NCIOM
North Carolina Institute of Medicine

CHAPTER 1

WHAT IS PUBLIC HEALTH?

While the field of public health has received much attention throughout the COVID-19 pandemic, the scope of public health's responsibilities and activities ranges far beyond the tasks that are most visible to the public. The accomplishments of public health—sometimes called "quiet miracles" or "silent victories" because public health is both hugely influential and easily taken for granted—add years to our lives, keep us safe, and enhance our well-being and enjoyment of life.[1,2] We are all beneficiaries of the work of public health every day, when we drink clean water or enjoy a meal in a hygienic restaurant; take actions to prevent serious injuries, like wearing a helmet or seat belt; breathe pollution-free air; or take a pleasant stroll down a well-lit street on a sidewalk in our community.

While health *care* focuses on medical treatment for illness and the clinical aspects of health, particularly once we are sick, *public health* works to keep people and communities healthy by identifying and addressing problems in our environment, social dynamics, and economic systems that influence people's health and their health behaviors. Smoking, for example, is a health behavior with serious consequences. To address this, a health care provider would counsel a patient who uses tobacco on the dangers of smoking and provide support and education for quitting as well as medical care for lung damage or other harms caused by smoking. The work of public health is complementary to health care with a focus on healthful change in communities, infrastructures, regulations, and systems. For example, public health provides warnings on tobacco products and billboards educating the public about harm due to smoking; helps pass rules creating smoke-free environments and prohibiting children's access to tobacco; and staffs community "quit lines" available to the public.

Public health works in partnership with others on the federal, state, and local levels to ensure health and safety for everyone by:

- Informing policies that promote or impact health,
- Ensuring safe air, water, food, and sanitation,
- Identifying barriers to health that people may face due to where they live or aspects of their identity,
- Implementing programs to address health issues and non-medical social needs,
- Educating the public about issues that impact our health,
- Collecting and sharing important information and data about the health and well-being of populations,
- Assessing what health issues are affecting populations and developing plans to address them,
- Developing or participating in cross-sector partnerships to promote health and well-being, and
- Providing clinical health services to people who do not have access to those services elsewhere.

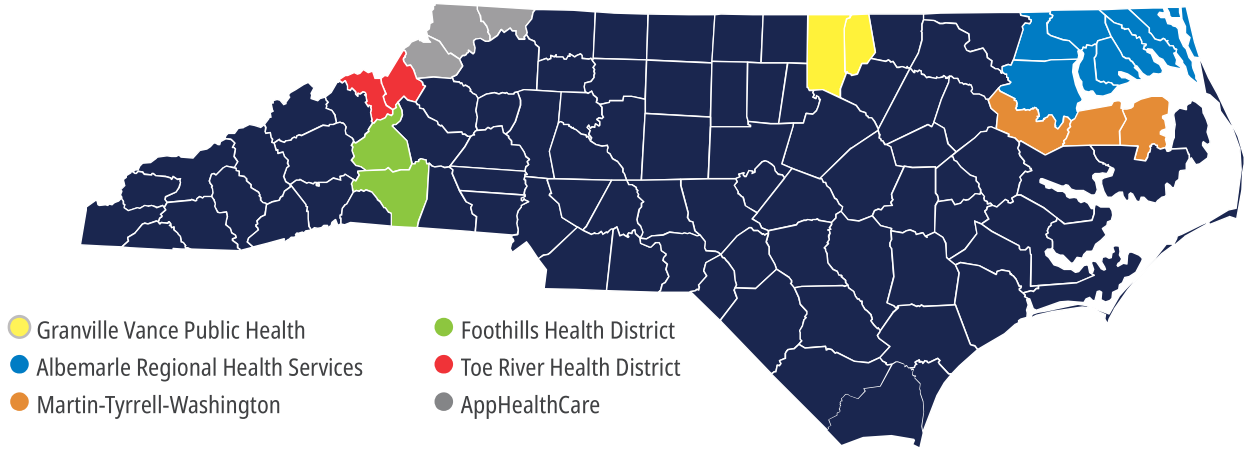
Every community in North Carolina is served by a local governmental health department or health district authority responsible for preventing the spread of disease, undertaking activities to improve health in their communities, and protecting the community from harm.[A] Some concrete examples of how local public health departments across the state achieve these goals include:

- Provision of free testing and treatment for sexually transmitted infections.[3,4]
- Inspection of restaurants, water sources, septic systems, and other locations to ensure they are safe and sanitary.[5]
- Collection of data every three to four years to learn about the most pressing health issues in the community and then development of a plan of action.[6]
- Partnerships with community-based organizations to address opioid use disorder through a variety of strategies.[7]
- Support for community residents, businesses, schools, and health care providers throughout the COVID-19 pandemic through expert advice, testing, and vaccination services.[8]

Local Public Health in North Carolina

North Carolina has a decentralized local governmental public health system with 86 local health departments serving 100 counties, each governed locally rather than at the state level. There are six district health departments throughout the state that serve two or more counties (**see Figure 1**). Each health department is served by a health director and their staff and is responsible for essential public health services codified in state statute (**see Figure 2**). The Eastern Band of Cherokee Indians has responsibility for public health services within the Qualla Boundary

Figure 1. District Health Departments in North Carolina



Source: UNC School of Government. Interactive Maps – Organization and Governance of NC Human Services Agencies. https://humanservices.sog.unc.edu/visualization-all/

[A] *While some counties may be served by a single county health department and others served by a multi-county district or authority, this report will refer to all as "health departments."*

Figure 2. Essential Services that Local Public Health Must Ensure Under North Carolina State Law

1. Monitoring health status to identify community health problems.
2. Diagnosing and investigating health hazards in the community.
3. Informing, educating, and empowering people about health issues.
4. Mobilizing community partnerships to identify and solve health problems.
5. Developing policies and plans that support individual and community health efforts.
6. Enforcing laws and regulations that protect health and ensure safety.
7. Linking people to needed personal health care services and ensuring the provision of health care when otherwise unavailable.
8. Ensuring a competent public health workforce and personal health care workforce.
9. Evaluating effectiveness, accessibility, and quality of personal and population-based health services.
10. Conducting research.

Source: NC § 130A-1.1. Mission and essential services. https://www.ncleg.gov/EnactedLegislation/Statutes/PDF/BySection/Chapter_130A/GS_130A-1.1.pdf

in Western North Carolina and works with health departments serving counties that border Tribal land. In addition, health departments often collaborate for regional initiatives to enhance and expand their reach, while also maximizing resources.

The state Division of Public Health within the North Carolina Department of Health and Human Services is the state-level health department; however, legal responsibility and authority for governance, budget, public health orders, and hiring local health officials lies with local health departments.[9] The Division of Public Health has several branches, sections, units, and programs that play a vital role in efforts to prevent disease and promote health by collaborating with local health departments, hospitals, community health centers, and community-based organizations. These include:[10,11]

- the North Carolina Vital Records Unit registers all births, deaths, marriages, and divorces in the state;
- the State Center for Health Statistics collects health-related data, conducts research, and produces reports;
- the Office of Minority Health and Health Disparities works to understand and remedy gaps in health outcomes between racial/ethnic minorities and the general population;
- the Chronic Disease and Injury Prevention Branch works with partners to decrease death and disability through provision of services, education, and policy change; and
- the Women's and Children's Health Section assures, promotes, and protects the health and development of families.

Local health departments fund their work from a variety of sources, such as federal, state, and local appropriations; health insurance payments for services provided; grants; fees; and donations. Of these sources, local health departments rely heavily on local, state, and federal funds, which vary widely across the state.

- Pre-pandemic FY2019 total expenditures for local health departments ranged from $839,000 (for a health department serving a population of around 20,000) to $76.8 million (for a health department serving a population of nearly 1.1 million).
- The percent of total expenditures for local public health services funded by county government FY2019 appropriations varies widely across the state, ranging from county appropriations constituting just 7% of a health department's total funding up to 71% of the total.
- In FY 2019-20, the North Carolina Division of Public Health had oversight of a total of $143.2 million in funds to local health departments—$93.3 million in federal funds and $49.9 million from state appropriations, most of which were earmarked for specific activities with time limits and strict parameters (e.g., prenatal care, HIV prevention).

Along with local and state health departments, public health in North Carolina is served by a variety of essential partners, such as other governmental agencies, non profits, community organizations, faith institutions, businesses, schools and academic institutions, and philanthropies. The focus of this report is on the future of local governmental public health and the strategies for reaching that future.

Public Health 3.0, 10 Essential Services, and Foundational Public Health Services

The work of local governmental public health has evolved over time. Starting in the late nineteenth century, public health focused on establishing institutions and infrastructure to improve sanitation, food and water safety, and how we understand disease.[12] This period, now nicknamed Public Health 1.0, was marked by the creation of health departments, public health statutes, sanitation systems and processes, and great improvements in life expectancy. The role of health departments in providing medical care to the uninsured also grew, to the point that a 1988 national Institute of Medicine report suggested that public health authorities were overburdened as safety-net clinical service providers, limiting their ability to focus on population-level issues and to effectively respond to increases in rates of chronic disease (such as diabetes) and new threats (such as HIV/AIDS). A stronger set of standards and professionalization of the field of public health emerged, known now as Public Health 2.0, and the first version of the 10 Essential Public Health Services was developed, adapted, and adopted widely (such as in North Carolina statute, **see Figure 2**).

Figure 3. 10 Essential Public Health Services

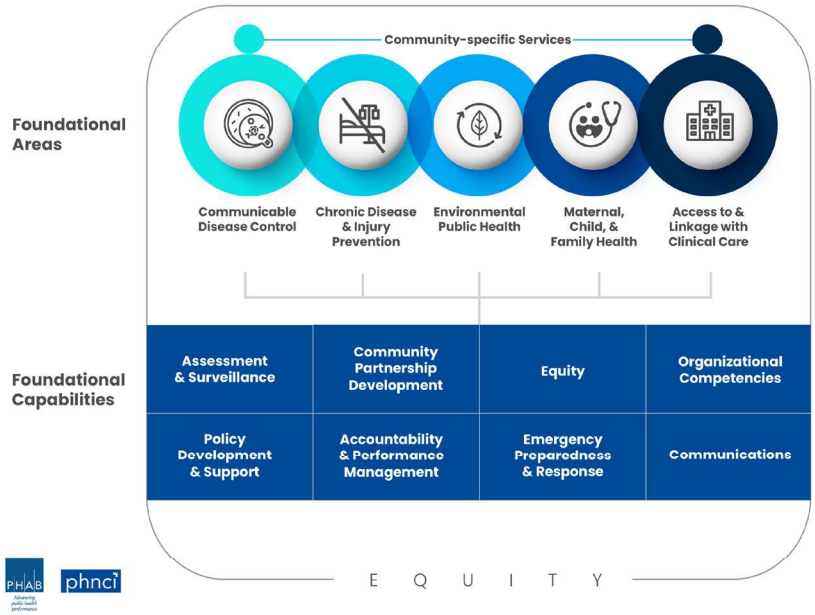
Source: 10 Essential Public Health Services. Centers for Disease Control and Prevention. https://www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html.

Public Health 3.0, first proposed in 2016, emphasizes the integration of traditional public health services with initiatives to improve features of our communities and lives that drive health outcomes (i.e., social and economic factors, physical environment, and health behaviors). This model of public health calls on local public health to engage in cross-sector partnerships as a "Chief Health Strategist" to address these root causes of health outcomes. Subsequently, the 10 Essential Public Health Services framework was revised in 2020, to identify the activities all communities should engage in to carry out the mission of public health (**see Figure 3**).[13] The 2020 update to the framework places equity at the center of public health work to emphasize the responsibility of local public health to ensure all community members have the opportunity to live healthy lives and the role of these essential services in providing that opportunity.

The concept of Foundational Public Health Services (FPHS) is a recent framework that describes the capabilities that local public health departments need to possess to carry out the 10 Essential Services (**see Figure 4**). The FPHS identifies the "skills, programs, and activities that must be available in state and local health departments everywhere for the health system to work anywhere."[14] Like the 10 Essential Services, the FPHS framework was revised in 2022 with equity added as a foundational capability.

Rates of certain illnesses, vulnerability to health problems, and life expectancy are not equal across all areas of our state, nor across all incomes, ages, physical abilities, races, and ethnicities. These differences, sometimes called health disparities or health inequities, are affected by many aspects of our society and lives. Research estimates that social, economic, and environmental factors make up the largest proportion of modifiable health factors.[15] The addition of equity to the 10 Essential Public Health Services and FPHS model reflects an intentional focus on understanding the causes of these significant and persistent differences in health outcomes. Persistent issues with poor outcomes exist across a range of health issues for American Indian, Black, and Hispanic populations, people living in rural areas, people living in areas with limited resources and low economic stability, people with disabilities, and older adults. In serving the health of the entire population, public health recognizes its fundamental role in eliminating the causes of these disparities by gathering data, providing services where they are needed, creating action plans with community members and partners, and disseminating policies that address root causes of inequities.

Figure 4. Foundational Public Health Services



Source. Public Health National Center for Innovations. Foundational Public Health Services. https://phnci.org/transformation/fphs. Published February 2022.

The remainder of this report outlines the status and future vision for the workforce, structures, and funding supporting the work of local public health in North Carolina. The North Carolina Institute of Medicine Task Force on the Future of Local Public Health has diligently considered these topics and presents recommendations and strategies to modernize and transform the ability of local public health to ensure everyone has a chance to live a healthy life.

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