

CDC Environmental Public Health Tracking

STRATEGIC PLAN 2022-2026



**U.S. Department of
Health and Human Services**
Centers for Disease
Control and Prevention

The World Health Organization's 2016 global assessment of the burden of disease from environmental risks estimates that 24% of all deaths worldwide are attributable to modifiable environmental factors. Accurate and timely data help public health leaders monitor trends and make informed decisions about prevention and control strategies that can protect individuals and communities from health issues arising from or directly related to environmental factors.

Since 2002, the Centers for Disease Control and Prevention (CDC), National Center for Environmental Health, Division of Environmental Health Science and Practice, Environmental Public Health Tracking Program (Tracking Program) has provided the United States with accurate and timely standardized information from a nationwide network of environmental health data to help drive actions to improve the health of communities.



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Better Information for Better Health

The Tracking Program collects, integrates, analyzes, and disseminates non-infectious disease, environmental, and sociodemographic data from a collective of partners at the national, state, and local levels. We deliver health, exposure, and hazards data; information summaries; and tools to enable analysis, visualization, and reporting of insights drawn from data. We do this with the purpose of providing timely, local, accessible information that drives actions to improve community health. Our data and products empower environmental and public health practitioners, healthcare providers, community members, policy makers, and others to make information-driven decisions that affect their health.

This strategic plan outlines four goals and key strategies that will guide CDC Tracking Program's work from 2022 through 2026, complementing and supporting the array of tracking activities conducted outside the agency. Goals are underpinned by four core values that define the Tracking Program and guide all activities.

CDC Tracking Vision & Mission

VISION Data-informed decisions create healthy communities

MISSION Provide information from a nationwide network of integrated health and environmental data that drives actions to improve community health



COMMITMENT TO HEALTH EQUITY

CDC recognizes that social and economic opportunities, health behavior, and the physical environment in which people live greatly impact their health outcomes. Health disparities and inequities represent preventable differences in the burden of disease, disability, injury, or violence, or in opportunities to achieve optimal health. In alignment with and support of the CDC's CORE Commitment to Health Equity, **the Tracking Program seeks to advance health equity by filling critical information gaps that contribute to health inequities associated with environmental factors.** Our work supports a future in which everyone has the opportunity to be as healthy as possible.

CORE VALUES

These cross-cutting core values guide the Tracking Program's overall approach and activities. They provide focus for this strategic plan and implicitly underpin the goals and strategies outlined subsequently.

■ Innovation

Innovation is part of our DNA. Since inception, the Tracking Program has emphasized the importance of identifying and creatively addressing challenges related to technology and processes. We focus on foundational concepts that bolster our ability to adapt quickly to changing landscapes. Those strategies include developing standardized and automated processes, designing and maintaining interoperable infrastructure, and creating shareable tools and data. This "Tracking Method" aligns with and supports CDC's [Data Modernization Initiative](#) which is not just about technology, but also about putting the right people, processes, and policies in place to prevent and mitigate threats to the public's health.

■ Evaluation

The Tracking Program is grounded in the understanding that measurement and evaluation of activities and outcomes are critical to understanding effectiveness and scalability of interventions to improve the public's health. Regular and rigorous evaluation provides the necessary information for continuous improvement across all Tracking Program activities and strategies. The Tracking Program's evaluation strategy is grounded in CDC's [Evaluation Framework for Public Health](#) and the surveillance system focused approach described in CDC's [Updated Guidelines for Evaluating Public Health Surveillance Systems](#).

■ Collaboration

Collaboration is elemental to the Tracking Program. We are connectors by design. In fact, the concept of environmental public health tracking was founded with the intention of uniting disparate pieces into one whole for the benefit of everyone. Pursuing and nurturing strategic collaborations and cross-sectoral partnerships builds skills and expands resources not only for the Tracking Program but for our partners as well. Through collaborations, the Tracking Program and partners mutually benefit from shared objectives, enhanced competencies, and improved technical capabilities, thus increasing the capacity of the public health workforce to address environmental public health priorities and emerging issues.

■ Data for Action

Tracking Program data and tools are designed for action. Driven by a spirit of collaboration and transparency, we share our services, methods, products, and resources freely and widely. We are dedicated to ensuring that data and information are accessible and actionable to all users so they can effectively understand and address environmental public health issues.

GOALS AND STRATEGIES

Our core values are represented in each of the goals and strategies we have identified as priorities for the next five years. We have selected these goals and strategies to address current needs, align with public health trends, and allow flexibility to adapt to unplanned or emerging issues.

GOAL 1

Promote Use of Data to Inform Action

Advance Data Modernization

GOAL 3

GOAL 2

Strengthen Partnerships

Accelerate Workforce Development

GOAL 4

CORE VALUES

Innovation

Collaboration

Data for Action

Evaluation

GOAL 1: PROMOTE USE OF DATA TO INFORM PUBLIC HEALTH ACTION

This goal includes several strategies intended to increase awareness and use of Tracking data, tools, and resources, and to support Tracking's agility to address evolving data needs and develop data tools and products for different user groups.

Strategy 1.1: Use data and enhance use of data by others to inform action

Strategy 1.2: Disseminate and support evidence-based activities and practices

Strategy 1.3: Translate program data and make it accessible to policy makers, public health practitioners, and the public

Strategy 1.4: Share impact and evidence through reports and public health action reports

Strategy 1.5: Evaluate opportunities for public health actions and evaluate data needs for division priority topics

POWERED BY TRACKING

Example: Data Preparedness for Emergency Response

Because of the flexibility we have built into our data structure and processes, we can quickly respond to evolving data needs, especially during emergencies. For example, during the COVID-19 pandemic, we quickly responded to the need for visualizing COVID-19 data over time. These data were used by private industry to aid business in policy development to comply with local, state, and federal COVID-19 regulations.

GOAL 2: STRENGTHEN PARTNERSHIPS TO ADVANCE SHARED INTERESTS

CDC Tracking helps bring together the appropriate players to engage in creating collaborative and holistic solutions. Strategies under this goal are intended to enhance and expand our efforts related to: advancing data sharing and developing new pipelines; preparing for and responding to emergencies and environmental public health threats; and addressing health disparities.

Strategy 2.1: Strengthen connections with state, territorial, local, and tribal programs and systems

Strategy 2.2: Identify and engage national partners

Strategy 2.3: Collaborate with CDC, HHS, and other key government agencies

POWERED BY TRACKING

Example: Partnering to Address Data Challenges

We partner with other CDC programs; state, tribal, local, and territorial health departments; and other federal agencies to identify and address data challenges. For example, we collaborate with the Environmental Protection Agency, National Aeronautics and Space Administration, and National Oceanic and Atmospheric Administration to improve data sharing around real-time and forecasted environmental hazards, like air quality and drought, and to improve dissemination and public health application of these data. Through these and other connections, our programs expand and enhance environmental health data modernization efforts within CDC and among local jurisdictions.

GOAL 3: ADVANCE MODERNIZATION OF PUBLIC HEALTH DATA

This goal includes several strategies to further expand the Tracking Program's efforts to develop standardized and automated processes, interoperable infrastructure, and reproducible tools. Activities to advance this goal will enhance data access and allow us to integrate and synthesize data more accurately and efficiently and to detect environmental public health hazards.

Strategy 3.1: Leverage creative software solutions to streamline data access and integration

Strategy 3.2: Develop and use repeatable, shareable tools and processes

Strategy 3.3: Build faster, more flexible, automated data pipelines with more real-time, higher quality, and national coverage data

Strategy 3.4: Develop and enhance open data strategies and policies

POWERED BY TRACKING

Example: Improved Data for Improved Outcomes

Small area data (e.g., at the sub-county level) on health outcomes can help improve our understanding of environmental health processes and impacts, local variation in outcomes, and support more targeted interventions. However, there are challenges with sub-county data related to reliability and confidentiality, which present obstacles to sharing and using these data. In response, we have built a system of sub-county data by using standardized geographies and aggregation schemes that allow for dissemination of finer spatial resolution data. These sub-county data provide a more accurate picture of health outcomes and disparities, and support development of more effective interventions.

GOAL 4: ACCELERATE WORKFORCE DEVELOPMENT

This goal includes several strategies to support developing the environmental public health workforce for CDC and partners. Activities to advance this goal will include building capacity to respond to public health emergencies and interconnected public health issues.

Strategy 4.1: Enhance data science knowledge, skills, and organizational capacity

Strategy 4.2: Provide cross-cutting training opportunities

Strategy 4.3: Build capacity to enhance emergency response activities

POWERED BY TRACKING

Example: Supporting Capacity Development

Over the past two decades, CDC's Tracking Program has developed skills, processes, and technologies that uniquely position the program to contribute to emergency preparedness and response, health outcome surveillance, and data modernization efforts at the nexus of environmental public health. With this expertise, we support health departments, as well as national associations, other federal agencies, and other CDC programs, to develop technical and staff capacity. We do so through knowledge exchange, funding opportunities, trainings, informal peer learning, internships, and fellowships.

AN ADAPTIVE STRATEGY



We designed this strategic plan to help CDC's Tracking Program address and prepare for both recognized and unknown issues affecting the public's health and wellbeing. Knowing the environmental public health landscape continues to evolve, we intentionally left space in the plan to explore creative solutions and push the boundaries of innovation. This purposeful flexibility gives us the freedom to adapt to changing situations throughout the months and years ahead.

Our efforts over the next five years will move us closer to realizing our vision for a world where data-informed decisions create healthy communities. Along the way we will help create

- Updated systems and processes that yield more timely, local, accurate, and accessible environmental public health data,
- High-functioning, mutually beneficial partnerships with internal and external groups to support our efforts,
- Informed public health actions based on those quality data, tools, and resources, and
- A knowledgeable and skilled environmental public health workforce.