

# **PRIORITY 1: Invest in Infrastructure and Workforce to Ensure Our Public Health System Can Meet the Challenges and Opportunities of the 21st Century.**

For decades, the increasing life expectancy in the United States could be tied to advances in public health – such as vaccination, clean air and water, and recognition of tobacco as a health threat.<sup>28</sup> However, the U.S. is currently struggling to recover from the alarming recent declines in life expectancy due to the addiction and overdose epidemic, rising chronic disease rates, and the COVID-19 pandemic. Despite spending far more on healthcare than any other high-income nation, the U.S. has substantially worse health outcomes.<sup>29</sup> Many of these premature deaths and excessive healthcare costs could be averted through a strategic and sustained focus on effective prevention and public health. In fact, the median return on investment for public health programs in high-income countries like the U.S. is a staggering \$14.3 to every \$1 spent.<sup>30</sup> The health and safety of every community and our national and economic security depend on a stronger public health system that is equipped to address a wide range of 21st century challenges and opportunities.



*Public health laboratories and epidemiologists are foundational to disease detection and control.*

## **THE PROBLEM:**

Insufficient, inconsistent, and siloed funding and chronic underinvestment in public health have limited the public health system’s ability to modernize basic public health infrastructure, provide essential services, and adapt to new or evolving health risks – putting the nation’s health and economy at risk.

## **THE SOLUTION:**

Policymakers must provide consistent, cross-cutting funding to support the foundations of a strong, 21st century public health system, including infrastructure, a larger, more diverse and better equipped workforce, and modernized data systems.

The public health infrastructure – the people, services, and systems that promote and protect health, is dangerously underfunded, threatening the lives and livelihoods of all Americans. In addition, because so much public health

funding is tied to specific health conditions or disease outbreaks, there has been little sustained investment in cross-cutting public health infrastructure – including workforce and data systems.

## WHAT ARE PUBLIC HEALTH'S FOUNDATIONAL CAPABILITIES?

**Public health's foundational capabilities** are the cross-cutting skills and capacities needed to support basic public health protections, as well as other programs and activities that are key to ensuring a community's health and achieving equitable health outcomes.<sup>31</sup> A strong public health infrastructure has the following foundational capabilities:

- **Assessment:** The ability to track the health of a community through data, case finding, and laboratory tests with particular attention to those most at risk.
- **Community partnership development:** The capacity to harness and align community resources and actors to advance a community's health.
- **Equity:** The ability to strategically address social and structural determinants of health through policy, programs, and services as a necessary pathway to achieve equity; and to systematically integrate equity into each foundational capability.
- **Organizational competencies:** The ability to lead internal and external stakeholders to consensus and action.
- **Policy development and support:** The ability to serve as a primary and expert resource for establishing, maintaining, and developing basic public health policy recommendations that are evidence-based and legally sound.
- **Accountability and performance management:** The ability to apply business practices that ensure efficient use of resources and foster a continuous learning environment.
- **Emergency preparedness and response:** The capacity to respond to emergencies of all kinds, from natural disasters to bioterrorist attacks.
- **Communications:** The ability to reach the public effectively with timely, science-based information.<sup>32,33</sup>

Before the pandemic, public health departments were working from a resources deficit, and we are returning to a boom-and-bust cycle of public health funding. TFAH's *Chronic Underfunding of America's Public Health System* report has demonstrated the impact of the stagnation in funding, with effective programs failing to reach all states. In addition, *Staffing Up*, a joint project of the de Beaumont Foundation and the Public Health National Center for Innovations, found that state and local health departments need to add the equivalent of 80,000 full-time positions in order to provide a minimum set of public health services in their communities.<sup>36</sup> Since the COVID-19 pandemic, many public health workers have also reported symptoms of post-traumatic stress disorder, harassment and threats, and poor mental health.<sup>37</sup> This burden is contributing to employees leaving or considering leaving their organization, which threatens the resilience of the entire public health system. A March 2023 study estimated that almost half of all state and local public health employees who were over 35 years of age left their jobs between 2017 and 2021. Younger employees or those with shorter tenures left their jobs at an even higher rate. The authors warn that if these separation rates continue, about 100,000 public health workers will leave their jobs by 2025.<sup>38</sup> Given the need to be prepared for

future public health emergencies, investing in public health workforce recruitment and retention must be a priority.

Congress made important investments in foundational public health capabilities, e.g., population health assessment, data systems, and workforce development, since the onset of the COVID-19 pandemic. These investments have contributed to stronger partnerships between healthcare and public health and social services and public health, more effective disease detection, and a new pathway into careers in public health. However, public health infrastructure funding is returning to a phase of austerity. The impending funding cliffs for programs that received short-term pandemic response dollars, such as for data modernization and support of the public health workforce – funding that has since been spent or in some cases rescinded – will significantly weaken the public health infrastructure at a time when sustained investment is greatly needed to improve the nation's health and be better prepared for the next health emergency.

Congress has already rescinded dollars intended to shore up public health, including for workforce and disease detection.<sup>39</sup> The Fiscal Responsibility Act (FRA), enacted in July 2023, rescinded pandemic response appropriations

and funding from the American Rescue Plan Act (ARPA) that had been allocated to the Centers for Disease Control and Prevention (CDC), the Administration for Strategic Preparedness and Response (ASPR), the Health Resources and Services Administration (HRSA), the Defense Production Act Medical Supplies Enhancement, the National Institutes of Health, and the Food and Drug Administration (FDA). In total, the FRA rescinded approximately \$13.2 billion in emergency response funding, according to estimates from the Congressional Budget Office.<sup>40</sup> Beyond curtailing the pandemic response, these cuts harm the underlying public health system. If future investments are not made, the result of rescissions and funding cliffs will be the end of many critical programs including disease tracking through wastewater testing, the Public Health AmeriCorps and other workforce programs, and vaccine access for uninsured adults. Cuts would also significantly hinder progress for public health infrastructure, disease forecasting, and data modernization.

These rescissions and funding cliffs underscore how challenging it is for public health agencies to recruit, hire, and retain the needed workforce, to respond to routine and emergency public health needs, and to plan for the future. Public health agencies must be equipped to adapt to unanticipated threats, such as emerging diseases, more frequent and severe weather events, and the impact of misinformation.

## WHAT WOULD A NATIONAL PUBLIC HEALTH SYSTEM LOOK LIKE?

In June 2022, The Commonwealth Fund Commission on a National Public Health System issued a report outlining steps to strengthen the public health infrastructure at all levels of government and build a national public health system.<sup>34</sup> The Commission report defined a national public health system as “the organized efforts of federal, state, local, tribal, and territorial governments to improve public health and achieve health equity. A national public health system should promote and protect the health of every person, regardless of who they are and where they live; implement effective strategies for doing so with others in the public and private sector, including those who can address the drivers of health; respond to day-to-day health priorities and crises with vigor and competence; and, in the process, earn high levels of trust.”<sup>35</sup>

TFAH calls for building a strong foundation now to enable public health systems to provide essential services and programs to support healthy, thriving communities that are better prepared for the public health challenges that the future will undoubtedly bring.

## PROGRESS MILESTONES

- With the launch of the Public Health Infrastructure Grant program and creation of CDC’s Public Health Infrastructure Center, CDC is expected to award more than \$5 billion over a 5-year period for public health infrastructure, workforce, and data systems. The cross-cutting Public Health Infrastructure Grants enable health department recipients to address their communities’ most pressing needs.
- Investments in CDC’s Data Modernization Initiative have led to significant advancements in electronic case reporting, electronic laboratory reporting, and reduced time and hours for disease reporting.<sup>52</sup>
- The establishment of the CDC Center for Forecasting and Outbreak Analytics improves response to public health emergencies by advancing outbreak forecasting tools and techniques. The Center has already helped improve disease predictions for COVID-19, measles, Mpox, polio, and acute pediatric hepatitis.<sup>53</sup>
- The creation of the Public Health AmeriCorps helps create pathways to careers in public health with a focus on building public health capacity in the most underserved communities.
- Congress passed the Public Health Loan Repayment Act to support recruitment and retention of workers in governmental public health departments.

## IMPACT STORIES

### Public Health AmeriCorps Expands Public Health Capacity in Underserved Areas

Public Health AmeriCorps, funded by the American Rescue Plan Act, is a partnership between CDC and AmeriCorps to open new pathways to public health careers and develop the next generation of public health leaders. The program has launched careers for more than 4,700 participants, with a focus on service in rural, urban, and tribal underserved communities.<sup>54,55</sup> For example, the Public Health AmeriCorps project at Appalachian State University is providing on-site training and experience for 25 participants to serve in 25 rural counties of western North Carolina as community health workers. These members are providing psychological first aid, emergency preparedness, and other public health support to health departments, long-term care facilities, and hospitals.<sup>56</sup>

### Public Health Data Modernization Reduces Workforce Burden and Response Time

One major priority of CDC's Data Modernization Initiative is significantly increasing rates of electronic case reporting (eCR) – the automatic exchange of data between electronic health records and public health agencies, a key step toward integration between healthcare and public health systems.<sup>57</sup> Thanks to this initiative, from January 2020 to September 2024, the number of healthcare facilities using electronic case reporting to public health agencies increased from 153 to over 41,000 in all 50 states and two territories.<sup>58</sup> In one example, health officials in Tennessee were able to rapidly detect and investigate an outbreak of *Candida auris* (*C. auris*), a type of yeast that can cause severe illness and that spreads easily among

patients in healthcare facilities, in less than a day.<sup>59</sup> A state epidemiologist used eCR data to detect a cluster of *C. auris* in one county, allowing the officials to work with the healthcare systems to rapidly find additional cases and prevent further spread. In a critical access healthcare system in Virginia, using eCR saved a reported \$700,000 and 21,900 provider hours over a one-year period compared with manually reporting of COVID-19 cases.<sup>60</sup> As another example, prior to adoption of eCR, the Minnesota Department of Health used manual data entry to process case reports at 500 per day. The automation of eCRs has allowed the department to process 4,000 eCRs per day, reducing staff entry time from 32 to zero hours.<sup>61</sup>

### Public Health Infrastructure Investments Modernize Health Department Management

The landmark Public Health Infrastructure Grant (PHIG) is a cross-cutting investment in public health modernization and foundational capabilities. 107 health departments in all 50 states, D.C., eight territories, and 48 large localities were awarded more than \$4 billion from FY 2022-2024.<sup>62</sup> The Alabama Department of Public Health (ADPH) exemplifies a state using PHIG to become more efficient and effective. The department used PHIG funding to implement a workforce recruiting campaign, digitize its human resources platforms and streamline hiring practices to improve recruiting and retention, and modernize its grants management and evaluation initiatives.<sup>63</sup> The department improved its recruiting practices so much it is collaborating with other state agencies on aligning their personnel hiring processes enabling faster hiring, particularly important when a health emergency requires increased staffing.

## THE LOOMING PUBLIC HEALTH FUNDING CLIFF: A CRISIS IN THE MAKING

A modern and robust infrastructure, including data and disease surveillance systems and a highly skilled workforce, is the underpinning of an effective public health system. Progress toward that goal has been made, but decades of underfunding have left too many health departments dependent on antiquated systems and insufficient staffing levels. In addition, the combination of expiring COVID-19 emergency response funds and funding rescissions mandated by the Fiscal Responsibility Act of 2023,<sup>41</sup> present a significant risk to the public health programs and capacities that were strengthened during the pandemic response.

Public health funding is now in another austere phase of a boom-and-bust funding cycle. COVID-19 response funds were a significant but short-term source of public health investment over the past four years, including funding through the Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2020 and the American Rescue Plan Act (ARPA) of 2021. However, such funding was temporary and has now been largely obligated, or, in some cases, rescinded by Congress.<sup>42</sup> The result is a serious funding cliff for CDC and many health departments, where federal assistance for specific programs or personnel is no longer available and program cuts have been made or are on the horizon. Allowing these funding cliffs to occur without providing long-term funding alternatives risks undoing years of progress toward a healthier and more resilient nation.

### The following CDC programs face significant funding cliffs and rescissions.

#### **Advanced Molecular Detection (AMD):**

The AMD program, crucial for identifying and tracking infectious disease threats, received a one-time supplemental appropriation of over \$1.7 billion in 2021. This funding dramatically expanded the nation's capacity for genomic sequencing and analysis. However, this supplemental funding ends in 2024, leaving the program with only its annual base appropriation of \$40 million<sup>43</sup>—a staggering reduction. This cliff threatens to reverse critical gains in pathogen detection and surveillance capabilities.

#### **The Public Health Workforce:**

CDC awarded \$3 billion to health departments nationwide to address chronic workforce shortages exacerbated by the pandemic.<sup>44</sup> This funding supported hundreds of new positions across state and local health departments. However, these are one-time funds, potentially leading to widespread layoffs

and a return to the pre-pandemic workforce levels that left the nation unprepared for COVID-19. In addition, \$176 million in funding—about half of its original budget—for the Public Health AmeriCorps program was rescinded as a result of the Fiscal Responsibility Act. The program has created pathways to public health careers for more than 4,700 future public health leaders, with a focus on service in underserved communities in rural, urban, and tribal areas.<sup>45, 46</sup>

#### **Public Health Infrastructure:**

As of January 2024, CDC had awarded \$4.35 billion in grants to strengthen public health infrastructure across 107 state, territorial, and local health departments.<sup>47</sup> Over \$3.8 billion of these funds, critical for modernizing public health systems and capabilities, are set to expire in fiscal year (FY) 2027. Without sustained funding, health departments may struggle to maintain the improvements made in data systems, laboratory capacity, and community partnerships.

#### **Center for Forecasting and Outbreak Analytics (CFA):**

Established with one-time funding during the pandemic to enhance the nation's ability to use advanced data, models, and analytics to support public health decision-making, CFA is the only federal entity with the primary mission of providing infectious disease forecasts to inform a response. Congress provided base funding of \$50 million in FY 2023 and \$41 million in FY 2024, with a rescission of \$8.8 million.<sup>48</sup> These continued decreases will require CFA to pull back on investments in establishing capabilities at the state and local levels, particularly within Insight Net, a collaborative network of more than 100 partners established to enhance modeling and analytic capabilities across U.S. health departments. Experts estimate \$100 million per year would allow CFA to continue operating at its current levels.

#### **National Wastewater Surveillance System:**

Over \$500 million in supplemental funding has been invested to build a nationwide wastewater surveillance system capable of detecting COVID-19 and other pathogens.<sup>49</sup> While health departments may still have some funding to support activities, there were no funds appropriated in the FY 2024 budget; the \$20 million proposed in the FY 2025 budget would maintain a much scaled-down version of the program. This represents a massive reduction in funding, threatening to dismantle much of the surveillance network built during the pandemic.<sup>50</sup>

## THE LOOMING PUBLIC HEALTH FUNDING CLIFF: A CRISIS IN THE MAKING, Cont.

### **Bridge Access Program:**

CDC's Bridge Access Program, launched to ensure continued access to COVID-19 vaccines as they transitioned to the commercial market, ended in August 2024.<sup>51</sup> The program provided free COVID-19 vaccines to adults without health insurance and those whose insurance did not fully cover vaccine costs. It utilized a network of local health providers, HRSA-supported health centers, select pharmacies, and community events to distribute vaccines. The program's expiration could leave millions of adults without access to free COVID-19 vaccines, potentially widening health disparities and reducing overall vaccination rates. This comes at a time when COVID-19 continues to circulate, and updated vaccines are necessary to address new variants. The Administration has proposed a broader Vaccines for Adults program to enable uninsured adults to have access to recommended vaccines.

### **Rescissions from the Fiscal Responsibility Act:**

Compounding the problem of expiring funds, the Fiscal Responsibility Act of 2023 mandated significant rescissions of unspent COVID-19 emergency funds, many of which officials had planned to use to shore up underlying public health capacity. Some of these rescissions included:

- **Vaccine Programs:** Over \$945 million was cut from programs that help get vaccines to people, build vaccine equity, and encourage vaccination.

- **Disease Tracking:** About \$430 million were taken away from efforts to track how diseases emerge and change over time.

- **Global Health:** More than \$300 million were removed from CDC's work on health issues around the world.

- **Data and Forecasting:** Nearly \$18 million were cut from programs that help predict and understand disease outbreaks.

**The combination of expiring supplemental funds and mandated rescissions threatens to recreate the cycle of boom-and-bust crisis funding that left the United States vulnerable to COVID-19. Key consequences include:**

**Workforce Reductions:** Many health departments may be forced to lay off staff hired with emergency funds, losing valuable expertise and capacity.

**Technology Setbacks:** Investments in data modernization and surveillance systems may be difficult to maintain without sustained funding.

**Reduced Preparedness:** The ability to quickly detect and respond to new disease threats may be compromised as programs like AMD and wastewater surveillance are scaled back.

**Widening Health Disparities:** Many of the programs facing cuts were instrumental in addressing health inequities exposed by the pandemic. Their reduction may disproportionately impact communities that are under-resourced and marginalized.

This sidebar was originally published in TFAH's *The Impact of Chronic Underfunding on America's Public Health System 2024: Trends, Risks, and Recommendations* report.

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## RECOMMENDATIONS

### **Congress should protect and increase overall funding for CDC to strengthen public health and save lives nationwide.**

TFAH supports providing sustained, predictable annual appropriations for CDC of at least \$11.5 billion in FY 2025, with continued growth in the years that follow. Presently, more than 80 percent of CDC's domestic funding is allocated to state, local, territorial, and tribal health departments, academic partners, and community-based organizations to implement evidence-based public health and prevention programs. Due to underfunding, many proven, evidence-based public health and prevention programs have yet to reach all 50 states, including programs aimed at preventing the leading causes of death and drivers of healthcare costs.

### **Congress should ensure continuous improvement of public health infrastructure.**

TFAH supports sustained funding for the people, services, and systems needed to build foundational public health capabilities and provide essential services nationwide. Congress should enact legislation such as the Public Health Infrastructure Saves Lives Act, which would provide ongoing funding for CDC's Public Health Infrastructure Program to ensure health departments have more effective emergency responses, faster disease detection, and continuous progress toward preventing chronic diseases. In the interim, Congress should provide at least \$1 billion in annual appropriations for CDC's newly established Public Health Infrastructure Grant program, ramping up to \$4.5 billion per year. This program is already yielding important progress in strengthening the foundations of public health across the country.

### **Congress should modernize public health data systems to better detect and contain health threats.**

CDC's Public Health Data Modernization is designed to update and sustain the data infrastructure at CDC and at state, local, tribal, and territorial health departments. This initiative enables real-time and actionable data to improve responses to epidemics and the effectiveness of related programs. Investments to date are already yielding benefits, such as faster case reporting, improved interoperability with clinical care systems, and reduced staff hours needed by both healthcare and public health workers. The Data: Elemental to Health campaign estimates that at least \$7.84 billion is needed over five years to strengthen public health data systems at the state and local levels.<sup>64</sup> The Assistant Secretary for Technology Policy and Office of National Coordinator for Health Information Technology (ASTP/ONC) should also finalize and implement the Patient Engagement, Information Sharing, and Public Health Interoperability proposed rule as a means to promote seamless reporting between healthcare and public health.<sup>65</sup>

### **Congress should enact the Improving Data Accessibility Through Advancements (DATA) in Public Health Act to strengthen and streamline public health data reporting.**

The legislation would establish uniform standards for sharing public health data and allow the U.S. Department of Health and Human Services (HHS) to strengthen data sharing processes between public and private health entities. Such legislation updates archaic health data sharing standards while ensuring confidentiality of data.

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**Congress should restore the Prevention and Public Health Fund to \$2 Billion and reject further cuts.**

The Prevention and Public Health Fund was created by the Affordable Care Act (ACA) to improve health and restrain the rate of growth in healthcare costs. Thus far it has made more than \$12.3 billion in critical, evidence-based investments in every state and territory, such as expanding vaccine access through the CDC Immunization Program, building laboratory capacity, reducing tobacco use, and preventing chronic disease.<sup>66</sup> In addition to representing more than 10 percent of CDC's annual budget, the Prevention Fund supports prevention programs at the Administration for Community Living (ACL) and the Substance Abuse and Mental Health Services Administration (SAMHSA). Despite funding critical work, the Prevention Fund has already been cut by \$12.95 billion from FY 2013 through FY 2029.

**Congress should support efforts to bolster recruitment and retention of the public health workforce.** While emergency supplemental funding can help with short-term staffing needs for discrete emergency response requirements, it cannot be used to recruit and retain the workforce in the long term.

- Congress can build the public health workforce by significantly expanding CDC's **Public Health Workforce** line, which includes programs that embed professionals into state, tribal, local, territorial (STLT) health agencies and it should invest in programs to strengthen the public health workforce through fellowship and scholars programs. Congress should also add \$100 million per year for **Public Health AmeriCorps**, which faces

a funding cliff that will effectively end the program. The program has successfully recruited and trained future public health leaders to address health needs in rural, urban, and tribal underserved communities. Congress should also amend the tax code to waive the tax burden for student loan repayment of their fellows, which would allow additional recruitment into fellowship programs.

- Congress should support recruitment and retention of a well-trained, diverse, and sufficient public health workforce by funding HRSA's **Public Health Workforce Loan Repayment Program**. The U.S. Department of Education and the U.S. Department of the Treasury should expand student loan repayment and forgiveness programs for public health workers, including current public health workers.
- Congress should support funding for CDC's **John R. Lewis Undergraduate Public Health Scholars Program**. The program introduces undergraduate students to topics in minority health and health equity while supporting career development through a public health practicum.

**Congress and HHS agencies should expand efforts to promote a resilient public health workforce.** Given the toll of attacks on the public health workforce, stress, and turnover,<sup>67</sup> Congress should provide additional funding for CDC and the National Institute for Occupational Safety and Health to develop and deploy mental health resources for public health workers, authorize and expand funding for HRSA programs that promote resilience and mental health among health professionals, and ensure the public health workforce are eligible for these programs.