

Master of Public Health Program
Practicum Resource Guide

Information for:

Current Students
Faculty Advisors
Host Sites/Preceptors

Produced by:

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MPH Practicum Resource Guide

Purpose of Public Health Practice

Public health is a broad social enterprise that seeks to extend the benefits of current knowledge in ways that will have the maximum impact on the health status of a population. It does so by identifying problems that call for collective action to protect, promote, and improve health. Public health is unique in its interdisciplinary approach and methods, its emphasis on preventative strategies, its linkage with government and political decision-making, and its dynamic adaptation to new problems placed on its agenda.

(Turnock, BJ, *Public Health: What it is and how it works*, 2004)

In order to become an effective public health professional, students of public health need the opportunity to apply knowledge, theories, and skills learned in their academic courses. The MPH practicum makes this linkage by providing students the opportunity to integrate and apply the lessons learned in the classroom into a public health setting. During the practicum, the student will work on a defined public health project and be mentored by a public health professional currently practicing in the field.

Although, each student will have a different experience, the goal of the practicum is for the student to practice the public health competencies by working onsite in an approved public health setting as a part of the organization's team to address a critical health issue.

This packet will serve as your resource to understand the general guidelines for participating in the CSPH's MPH practicum.

If you are a **student** and need any further support please contact your concentration director, faculty advisor or the MPH practicum coordinator.

If you are a **host site and/or preceptor** and need any further information or support please contact the MPH practicum coordinator.

How the Practicum Fits into the Academic Curriculum

To support student success as a public health practitioner, a series of 6 credit hours are interwoven throughout the core curriculum. These 6 credit hours are designed to build upon one another to provide students with foundational information and skills that will support and enhance their professional abilities. These 6 credit hours consist of the following courses:

Foundations of Public Health Course (2 credit hours)

MPH Practicum Experience (2 credit hours)

Culminating Experience – Master’s Project (2 credit hours)

Prerequisites:

In order to sign up for a practicum experience students must do the following:

- 1) Successfully complete the Foundations of Public Health Course (this does not apply to transition students)
- 2) Successfully complete 18 credits including a minimum of three of the core courses
- 3) Gain approval of concentration director

Goals of the Practicum Experience

All MPH concentrations in the Colorado School of Public Health require students to successfully complete a practicum experience in which the student demonstrates competencies and integrates public health knowledge. The goals of the practicum are:

- Apply classroom theory, knowledge, skills and techniques to a professional work setting;
- Enhance and develop new skills needed to function as a professional in a public health setting;
- Work on a specifically defined public health problem or issue project that is of value to the preceptor site;
- Participate in a setting that allows the student to explore future career decisions;
- Engage in professional self-assessment and personal reflection;
- Build a personal network of professional leaders in public health;
- Connect with local and state public health agencies and other community-based organizations, which serve the public’s health to create support for the public health community and future recruitment opportunities.

Practicum Requirements and Structure

Requirements

- 1) 120 hours (minimum)
- 2) A pre-defined project that assists an organization in addressing an unmet need while supporting student growth in developing skills in public health practice
- 3) Preceptor site approval from concentration director and practicum coordinator

Structure

- **Timeframe:** A student signed up for practicum experience must complete 120 hours (minimum) in a public health setting. The School recognizes that many of our students have obligations with family or employment that limits the number of hours per week they can dedicate to the practicum experience. Therefore, students can complete the required 120 hours in as short as 3 weeks or as long as 2 semesters. If a student needs more time to complete the program than 2 semesters, the MPH practicum coordinator should be consulted.
- **Online component:** There will be an on line class component that will serve to connect student learning and provide opportunity for cross discussions.
- **Minimum hours:** It is recognized that more than 120 hours may be necessary to accomplish the joint goals of the student and preceptor. Therefore, it is likely that more than 120 hours will be negotiated for individual projects.

Linkage of Practicum with Capstone/Master's Project

A student may choose to link their practicum experience with his/her Master's Project. For example, during the practicum the student might begin an extended project that requires considerably more than the minimum 120 hours for completion and culminates in a product that meets the requirements for the Master's Project. This possibility should be explored between the preceptor and the student at the time that the practicum experience is defined, although in some cases the possibility for a Master's Project may be identified during (rather than prior to) the practicum experience.

The culminating experience for the MPH program is a Master's Project that benefits the community or a particular target population, such as a program plan or program evaluation, capacity building project, policy initiative or a research oriented project, such as work on a publishable paper or grant. The project will most often be connected to the practicum experience by addressing a need identified by the host site. The project should relate to a student's academic goals and professional interests, and demonstrate the student's ability to work independently at the master's level. The final product will be a 15-20-page paper that demonstrates the student's ability to bring together the many facets of his/her learning from the MPH program in a prescribed format. The student will also present his/her experience in the form of an oral or poster presentation for the site in which the project was completed, as well as for faculty and classmates.

Students develop and complete a Master's Project proposal in consultation with faculty and the site preceptor. Students who choose a research-oriented project must have completed a Research Methods course. A student's Master's Project is supervised by:

- 1) A faculty member from the student's designated department and;
- 2) The site preceptor to provide ongoing support and guidance to students during the project. Other CSPH faculty can act as additional resources during the project.

Practicum Placement

Since each student has different interests and skills, the practicum experience will be created as a unique, specialized assignment. Students will be matched with preceptors. The placement of students will be flexible, but the following guidelines will be used to assess appropriateness of practice placement:

- Requires students to apply graduate level competencies
- Engages students in addressing a specific public health issue in a field setting
- Advances students' competencies and knowledge in public health practice
- Exposes students to the ten Essential Services of Public Health
- Has specific, defined project goals with deliverables
- Has a realistic time frame that is appropriate for a student to manage based upon their unique skills and knowledge
- Has a preceptor who has appropriate training to 1) oversee the project, 2) willing to agree to responsibilities outlined in the project contract, 3) is approved by the MPH practicum coordinator
- Enhances the students' professional network, career potential and professional development

See appendix A for competencies

See Appendix B for Ten Essential Services of Public Health

(It is understood that all competencies and essential services of public health will not be addressed during the practicum. However, the student is expected to observe, understand, and participate in any of them where possible.)

Setting-Up Practicum Placement

The responsibility of creating an exceptional practicum experience ultimately relies on the student. However, the student is not alone in this pursuit. The student will work closely with their concentration director and the MPH practicum coordinator to receive support and guidance to ensure a growth experience.

To start the placement process a student should:

- Review practicum requirements
- Meet with concentration director to receive approval to sign up for the practicum
- Meet with the MPH practicum coordinator to discuss student interest and opportunities available at preceptor sites
- Create a student profile packet for the preceptor site (to include a current vitae, a letter of interest & practicum goals, and a skills assessment)

Placement Proposal Forms & Agreement Letters

Practicum Checklist

Letter of Agreement

Learning Plan

Student Skills Assessment

Practicum Waiver Policy

“A planned, supervised and evaluated practical experience is an essential component of a professional public health degree program.”¹ The Colorado School of Public Health embraces the value of the practicum experience as an integral part of the overall student educational program and does not anticipate exempting any professional student from the practicum experience.

¹ From CEPH Accreditation Criteria: Schools of Public Health, Amended June 2005

Responsibilities of Preceptor and Host Sites

The goal of the practicum is to help grow the student personally and professional for a career in the field of public health. The experience is intended to provide students with an opportunity to develop professional skills in a public health setting while contributing to the needs of an organization. The school recognizes that this goal needs the support and commitment from community partners that are practicing public health in various settings. The primary responsibilities of a host site and preceptor are to:

- Work with students to develop a realistic graduate level project within the practicum time commitment and student schedule
- Provide the student with a background about the organization and project
- Be available to meet with student, provide supervision, and feedback
- Provide resources for students to complete project (i.e. office space, computer, access to data)
- Provide written feedback for the student and the school by completing evaluation forms midway through practicum (after 60 hours completed) and a final evaluation
- Support students in professional development activities (i.e. include in staff meetings, introduce organizational leaders, invite to professional events)

Preceptor and Host Site Benefits

The practicum experience has great value to the student's development and having a student professional also provides benefits to the host organization.

- Students complete or conduct projects the organization may not have capacity to do
- Students provide an inquisitive approach and may provide creative ideas and solutions
- Students build professional capacity and may be recruited to become part of organization's workforce
- Organizations and preceptors have an impact on the field of public health by participating in the education of future professionals

For More Information Contact:

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Appendix A: Colorado School of Public Health MPH Degree Competencies

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Core Competencies for all MPH Graduates of the CSPH	
Identifier	Basic Public Health Skills/Cross Cutting Competencies
BPHS/CC 1	Define, assess and report on the physical and mental health status of populations, determinants of health and illness, and factors contributing to health promotion and disease prevention. <i>(Explanation: Determinants of health include physical, economic, social and policy environments, personal traits (including demographic factors), health status, and the use of health services. Factors contributing to health promotion and disease prevention include behavioral and lifestyle choices and personal values and beliefs about health and the use of health services.)</i>
BPHS/CC 2	Demonstrate an understanding of the implications of genetics (the study of single genes and their functions) and genomics (the study of the entire human genome) on the health of populations.
BPHS/CC 3	Identify relevant and appropriate data and information sources.
BPHS/CC 4	Evaluate integrity and comparability of data.
BPHS/CC 5	Determine uses and limitations of quantitative and qualitative data.
BPHS/CC 6	Communicate effectively both in writing and orally.
BPHS/CC 7	Effectively present accurate demographic, statistical, programmatic and scientific information for professional and lay audiences.
BPHS/CC 8	Identify and address ethical issues that arise in public health practice and research.
BPHS/CC 9	Create a culture of ethical standards within organizations and communities.
BPHS/CC 10	Identify, retrieve, and synthesize current scientific evidence relevant to health and public health issues.
BPHS/CC 11	Identify and evaluate a range of approaches that can be used to address public health questions, including geographic information systems, medical informatics and bioinformatics strategies, and community-based participatory research.
BPHS/CC 12	Understand and utilize leadership, team building, negotiation, and conflict resolution skills to build partnerships for the purpose of improving the public's health. <i>Committee decided this needs to be covered in either Practicum, Health Systems, or Foundations. The "utilize" is in Practicum, but the "understand" needs some curriculum</i>
BPHS/CC 13	Identify organizational decision-making structures, stakeholders, style and processes.
BPHS/CC 14	Define a problem and specify a research question
BPHS/CC 15	Discuss sentinel events in the history and development of the public health profession and their relevance for practice in the field.
BPHS/CC 16	Apply evidence-based principles and the scientific knowledge base to critical evaluation and decision-making in public health.
BPHS/CC 17	Apply the core functions of assessment, policy development, and assurance in the analysis of public health problems and their solutions.
BPHS/CC 18	Analyze determinants of health and disease using an ecological framework.

Core Competencies for all MPH Graduates of the CSPH

Identifier	Basic Public Health Skills/Cross Cutting Competencies, continued
BPHS/CC 19	Appreciate the importance of working collaboratively with diverse communities and constituencies.
BPHS/CC 20	Describe the roles of history, power, privilege and structural inequality in producing health disparities.
BPHS/CC 21	Explain how professional ethics and practices relate to equity and accountability in diverse community settings.
BPHS/CC 22	Explain why cultural competence alone cannot address health disparity.
BPHS/CC 23	Discuss the importance and characteristics of a sustainable diverse public health workforce.

Identifier	Core (CR) MPH Biostatistics Competencies
CR-BIOS 1	Apply ethical principles to collection, maintenance, and dissemination of data.
CR-BIOS 2	Select and define variables and apply descriptive and inferential methodologies according to the type of study design in order to answer research questions.
CR-BIOS 3	Make relevant and appropriate inferences from data.
CR-BIOS 4	Describe the roles biostatistics serves in the discipline of public health.
CR-BIOS 5	Distinguish among the different measurement scales and the implications for selection of statistical methods to be used based on these distinctions
CR-BIOS 6	Apply descriptive techniques commonly used to summarize public health data.
CR-BIOS 7	Describe basic concepts of probability, statistical probability distributions.
CR-BIOS 8	Describe preferred methodological alternatives to commonly used statistical methods when assumptions are not met.
CR-BIOS 9	Interpret results of statistical analyses found in public health studies.
CR-BIOS 10	Develop written and oral presentations based on statistical analyses for both public health professionals and educated lay audiences.
CR-BIOS 11	Apply basic informatics techniques with vital statistics and public health records in the description of public health characteristics and in public health research and evaluation.

Identifier	Core (CR) MPH Community and Behavioral Health Competencies
CR-CBHE 1	Identify basic theories, concepts and models from a range of social and behavioral disciplines that are used in public health research and practice.
CR-CBHE 2	Evaluate the social and community factors related to the health of communities, assess community health needs, and identify potential interventions that consider unique cultural settings. <i>(Explanation: Introduces a sociocultural systems approach for exploration and conceptualization of problems of human health, disease, and illness. The interplay of biological, psychosocial, sociocultural and ecological factors is addressed).</i>
CR-CBHE 3	Work collaboratively in a culturally sensitive manner with heterogeneous groups to promote the health of communities.
CR-CBHE 4	Identify the causes of social and behavioral factors that affect health of individuals and populations.
CR-CBHE 5	Specify multiple targets and levels of intervention for social and behavioral science programs and/or policies.
CR-CBHE 6	Identify individual, organizational, and community concerns, assets, resources and deficits for social and behavioral science interventions.
CR-CBHE 7	Apply evidence-based approaches in the development and evaluation of social and behavioral science interventions.
CR-CBHE 8	Describe the merits of social and behavioral science interventions and policies.
CR-CBHE 9	Describe steps and procedures for the planning, implementation and evaluation of public health programs, policies and interventions.
CR-CBHE10	Identify critical stakeholders for the planning, implementation and evaluation of public health programs, policies and interventions.

Identifier	Core (CR) MPH Environmental and Occupational Health Competencies
CR-EHOH 1	Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents.
CR-EHOH 2	Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures.
CR-EHOH 3	Specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and safety.
CR-EHOH 4	Specify current environmental risk assessment methods.
CR-EHOH 5	Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity.
CR-EHOH 6	Develop a testable model of environmental insult.
CR-EHOH 7	Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues.
CR-EHOH 8	Describe genetic, physiologic and psychological factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards.

Identifier	CORE (CR) MPH Epidemiology Competencies
CR-EPID 1	Compare strengths and limitations of various study designs to answer research questions with consideration for the practical limitations, chance findings, selection bias, misclassification, and confounding.
CR-EPID 2	Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues.
CR-EPID 3	Describe a public health problem in terms of magnitude, person, time and place.
CR-EPID 4	Apply basic terminology and definitions of epidemiology.
CR-EPID 5	Identify key sources of data for epidemiologic purposes.
CR-EPID 6	Calculate basic epidemiology measures.
CR-EPID 7	Evaluate the strengths and limitations of epidemiologic reports.
CR-EPID 8	Draw appropriate inferences from epidemiologic data.
CR-EPID 9	Communicate epidemiologic information to lay and professional audiences.
CR-EPID 10	Comprehend basic ethical legal principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data.
CR-EPID 11	Identify the principles and limitations of public health screening programs.

Identifier	Core (CR) MPH Health Care Systems, Management and Policy Competencies
CR-HSMP 1	Demonstrate an understanding of the effects of markets and political processes on the allocation of resources to health services and public health programs.
CR-HSMP 2	Demonstrate an understanding of factors influencing access to and utilization of health services.
CR-HSMP 3	Analyze the historical development, organization, financing and delivery of public and private health services in the U.S. system.
CR-HSMP 4	Identify and interpret public health laws, regulations, and policies related to specific health programs and the delivery of health services.
CR-HSMP 5	Demonstrate an understanding of tools used to analyze public policy issues.
CR-HSMP 6	Assess and explain the effects of policy development and implementation at all levels (federal, state, local) on the practice of public health.
CR-HSMP 7	Analyze health policy issues, including the health, fiscal/economic, administrative, legal, social, ethical and political implications. Include in the analysis an awareness of issues that transcend national boundaries and/or have global implications.
CR-HSMP 8	Demonstrate an understanding of the relationship of public health to the health care delivery system and the economic factors influencing components of the delivery system. <i>(Explanation: Components of the delivery system include organization, management, financing, and resources (workforce, facilities, technology, and knowledge)</i>

Competencies of the MPH Concentrations

Upon graduation an MPH student with a concentration (CN) in Applied Biostatistics will be able to...	
CN-ABST 1	Select and apply appropriate biostatistical methods and applications to support research and evaluations in the core areas of public health research and practice, including: epidemiology, environmental and occupational health, community and behavioral health, and public health systems management, policy and outcomes research.
CN-ABST 2	Translate a study's scientific question or aims into testable statistical hypotheses and propose and apply appropriate statistical methods to test those hypotheses
CN-ABST 3	Test and interpret models for continuous outcome data (normal linear model), categorical outcome data (logistic and Poisson regression), and time-to-event data (Cox regression).
CN-ABST 4	Demonstrate knowledge of the issues of bias, error, confounding, effect modification, sampling, and generalizability and how they relate to the interpretation of study results.
CN-ABST 5	Carry out appropriate sample size and power calculations to ensure that a study is sufficiently powered to achieve the scientific aims or address a specific research hypothesis.
CN-ABST 6	Use computer software for data entry and data base management and for summarizing, analyzing and displaying research results.
CN-ABST 7	Design data collection forms and data entry, editing, management, and quality control procedures.
CN-ABST 8	Incorporate knowledge of the basic ethical and legal issues involved in the collection, management, use and dissemination of biomedical and epidemiologic data.
CN-ABST 9	Critically review and interpret the scientific and statistical methods presented in public health and medical literature to identify strengths and weaknesses, and identify potential biases in these studies.
CN-ABST 10	Apply underlying scientific and statistical principles and methods to design, plan, and conduct a variety of public health and biomedical studies including cohort, case control, cross-sectional, and clinical trials.
CN-ABST 11	Use the principles of hypothesis testing and estimation of population parameters to draw inferences from quantitative data and communicate (verbally and in writing) those inferences and their statistical and scientific interpretation to non-statistical scientists.
CN-ABST 12	Address a biomedical, public health or statistical research question with a major statistical analysis or simulation study using advanced statistical methods.
CN-ABST 13	Support behavioral science research specifically in survey study design, designing surveys, analyses and interpretations.

Upon graduation an MPH student with a concentration (CN) in Community and Behavioral Health will be able to...

CN-CBH 1	Describe, select and apply appropriate theories, models, frameworks and evidence- based strategies for the development of health promotion, disease prevention, and disease management programs.
CN-CBH 2	Describe and utilize systematic approaches and methods to assess the health-related needs of communities and populations, taking into account individual, interpersonal, community and societal factors.
CN-CBH 3	Utilize quantitative and qualitative data to identify disparities in health and inform the design of culturally appropriate programs to promote health equity.
CN-CBH 4	Utilize systematic approaches to describe, develop and evaluate health promotion and disease prevention programs. Systematic approaches include the use of logic models, principles of Community Based Participatory Research, epidemiologic evidence, and evidence-based intervention strategies.
CN-CBH 5	Identify and describe appropriate research designs for assessing program effectiveness.
CN-CBH 6	Critically assess and select appropriate quantitative and qualitative measurement methods for assessing program effectiveness.
CN-CBH 7	Identify and describe appropriate designs and methods for assessing program reach and implementation.
CN-CBH 8	Use oral and written methods for communicating program descriptions and study findings.
CN-CBH 9	Effectively work with communities and stakeholders, in an equitable and ethical manner, including developing a work plan, communicating effectively and disseminating results.

Upon graduation an MPH student with a concentration (CN) in Community Health Education (UNC) will be able to...

CN-CHE 1	Recognize the value and the implications of diversity (racial/ethnic, cultural, social) and the importance of cultural competency in addressing public health issues in the community.
CN-CHE 2	Identify the role and impact of demographic, social, economic, cultural, political, and behavioral factors in determining population health status, disease, disease preventing and health promoting behavior, and medical service organization and delivery.
CN-CHE 3	Describe how race/ethnicity, socioeconomic status, demographic characteristics, and cultural affect individual and group physical and mental health responses to health messages.
CN-CHE 4	Recognize and analyze the implications of the global inter-connectives of our society in the economic, social, and political areas and its public health implications at the local level.
CN-CHE 5	Recognize and analyze factors that contribute to individual's social, economic, and political incorporation and acculturation in the mainstream society and describe how this process affects health status and delivery of health care.
CN-CHE 6	Critically evaluate and use the behavioral sciences theory and literature in determining which health promotion/disease prevention programs/interventions may or may not be effective because of group social, racial, ethnic, economic factors as well as unique characteristics and requirements of different cultures.
CN-CHE 7	Apply knowledge of community social, economic, political and cultural characteristics in the development and implementation of interventions in participatory community health planning.
CN-CHE 8	Identify and assess economic, cultural, political and social barriers to the development of programs to address community public health needs and adapts approaches and solutions to problems that take into account

	cultural differences.
CN-CHE 9	Promote networks and establish partnerships with diverse community agencies, health providers, community organizations and institutions to promote policies, programs, services and resources to protect the health of community residents.
CN-CHE 10	Interact sensitively, effectively, and professionally with persons from diverse cultural, socioeconomic, educational, and professional backgrounds and with persons of all ages.

Upon graduation an MPH student with a concentration (CN) in Epidemiology will be able to...

CN-EPID 1	Explain the descriptive epidemiology of a given condition, including case definition, calculation of the primary measures of disease morbidity and mortality, and appropriate comparisons by person, place and time.
CN-EPID 2	List the strengths and limitations of descriptive statistics.
CN-EPID 3	Identify data from existing local, national or international sources.
CN-EPID 4	Describe study designs and understand the advantages and limitations of each design for addressing specific problems, as well as the practical aspects of their uses, including trade-offs.
CN-EPID 5	Identify and minimize sources of bias; describe both the direction and magnitude of the bias and the effect of potential biases on the measures of association.
CN-EPID 6	Use statistical computer packages to calculate and display descriptive statistics, analyze categorical data, and perform multivariable regression, and other analyses as required.
CN-EPID 7	Examine data for the presence of confounding and interaction (effect modification), identify their presence, and manage them appropriately.
CN-EPID 8	Interpret research results, make appropriate inferences based on results, and recognize the implications of the research results.

Upon graduation an MPH student with a concentration (CN) in Environmental and Occupational Health will be able to...

CN-EOH 1	Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents.
CN-EOH 2	Describe genetic, physiologic and psychological factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards.
CN-EOH 3	Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures.
CN-EOH 4	Specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and safety.
CN-EOH 5	Specify current environmental risk assessment methods.
CN-EOH 6	Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity.
CN-EOH 7	Develop a testable model of environmental insult.
CN-EOH 8	Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues.
CN-EOH 9	Understand the range of epidemiologic methods in the analysis of environmentally determined health and the strengths and limitations of these methods.
CN-EOH 10	Specify appropriate monitoring and other field methods for addressing environmental & occupational health

	problems.
CN-EOH 11	Understand the dynamics of ecosystems and how they affect the movement of toxic agents in the environment and mediate related risks for human disease as well the quality of air, water, and climate.
CN-EOH 12	Describe important current and emerging environmental health problems and variations in health risks across the global landscape.
CN-EOH 13	Define sustainability and describe how solutions to environmental and occupational health problems can be designed to be sustainable.
CN-EOH 14	Apply basic skills in geographic information systems (GIS) technology in the evaluation environmental health problems.

Upon graduation an MPH student with a concentration (CN) in Health Systems, Management and Policy will be able to...

CN-HSMP 1	Identify the main components and issues of the organization, financing of public health systems in the US
CN-HSMP 2	Describe the legal, regulatory, and ethical bases for public health services
CN-HSMP 3	Apply the principles of program planning, development, budgeting, management and evaluation in organizational and community initiatives
CN-HSMP 4	Apply the principles of strategic planning to public health
CN-HSMP 5	Apply “systems thinking” for resolving organizational problems
CN-HSMP 6	Critically assess and select appropriate quantitative and qualitative measurement methods for assessing program effectiveness.
CN-HSMP 7	Identify and describe appropriate designs and methods for assessing program reach and implementation
CN-HSMP 8	Identify and describe appropriate research designs for assessing program effectiveness.
CN-HSMP 9	Understand the relationship of public health to the health care delivery system and the economic factors influencing the components of the delivery system
CN-HSMP 10	Apply economic principles and theories to analyze the delivery of health care services, public health and health policy issues
CN-HSMP 11	Understand the effects of markets and political processes on the allocation of resources to health services and public health programs
CN-HSMP 12	Understand the policy process and the principles, values and pressures that guide health care policy making
CN-HSMP 13	Perform a policy analysis for a decision maker, addressing the issues of cost, benefit, distribution, effectiveness, efficiency, administrative ease, legality, equity, and political acceptability, and make and support recommendations affecting health policy and practice

Competencies of the MPH General Track Focus Areas

Upon graduation an MPH student with a focus (GF) in Animals, People and the Environment (Generalist - CSU) will be able to...	
GF-AP&E 1	Describe typical animal and plant agriculture production systems in the United States and public health concerns that have been related to these production systems.
GF-AP&E 2	Describe how animal and plant agriculture have a positive impact on public health and wellbeing.
GF-AP&E 3	Identify ways in which agriculture and human incursion adversely and positively impact environmental and ecological health. Describe ways that adverse impacts can be minimized.
GF-AP&E 4	Identify issues regarding awareness and communication that impact optimal collaboration between public health officials and agriculture industries.
GF-AP&E 5	Assess the importance of agriculture in determining differences in public health in different parts of the world.
GF-AP&E 6	Describe differences in agricultural production in different regions of the world and how different approaches impact public health favorably and adversely.
GF-AP&E 7	Apply biostatistical and epidemiological methods to a veterinary public health issue that affects human and animal populations.
GF-AP&E 8	Consider how social, political, and cultural differences can impact the public perceptions about how agriculture impacts public health, social wellbeing, and environmental health. Identify and describe methods for addressing misperceptions among the public, agriculture producers, and public health professionals.
GF-AP&E 9	Describe how public health skills and knowledge benefit agriculture industries and individual agriculture producers.
GF-AP&E 10	Describe how knowledge of agriculture and environmental health benefit public health professionals.

Upon graduation an MPH student with a focus (GF) in Global Health and Health Disparities (Generalist - CSU) will be able to...	
GF-GHHD 1	Describe the role of social and community factors in both the onset and solution of public health problems
GF-GHHD 2	Describe the roles of history, power, privilege and structural inequality in producing health disparities
GF-GHHD 3	Describe how social, behavioral, environmental, and biological factors contribute to specific individual and community health outcomes
GF-GHHD 4	Explain how the contexts of gender, race, poverty, history, migration and culture are important in the design of interventions within public health systems
GF-GHHD 5	Analyze the impact of global trends and interdependencies on public health related problems and systems
GF-GHHD 6	Incorporate strategies for interaction with persons of diverse backgrounds
GF-GHHD 7	Consider the role of cultural, social, economic, and behavioral factors in the accessibility, availability, acceptability and delivery of public health services.
GF-GHHD 8	Respond to diverse needs that are the result of cultural differences (e.g. political, economic, religious).
GF-GHHD 9	Explain the dynamic forces that contribute to cultural diversity.
GF-GHHD 10	Assess the public health organization for its cultural competence.

Upon graduation an MPH student with a focus in Health Communication (CSU) will able to...	
GF-HC 1	Describe how the public health information infrastructure is used to collect, process, maintain and disseminate data
GF-HC 2	Discuss the influences of social, organizational and individual factors on the use of information technology by end users
GF-HC 3	Apply theory and strategy-based communication principles across different settings
GF-HC 4	Demonstrate effective written and oral skills for communicating with different audiences in the context of professional public health activities
GF-HC 5	Identify the fundamental properties of the intended audience for a communication based intervention, including demographic, psychological, sociological, and cultural elements at all levels from interpersonal to mass.
GF-HC 6	Apply basic skills of message production and delivery in a purposeful manner as appropriately motivated by the specific communication channels to be employed in a communication based intervention.
GF-HC 7	Understand the critical relationship between formative and evaluative research in the ongoing delivery of a communication based intervention.
GF-HC 8	Obtain proficiency over the broad literature of communication theory as well as the subset of that literature pertaining specifically to health communication, and be able to translate theoretical understanding into public health communication practice.
GF-HC 9	Develop a foundation in both quantitative and qualitative social scientific research methods that is sufficient to understand published communication research and apply such findings to public health communication practice.

Upon graduation an MPH student with a focus (GF) in Health and Exercise Science Competencies (Generalist - CSU) will able to...	
GF- HES 1	Interpret results of statistical analyses found in public health studies
GF- HES 2	Draw appropriate inferences from epidemiologic data
GF- HES 3	Identify the social, behavioral and environmental (e.g. built environment) factors that affect the health of individuals and populations
GF- HES 4	Demonstrate effective written and oral skills for communicating with different audiences in the context of professional public health activities including program planning
GF- HES 5	Access, evaluate, and interpret public health data
GF- HES 6	Describe how behavior alters human biology
GF- HES 7	Integrate general biological concepts as well as physical activity into public health
GF- HES 8	Identify the benefits and risk of physical activity participation at community levels
GF- HES 9	Work with public health educators and other professionals to promote physical activity in diverse community settings
GF- HES 10	Explain and contrast how social and behavioral theories are used in programs designed to promote health and physical activity in community settings
GF- HES 11	Incorporate data analysis and principles of community organization within program planning
GF- HES 12	Formulate appropriate and measurable program objectives

Upon graduation an MPH student with a focus (GF) in **Public Health Nutrition (Generalist - CSU)** will be able to...

GF-PHN 1	Describe the role of social and community factors in both the onset and solution of public health problems.
GF-PHN 2	Consider the contexts of gender, race, poverty, history, migration and culture as important factors in the design of interventions to improve public health.
GF-PHN 3	Describe how social, behavioral, environmental, and biological factors contribute to specific individual and community health outcomes.
GF-PHN 4	Draw appropriate inferences from epidemiologic data.
GF-PHN 5	Apply biological principles to development and implementation of disease prevention, control, or management programs.
GF-PHN 6	Apply principles of community based participatory research to develop effective interventions to improve nutritional status of specific populations.
GF-PHN 7	Apply appropriate policy changes in improving dietary quality of community groups.

Additional Competencies for Joint Degrees

Upon graduation an MPH/MD student with a joint MPH/MD will additionally be able to...

J-MPH/MD 1	Integrate public health skills and knowledge into the practice of medicine
J-MPH/MD 2	Apply biostatistical and epidemiological methods to assessing the effectiveness of medical treatments
J-MPH/MD 3	Identify the mutual commonalities of medicine and public health and be able to facilitate the communication among professionals in both fields
J-MPH/MD 4	Identify diseases with public health impacts and methods for minimizing their effects on populations
J-MPH/MD 5	Facilitate the translation of medical science discoveries to the provision of public health services

Upon graduation an MPH/DVM student with a joint MPH/DVM will additionally be able to...

J-MPH/DVM 1	Integrate public health skills into the practice of veterinary medicine
J-MPH/DVM 2	Apply biostatistics to a veterinary public health issue that affects human and animal populations
J-MPH/DVM 3	Identify animal diseases with public health impacts
J-MPH/DVM 4	Describe typical beef and dairy livestock production systems in the United States, and pathogens of beef and dairy cows that have food safety implications.

Appendix B - Ten Essential Public Health Services

- 1) Monitor health status to identify and solve community health problems.
- 2) Diagnose and investigate health problems and health hazards in the community.
- 3) Inform, educate, and empower people about health issues.
- 4) Mobilize community partnerships and action to identify and solve health problems.
- 5) Develop policies and plans that support individual and community health efforts.
- 6) Enforce laws and regulations that protect health and ensure safety.
- 7) Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
- 8) Assure competent public and personal health care workforce.
- 9) Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
- 10) Research for new insights and innovative solutions to health problems.

National Public Health Performance Standards Program

<http://www.cdc.gov/od/ocphp/nphpsp/EssentialPHServices.htm>

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