



TEXAS A&M UNIVERSITY  
School of Public Health

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COMPETENCIES  
FOR  
MHA, MPH AND DRPH DEGREE  
PROGRAMS

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EFFECTIVE FALL 2021

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## MHA COMPETENCIES

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1. Health Care Environment and Community- Public and Population Health Assessment
2. Health Care Environment and Community- Delivery, Organization, and Financing of Health Services and Health Systems
3. Health Care Environment and Community- Policy Analysis
4. Health Care Environment and Community- Legal and Ethical Bases for Health Services and Health Systems
5. Leadership Skills- Ethics, Accountability, and Self-Assessment
6. Leadership Skills- Organizational Dynamics
7. Leadership Skills- Problem Solving, Decision Making, and Critical Thinking
8. Leadership Skills- Team Building and Collaboration
9. Management Skills- Strategic Planning
10. Management Skills- Financial Management
11. Management Skills- Business Planning
12. Management Skills- Communication
13. Management Skills- Performance Improvement
14. Management Skills- Project Management
15. Analytic and Technical Skills- Systems Thinking
16. Analytic and Technical Skills- Data Analysis and Information Management
17. Analytic and Technical Skills- Quantitative Methods for Health Services Delivery

## MPH & DRPH FOUNDATIONAL COMPETENCIES

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### PROFESSIONAL & SCIENCE OF PUBLIC HEALTH

1. Explain public health history, philosophy and values.
2. Identify the core functions of public health and the 10 Essential Services.
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health.
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program.
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.
6. Explain the critical importance of evidence in advancing public health knowledge.

### FACTORS RELATED TO HUMAN HEALTH

7. Explain effects of environmental factors on a population's health.
8. Explain biological and genetic factors that affect a population's health.
9. Explain behavioral and psychological factors that affect a population's health.
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities.
11. Explain how globalization affects global burdens of disease.
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (e.g., One Health)

# MPH FOUNDATIONAL COMPETENCIES

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## EVIDENCE-BASED APPROACHES TO PUBLIC HEALTH

13. Apply epidemiological methods to the breadth of settings and situations in public health practice.
14. Select quantitative and qualitative data collection methods appropriate for a given public health context.
15. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.
16. Interpret results of data analysis for public health research, policy or practice.

## PUBLIC HEALTH & HEALTH CARE SYSTEMS

17. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings.
18. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels.

## PLANNING & MANAGEMENT TO PROMOTE HEALTH

19. Assess population needs, assets and capacities that affect communities' health.
20. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs.
21. Design a population-based policy, program, project or intervention.
22. Explain basic principles and tools of budget and resource management.
23. Select methods to evaluate public health programs.

## POLICY IN PUBLIC HEALTH

24. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence.
25. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.
26. Advocate for political, social or economic policies and programs that will improve health in diverse populations.
27. Evaluate policies for their impact on public health and health equity.

## LEADERSHIP

28. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making.
29. Apply negotiation and mediation skills to address organizational or community challenges.

## COMMUNICATION

30. Select communication strategies for different audiences and sectors.
31. Communicate audience-appropriate public health content, both in writing and through oral presentation.
32. Describe the importance of cultural competence in communicating public health content.

## INTERPROFESSIONAL PRACTICE

33. Perform effectively on interprofessional teams.

## SYSTEMS THINKING

34. Apply systems thinking tools to a public health issue.

## MPH CONCENTRATION COMPETENCIES

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### BIOSTATISTICS

1. Translate research questions or aims into testable hypotheses and propose appropriate statistical methods to test those hypotheses.
2. Apply statistical methods that assure a study is adequately powered for achieving scientific aims or testing a specific research hypothesis.
3. Evaluate and recommend study designs based on identified strengths and weaknesses and desired study goals.
4. Analyze and interpret data using a variety of advanced analytical tools.
5. Communicate commonly used statistical ideas and methods to collaborators in non-technical terms.

### HEALTH POLICY AND MANAGEMENT

1. Use policy and management tools to evaluate implications of specific programs, policies, and interventions on organizations and populations.
2. Develop and justify budgets that support programs and organizations in the public health and health care sectors.
3. Communicate evidence-based options to address public health management and policy problems.
4. Apply project management and strategic management tools to create public health program goals, strategies, and objectives.
5. Recommend and justify policies or organizational initiatives for implementation after examining their feasibility and implications.

### HEALTH PROMOTION AND COMMUNITY HEALTH SCIENCES

1. Analyze the determinants of health at both individual and social levels to identify intervention points.
2. Apply behavioral theories, concepts, and tools in addressing health problems in different populations and at different levels.
3. Judge appropriate quantitative and qualitative methods at various stages of health promotion program development, implementation and evaluation.
4. Develop and defend communication materials to inform policymakers and community members.
5. Apply program management principles and tools to develop a program management plan, organize resources and work, and address frequently encountered problems.

### ENVIRONMENTAL HEALTH

1. Develop and implement strategies for mitigating environmental health hazards.
2. Explain the synergistic and multiplicative factors that influence solutions for environmental health hazards.
3. Evaluate policies to reduce environmental health risks and hazards.
4. Apply the current best practices for risk assessment and risk communication.
5. Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues.

## EPIDEMIOLOGY

1. Select epidemiologic methods that are appropriate to address epidemiologic content areas.
2. Analyze strengths and limitations of study designs for providing evidence for causal associations.
3. Apply appropriate advanced data analysis and management techniques to analyze epidemiologic data.
4. Assess and compare different reporting formats to communicate epidemiologic data to a variety of audiences.
5. Explain the role of epidemiology in developing, implementing, and evaluating health policy.

## OCCUPATIONAL HEALTH

1. Evaluate occupational health risk in multiple industrial and office settings.
2. Implement theoretical and conceptual models relevant to Occupational Health risk evaluation in the lab or field.
3. Appraise experimental designs to appropriately address specific research questions in the field of Occupational Health in lab scenarios.
4. Synthesize knowledge of analytical techniques with theoretical and conceptual models in Occupational Health to solve field problems.
5. Develop and defend audience appropriate research methods and findings relevant to occupational risks and/or interventions.



## DRPH FOUNDATIONAL COMPETENCIES

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### DATA & ANALYSIS

1. Explain qualitative, quantitative, mixed methods and policy analysis research and evaluation methods to address health issues at multiple (individual, group, organization, community and population) levels.
2. Design a qualitative, quantitative, mixed methods, policy analysis or evaluation project to address a public health issue.
3. Explain the use and limitations of surveillance systems and national surveys in assessing, monitoring and evaluating policies and programs and to address a population's health.

### LEADERSHIP, MANAGEMENT & GOVERNANCE

4. Propose strategies for health improvement and elimination of health inequities by organizing stakeholders, including researchers, practitioners, community leaders and other partners.
5. Communicate public health science to diverse stakeholders, including individuals at all levels of health literacy, for purposes of influencing behavior and policies.
6. Integrate knowledge, approaches, methods, values and potential contributions from multiple professions and systems in addressing public health problems.
7. Create a strategic plan.
8. Facilitate shared decision making through negotiation and consensus-building methods.
9. Create organizational change strategies.
10. Propose strategies to promote inclusion and equity within public health programs, policies and systems.
11. Assess one's own strengths and weaknesses in leadership capacities including cultural proficiency.
12. Propose human, fiscal and other resources to achieve a strategic goal.
13. Cultivate new resources and revenue streams to achieve a strategic goal.

### POLICY & PROGRAMS

14. Design a system-level intervention to address a public health issue.
15. Integrate knowledge of cultural values and practices in the design of public health policies and programs.
16. Integrate scientific information, legal and regulatory approaches, ethical frameworks and varied stakeholder interests in policy development and analysis.
17. Propose interprofessional team approaches to improving public health.

### EDUCATION & WORKFORCE DEVELOPMENT

18. Assess an audience's knowledge and learning needs.
19. Deliver training or educational experiences that promote learning in academic, organizational or community settings.
20. Use best practice modalities in pedagogical practices.

## DRPH CONCENTRATION COMPETENCIES

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### EPIDEMIOLOGY

1. Use epidemiologic evidence to make inferences about the scope and magnitude of threats to public health.
2. Plan, implement, and evaluate a public health study to assess a threat to population health.
3. Utilize theoretical foundations to address critical public health issues.
4. Connect epidemiology to interdisciplinary research.
5. Prepare reports and scholarly presentations and participate in conference presentations in order to appropriately influence relevant state-of-the-art practice.

### ENVIRONMENTAL HEALTH

1. Evaluate the influence of susceptibility based on a hazards' biological mode of action. Assess the impact of major environmental determinants of human disease on the likelihood of adverse effects.
2. Interpret concentrations or doses of health hazards compared with risk based and non-risk based criteria and guidelines
3. Develop intervention and prevention strategies to help vulnerable communities improve their health by reducing exposures to environmental hazards.
4. Analyze environmental data and articulate the characteristics of major physical, radiological, chemical, and biological hazards.
5. Critically assess peer-reviewed published articles related to environmental impacts on health. Analyze the strength and validity of the hypothesis, study design and methods, results, conclusions, and the public health significance.

### HEALTH PROMOTION AND COMMUNITY HEALTH SCIENCES

1. Analyze critical themes in public health history in order to argue how these relate to the evolution of public health, public health problems, and the future of public health.
2. Develop appropriate conceptual models for addressing community health issues that integrate behavioral theories, concepts, and tools.
3. Design an evaluation plan appropriate for a multi-level community health/health promotion program.
4. Formulate a multi-level health promotion/community health-focused intervention, utilizing at least 2 of the 5 socio-ecological levels, and which integrates evidence-based theories and strategies.
5. Develop an organizational leadership/management plan, acquire and manage resources, supervise staff, and address frequently encountered problems in health promotion/community health contexts.