, cohort and case-control studies) and analysis approaches for causal inference in each design. The course is focused on concepts and approaches, and it includes a strong emphasis on reading the published literature as case studies for critical evaluation. Not open to auditors.

EPH 510a, Health Policy and Health Care Systems Mark Schlesinger

This course provides an introduction to the making, understanding, and consequences of health policy. The design and performance of the health care system are assessed, with particular attention to the complex and often contested manner in which health care is organized, financed, and delivered in the United States. The course also considers the fundamental concerns—such as cost, access, and quality—that shape the development of health policy and health systems in all countries, and it looks to the health systems of other countries in order to understand the advantages and disadvantages of alternative approaches. An overview of the important actors in the

health care and political systems is provided, and students are introduced to methods for understanding the behavior of these policy makers and stakeholders. Health issues are placed in the context of broader social goals and values.

EPH 513b, Major Health Threats: Ethics and Practice Laura Bothwell

This course helps to prepare students for the complicated work of translating public health theory into practice. We consider how to ethically implement public health research and programs across a range of selected major health threats. We explore ethical principles that guide best practices and deliberative processes and the challenges of negotiating and implementing those principles. Ethics is addressed at social, political, institutional, interpersonal, and individual levels as we seek to cultivate ethical systems of public health delivery and to foster sophisticated independent ethical reasoning skills as future public health leaders. Enrollment limited to YSPH students. Not open to auditors.

[EPH 521, Applied Practice Experience]

The Applied Practice Experience (APE) is an M.P.H. degree requirement that most often is completed in the summer between the first and second academic years, though there are opportunities to complete this requirement in fall or spring terms of the culminating year. The APE can be met either through a student project or a practicum course. Students work with their faculty advisers, the Career Management Center, and the Office of Public Health Practice to identify suitable public health placements such as medical care facilities, community agencies, public health departments, laboratories, and other sites engaged in public health activities. The APE sometimes serves as a basis for the M.P.H. thesis. The APE is displayed on the transcript with a grade of “S” (Satisfactory) upon completion. A course unit is *not* given for the APE. All MPH students *must* complete an approved APE. o Course cr

EPH 524a and EPH 525b, Thesis Staff

The thesis (2 course units) is typically a yearlong project that is completed in the second academic year and is the culmination of the student’s educational experience at YSPH. It is frequently a report of a small research project performed independently by the student. Students work with faculty advisers in designing their project and in writing the thesis. Detailed guidelines for the thesis are outlined in Appendix II of the YSPH Bulletin. The thesis is not a requirement for students in the Biostatistics, Health Care Management, Health Policy, or Advanced Professional M.P.H. programs (except for those in the Occupational and Environmental Medicine track). 2 Course cr per term

[EPH 528E, Everyday Leadership]

Leadership encompasses a multi-dimensional set of skills that need to be leveraged based on situation and context. Understanding what leadership is and how to grow these skills requires the capacity to be a constant learner and adapt in the face of new situations and circumstances. This course develops a learner-leader framework for students to maximize their own leadership capacity through experiential learning and application of the course material. Throughout the course (an intensive provided in six half-day modules), students engage in various learning modalities, including pre-class assignments, lectures, small group discussions, and writing assignments. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors.

½ Course cr

[EPH 529E, Executive Communication Skills for Public Health and Healthcare]

This course strengthens a constellation of leadership communication competencies essential for work at the executive level in public health and healthcare contexts. We address strategies for articulating ideas to engage a spectrum of stakeholders and skills for advocating change. The course begins with a scientific examination of the markers of credibility in oral communication, followed by an exploration of the role of culture and diversity in framing suggestions to groups. We consider modes of persuasion as participants build facility in appealing to a variety of decision-making styles, while maintaining personal authenticity. We then examine modes of inquiry as well as team collaboration from strategic and linguistic viewpoints. The course concludes with participants completing a high-stakes presentation tailored for a policy group, a scientific panel, or venture capitalists. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors. ½ Course cr

EPH 530Ea, Design Thinking in Public Health Systems Kali Bechtold

Solution-focused problem-solving is an essential competency for public health professionals. This intensive introduces an iterative framework to innovatively solve complex challenges from the perspective of target user groups. Students address complex public health challenges utilizing a design-thinking framework. Students leave the intensive with a firm understanding of how to address complex public health challenges that account for their target user's desires/needs, what is financially viable and sustainable, and what is technically feasible. This is one in a three-part series of intensives for students enrolled in the Executive Online M.P.H. Program. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors. ½ Course cr

[EPH 531E, Strategic Management in Complex Systems]

Solving the world's most pressing public health challenges requires strategic management of resources in the context of complexity. This intensive uses case-based teaching and learning in small groups to prepare students to effectively manage human, financial, and political resources to improve implementation of public health programs and strategies. This is one in a three-part series of intensives for students enrolled in the Executive Online M.P.H. Program. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors. ½ Course cr

[EPH 532E, Leading Effective Teams]

Leadership is commonly described as the process of engaging others to set and achieve a common goal. This intensive prepares students to work in high-functioning interdisciplinary teams in public health, applying a relational approach to leadership. Students explore theories and practices of leadership and followership, working effectively across organizational boundaries and levels of hierarchy, and engaging with diverse organizations in cross-sectoral collaborations to promote public health. Students are exposed to evidence-based approaches to prospective organizational culture change to apply in their own organizations. Theories and principles are demonstrated through experiential learning activities and structured self-reflection. This is one in a three-part series of intensives for students enrolled in the Executive Online M.P.H. Program. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors. ½ Course cr

[EPH 533E, Foundations of Behavior Change]

This course provides an introduction to behavioral theory as it pertains to health and health care delivery. The focus is on the integration of social, psychological, and behavioral factors that must be considered in developing and implementing best clinical practice and public health initiatives. Students learn and practice the fundamentals of health behavior change (i.e., behavioral theory) via experiential exercises. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors.

1 Course cr

EPH 534Ea, Foundations of Epidemiology and Public Health Carol Oladele

This course introduces the fundamental principles of epidemiology, concepts, and methods of application in public health. Students gain an understanding of the role of epidemiology in investigations of diseases and health events in clinical and public health settings. Topics covered include the history of epidemiology, description of population patterns, study design, measurement of disease frequency, causal inference, measurement, sources of bias, confounding, and effect modification. Students critically evaluate and interpret epidemiologic findings from published literature. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors.

[EPH 535E, Biostatistics in Public Health]

This course provides an introduction to the use of statistics in medicine and public health. Topics include descriptive statistics, probability distributions, parameter estimation, hypothesis testing, analysis of contingency tables, analysis of variance, regression models, and sample size and power considerations. Students develop the skills necessary to perform, present, and interpret statistical analyses using R software. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors. 1 Course cr

EPH 536Eb, Evidence-Based Decision-Making in Public Health LaDrea Ingram

This online seminar for M.P.H. students focuses on interdisciplinary, student-driven learning and utilizes a mixture of teaching approaches including lecture, large- and small-group discussion, case studies, and practicum sessions. Students learn how to apply principles of complex systems theory to define evidence, explore different types of evidence and evidence-based decision-making frameworks, and apply their knowledge and public health training to real-world public health decision-making through case study analysis. Through their work in this course, students develop critical thinking approaches to enable evaluation of both the quality and robustness of evidence, as well as potential gaps between theory and practice in evidence-based decision-making in public health. By studying the experience of others in the field of public health, students are able to apply “lessons learned” from past examples of public health decision-making to their own work and interest area(s). The final product for this course is a heavily documented, seven-page paper applying principles and practice of evidence-based decision-making to the student’s area of public health interest. Students develop their final paper throughout the term, receiving feedback from the instructor and their classmates. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors.

EPH 537Ea, Frontiers of Public Health Jeannette Ickovics

This course is designed to expose students to the breadth of public health and is required of M.S. and Ph.D. students who do not have prior degrees in public health. It

explores the major public health achievements in the last century in order to provide students with a conceptual interdisciplinary framework by which effective interventions are developed and implemented. Case studies and discussions examine the advances across public health disciplines including epidemiology and biostatistics, environmental and behavioral sciences, and health policy and management services that led to these major public health achievements. The course examines global and national trends in the burden of disease and underlying determinants of disease, which pose new challenges; and it covers new approaches that are on the forefront of addressing current and future public health needs. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors.

EPH 538Eb, Health Policy and Health Care Systems Jason Hockenberry

This core course for the Executive M.P.H. program provides an introduction to the making, understanding, and consequences of health policy. The design and performance of the health care system are assessed, with particular attention to the complex and often contested manner in which health care is organized, financed, and delivered in the United States compared to other countries. Recorded lectures are made available to set the stage for each week's topic(s), and we meet as a group to discuss the material and apply key concepts to the practice of health policy. The course examines the fundamental concerns—affordability, accessibility, and quality—that shape the development of health policy and health systems. Students are introduced to the key stakeholders, policy makers, institutions, and processes that influence the design and implementation of health policy and health care systems. Health issues are placed in the context of broader social goals and values, including equity; and critical trade-offs to be made while seeking such goals are discussed. To lend some coherence to our explorations, these general concerns are illustrated most consistently with health policies and programs from the United States. However, we draw from examples from other countries during several class sessions to convey how health policy and system issues play out in other nations. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors.

EPH 539Ea, Ethics in Public Health Laura Bothwell

The purpose of this condensed course is to familiarize students in the online Executive M.P.H. with critical foundations of public health ethics and to foster sophisticated ethical reasoning so that students may carefully apply and negotiate different ethical principles in relation to current public health challenges. The course examines ethical frameworks across cultures and considers sociohistorical context in relation to ethical constructs and applications. Attention is given to the interplay of race, gender, social inequalities, and marginalized populations when approaching matters of public health ethics. The first part of the course explores core principles of public health ethics; the second part of the course broadly applies these principles to some key areas of the field of public health practice in which ethics are particularly pertinent—contagious disease control, environmental health, social determinants of health, and policies of global health care access. Each session has readings and prerecorded material viewable online that should be completed before class. For each session, we meet for one hour of live discussion and interaction that synthesize and build on the readings and prerecorded material. Brief written reflections are incorporated into live interactions. A paper in which students evaluate ethical principles in relation to practical professional public

health experience is developed and discussed incrementally. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors. ½ Course cr

EPH 540Ea and EPH 541Eb, Executive M.P.H. Capstone Debbie Humphries

This course is designed to strengthen students' skills in applied public health practice and integrative work products that are of immediate relevance to public health organizations. The course works with students to help them meet the requirements of the M.P.H. applied practice experience (APE) and the M.P.H. integrative learning experience (ILE). In the first term, students complete work products that strengthen their skills in applied (public) health practice. In the second term, students complete work products that demonstrate their ability to integrate content from the M.P.H. curriculum and effectively demonstrate achievement of selected competencies. For both terms there is a priority on individual and small-group supports, with synchronous class sessions designed to draw on the core M.P.H. curriculum in the context of the capstone projects. Pedagogical content is based on an ecological framework, principles of public health ethics, and a philosophy of problem-based learning. Open only to students enrolled in the Executive Online M.P.H. Program. Not open to auditors.

EPH 555a, Clinic in Climate Justice and Public Health Jennifer Wang and Annie Harper

In the course, interdisciplinary student teams carry out applied projects at the intersection of climate justice, law and public policy, and public health. Each team works with a partner organization (e.g., state agency, community organization, other nongovernmental organization) to study, design, and implement a project, typically through community-based participatory research practices. The course affords the opportunity to have a real-world impact by applying concepts and competencies learned in the classroom. This course should be of interest to graduate and professional students across the University and is open to Yale College juniors and seniors. In addition, this course is one of the options available to students to fulfill the practice requirement for the M.P.H. degree at YSPH and the capstone requirement for the M.E.M. degree at YSE. Students who plan to enroll must complete an application, which will be used to match each student with a clinic project. Check the course's Canvas site or contact the instructor for more information. Prerequisite: EHS 547 or permission of the instructor. Not open to auditors.

EPH 557b, Evidence-Based Decision-Making in Global Health Kristina Talbert-Slagle

This course is a capstone seminar for M.P.H. students in the Global Health Concentration. Through a mixture of teaching approaches including lecture, large- and small-group discussion, case studies, practicum sessions, and student-led experiential learning, students study and apply principles of evidence-based decision-making in global health to their specific area(s) of interest. Students learn how to define evidence and explore different types of evidence that are and have been used in global health evidence-informed decision-making. By analyzing case studies, students also examine what has and has not been considered evidence in global health decisions, and they develop critical-thinking approaches to enable evaluation of both the quality and robustness of evidence, as well as potential gaps. By studying the experience of others in the field of global health, students are also able to apply lessons learned from past examples of global health evidence-based decision-making to their own work and interest area(s). The final product for this course is a fifteen-page paper summarizing how the principles and practice of global health evidence-based decision-making apply

to each student's interest area. Prerequisites: completion of one year of an M.P.H. program and a global summer M.P.H. internship experience.

EPH 570a and EPH 571b, Seminar in Climate Change and Health Daniel Carrion
In this two-term, monthly, not-for-credit seminar, students are introduced to a wide variety of topics related to climate change and health. The seminar features talks by Yale faculty, as well as invited speakers from other institutions. Students are expected to read one or two relevant papers in advance of each talk and to articulate questions for the speaker. This course is specifically targeted for students in the Climate Change and Health Concentration but is open to all members of the YSPH and Yale communities. Two terms of this seminar are required of students in the Climate Change and Health Concentration. Although no credit or grade is awarded, satisfactory performance will be noted on the student's transcript. Not open to auditors. o Course cr per term

EPH 580a and EPH 581b, Seminar for Modeling in Public Health Daniel Weinberger and Virginia Pitzer

This yearlong, monthly seminar is targeted most specifically to students in the Public Health Modeling Concentration but open to all interested members of the Yale community. The seminar features talks by faculty from across Yale University doing modeling-related research, as well as invited speakers from other universities and public health agencies. The objectives are to offer students the opportunity to witness the scope and range of questions in public health policy and practice that may be addressed, understood, and informed using model-based approaches; appreciate the breadth of public health modeling research being conducted around the University and beyond; explore possible collaborations/relationships with other scholars and professionals; review, critique, and evaluate model-based public health research in a structured environment; and form their own opinions regarding the applicability, relevance, and responsible use of modeling methods. Two terms of this no-credit seminar are required of students in the Public Health Modeling Concentration. For each class, one or two readings are circulated/posted on the course website prior to the talk. Students are encouraged to read the articles and articulate questions for the speaker. o Course cr per term

EPH 591a, Global Health Seminar Michael Skonieczny

This weekly seminar exposes students in the health professions to key issues in global health research and practice. The course features faculty from across the health professional schools and other global health experts from around the world. Its collaborative nature provides a rich environment for interdisciplinary dialogue. The goal is for students to attain a good understanding of key issues upon which they may base future research, service, and clinical pursuits in the field of global health. Although no course credit is awarded, satisfactory performance is noted on the student's transcript. o Course cr

EPH 595b, Global Health Foundations: Principles and Applications Rafael Perez-Escamilla

Global health is the field of study of distribution and social, economic, and biomedical risk factors for diseases across countries' borders, and how to address them. In this context global health requires interdisciplinary approaches involving social, behavioral, biological, medical, and public health sciences. This case study-based course provides an introduction to the foundations of global health, emphasizing its colonial origins, prevalent neocolonial approaches, and inequities. Students apply critical-thinking

principles to learn to analyze global health challenges and propose equitable solutions from a social justice multidisciplinary perspective based on a “flipped classroom” pedagogical approach. Global health is an exciting and hugely important but complex field that requires critical thinking to understand how to transform its governance and improve the enormous inequities within and across countries worldwide. Prerequisite: EPH 591 or permission of the instructor.

EPH 600a, Research Ethics and Responsibility Christian Tschudi

This course seeks to introduce major concepts in the ethical conduct of research and some of the personal and professional issues that researchers encounter in their work. Sessions are run in a seminar/discussion format. Open to first-year Ph.D. students only.
o Course cr

[EPH 601, Research Ethics and Responsibilities Refresher]

This course reinforces topics covered in EPH 600, including definitions and ethical problems caused by fabrication of data, falsification of results, plagiarism, and other behaviors inconsistent with ethical scientific conduct. Open to Ph.D. and M.D./Ph.D. students only. Prerequisite: EPH 600. o Course cr

EPH 608a, Frontiers of Public Health Sten Vermund

This course is designed to expose students to the breadth of public health and is required of M.S. and Ph.D. students who do not have prior degrees in public health. It explores the major public health achievements in the last century in order to provide students with a conceptual interdisciplinary framework by which effective interventions are developed and implemented. Case studies and discussions examine the advances across public health disciplines including epidemiology and biostatistics, environmental and behavioral sciences, and health policy and management services that led to these major public health achievements. The course examines global and national trends in the burden of disease and underlying determinants of disease, which pose new challenges; and it covers new approaches that are on the forefront of addressing current and future public health needs.