

## Describing the Local Public Health Workforce: Workers who Prevent, Promote, and Protect the Nation's Health



### Introduction

This white paper describes the local public health workforce necessary to provide the services of a functional local health department (LHD) and the occupations that exist in LHDs. LHDs offer public health services and programs that protect and advance the health and well-being of communities. The following public health activities cannot be carried out by LHDs without an adequate local public health workforce.

- Assess community health needs by conducting community health assessments;
- Offer nutritional and healthy lifestyle tips to reduce obesity and chronic diseases in the community;
- Conduct blood pressure and cancer screenings;
- Educate students and community members on health-related topics;
- Provide HIV/AIDS testing and pregnancy counseling;
- Distribute infectious disease vaccines and provide routine immunizations;
- Enforce local health regulations, including food safety, air pollution, drinking water, and waste management;
- Conduct food establishment inspections and make reports available to community;
- Inspect local work facilities for basic safety standards to prevent injury and eliminate hazards;
- Prepare emergency preparedness response and recovery plans for the community;
- Offer smoking cessation classes;
- Test homes for radon and lead;
- Make water testing kits available for private wells;
- Provide health alerts to the media and community;
- Investigate cases of foodborne illness and communicable disease and prevent further spread in the community;
- Respond to emergencies;
- Identify initiatives to improve community health;
- Collaborate with community partners to improve person and population health;
- Maintain birth and death certificates and provide vital records statistics for the community;
- Provide vector control and mosquito spraying to reduce vector-borne diseases; and
- Collect and analyze data to evaluate the overall health of the community.

A number of factors—resources available, capacity, authority to perform certain services, and the composition of the populations served—contribute to the variability of how LHDs operate. These factors also affect the types of occupations employed at LHDs. While one community might find it necessary to employ a certain occupational worker at its LHD—for instance, a tropical disease specialist—another LHD in a very different geographic location might not find it practical or useful to employ this particular position. Not all of the occupations described below will be employed at every LHD; rather, each LHD should strive to employ the occupations necessary to meet the needs of their community.

### Who is the LHD workforce and what do they do?

The local public health workforce is a collection of individuals from various academic backgrounds, professional experiences, and credentials who unite around the common goal of improving and protecting the health of communities. The public health field focuses on doing the greatest good for the greatest number of people. As a result, the public health workforce seeks to improve and protect health through a whole community approach rather than an individual person approach. At the local level, LHDs connect with communities by recognizing and addressing the health needs that are unique to the populations they serve.

Although public health policies and programs are created and largely funded at national and state levels, the local level is where direct public health services are often implemented and carried out. In 2009 and 2010, LHD workers across the country were responsible for tracking H1N1 influenza cases and distributing millions of vaccines to members of their communities. LHD workers advocate for smoke-free environments and protect workers from occupational hazards. They seek to reduce obesity by encouraging healthy lifestyles that incorporate proper nutrition and adequate physical activity. They prepare and respond to bioterrorism and natural disasters, such as hurricanes, floods, and winter storms.

In addition to the population-based approach, another distinct characteristic of the public health workforce is its focus on

prevention. The work is grounded by a proactive approach that seeks to avoid or delay the onset of disease, therefore keeping people healthy and productive longer. As the U.S. population ages, a large portion of public health work is dedicated to limiting sickness and death associated with chronic diseases. Chronic diseases, such as heart disease, cancer, stroke, and diabetes, are among the most costly, yet most preventable health problems in the United States. Today, these diseases affect the daily lives of one in 10 Americans and cause nearly 70 percent of all deaths in the United States. The economic implications are huge—nearly 75 percent of all healthcare costs are a result of chronic conditions.<sup>1</sup> Health promotion, immunizations, disease screening, health education, promoting healthy lifestyles, and referring people to health services are some of the ways that LHDs work to reduce and eliminate the threat of these burdensome diseases.

The public health services and prevention efforts carried out by the LHD workforce directly and indirectly affect the daily lives of individuals and communities. Being disease-free and feeling healthy helps people to maintain and develop social relationships and allows them to be more productive and efficient throughout their work days. Furthermore, absenteeism and presenteeism—“showing up” for work but being less productive because of an illness—can have significant financial consequences for businesses across the country.<sup>2</sup> By providing individuals and communities with the appropriate resources and environments that encourage and promote health, the local public health workforce allows businesses to thrive, creating a strong, prosperous, and competitive nation.

## Describing the Occupations

The following section briefly describes the roles and responsibilities of 11 occupational categories that are likely to exist in an LHD. Many other occupational types can be found in LHDs; this is just a sampling of some of the more widely recognized public health professions. Each description also includes an estimate of the number of workers employed in LHDs for that particular category and presents a sample “day in the life” for each type of worker.

**Administrative/Clerical Personnel** provide support for office, business, or financial operations. They assist with internal and external communication, record keeping, and other essential administrative duties.<sup>3</sup> Approximately 36,000 administrative/clerical personnel are employed in LHDs.<sup>4</sup>

*Ann Pitsnogle is the executive assistant for the Spokane (WA) Regional Health District. On a typical day, Ann might coordinate public health officials' and community partners' schedules or answer phone calls to direct callers to the appropriate public health programs and resources.*

**Emergency Preparedness (EP) Coordinators** develop emergency preparedness, response, and recovery plans for the community. They also ensure that LHDs' emergency preparedness plans and guidelines coordinate with other organizations, such as American Red Cross; government entities, such as fire department and police; and local businesses. EP coordinators communicate these plans to the community so everyone is prepared to respond to emergencies, such as natural disasters (e.g., hurricanes, floods, earthquakes) and bioterrorism threats. EP coordinators might also evaluate and review local, state, and federal government response plans and ensure compliance with any overarching regulations.<sup>5</sup> Approximately 1,400 EP coordinators are employed in LHDs.<sup>4</sup>

*Adam DuBois is an EP coordinator at Desoto County Health Department in Arcadia, FL. On a typical day, Adam might update an evacuation plan in preparation for hurricane season.*

**Environmental Health (EH) Scientists** control, prevent, and eliminate EH hazards and evaluate EH threats through scientific investigation.<sup>3</sup> EH scientists often collect and analyze samples from water, air, and soil to assess the state of the environment. EH scientists protect natural resources and safeguard the environment. Approximately 3,200 EH scientists are employed in LHDs.<sup>4</sup>

*Bhesh Dhamala is an EH scientist at Fairfax County Health Department in Fairfax, VA. On a typical day, Bhesh gathers samples from the community air supply to ensure that air is safe for breathing.*

**Environmental Health (EH) Specialists (Sanitarians)** monitor and enforce safety and health standards and regulations related to the environment. EH specialists might be concerned with a variety of environmental health issues, such as waste removal, occupational safety and health, food safety, and water quality. EH specialists might inspect local food establishments to ensure that they meet specific health and safety standards or perform similar regulatory activities associated with water, wastewater, solid waste, and vector control. Approximately 12,000 EH specialists/sanitarians are employed in LHDs.<sup>4</sup>

*Gerald Dovel is an EH specialist for the Lord Fairfax Health District in Fairfax, VA. On a typical day, Gerald educates kitchen staff at local restaurants on how to prevent foodborne illnesses and on the importance of safer food handling practices.*

**Epidemiologists** are experts in disease surveillance. They recognize and report outbreaks and illness in the community, track trends in health status and disease, and seek to discover the source or root causes of health problems in populations.<sup>3,6</sup> Epidemiologists often design, develop, and implement public health programs and interventions to address health problems. They will also evaluate the effectiveness of these programs. Approximately 1,200 epidemiologists are employed in LHDs.<sup>4</sup>

*Ben DeJesus is an epidemiologist at Columbus Public Health in Columbus, OH. On a typical day, Ben might gather reports from laboratories, doctors, and nurses about a recent E.coli outbreak in the community.*

**Health Educators** assess, plan, implement, and evaluate health education outreach programs and interventions that are designed to encourage healthy behaviors through policy, environmental, and lifestyles changes. A health educator often collaborates with other health professionals, worksites, schools, or community organizations to prevent illness and promote healthy lifestyles. Approximately 4,400 health educators are employed in LHDs.<sup>4</sup>

*Eleshia Scholes is a health educator at the Northern Kentucky Health Department in Edgewood, KY. On a typical day, Eleshia works with a local school to assess and develop a wellness policy and plan that promotes healthy eating and physical activity during the school day.*

**Information System (IS) Specialists/Informaticians** apply information management science to improve population health and the organizational administration, evaluation, and public engagement processes that underlay that goal. They identify the knowledge management, information, and data needs of their organization and guide the development of relevant policies, practices, and tools. Approximately 1,600 IS specialists/informaticians are employed in LHDs.<sup>4</sup>

*Shawn Messick is an informatician at Multnomah County Health Department in Portland, OR. On a typical day, Shawn identifies the information and data needs of the organization and actively promotes broader stakeholder participation in the development of information management policies, technologies, and practice.*

**Local Health Officials/Managers/Directors** are the top executives at LHDs. They plan, direct, and manage public health programs, such as immunization, environmental health, and health programs for women and children. They supervise staff, enforce public health laws and regulations, and represent the LHD.<sup>5</sup> The local health official oversees the appropriate use of resources and reaches out to other leaders in state and local government.<sup>3</sup> Approximately 9,500 local health executives/managers/directors are employed in LHDs.<sup>4</sup>

*John Wiesman is a local health official in Clark County, WA. On a typical day, John works with management to measure progress on the LHD's strategic plan and prepare for the next comprehensive health improvement plan. John might also meet with the board of health or elected officials, educating them about or promoting a proposed public health policy such as banning the sale of electronic cigarettes to minors or working with school superintendents to develop school policies that support healthier nutrition.*

**Nutritionist/Dietitians** seek to prevent illness and disease related to diet and exercise. They develop and supervise programs and educate and empower people to make healthy decisions. Nutritionists may also conduct studies and surveys to evaluate the nutritional status of communities and use the

data to develop programs (educational or behavioral) to address specific health problems.<sup>5</sup> Approximately 4,300 nutritionists/dietitians are employed in LHDs.<sup>4</sup>

*Sarah Worthington is a dietitian for Active Living KC at the Kansas City Health Department in Kansas City, MO. On a typical day, Sarah works with local partners to develop food policy initiatives impacting schools or teaches cooking classes to elementary students.*

**Public Health Nurses** protect and promote the health of populations. While public health nurses may provide direct clinical services, such as immunizations and physical examinations, their focus is primarily on assessing the needs of individuals within the context of the community setting (i.e., by considering economic, social, political and environmental factors that may influence a population's health). Based on the needs assessment, a public health nurse might help develop and implement programs and interventions that improve health. Public health nurses will also evaluate these programs to ensure their effectiveness in promoting wellness and preventing disease and illness. Public health nurses help people in the community receive needed health services and gain access to care.<sup>5</sup> Approximately 33,000 public health nurses are employed in LHDs.<sup>4</sup>

*Kathy Mitchell is a Public Health Nurse at Tazewell County Health Department in Virginia. On a typical day, Kathy provides routine immunizations to children and educates new mothers about breastfeeding. As a public health nurse supervisor, Kathy also manages, coordinates, and prepares public health nursing schedules for weekly outreach activities in the community.*

**Public Health Physicians** are doctors who are specifically trained in public and population health and prevention. Public health physicians may provide medical direction, consultative services, or direct services to members of their public health team, clinical colleagues, or people in their local community, in areas such as disease investigation, tuberculosis or rabies control, chronic disease management, emergency preparedness, and other routine medical activities such as immunizations, screenings, family planning services, and many other activities within the scope of LHD health promotion and prevention. Public health physicians identify diseases or health hazards that might threaten the local community and help to develop and execute programs that prevent disease and reduce the health risks to the community.<sup>3</sup> Public health physicians are often trusted figures in the community and are called upon frequently by local media. Approximately 2,000 public health physicians are employed in LHDs.<sup>4</sup>

*Dr. John Dreyzehner is a public health physician and LHD director serving four counties in Cumberland Plateau Health District in Lebanon, VA. On a typical day, Dr. Dreyzehner consults on several different medical issues in the community, collaborates with community partners on health initiatives, and works with staff toward improvements in clinical, educational,*



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*emergency preparedness, regulatory, and administrative programs that are the responsibility of his district.*

**Public Information (PI) Specialists** communicate important health information to the public and serve as a liaison to community groups, agencies, elected officials, and the media. PI specialists commonly oversee internal communications, assist with marketing for health promotion programs and services offered by LHDs, and coordinate risk communications during emergencies and disasters. They might coordinate special events or public appearances and research presentation strategies and materials for health officials. They might also create, prepare, and edit information for various audiences and develop public relations strategies to distribute this information.<sup>5</sup> Approximately 430 PI specialists are employed in LHDs.<sup>4</sup>

*Sherri Williams is a public information specialist for Alameda County Public Health Department in Oakland, CA. On a typical day, Sherri might respond to a newspaper reporter about a recent E.coli outbreak at a middle school.*

## Other Occupations

The occupations described above are some of the more traditional or recognizable public health occupations employed by LHDs. However, many other important occupations that contribute to local public health efforts are found at LHDs. Examples of these occupations include social workers; behavioral health professionals; animal control workers; breastfeeding specialists; code enforcement officers; community health workers, such as outreach staff, case managers, and case workers; disease intervention specialists; fiscal and human resource personnel; urban planners; lawyers; health economists; biostatisticians; mental health counselors; public health dentists; public health dental hygienists; public health optometrists; public health veterinarians; and chronic disease specialists.

## Conclusion

Because public health professionals have a wide range of backgrounds, professional experiences, and credentials, their role in improving the nation's health is often misunderstood. The National Association of County and City Health Officials hopes that this report helps clarify who the local public health

workforce are and how, through their noble work, public health professionals prevent, promote, and protect the nation's health.

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