

**2.6 Required Competencies.** For each degree program and area of specialization within each program identified in the instructional matrix, there shall be clearly stated competencies that guide the development of degree programs. The program must identify competencies for graduate professional, academic and baccalaureate public health degree programs. Additionally, the program must identify competencies for specializations within the degree programs at all levels (bachelor's, master's and doctoral).

- a. Identification of a set of competencies that all graduate professional public health degree students and baccalaureate public health degree students, regardless of concentration, major or specialty area, must attain. There should be one set for each graduate professional public health degree and baccalaureate public health degree offered by the program (eg, one set each for BSPH, MPH and DrPH).**

Competencies used by the program since 2007 were those from Association of Schools of Public Health (ASPH) Education Committee Master's Degree in Public Health Core Competency Development Project competencies, Version 2.3. These were replaced in 2015 by 12 core competencies and 7 generalist track competencies developed in consultation with core faculty in the MPH program.

| <b>Core Competencies</b>   |
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| Use basic techniques and statistical software to access, evaluate, and interpret health data.  |
| Apply analytic reasoning and methods.  |
| Interpret scientific and statistical results, including the strengths and limitations of scientific articles.  |
| Explain characteristics, strengths and limitations of epidemiological study design types.  |
| Apply behavioral health theories/models in developing community health promotion and intervention programs, and applications for research funding.                 |
| Apply principles of strategic planning to public health, including continuous quality improvement, leadership, teamwork, systems thinking, and social marketing.   |
| Assess associations found between environmental hazards and health outcomes to influence environmental policies designed to protect populations.                   |
| Apply principles of program planning, development, implementation, management, and evaluation in organizational and community initiatives.                         |
| Use collaborative strategies in the design of policies, interventions, and programs.   |
| Communicate public health information to lay and professional audiences, using appropriate channels and technologies and with linguistic and cultural proficiency. |
| Demonstrate ability to use credible evidence and rationale to guide well-reasoned decisions, proposals, and attitudes.   |
| Use individual, team and organizational learning opportunities for personal and professional development.  |

- b. Identification of a set of competencies for each concentration, major or specialization (depending on the terminology used by the program) identified in the instructional matrix, including professional and academic graduate degree curricula and baccalaureate public health degree curricula.**

The seven competencies for the courses that comprise the generalist MPH degree track (Public Health Practice and Issues, Grant Writing for Public Health Practice, and Public Health Research and Evaluation) are included in this table below.

| <b>Generalist Competencies</b>  |
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| Prepare proposals for funding from external sources.  |
| Demonstrate the ability to design, implement and execute a research protocol.   |
| Consider the role of cultural and social factors in the planning and delivery of public health services and interventions.  |
| Demonstrate critical evaluation of ethical values, theories, and principles that guide public health inquiry and decision-making.   |
| Analyze the public health information infrastructure used to collect, process, maintain, and disseminate data in order to allow for decision-making at an administrative level. |
| Apply theory and strategy-based communication principles adapted to different contexts.   |
| Explain how biological, chemical, and physical agents affect human health.  |

- c. A matrix that identifies the learning experiences (eg, specific course or activity within a course, practicum, culminating experience or other degree requirement) by which the competencies defined in Criteria 2.6.a and 2.6.b are met. If these are common across the program, a single matrix for each degree will suffice. If they vary, sufficient information must be provided to assess compliance by each degree or specialty area. See CEPH Data Template 2.6.1. d. Analysis of the completed matrix included in Criterion 2.6.c. If changes have been made in the curricula as a result of the observations and analysis, such changes should be described.**

The matrix on the next page illustrates where the competencies are addressed in the curriculum. On each course syllabus, the core competencies are identified how it is achieved by assignment, and they are cross-mapped with the learning objectives in the course. The course syllabi with the listings are in Appendix 2.3.

**Table 2.6.1. Courses and other learning experiences by which the competencies are met**

| <b>Core Competencies</b>  | MPH 601*<br>Public Health Concepts | MPH 604<br>Biostatistics in Public Health | MPH 602<br>Social & Behavioral Sciences in Public Health | MPH 603<br>Epidemiology in Public Health | MPH 605<br>Health Services Administration in Public Health | MPH 606<br>Environmental Health Sciences in Public Health | MPH 691<br>Grant Writing for Public Health Practice | MPH 608<br>Public Health Practice & Issues | MPH 609<br>Public Health Research & Evaluation |
|---|------------------------------------|---|--|--|--|---|---|--|--|
| Use basic techniques and statistical software to access, evaluate, and interpret health data  |                                    | X   |  | X  |  |   |   |  |  |
| Apply analytic reasoning and methods  |                                    | X   |  | X  |  |   |   |  |  |
| Interpret scientific and statistical results, including the strengths and limitations of scientific articles  | X                                  | X   |  | X  |  |   |   |  | X  |
| Explain characteristics, strengths and limitations of epidemiological study design types  |                                    |   |  | X  |  |   |   |  |  |
| Apply behavioral health theories/models in developing community health promotion and intervention programs, and applications for research funding                 |                                    |   | X  |  |  |   |   |  |  |
| Apply principles of strategic planning to public health, including continuous quality improvement, leadership, teamwork, systems thinking, and social marketing   |                                    |   |  |  | X  |   |   |  |  |
| Assess associations found between environmental hazards and health outcomes to influence environmental policies designed to protect populations                   |                                    |   |  |  |  | X   |   |  |  |
| Apply principles of program planning, development, implementation, management, and evaluation in organizational and community initiatives                         | X                                  |   | X  |  | X  |   | X   |  |  |
| Use collaborative strategies in the design of policies, interventions, and programs   |                                    | X   | X  |  | X  |   | X   | X  |  |
| Communicate public health information to lay and professional audiences, using appropriate channels and technologies and with linguistic and cultural proficiency | X                                  | X   | X  | X  | X  | X   | X   | X  |  |
| Demonstrate ability to use credible evidence and rationale to guide well-reasoned decisions, proposals, and attitudes   | X                                  | X   | X  | X  | X  | X   |   | X  | X  |
| Use individual, team and organizational learning opportunities for personal and professional development  | X                                  | X   | X  | X  | X  | X   |   | X  |  |

\*CSU course numbers are used

| <b>Generalist Competencies</b>   | MPH 601<br>Public Health Concepts | MPH 604<br>Biostatistics in Public Health | MPH 602<br>Social & Behavioral Sciences in Public Health | MPH 603<br>Epidemiology in Public Health | MPH 605<br>Health Services Administration in Public Health | MPH 606<br>Environmental Health Sciences in Public Health | MPH 691<br>Grant Writing for Public Health Practice | MPH 608<br>Public Health Practice & Issues | MPH 609<br>Public Health Research & Evaluation |
|--|-----------------------------------|---|--|--|--|---|---|--|--|
| Prepare proposals for funding from external sources  |                                   |   |  |  |  |   | X   |  |  |
| Demonstrate the ability to design, implement and execute a research protocol   |                                   |   |  |  |  |   |   |  | X  |
| Consider the role of cultural and social factors in the planning and delivery of public health services and interventions  |                                   |   |  |  | X  |   |   | X  |  |
| Demonstrate critical evaluation of ethical values, theories, and principles that guide public health inquiry and decision-making   | X                                 |   |  |  |  |   | X   | X  |  |
| Analyze the public health information infrastructure used to collect, process, maintain, and disseminate data in order to allow for decision-making at an administrative level |                                   |   |  |  | X  |   |   | X  |  |
| Apply theory and strategy-based communication principles adapted to different contexts   |                                   |   |  |  | X  |   |   | X  |  |
| Explain how biological, chemical, and physical agents affect human health.   |                                   |   |  |  |  | X   |   | X  |  |

**d. Analysis of the completed matrix included in Criterion 2.6.c. If changes have been made in the curricula as a result of the observations and analysis, such changes should be described.**

The new competencies were finalized in spring 2015 and were incorporated starting summer 2015, so faculty are just starting to use them. However, the students appreciate having only 19 total competencies. Faculty are trying to find ways to incorporate competencies into their courses. It is anticipated that adjustments to competencies will be made in the first few years.

**e. Description of the manner in which competencies are developed, used and made available to students.**

Competencies were addressed during the October, 2013 kick-off sessions. Suggestions for potential competencies for the program were incorporated into the webinar that focused on the development of competencies. Key aspects and iterations of competencies were discussed at every committee meeting, including the Curriculum, Program Coordinating Council, Office of Public Health Practice, and Faculty Appointments and Development Committees. The program faculty and course directors were asked to identify one or two competencies they deemed critical to the program's curriculum in general and their area in particular. In this manner, the twelve (12) core (12) competencies and seven (7) generalist track competencies were identified. Faculty teaching the generalist courses were asked to identify the generalist track competencies.

Students encounter the competencies throughout the MPH course of study:

- During orientation, students are introduced to these public health competencies.
- During each core course, the student receives a syllabus with a listing of the competencies that are covered in the course.
- When student complete course evaluations course learning objectives and faculty performance are rated; in addition, students also mark the competencies they achieved in the course.
- Students are assessed on competencies during the Capstone Project I assessments, which are performed mid-program. Feedback on how the student has demonstrated the competencies is provided so that they can strengthen their skills during their capstone project.
- When students develop their proposal for their capstone project, they must first determine which competencies they wish to develop further. They complete the preparation modules and then fill out a template indicating the competencies that they will achieve during the project. This is submitted as part of the C3P20 modules in Appendix 2.5.a.
- At the end of the program, students include in their e-portfolios the "End of the Program Public Health competencies Template." They indicate the competencies that they have achieved during each course in the program. The template is located in Appendix 2.6.d.
- Students have access to information regarding use of competencies throughout their course of study in the CEOMPH program <http://mph.neomed.edu/academics/exit-presentation-capstone>

**b. Description of the manner in which the program periodically assesses changing practice or research needs and uses this information to establish the competencies for its educational programs.**

Committee members discuss student progress and abilities. For example, in a Program Coordinating Council meeting and faculty meeting, members felt that students should improve

their writing skills. An ad hoc committee was constituted, and strategies were put in place to incrementally help students with writing. For example, TurnItIn is being used regularly in three courses. The Office of Public Health Practice is often asked about public health student and graduate competencies. Communication skills were considered important, including social networking communication. A social networking exercise was included in Public Health Concepts as a result of this suggestion, and the language of the competency on communication was broadened.

**c. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plan relating to this criterion.**

**This criterion is met.** CEOMPH has focused competencies in the program and integrated them in syllabi and assessments.

**Strengths:** Students are introduced to competencies at the beginning, middle, and end of the program. The competencies are used in each course, are assessed in the Capstone Project I competency assignments, and self-evaluated at the end of the program.

**Weaknesses:** The competencies are still somewhat new. Faculty are still adjusting to using them and assuring that students achieve them.

**Plan:** Faculty will be assisted on adjusting to the new competencies. Student feedback on how whether they are achieving the competencies will be important to review.

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