

HOW ARE UNITS ADDRESSING THE REQUIREMENT TO PROVIDE A FOUNDATION IN PUBLIC HEALTH KNOWLEDGE FOR MS, PHD, AND NON-PUBLIC HEALTH DEGREES?

The 2016 Criteria define 12 learning objectives on which units must provide instruction and assessment to demonstrate that students have acquired foundational public health knowledge. The examples that follow depict three curricular approaches to providing foundational public health knowledge.

- I. The most common and successful approach is to require a single introductory public health course. In most cases, this course was explicitly developed to ensure coverage of the 12 foundational learning objectives.

SAMPLE FROM UNIVERSITY OF MINNESOTA SCHOOL OF PUBLIC HEALTH: “FOUNDATIONS OF PUBLIC HEALTH” (SYLLABUS EXCERPT)

Topic	
Week 1	Introduction to Public Health <ul style="list-style-type: none"> ▪ Define public health, its purpose, goals, services, and components ▪ Explain behavioral and psychological factors that affect a population’s health ▪ Describe the general structure of public health today with respect to government, academia, non-profits, industry, and private sectors
Week 2	Historical Perspectives of Public Health <ul style="list-style-type: none"> ▪ Discuss the history of public health and several key moments or periods ▪ Present a timeline of public health’s origin and evolution spanning to the present day ▪ Describe the Epidemiologic Transition: how economic advancement shifts focus from communicable to non-communicable diseases ▪ Explain the biological, environmental, and behavioral factors that affect a population’s health, including ecological perspectives (e.g., OneHealth) ▪ Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population’s health
Week 3	Social Determinants of Health <ul style="list-style-type: none"> ▪ Explain why health is not simply a matter of individual responsibility ▪ Explain the major causes and trends of morbidity and mortality ▪ Assess the impact of social, economic, and political determinants of health at a local, regional, and national level ▪ Evaluate proposed means of addressing social, economic, and political determinants and the limitations of those approaches to achieving health equity ▪ Explain behavioral and psychological factors that affect a population’s health
Week 4	Health Disparities & Inequities <ul style="list-style-type: none"> ▪ Synthesize the current research and language on health disparities and health inequities ▪ Identify the populations most affected by health inequities and what makes them vulnerable ▪ Explain the underlying cause(s) of health inequities ▪ Propose possible solutions to address/reduce health inequities in different populations
Week 5	Race, Racism & Public Health <ul style="list-style-type: none"> ▪ Articulate the impact of racism on health and health outcomes ▪ Explain the root cause of racial and ethnic disparities in health ▪ Explain biological and genetic factors that affect a population’s health.

Week 10	Historical Trauma & Cultural Humility <ul style="list-style-type: none"> Explain the significance of historical trauma in the current lives of disadvantaged populations Discuss the science of primary, secondary, and tertiary prevention in population health Identify approaches to mitigate historical trauma Evaluate one's own cultural awareness and biases Articulate how cultural humility is relevant to addressing health disparities
Week 14	The Future of Public Health <ul style="list-style-type: none"> Identify modern/burgeoning complex problems in public health Evaluate the role and challenge of globalization Examine the future of public health in social and racial injustice

2. Some units created a set of online modules, less structured than a typical course, which may be required but not offered for academic credit.

SAMPLE FROM SAN DIEGO STATE UNIVERSITY SCHOOL OF PUBLIC HEALTH: ONLINE ASYNCHRONOUS MODULE (0 CREDITS)

Lecture	Learning Objectives Covered	Topic and Readings	Assessment
I.1	I-2	What is public health? Defining public health and global health; history and functions of public health; goals of public health; the 10 Essential Public Health Services <i>Readings:</i> -Centers for Disease Control and Prevention. "The public health system and the 10 essential public health services." <i>Atlanta2013</i> (2015). -Fried LP, Bentley ME, Buekens P, et al. (2010). Global Health is Public Health. <i>Lancet</i> .	Quiz
I.2	3-4	Globalization and the global burden of disease: defining a population; overview of prevalence and incidence; defining morbidity and mortality; major causes and trends of morbidity and mortality in the U.S.; the global burden of disease <i>Readings:</i> -World Health Organization. Global Burden of Disease. -Verguet S, Norheim OF, Olson ZD, et al. (2014). Annual rates of decline in child, maternal, HIV, and tuberculosis mortality across 109 countries of low and middle income from 1990 to 2013: an assessment of the feasibility of post-2015 goals. <i>Lancet Glob Health</i> .	Quiz
2.1	5-7	The importance of research methods in public health and prevention at multiple levels: overview of descriptive epidemiology; role of evidence in public health; overview of primary, secondary, and tertiary prevention; quantitative research methods; qualitative research methods <i>Readings:</i> -Kavanagh, A., Daly, J., & Jolley, D. (2002). Research methods, evidence and public health. <i>Australian and New Zealand journal of public health</i> , 26(4), 337-342. -Neta, G., Glasgow, R. E., Carpenter, C. R., Grimshaw, J. M., Rabin, B. A., Fernandez, M. E., & Brownson, R. C. (2015). A framework for	Quiz

		enhancing the value of research for dissemination and implementation. <i>American Journal of Public Health, 105(1), 49-57.</i>	
3.1	9-10	<p>Determinants of health: a social and behavioral perspective. Overview of the determinants of health; the social ecological model (SEM); real-world examples of social and economic determinants of health; health models at various stages of the SEM</p> <p><i>Readings:</i> -Adler, N. E., Cutler, D. M., Jonathan, J. E., Galea, S., Glymour, M., Koh, H. K., & Satcher, D. (2016). Addressing social determinants of health and health disparities. <i>National Academy of Medicine.</i> -Mahajan et al. (2010). Stigma in the HIV/AIDS epidemic: A review of the literature and recommendations for the way forward. <i>AIDS.</i></p>	Quiz
4.1	8,11-12	<p>Biological and genetic factors that affect a population's health, environmental health, and One Health: environmental public health; dynamics of disease transmission; the epidemiologic triad of disease; examples of common environmental factors that impact health; using the OneHealth model to address health</p> <p><i>Readings:</i> -Boisson S, Engels D, Gordan BA, et al. (2016). Water, sanitation, and hygiene for acceleration and sustaining progress on neglected tropical diseases: a new global strategy 2015-20. -Costello A, Abbas M, Allen A., et al. (2009). Managing the health effects of climate change. <i>Lancet.</i></p>	Quiz

3. The least common approach, but one pursued successfully by a limited number of units, was covering foundational public health knowledge throughout existing required courses. This approach has the disadvantage of requiring duplicated effort for mapping across multiple degrees AND requiring ongoing monitoring of many different courses to ensure that coverage is maintained over time and across teaching faculty.

PARTIAL SAMPLE OF CRITERION D17 MAPPING FROM UNIVERSITY OF WASHINGTON SCHOOL OF PUBLIC HEALTH: VARIETY OF REQUIRED CONCENTRATION COURSES

Content	Course number(s) and name(s)	Describe specific assessment opportunity
2. Identify the core functions of public health and the 10 Essential Services	HSERV 511: Introduction to Health Services and Public Health	<p><u>Didactic Opportunity:</u> Week 1. Raymond L. Goldsteen, Karen Goldsteen and Terry L. Dwelle. Introduction to public health: promises and practices. 2015. Chapter 3.</p> <p><u>Assessment Opportunity:</u> Week 1 Class exercise asking students to describe what they think can be done to address a specific public health issue. They are asked to use the 3 core functions and 10 essential services framework, as well as the Public Health 3.0 key components, to structure the discussion and inform their answer.</p>

<p>4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program</p>	<p>EPI 512: Epidemiologic Methods I</p>	<p><u>Didactic Opportunity:</u> Week 3. A lecture titled "Study Design [1]" and a textbook chapter reading cover the concept of "Person, Place, and Time." During the lecture, the students learn about the leading causes of mortality and morbidity in the US using several sources of information such the Global Burden of Disease, National Center for Health Statistics, published articles, and media (e.g., How American Die?).</p> <p><u>Assessment Opportunity:</u> Week 3. A discussion question assignment (Discussion Question for Week 3) requires students to individually think how cancer has been changing as a leading cause of death in the US and explain the concepts of mortality rate and proportional mortality in relation to that disease. The students then discuss their answer within small group sessions led by faculty and teaching assistants. During the lecture, Poll Everywhere is used to assess students' knowledge on the leading causes of morbidity and mortality in the US.</p>
<p>5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.</p>	<p>HSERV 511: Introduction to Health Services and Public Health</p>	<p><u>Didactic Opportunity:</u> Week 9. Thomas S. Bodenheimer and Kevin Grumbach. Understanding Health Policy: A Clinical Approach. (7th ed). New York: McGraw Hill, 2016. Chapter 11 - Prevention of Illness</p> <p><u>Assessment Opportunity:</u> Week 9. Write a 1-page reflection paper where you choose a health condition and describe an example of what primary, secondary, and tertiary prevention could look like for that condition, including why each are different but equally important.</p>
<p>8. Explain biological and genetic factors that affect a population's health</p>	<p>HSERV 592: Health Research Training Seminar</p>	<p><u>Didactic Opportunity:</u> Lecture in week 3, focusing on building, annotating, explaining, and using a conceptual model to explain how health outcome are affected by environmental, biological, genetic, behavioral, and psychological factors. Demonstration of PowerPoint and LucidChart to create models.</p> <p><u>Assessment Opportunity:</u> Students will be assigned to participate in a</p>

		<p>discussion on Canvas during week 3 in which they 1) create and upload a draft conceptual model of their area of interest (whether sketched or created in Power Point or LucidChart), and how their health outcome is affected by environmental, biological, genetic, behavioral, and psychological factors, and 2) show insight and critical thinking in their response to each other's posts.</p>
<p>11. Explain how globalization affects global burdens of disease</p>	<p>HSERV 592: Health Research Training Seminar</p>	<p><u>Didactic Opportunity:</u> MS students only will be required to read Huynen MMTE, Martens P, Hilderink HBM. The health impacts of globalization: a conceptual framework. Globalization and Health, 2005.</p> <p><u>Assessment Opportunity:</u> MS students only will be required to write and upload a 1 page reflection statement in which they discuss the factors of globalization that serve as determinants of health, and the potential mechanisms by which globalization may be impacting the spread of COVID-19?</p>