

04-11

STATEMENT OF POLICY

Local Epidemiology and Surveillance

Policy

Epidemiologic investigation and public health surveillance are core functions of local health departments. The National Association of County and City Health Officials (NACCHO) urges increased federal support for strengthening local health departments' epidemiology and surveillance capacities to promote and improve evidence-based public health practice.

NACCHO strongly supports local health departments having dedicated staff and resources for epidemiology, including professional development opportunities, appropriate software, and integrated surveillance systems to facilitate access, collection, analysis, and dissemination of accurate local health data.

NACCHO also urges that data reported by local and state agencies be equally accessible to all levels of government. Local health departments should have real time access to other key datasets generated in their communities, including healthcare-associated infection data, school performance and attendance records, syndromic surveillance data collected by hospitals, health care access data, particularly all payer and Medicaid claims databases, and community health needs assessments. While policies, strategies, and programs are often developed in partnership with public, private, and academic partners, governmental public health agencies have the responsibility to ensure that the public interest is served.¹ As such, NACCHO supports the maintenance of core epidemiological functions at the local level.

Justification

Epidemiology and surveillance capacities are essential to ensure implementation of the three core functions of public health at the local level: assessment, policy development, and assurance. These are referenced in the [Public Health Accreditation Board \(PHAB\)](#) guidance.

Epidemiology and surveillance capacities include having systems and sufficiently trained personnel to:

1. Rapidly recognize and effectively respond to disease outbreaks, chronic diseases, environmental health emergencies, and other public health issues;
2. Monitor and analyze the incidence and prevalence of diseases, risk factors, and conditions of public health significance;
3. Provide local health departments and their constituents with accurate and timely data to ensure sufficient resource allocation to areas and populations of greatest need;
4. Design and implement public health programs; and
5. Evaluate the effectiveness of local programs, interventions, and policies.

Federal Funding and Workforce

Federal funding directly impacts local health department capacity. Enhanced funding for these activities has been available through grants such as the Public Health Emergency Preparedness (PHEP) and Epidemiology and Laboratory Capacity (ELC) cooperative agreements since 2001.

PHEP funding has decreased by 30.4% from a peak of \$940 million in 2002² to approximately \$654 million in fiscal year 2024,³ with direct implications for local capacity. While the ELC grants have increased overall, these funds are primarily provided directly to states, and the amount reaching local health departments is highly variable and often does not reflect national increases.

The number of epidemiologists in state health departments was 23% higher in 2021 compared to 2017,⁴ largely due to personnel supporting the COVID-19 response. However, the 2024 Epidemiology Capacity Assessment conducted by the Council of State and Territorial Epidemiologists (CSTE) and Big Cities Health Coalition indicates that many of these positions were supported by temporary pandemic funding and may not be sustained. The Assessment also found that with the expiration of pandemic-era supplemental response funding, states anticipate losing more than 1,000 epidemiologists, approximately one-fifth of the workforce, while an estimated 3,400 additional epidemiologists are still needed across state, territorial, and large local health departments to fully meet public health needs.⁵

A similar increase was also reflected within local health departments due to time-limited supplemental funding availability. Despite temporary gains, the epidemiology workforce remains substantially understaffed, and several core program areas have experienced staffing declines. Temporary federal funding currently supports approximately 85% of epidemiology activities and 83% of personnel; however, overall capacity to deliver the Essential Public Health Services (EPHS) has declined. This capacity is further threatened by the allocation of public health resources towards emerging and immediate public health threats at the expense of building sustainable workforce capacity.

Additional epidemiologists and stable, long-term funding are needed to consistently and effectively deliver EPHS. Resources such as competitive compensation, student loan repayment, or other financial support programs, and clear pathways for career advancement are essential for the recruitment and retention of epidemiologists across program areas. Recent findings from the Public Health Workforce Interests and Needs Survey show that more than 40% of government public health professionals carry student loan debt, highlighting a financial barrier that can affect recruitment and long-term workforce sustainability, particularly for early-career professionals. Research published in the American Journal of Public Health by the de Beaumont Foundation and the University of Minnesota School of Public Health underscores the need for policies and programs that support workforce financial stability.⁶

Workforce Development and Training

The strategic placement of trained epidemiologists to support local health departments strengthens the development of population-based health metrics, improves public health response protocols and interventions, and enhances community health outcomes. Comprehensive community health assessments should be conducted at least every five years per PHAB

requirements, or based on states requirements, utilizing an epidemiological lens to inform and guide recommendations in state and local health improvement plans and/or agency strategic plans.⁷

Local health department involvement in processes to promote interoperability, integration, and innovation across health information systems is also critical and is addressed in NACCHO's policy statement on [Local Public Health Informatics](#). The increasing availability of electronic information is transforming federal, state, and local public health epidemiology and surveillance. It is essential that local public health be included in the ongoing development of data requirements for electronic reporting, especially from electronic health records. This ensures that local health departments have the necessary information to address issues of public health significance.

In addition, data files of local public health importance—whether maintained by state or federal agencies or by local or regional nonprofit organizations—should be readily accessible to local health departments, either directly or through data-sharing agreements. These datasets should also be structured so local staff can analyze them to address local public health priorities. Data that can be disaggregated by census tract, ZIP code, county, city, or region are essential for developing and implementing evidence-based public health programs, interventions, and priorities.⁸

Emerging Diseases and Workforce Capacity

As experienced in recent years, emerging diseases such as Mpox, Ebola, and Zika viruses can quickly overwhelm local health department staff. Epidemiology staff must receive sufficient training to respond effectively, and staffing levels should reflect current and anticipated demands, as addressed in NACCHO's policy statement on [Workforce Development](#).

Essential professional development should include competencies in applied epidemiologic methods, statistical analysis, data visualization, risk communication, outbreak investigation, and the use of modern surveillance and health information systems. Access to appropriate analytical tools and software, along with ongoing training in data management, informatics, and cross-sector data sharing, is necessary to ensure epidemiologists can effectively analyze and communicate data to inform public health decision-making.

Efforts to build workforce capacity in applied epidemiology, nursing, and laboratory science are further highlighted in the workforce capacity position statement from CSTE titled [Workforce Capacity: Investing in the Next Generation of Public Health Applied Epidemiology and Laboratory Leaders](#). Data collection and surveillance databases must also be continually developed and upgraded to meet the demands of epidemiology staff, and expanded infrastructure support is necessary to effectively manage data repositories and conduct analysis.

References

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Record of Action

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