

Master of Public Health (MPH) Competencies  
University of North Texas Health Science Center  
School of Public Health

Foundational Competencies	Explanation	ID#
<b>Evidence-based Approaches to Public Health</b>		
<b>Apply epidemiological methods to the breadth of settings &amp; situations in public health practice</b>	Use appropriate research methods in different public health practice settings and situations. This may include determining sample sizes needed to draw conclusions, measuring the prevalence of community problems, and determining how community issues are changing over time.	<b>F1</b>
<b>Select quantitative &amp; qualitative data collection methods appropriate for a given public health context</b>	Select appropriate data collection methods for public health purposes. This might include using focus group and key informant interview methods to gain an in-depth understanding of a community issue; or administering a standardized assessment tool at different time periods to determine if program outcomes are achieved.	<b>F2</b>
<b>Analyze quantitative &amp; qualitative data using appropriate biostatistics, informatics, computer-based programming &amp; software</b>	Use statistical tools or narrative coding procedures to understand patterns in data. This includes choosing the right statistical tests based on how data is measured and using systematic methods of drawing conclusions.	<b>F3</b>
<b>Interpret results of data analysis for public health research, policy or practice</b>	Understand and apply findings from data to influence public health research, policy, and/or practice. This includes having a good understanding of the limits of data findings and being able to draw linkages to how the results may influence the decisions of community and policy leaders.	<b>F4</b>
<b>Public Health &amp; Health Care Systems</b>		
<b>Compare the organization, structure &amp; function to health care public health &amp; regulatory systems both national &amp; international</b>	Understand the differences between public health and health care agencies to the organizational and functional structures on national and international levels. This includes an understanding of how decisions are made, how progress is monitored, and how policy influences the operations of these organizations.	<b>F5</b>
<b>Discuss how structural bias, social inequities &amp; racism undermine health &amp; create challenges to achieving health equity at organizational, community &amp; societal levels</b>	Discuss the challenges of reaching quality health and health care across populations at organizational, community, and societal levels. Understand the impact of biases, social inequalities, and racism to achieve health equity. Be able to articulate and identify health disparities and differences among groups, as well as the ways in which the organizations operate may have inequitable influences on certain groups.	<b>F6</b>
<b>Planning &amp; Management to Promote Health</b>		
<b>Assess population needs, assets &amp; capacities that affect communities' health</b>	Assess population needs, assets, and capacities that affect communities' health. This includes measuring community strengths and being able to articulate what are the desired outcomes necessary for community well-being.	<b>F7</b>
<b>Apply awareness of cultural values and practices to the design or implementation of public health policies or programs</b>	Apply awareness of cultural values and practices to the design or implementation of public health policies or programs. This may include cultural adaptation/tailoring, stakeholder involvement in planning, implementation and evaluation, and cultural humility.	<b>F8</b>
<b>Design a population-based policy, program, project or intervention</b>	Design a population-based policy, program, project or intervention. This includes the development of strategies designed to address community needs or implementation of changes that improve community health.	<b>F9</b>
<b>Explain basic principles &amp; tools of budget &amp; resource management</b>	Explain basic principles & tools of budget & resource management. This includes development of program budgets and determining the financial resources needed to carry out projects and programs. It also includes understanding how budgets are managed in various work environments and how resource allocation affects community health.	<b>F10</b>

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<b>Select methods to evaluate public health programs</b>	Select methods to evaluate public health programs. This includes determining the evaluation needs of stakeholders and ensuring the methods selected will produce actionable information.	<b>F11</b>
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**Policy in Public Health**

<b>Discuss multiple dimensions of the policy-making process, including the roles of ethics &amp; evidence</b>	Discuss the process of establishing policies, procedures and laws. Consider how research or evaluation evidence, and ethics, influence this process.	<b>F12</b>
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<b>Propose strategies to identify stakeholders &amp; build coalitions &amp; partnerships for influencing public health outcomes</b>	Propose strategies to identify stakeholders & build coalitions & partnerships for influencing public health outcomes. Recognize the importance of community involvement and buy-in as being instrumental to promoting community change and improvement.	<b>F13</b>
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<b>Advocate for political, social or economic policies &amp; programs that will improve health in diverse populations</b>	Engage in advocacy efforts that promote changes in political, social or economic policies & programs (local, state, federal, or international) with the intention to improve health in diverse populations.	<b>F14</b>
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<b>Evaluate policies for their impact on public health &amp; health equity</b>	Evaluate policies for their impact on public health & health equity. Consider how groups are affected by policies, including both intended and unintended changes.	<b>F15</b>
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**Leadership**

<b>Apply principles of leadership, governance &amp; management including creating a vision, empowering others, fostering collaboration &amp; guiding decision making</b>	Consider the role of leaders and managers in influencing the successful implementation of public health interventions, projects, policies and programs. Understand how leaders can act to empower others and promote cooperation and collaboration.	<b>F16</b>
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<b>Apply negotiation &amp; mediation skills to address organizational or community challenges</b>	Guide conversations addressing community or organizational challenges. Use discussion skills that help resolve conflicts and promote collaboration.	<b>F17</b>
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**Communication**

<b>Select communication strategies for different audiences &amp; sectors</b>	Consider the needs and usual practices of the audience when determining how to communicate with different groups. Use language that is familiar and understandable, and venues or methods of delivery (i.e., social media, press releases, etc...) the best fit the circumstances.	<b>F18</b>
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<b>Communicate audience-appropriate public health content, through both written &amp; oral presentation</b>	Communicate using words and images that are effective, accessible and understandable for each audience.	<b>F19</b>
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<b>Describe the importance of cultural competence in communicating public health content</b>	Describe the importance of interacting effectively with people of different cultures and ensuring that different groups can easily relate to and apply public health information.	<b>F20</b>
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**Interprofessional Practice**

<b>Perform effectively on inter-professional teams</b>	Perform effectively on inter-professional teams by minimizing the use of professional jargon, respecting the roles and background of other professions, and finding common ground to promote community health.	<b>F21</b>
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**Systems Thinking**

<b>Apply systems thinking tools to a public health issue</b>	Examine problems in depth and provide an action plan for a public health issue. Understand the interaction and influence of different levels (cellular, individual, group, organizational, environmental, etc..) and how making changes in any one of these areas can trigger changes elsewhere.	<b>F22</b>
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<b>Concentration Specific Competencies</b>		
<b>Biostatistics and Data Science</b>		
<b>MPH-BDS</b>		
<b>Translate mathematical and statistical foundations to biostatistics</b>	Be able to apply mathematical and statistical theories and practices to promote the appropriate and effective use of public health data.	<b>BDS 1</b>
<b>Design and critically evaluate study protocols in the health sciences</b>	Identify strengths and weaknesses of evaluation and study designs in public health, including analyzing the extent to which various methods address internal validity, external validity, translation to public health practice, and appropriateness for the public health context. Design and select methods appropriate to the practice experience setting.	<b>BDS 2</b>
<b>Design and apply comprehensive data management strategies for health-related studies</b>	Be able to engage in data management strategies (i.e., cleaning, merging, reliability/validity assessment, security, transformation, coding, and code book development) that promotes effective use of data in public health settings.	<b>BDS3</b>
<b>Identify and apply suitable statistical methods for data analyses</b>	Select and apply statistical methods in public health practice settings which are both appropriate for the measurement and context of the data, as well as useful for the practice setting.	<b>BDS4</b>
<b>Effectively communicate statistical information to health practitioners and professionals</b>	Demonstrate the ability to communicate statistical findings through written, oral, and data visualization/graphical methods to promote the utility, use, and understandability of data in public health practice settings.	<b>BDS5</b>
<b>Maternal and Child Health</b>		
<b>MPH-MCH</b>		
<b>Identify the unique life course, biological, sociocultural, and behavioral assets and challenges of public health practice with women, children and families</b>	When addressing the health of women, children and families, consider all aspects and stages of life. Recognize that health is influenced by many life circumstances and can span decades and cross generations.	<b>M1</b>
<b>Critique and evaluate existing public health interventions or policies for their appropriateness and implications for women, children and families</b>	Consider how policies, programs, and interventions may have a unique influence or impact on women, children and families. Carefully critique how interventions have been designed and tested, and consider the extent to which it is appropriate for women, children and families.	<b>M2</b>
<b>Describe the historical landmark policies that have influenced public health practice in maternal and child health</b>	Throughout history, be able to identify policies and practices that have had an influence, positive or negative, on the health and wellbeing of women, children and families.	<b>M3</b>
<b>Develop an advocacy plan that engages a community in improving maternal and child health outcomes</b>	When trying to improve the health of women, children and families in a community, use strategies that involve community members and promote collective action and advocacy towards change.	<b>M4</b>
<b>Describe a maternal and child issue in terms of time, magnitude/severity, scope, dispersion/location, and co-occurrence/co-morbidity</b>	Be able to fully understand an issue that affects women, children and family. Describe the issue in terms of how long it has occurred, who is experiencing the issue, how many people are affected, what other factors complicate, the issue, and how impactful it is.	<b>M5</b>
<b>Epidemiology</b>		
<b>MPH-EPI</b>		
<b>Describe public health issues in terms of person, place, and time from social, environmental, population, and individual perspectives</b>	Use a variety of ways to describe public health issues, including how they impact individuals, groups, communities and populations. Consider how the environment, social circumstance and behaviors play a role in these issues; as well as how the issue has changed over time.	<b>E1</b>

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<b>Identify and use sources of epidemiologic information and knowledge as a basis for sound research, decision-making, and data-driven public health practice</b>	Use data that has been collected in a systematic and scientific way to help support decisions that have an influence on the health of the public. These may include monitoring of health outcomes, disease spread, and surveys of representative groups of people, among others.	<b>E2</b>
<b>Construct suitable study designs</b>	When designing a study to better understand a public health issue, select research methods that have the fewest limitations and are the most appropriate for the situation. Wherever feasible, ensure that the strengths of the study outweigh the weakness.	<b>E3</b>
<b>Interpret and communicate the results of analysis to ensure the effective application of epidemiologic methods</b>	Clearly describe how research or evaluation methods were used and why particular methods of analysis were chosen. Explain how results were interpreted and draw only those conclusions that are appropriate for the methods and circumstances.	<b>E4</b>
<b>Always demonstrate strong ethics in the collection, maintenance, use, and dissemination of data used for public health practice</b>	Be mindful of how public health research and evaluation methods, strategies and results can potentially result in harm. Use a strong ethical framework to consider these implications in all stages of data collection, interpretation and distribution.	<b>E5</b>
<b>Public Health Leadership</b>		
<b>MPH-PHL</b>		
<b>Critique and integrate theories of leadership into personal philosophy of leadership</b>	Be knowledgeable of desirable leadership qualities in public health and evidence associated with effective organizational and community change strategies. Develop a personal leadership philosophy based on reflection of strengths, and observation of leaders. Demonstrate how a leadership philosophy may influence policy development, community engagement, and program development and implementation.	<b>PHL1</b>
<b>Integrate principles of diversity and inclusivity into organizational goals.</b>	Reflect on the extent to which diverse groups have historically and currently participate in equitable and inclusive decision-making in organizational settings. Describe and engage in effective communication strategies which promote partnership and commonality of purpose among organizational and community groups. Develop plans that build on the strengths of all partners to address a public health issue, and ensures inclusion and equitable participation of diverse groups and individuals.	<b>PHL2</b>
<b>Make policy recommendations at the organizational, local, state, or federal-level to improve population and community health.</b>	Understand how local, state and federal policies influence a practice environment including how they affect consumers, stakeholders, practitioners, and systems of care. Consider how changes in policies may have the capacity to improve community health and identify strong empirical evidence to support policy recommendations.	<b>PHL3</b>
<b>Demonstrate leadership's role in identifying sources of risk and developing mitigation strategies in the implementation of a public health plan.</b>	Use multiple sources of information (consultation, evidence, historical data) to assess risks, develop plans to reduce risks, and increase capacity to respond to urgent organizational and public health concerns.	<b>PHL4</b>
<b>Apply quality and leadership concepts to address organizational practices.</b>	Understand organizational change strategies and how data, communication, and stakeholder collaboration are used to influence decisions that result in improved processes and overall performance. Make recommendations to enhance organizational monitoring, coordination and evaluation practices.	<b>PHL5</b>