Maternal and Child Health Epidemiology
Fellowship Competency Guidelines

Background

Since the enactment of the federal Omnibus Reconciliation Act (OBRA) in 1989, professionals at both the federal and state levels have made considerable effort to enhance states' capacity to employ strategic planning—not only to comply with mandated uniform reporting requirements, but also to track progress toward achieving nationally defined and state-specific health goals.

CDC, HRSA, CSTE, AMCHP, and CityMAtCH agree that the development of epidemiology capacity within states is a top priority. The CDC/CSTE cooperative agreement that established the MCH Epidemiology Fellowship Program is a clear indication of intent for these agencies to work as partners to move forward in this effort. Development of the core competencies for the MCH Epidemiology Fellowship program provides an opportunity to demonstrate the commitment to work in collaboration with all of the stakeholders in this initiative.

Much thought has been given over the past decade to what these competencies should be. The interagency committee assigned to develop them for the CSTE MCH Epidemiology Fellowship program has been fortunate to be able to draw on work already done in this area by experts in the academic setting as well as those in the federal agencies and in the state and local programs. The competencies proposed here represent a sincere effort to ensure that academic, federal, state, and local views are accurately represented.

Premise

In 1996, researchers from the University of Illinois at Chicago School of Public Health (UICSPH) conducted a case-study evaluation of the extent to which the CDC/HRSA Maternal and Child Health Epidemiology Program (MCHEP), begun in 1987, had been effective in building MCH epidemiology capacity. To do this they compared five states with MCHEP assignees with four states that did not have such assignees along a number of dimensions. Of particular relevance to our purpose is their finding that

"there appears to be great value in having a highly skilled leader present in state health agencies to coalesce analytic activities and promote the use of data for decision-making on behalf of the MCH population. …. The single factor most inhibiting the further development of analytic capacity was the lack of a designated MCH epidemiologist. Without such leadership, analytic efforts often do not take place at a level which enables a state to make a decision based on data, or are not part of an overall coordinated plan for science-based decision making."[1]

We use this observation as a premise for the competencies proposed here. In developing them we were guided by the UICSPH findings, by the competencies used by CDC for its EIS officers, and by those proposed by the Association of Teachers of Maternal and Child Health, and by the shared experiences of the interagency committee designated by CSTE to complete this task. Below, we place the competencies in the context of a goal-objective format. We start by proposing a primary goal and a set of related objectives. We then outline the competencies in three domains: Process, Communication, and Professionalism.

Goal

The primary goal of the CSTE/CDC MCH Fellowship program is to build the capacity of state and local health departments to use the professional skills and the population-based focus of epidemiology to enhance the ability of MCH programs to carry out the activities of the MCH planning cycle. The intent is to increase, through this key relationship, the agency's capacity to carry out the core functions of public health.

Objectives for assignees during years 2-5

1. To work as a key team member with the State MCH program to enable it to carry out the assessment, program planning, program monitoring, evaluation, and policy development activities of the MCH planning cycle.

2. To promote, through advocacy and by demonstration of feasibility, the state's commitment to strengthening data resources that are necessary to establish a comprehensive MCH surveillance system

3. To work with the state MCH program to institutionalize the use of scientific data analysis as the basis for decision-making on behalf of the MCH population

4. To assist in developing strategic plans that are driven by the MCH needs and priorities of the State and that are endorsed by the state's MCH program

5. To assist the State MCH program in developing uniform reporting practices as required by the Title V MCH Block Grant to States

6. To translate data into information and to engage in its dissemination

7. To provide technical support for state and local health departments

8. To conduct relevant research projects, including innovative pilot and intervention studies designed to improve the health of the MCH populations of the state

9. To strengthen the relationship between four key players: CSTE, CDC, HRSA, and the State

Key Learning Experiences
The assignee will:

1. Review with appropriate agency staff indicators of the overall health status of the maternal, infant, child, and adolescent populations of the state to which he/she is assigned. (S)he will compare these indicators with national and (where possible) regional benchmark data, and will ascertain their relevance to the Year 2000 and Year 2010 national health objectives. (1)

2. In consultation with the MCH Director, the Director of Epidemiology, and/or their designated staff, review the priority health needs for the State of assignment that were submitted to the Maternal and Child Health Bureau in July, 2000 in fulfillment of the requirements for the Title V Comprehensive Five-Year Needs Assessment. (5, 9)

3. Develop a thorough knowledge of the role played by HRSA and the Maternal and Child Health Bureau, CDC, HCFA, and the assigned State's government in efforts to improve the health of the MCH populations. Will demonstrate a clear understanding of the Title V Block Grant, it's scope, its purpose, its reporting requirements, and how it is generally managed in the State of assignment. (1, 9).

4. Design and share with key agency personnel a conceptual model of the data and information resources that will be needed to measure progress toward achieving the short-term and longer-term goals that are consistent with the priority needs identified in the Title V Comprehensive Needs Assessment. (1 – 7).

5. In consultation with the appropriate agency staff, identify existing as well as missing data resources that are needed to develop the ongoing capacity to monitor and report on progress toward achieving the MCH needs and priorities of the State. In this way the assignee will serve as a bridge between programs, departments, and agencies that have a role in maternal and child health to promote the utilization of existing resources and the acquisition of new ones. (2, 7).

6. In consultation with the MCH Director and his/her staff in the assigned State and using appropriate methods, complete a formal evaluation of one of the State's MCH programs or initiatives, using CDC guidelines or others that the State may recommend. The assignee will write a summary report of this evaluation and present it to the appropriate agency state and to the CSTE. (3, 7, 8, 9).

7. Design, implement, or evaluate a public health surveillance system used (or to be used) by the state to which (s)he is assigned. The assignee will write a report and make a formal presentation of findings to the appropriate agency staff and to the CSTE. (1 – 9).

8. Participate in the CSTE annual conference and an additional national conference of peers, such as the ones sponsored by AMCHP or MICHEP. The assignee will give an oral presentation or conduct a poster session at one or more of these conferences. (6, 8, 9)

A. Competency Domain A--Epidemiologic Process

Critical Competencies: The assignee will:

1. Address one or more problems of public health importance to the State MCH population in the areas of health surveillance, program planning and evaluation, policy development, or some combination of these three core functions.

2. Design scientific investigations that are consistent with the nature and significance of the problem and that support the activities of the MCH planning cycle.

3. Formulate testable hypotheses that reflect knowledge of the problem and an appreciation of the principles of applied research.

4. Conduct literature reviews that are consistent with the problems identified for study.

5. Conduct scientific investigations that are consistent with the developed hypotheses and study design.

6. Share the results of these investigations and summarized literature reviews with agency staff and with colleagues at national conferences and, if appropriate, in peer-reviewed journals.

7. Assist in organizing and managing population-based and program-specific MCH data in a manner that permits efficient and accurate analyses and reports.

8. Interpret results of scientific investigations in a manner that is consistent with the data and relevant study details (e.g., limitations due to study design).

9. Recommend logical and practical public health actions that are consistent with the interpretation of the scientific investigation and with the integration of applied research into public health practice.

10. Use computers and contemporary computer software appropriately to apply the epidemiologic process efficiently and accurately; integrate epidemiologic, statistical, and computer resources when appropriate.

B. Competency Domain B--Communication

Critical Competencies: The assignee will:

1. Prepare written reports and deliver verbal reports that are accurate, clear, concise, logical, and thorough.

2. Give extemporaneous answers to questions during a presentation or media interview that are accurate and constructive and that demonstrate expert knowledge of the subject of the presentation or interview.

3. Keep accurate and thorough written documentation in support of the MCH planning cycle, especially as it relates to tracking performance, health status, and outcome measures.

4. Make sure that appropriate persons in the agency (e.g., supervisor, MCH Director and staff) informed of important events.

5. Establish and maintain effective relationships with others to promote productive teamwork, to provide a resource of professional expertise, and to serve as an effective communication link between MCH program, policy, analytic, and technical staff.

C. Competency Domain C--Professionalism

Critical Competencies: The assignee will:

1. Assume a leadership role when appropriate.

2. Fulfill professional responsibilities regarding quantity, quality, and punctuality of work in a manner that reflects motivation, initiative, and creativity.

3. Use planning and organizing skills to set time and resource priorities in a manner that balances personal, training, and organizational needs.

4. Show professional judgment by making decisions and initiating action after a clear and rational consideration of pertinent data and possible consequences.

5. Demonstrate the ability to work both independently and as a contributing member of a team.

6. Work calmly under pressure, maintain composure during stressful situations, and, where possible, demonstrate the ability to adapt to unexpected events in the course of professional activities.

7. Grow in professional role by evaluating own learning needs (through assessing own strengths/weaknesses) and initiating action to meet these needs.

8. Work with supervisor to clarify, validate, evaluate, and extend own ideas; integrate constructive suggestions when appropriate.

References

1. Geller S, Handler A, Kennelly J. Case-study evaluation CDC/HRSA Maternal and Child Health Epidemiology Program (MCHEP) 1990-1996. University of Illinois at Chicago, School of Public Health, March, 1998.

2. Centers for Disease Control and Prevention. MCH Assignee Development Guidelines. 1998.