

13-02

## STATEMENT OF POLICY

### Applied Epidemiologist Competencies

#### Policy

The National Association of County and City Health Officials (NACCHO) strongly supports incorporating applied epidemiologist competencies into both the academic curricula used by schools of public health to train epidemiologists and particularly by governmental health departments for use in position descriptions and capacity assessment.

#### Justification

During 2004–2006, the Council of State and Territorial Epidemiologists (CSTE) and the Centers for Disease Control and Prevention (CDC) convened a diverse expert panel comprised of personnel from CSTE, the CDC, local, state, and federal public health agencies, and schools of public health. The panel solicited input from a variety of sources and developed applied epidemiologist competencies that define the practice of epidemiology and are necessary for applied epidemiologists to function well in the field.<sup>1</sup> The applied epidemiologist competencies were developed within the framework of the Core Competencies for Public Health Professionals, a product of the Council on Linkages between Academia and Public Health Practice, and thus are consistent with the larger field of public health practice.

The most recent Epidemiology Capacity Assessment survey, conducted by CSTE in 2009, found that 57 percent of state-level epidemiologists had degrees in epidemiology; 29 percent had other formal training or academic coursework in epidemiology; and, 13 percent had neither formal training nor academic coursework.<sup>2</sup> CSTE developed guidelines for the knowledge, skills, and abilities that epidemiologists should possess for health departments to effectively recruit and retain workers, inform administration about the value of epidemiologists, and assess epidemiologic capacity. The factors that led to the development of the guidelines are (1) the recognition that epidemiology is one of the core disciplines of public health; (2) concern about other stresses on the field in recent years, including reductions in the number of epidemiologists at both the state and local levels;<sup>3, 4, 5</sup> and (3) increased demand due to public health emergency preparedness activities.

The applied epidemiologist competencies are a four-tiered structure, ranging from competencies expected of those newly graduated with a master's in public health to those of a senior scientist. The competencies consist of eight skill domains, with subsections to each domain.<sup>6</sup> The applied epidemiologist competencies also can be used as guidelines for a career ladder for governmental epidemiologists (with sample job descriptions) and provide a structure for capacity assessment and building.<sup>7</sup>



While the Association of Schools of Public Health does list competencies that students in masters of public health programs should attain during their training,<sup>8</sup> these competencies do not adequately reflect the circumstances often found in applied epidemiology practice. In addition, they represent beginning-level skills, not the skills that a more advanced practitioner should possess. Incorporation of the applied epidemiologist competencies into masters of public health curricula and use of those competencies by governmental public health agencies will provide coordination between those who teach public health professionals and those who hire them. In addition, the applied epidemiologist competencies will provide a framework for practice organizations to develop position descriptions and career ladders for epidemiologists, which may help promote retention of epidemiologists.

## **References**

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- <sup>2</sup> The Centers for Disease Control and Prevention. (2009). Assessment of epidemiology capacity in state health departments – United States 2009. *Morbidity and Mortality Weekly Report*, 58(49), 1373-1377. Retrieved Nov. 30, 2012, from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5849a1.htm>.
- <sup>3</sup> Association of State and Territorial Health Officials. (2008). 2007 State Public Health Workforce Survey Results. Retrieved May 2, 2012, from <http://www.astho.org/Display/AssetDisplay.aspx?id=500>.
- <sup>4</sup> National Association of County and City Health Officials. (2010). 2010 National Profile of Local Health Departments.
- <sup>5</sup> Association of State and Territorial Health Officials. (2004). State Public Health Employee Worker Shortage Report: A Civil Service Recruitment and Retention Crisis. Retrieved May 2, 2012, from <http://www.astdn.org/downloadablefiles/ASTHWorkersShortage.pdf>.
- <sup>6</sup> Council of State and Territorial Epidemiologists. (2006). CDC/CSTE Applied Epidemiology Competencies. Retrieved April 30, 2012, from [http://www.cdc.gov/AppliedEpiCompetencies/downloads/Applied\\_Epi\\_Comps.pdf](http://www.cdc.gov/AppliedEpiCompetencies/downloads/Applied_Epi_Comps.pdf).
- <sup>7</sup> Centers for Disease Control and Preventions. (2008). Competencies for Applied Epidemiologists in Governmental Public Health Agencies. Retrieved Dec. 28, 2012, from <http://www.cdc.gov/AppliedEpiCompetencies>.
- <sup>8</sup> Association of Schools of Public Health. (2006). ASPH Education Committee. Master's Degree in Public Health Core Competency Development Project, Version 2.3. Retrieved May 2, 2012, from <http://www.asph.org/userfiles/Version2.3.pdf>.

## **Record of Action**

*Proposed by Epidemiology Workgroup with Workforce and Leadership Development Committee*  
*Approved by NACCHO Board of Directors*  
*February 27, 2013*