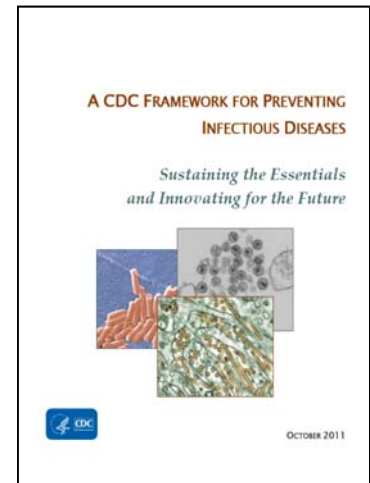


## A CDC Framework for Preventing Infectious Diseases

A *CDC Framework for Preventing Infectious Diseases: Sustaining the Essentials and Innovating for the Future*—CDC’s *ID Framework*—was developed to provide a roadmap for improving our ability to prevent known infectious diseases and to recognize and control rare, highly dangerous, and newly emerging threats through a strengthened, adaptable, and multi-purpose U.S. public health system.

While the primary purpose of the *ID Framework* is to guide CDC’s infectious disease activities, the document also seeks to advance collective action to prevent and control infectious diseases—recognizing the realities of the current fiscal climate and our changing public health and healthcare environments. The complete *ID Framework* is available online at [www.cdc.gov/OID](http://www.cdc.gov/OID).



### Meeting Challenges and Pursuing Opportunities in a New Public Health Environment

Today’s infectious disease challenges are broader and more complex than they were in 1998, when CDC last issued a comprehensive plan to guide national efforts to prevent and control emerging infectious threats.\* Since then, new microbes or new forms of old ones have been discovered nearly every year, and infectious disease outbreaks triggering international responses have been reported on nearly every continent. We have recent real-life examples of disease threats such as severe acute respiratory syndrome (SARS) and H5N1 and H1N1 influenza that emerged from animal reservoirs and clearly underscore the need and value of a “One-Health” approach to disease prevention linking human, animal, and environmental health efforts.

While our changing, globalized world has provided increased opportunities for emergence and spread of infectious diseases, it has also brought significant advances toward their control. The *ID Framework* takes into account many of the scientific, demographic, technological, and economic developments currently modifying efforts to protect public health, challenging us to re-think our processes and strategies and take advantage of new ways to prevent disease and improve health.

### CDC’s Role

CDC provides leadership and technical expertise to public health and healthcare communities in conducting the fundamental public health functions that protect populations and individuals from infectious diseases, in responding rapidly to outbreaks and unusual health events, and in improving the understanding of infectious diseases. CDC is also expanding its role in helping healthcare and community partners increase their focus on prevention to improve health and reduce health-related costs. The fulfillment of CDC’s vision of a strong, vigilant U.S. public health system—ready and able to prevent and control endemic diseases and respond to new and emerging threats—requires the sustained, coordinated, and complementary efforts of many individuals and groups.

### Elements and Priorities Outlined in CDC’s *ID Framework*

The *ID Framework* outlines three critical elements in these efforts: **strong public health fundamentals**, including infectious disease surveillance, laboratory detection, and epidemiologic investigation; **high-impact interventions**; and **sound health policies**. The document also describes priority activities for achieving these essential components of public health, highlighting opportunities afforded through scientific and technological innovations, new partnerships, and the changing U.S. public health and healthcare systems.

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\*CDC. Preventing emerging infectious diseases: A strategy for the 21<sup>st</sup> century, U.S. Department of Health and Human Services, Public Health Service, 1998.

## Elements and Priorities

### *Element 1: Strengthen public health fundamentals, including infectious disease surveillance, laboratory detection, and epidemiologic investigation*

- Modernize infectious disease surveillance to drive public health action
- Expand the role of public health and clinical laboratories in disease control and prevention
- Improve capacity for epidemiologic investigations and public health response
- Advance workforce development and training to sustain and strengthen public health practice

### *Element 2: Identify and implement high-impact public health interventions to reduce infectious diseases*

- Identify and validate high-impact tools for disease reduction, including new vaccines; strategies and tools for infection control and treatment; and interventions to reduce disease transmitted by animals or insects
- Use proven tools and interventions to reduce high-burden infectious diseases, including vaccine-preventable diseases; healthcare-associated infections; HIV/AIDS; foodborne infections; and chronic viral hepatitis

### *Element 3: Develop and advance policies to prevent, detect, and control infectious diseases*

- Ensure the availability of sound scientific data to support the development of evidence-based and cost-effective policies
- Advance policies to improve prevention, detection, and control of infectious diseases, with specific focus on those that help integrate clinical infectious disease preventive practices into U.S. healthcare; increase community and individual engagement in disease prevention efforts; strengthen global capacity to detect and respond to outbreaks with the potential to cross borders; address microbial drug resistance; and promote “One-Health” approaches to prevent emergence and spread of zoonotic diseases

## Examples of CDC Activities to Address Infectious Disease Issues of Special Concern

- Provide expertise in reducing **antimicrobial resistance**, working to monitor the effectiveness of current antibiotics and the emergence of resistant strains and work to advance broad collaborations to ensure appropriate use of antimicrobials in communities and healthcare settings
- Expand educational campaigns to increase awareness of **chronic viral hepatitis**, including information on its risk factors, the need for testing, and advances in treatment
- Improve **food safety**, including improving coordination among food safety surveillance networks to more rapidly detect outbreaks, identify their sources, and contain their spread
- Sustain and advance efforts to reduce **healthcare-associated infections**, working to change them from inevitable aspects of healthcare to rare, unacceptable events
- Improve targeted efforts to reduce **HIV** incidence, increase access to care and improve health outcomes for HIV-infected persons, and reduce HIV-related health disparities
- Help monitor and prevent **acute respiratory infections** such as pneumonia, influenza, and tuberculosis in the United States and globally, working with partners to rapidly recognize and contain outbreaks
- Reduce diarrheal disease, particularly among children, by improving global access to **safe water**, adequate sanitation, and improved hygiene
- Reduce **vaccine-preventable diseases** through efforts to ensure broad immunization coverage and availability of recommended vaccines, to detect and respond to outbreaks of vaccine-preventable diseases, and to monitor the impact and safety of vaccines and communicate their efficacy and public health significance
- Develop and advance new, multi-disciplinary approaches to preventing and controlling **zoonotic and vectorborne diseases**