CENTER FOR SURVEILLANCE, EPIDEMIOLOGY, AND LABORATORY SERVICES

Our Services. Our Work. Our Impact.

AT A GLANCE

Our Center

The **Center for Surveillance, Epidemiology, and Laboratory Services (CSELS)** is a collection of programs and activities that together form the backbone of much of the nation's public health system.

- We provide the scientific service, expertise, skills, and tools to support CDC's efforts to promote health, prevent disease, and prepare for emerging health threats.
- We make sure that scientists, researchers, healthcare providers, policymakers, and decision makers have the systems, standards, and training they need to keep us safe, healthy, and informed.
- We strive to be ready to respond to tomorrow's health threats, take advantage of improving technologies, and be at the forefront in providing the most up-to-date scientific services to advance public health.

CSELS Fast Facts

- Established in **October 2013**
- Unites more than **30** programs across **4** divisions
- Composed of approximately **700** staff and contractors
- Support training for more than **280** fellows

Our Mission: To provide scientific services to advance public health

Our Work

- Our cross-cutting programs bring CDC's scientific support services toget under one roof to
  - ✓ Develop and maintain health information and disease-tracking syste
  - ✓ Improve the quality of laboratory testing and practices
  - ✓ Disseminate evidence-based information to improve public health science and decision making
  - ✓ Build a competent, sustainable, and empowered public health workforce.
- Our work supports programs and initiatives across CDC and throughout the federal government.
- We also provide extramural funding to support state and local health departments, medical and professional associations, healthcare groups, and other public health partners.

Our Programs

- CSELS programs are organized in a way that allows them to work towards both shared goals and individual objectives. This strengthens CDC's ability to serve its partners and stakeholders—within CDC and across the broader public health community.
- Some of our programs have a long and robust history as flagship components of CDC. Our oldest program, the **Epidemic Intelligence Service (EIS)**, was established in 1951 as CDC's "boots on the ground" during public health emergencies.
- Other programs reflect the changing landscape of science and medicine. Our newest program, **Surveillance Data Platform (SDP) With Shared Services**, was launched in 2016 as a virtual platform that uses the latest technologies to optimize public health surveillance.

A Few Examples

- The ***Morbidity and Mortality Weekly Report (MMWR)*** has been CDC's primary scientific publication for more than 50 years, reporting first on public health problems such as Legionnaires' disease and HIV/AIDS.
- Our **biorepository services** manage and preserve CDC's millions of biological and environmental specimens, as well as samples that support genetic testing.
- The **National Notifiable Disease Surveillance System (NNDSS)** allows public health partners to share information to monitor, control, and prevent disease and other health threats.
- The **CDC Learning Connection** links public health professionals around the world with free, quality, accredited training resources from CDC, partners, and other organizations.

Where We've Been: The history of CSELS is the history of CDC

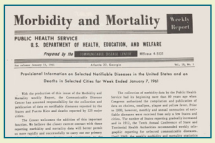
1946

Communicable Disease Center, or CDC, opens in Atlanta

1951

EIS established as emergency response team

National disease tracking systems begin with list of 41 diseases



Morbidity and Mortality

1961

CDC assumes publication of MMWR—the "voice of CDC"

Our Priorities: CSELS activities are organized around four strategic goals

1 Transform the public health system

We lead a national surveillance strategy for human health, which builds on current resources, establishes priorities for next-generation technologies, and provides timely, comprehensive, and accessible information to protect the public's health. We also develop standards for health informatics and strengthen the quality and safety of laboratory practices. Activities include

- Modernizing the **NNDSS** and enhancing the **National Syndromic Surveillance Program (NSSP)**
- Evolving **Epi-Info™**, a flexible, scalable, free suite of software tools for public health practitioners and researcher worldwide
- Implementing the **Clinical Laboratory Improvement Amendments (CLIA)**, which govern all healthcare-related laboratory testing performed on people in the United States
- Translating **genome-based discoveries** into practices to improve health.

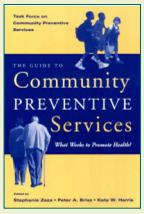
2 Prepare the health workforce

We lead national efforts in scientific education and professional development to ensure that researchers, technicians, healthcare providers, and communicators are ready to take our health system forward. We ensure that the people who keep the public healthy and safe have the guidance, products, and services to do their jobs better through

- **Fellowships** across a range of scientific and public health disciplines, for multiple educational levels and career stages
- Quality training opportunities and resources through platforms like the **CDC Learning Connection** and **CDC TRAIN**
- Timely evidence-based information published by ***MMWR*** and ***CDC Vital Signs™***
- A growing inventory of print, web-based, and digital resources to support **laboratory capacity and competencies**.

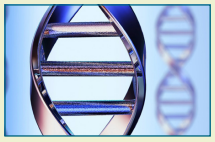
1988

CLIA law is passed; CDC begins work on regulations and guidelines



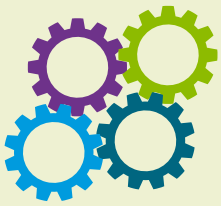
1996

Congress establishes Community Preventive Services Task Force



1997

Office of Public Health Genomics begins translating genetic discoveries into practice



2013

CSELS established to unite CDC's scientific support services

3 Target strategic partnerships

We build partnerships that touch all aspects of health. We create linkages among a range of partners and stakeholders—across CDC and other federal agencies, and in the scientific, health care, and public health communities. We're a place where many perspectives intersect and where experts across disciplines can come to consensus to benefit the public's health and safety. Key partners include

- Council of State and Territorial Epidemiologists
- Association of Public Health Laboratories
- Association of State and Territorial Health Officials
- National Association of County and City Health Officials
- Other federal agencies such as FDA and CMS.

4 Optimize operations

We maximize the center's impact by recruiting and retaining dynamic leaders and expert staff. CSELS effectively manages how the center operates to improve internal performance through exemplary business service, innovative practice, and continuous workforce development. Activities include

- Supporting **CSELS scientists** and ensuring all **research and data dissemination** adhere to federal regulations and policies
- Setting standards and processes for **high-quality communication products** that promote the center's efforts
- Organizing CSELS programs around shared **policy priorities and strategies**
- Managing the **CSELS budget** effectively, including our external funding portfolio that supports public health systems, work force, and partners.

2014

EIS deploys all 158 officers to respond to Ebola crisis

NNDSS Modernization Initiative begins, led by CSELS

2015

CSELS launches Laboratory Leadership Service fellowship, modeled on EIS

2016

CSELS begins managing SDP With Shared Services

Our Impact: CSELS programs advance public health

Approximately 100 notifiable disease and conditions are tracked continuously using NNDSS

Nearly half of U.S. emergency department visits are reported to the NSSP

More than 80% of EIS officers enter the public health workforce

Every day, **more than 100** learners join CDC TRAIN

We manage **more than 6.5 million** biological and environmental specimens—nearly half of all specimens at CDC

We were the **first to publish** quality guidelines for next generation sequencing—modern methods of sequencing DNA

MMWR's electronic media reach totals **more than 23 million**

The Stephen B. Thacker CDC Library houses more than **120,000** unique items in its catalog

Our Leadership

Office of the Director

Deputy Director for Science
William R. Mac Kenzie, MD
Captain, U.S. PHS

Director
Michael F. Iademarco, MD, MPH
Captain, U.S. PHS

Deputy Director for Program and Management Officer
Brooke K. Tripp, MPA

Division of Health Informatics and Surveillance
Director
Paula W. Yoon, ScD, MPH

Division of Laboratory Systems
Director
Reynolds (Ren) M. Salerno, PhD

Division of Public Health Information Dissemination
Director
Sonja A. Rasmussen, MD, MS

Division of Scientific Education and Professional Development
Director
Patricia M. Simone, MD

The Road Ahead: Today's challenges, tomorrow's innovations

In recent years, Ebola and Zika virus outbreaks were the top health stories. CSELS mobilized coordinated response efforts to these emerging health threats through our Program Integration Unit, with EIS deploying officers to affected areas in the United States and around the world. ***MMWR***—"the voice of CDC"—published regular reports and prevention guidelines for the public health community, while our **health information technology** and **Meaningful Use** experts helped devise data sharing and clinical decision making tools.

Critical infrastructure upgrades are under way for a pillar of our public health system, NNDSS. Led by CSELS as part of CDC's agency-wide Surveillance Strategy, the **NNDSS Modernization Initiative** aims to strengthen the system's ability to provide more comprehensive, timely, and higher quality data on diseases and other health threats than ever before. In 2016, we assumed responsibility for another key part of the Surveillance Strategy: the **SDP With Shared Services**. This platform will enhance data collection, management, analysis, and dissemination with minimal burden on CDC partners.

CSELS is making critical investments in the workforce of today and the workforce of the future—for both short-term urgent needs and long-term capacity-building. As part of CDC's laboratory safety initiative, we established the **Laboratory Leadership Service.** This new fellowship program develops early-career laboratory scientists for future leadership and management positions. To address other aspects of the changing healthcare landscape, our **Population Health Workforce Initiative (PHWI)** is building a competent corps of professionals to bridge the gap between individual care and population health. PHWI and fellowships that support it—like the **Population Health Training in Place Program**, **Health Systems Integration Program**, and **Preventive Medicine Residency and Fellowship**—bring health departments and health systems closer together to improve coordinated care.

FOR MORE INFORMATION

Center for Surveillance, Epidemiology, and Laboratory Services
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E-mail: wwwn.cdc.gov/dcs/ContactUs/Form
www.cdc.gov/ophss/csels