Centers for Disease Control and Prevention

TRANSITION
BRIEFING BOOK

October 28, 2016

CDC 24/7 Protecting America's health, safety and security.™

Contents

Welcome Message

The Centers for Disease Control and Prevention (CDC) is pleased to present the 2016-2017 Presidential Transition Owner's Manual. CDC is the nation's health protection agency. CDC works 24/7 to conduct critical science and provides health information that protects our nation against dangerous health threats, and responds when these arise. CDC promotes quality of life and prevents the leading causes of disease, injury, disability, and death. CDC is committed to maximizing the impact of every dollar entrusted to the agency and continuing critical work to increase public health capacity at local, state, national, and global levels.

CDC's pledge to the American people is to:

1. Be a diligent steward of the funds entrusted to the agency
2. Provide an environment for intellectual and personal growth and integrity
3. Base all public health decisions on the highest quality scientific data that is derived openly and objectively
4. Place the benefits to society above the benefits to this institution
5. Treat all persons with dignity, honesty, and respect

Briefing Schedule

CDC staff are pleased to provide additional materials or briefings, as requested. All requests should be routed through Department of Health and Human Services Transition Director John Gentile.

Organizational Overview

CDC is the nation's first line of defense to protect Americans from health threats.

Mission

CDC works 24/7 to protect America from health, safety, and security threats, originating within and outside the United States. Whether diseases start at home or abroad, are chronic or acute, curable or preventable, or the result of human error or deliberate attack, CDC fights disease—and supports communities and citizens to do the same. As the Nation's health protection agency, CDC increases the health security of the Nation, saves lives, and protects people from health threats. To accomplish this mission, CDC conducts critical science, provides health information, tools, and resources that protect our nation against expensive and dangerous health threats, and responds when these arise.

History and the Agency Today

On July 1, 1946, the originally-named Communicable Disease Center opened its doors and occupied one floor of a small building in Atlanta. Its primary mission was simple, yet highly challenging: to prevent malaria from spreading across the nation. Armed with a budget of $10 million and fewer than 400 employees, the agency's early challenges included obtaining enough trucks, sprayers, and shovels necessary to wage war on mosquitoes. Today, CDC is one of the major operating components of the Department of Health and Human Services (HHS), and is recognized as the nation's premier public health, health promotion, prevention, and preparedness agency.

CDC is:

- **On the cutting edge of health security:** Confronting global disease threats through advanced computing and lab analysis of huge amounts of data to quickly find solutions
- **Putting science into action:** Tracking disease, finding out what is making people sick and the most effective ways to prevent it
- **Improving medical care:** Bringing new knowledge to individual health care and community health to save more lives and reduce waste
- **Fighting diseases globally before they reach our borders:** Detecting and confronting new germs and diseases around the globe to increase our national security
- **Nurturing public health:** Building on CDC's significant contribution to have strong, well-resourced public health leaders and capabilities at national, state, and local levels to protect Americans from health threats

CDC's role is:

- Detecting and responding to new and emerging health threats
- Tackling the biggest health problems causing death and disability for Americans
- Putting science and advanced technology into action to prevent disease
- Promoting healthy and safe behaviors, communities, and environments
- Developing leaders and training the public health workforce

Agency for Toxic Substances and Disease Registry

The director of CDC is also the Administrator of the Agency for Toxic Substances and Disease Registry (ATSDR). Superfund legislation created ATSDR in 1985 as an advisory, non-regulatory agency. Although ATSDR is an independent operating division within the Department of Health and Human Services, CDC performs its administrative functions. ATSDR has a joint Office of the Director with the National Center for Environmental Health (NCEH). ATSDR headquarters are in Atlanta, Georgia, at CDC's Chamblee Campus.

Today, congressional mandate directs ATSDR to perform specific functions concerning the effect of hazardous substances in the environment on public health. These functions include public health assessments of waste sites, health consultations concerning specific hazardous substances, health surveillance and registries, response to emergency releases of hazardous substances, applied research in support of public health assessments, and education and training concerning hazardous substances.

The Organization

- CDC's organizational chart (Attachment A)
- Fact sheets for CDC's centers, institute, and offices (Attachment B)
- CDC's senior leadership team (Attachment C)

Strategic Plan and Performance Documentation

- CDC's strategic guidance framework (Attachment D)
- CDC's performance overview from the FY 2017 Congressional Justification (Attachment E)
- The CDC Winnable Battle Progress Report 2014 – published April 2015 (Attachment F)
- The CDC National Health Report 2006-2012 (Attachment G)

Authorizing Legislation

CDC's authorizing legislation provided through Appropriations (H.R. 2029 – Consolidated Appropriations Act, 2016) can be found in the following two tables.

Legislative Citation (Public Health Service Act, unless otherwise indicated)	Subdivision	Function
Immunization and Respiratory Diseases		
Title II		Administration and Miscellaneous Provisions
Title III		General Powers and Duties of Public Health Service
Title XVII		Health Information and Health Promotion
Title XXI		Vaccines
Title XXVIII	Subtitle C, Sec. 2821	National All-Hazards Preparedness for Public Health Emergencies Strengthening Public Health Surveillance Systems Epidemiology-Laboratory Capacity Grants
Immigration and Nationality Act Title II		Immigration
Immigration and Nationality Act Title IV		Refugee Assistance and Miscellaneous

Legislative Citation (Public Health Service Act, unless otherwise indicated)	Subdivision	Function
Refugee Education Assistance Act Title V	Sec. 501	Provisions Relating to Cuban and Haitian Entrants, Authorities for Other Programs and Activities
HIV/AIDS, Viral Hepatitis, STD, and TB Prevention		
Title II		Administration and Miscellaneous Provisions
Title III		General Powers and Duties of Public Health Service
Title XVII		Health Information and Health Promotion
Title XXIII		Research with Respect to Acquired Immune Deficiency Syndrome
Title II		Administration and Miscellaneous Provisions
Title III		General Powers and Duties of Public Health Service
Title XVII		Health Information and Health Promotion
Title XXVIII	Subtitle C, Sec. 2821	National All-Hazards Preparedness for Public Health Emergencies

Strengthening Public Health Surveillance Systems

Epidemiology-Laboratory Capacity Grants |
Immigration and Nationality Act Title II		Immigration
Immigration and Nationality Act Title IV		Refugee Assistance and Miscellaneous
Refugee Education and Assistance Act Title V	Sec. 501	Provisions Relating to Cuban and Haitian Entrants, Authorities for Other Programs and Activities
Chronic Disease Prevention and Health Promotion		
Title II		Administration and Miscellaneous Provisions
Title III		General Powers and Duties of Public Health Service
Title XI		Genetic Diseases, Hemophilia Programs, and Sudden Infant Death Syndrome
Title XV	Sec. 1503(a)	Preventive Health Measures with Respect to Breast and Cervical Cancers

Requirements with Respect to Type and Quality of Services

Requirement of Provision of All Services by Date Certain (Proportional funding requirements will not apply to funds made available through the Chronic Disease Prevention and Health Promotion account) |
Title XV	Sec. 1509	Preventive Health Measures with Respect to Breast and Cervical Cancers (Funds may be available for making grants for not less than 21 States, tribes, or tribal organizations)
Title XVII		Health Information and Health Promotion
Title XIX		Block Grants
Birth Defects and Developmental Disabilities		
Title II		Administration and Miscellaneous Provisions
Title III		General Powers and Duties of Public Health Service
Title XI		Genetic Diseases, Hemophilia Programs, and Sudden Infant Death Syndrome
Title XVII		Health Information and Health Promotion

Legislative Citation (Public Health Service Act, unless otherwise indicated)	Subdivision	Function
Environmental Health		
Title II		Administration and Miscellaneous Provisions
Title III		General Powers and Duties of Public Health Service
Title XVII		Health Information and Health Promotion
Public Health Scientific Services		
Title II		Administration and Miscellaneous Provisions
Title III		General Powers and Duties of Public Health Service
Title XVII		Health Information and Health Promotion
Injury Prevention and Control		
Title II		Administration and Miscellaneous Provisions
Title III		General Powers and Duties of Public Health Service
Title XVII		Health Information and Health Promotion
National Institute for Occupational Safety and Health		
Title II		Administration and Miscellaneous Provisions
Title III		General Powers and Duties of Public Health Service
Title XVII		Health Information and Health Promotion
Federal Mine Safety and Health Act Title I	101	General Mandatory Safety and Health Standards
Federal Mine Safety and Health Act Title I	102	General Advisory Committees
Federal Mine Safety and Health Act Title I	103	General Inspections, Investigations, and Recordkeeping
Federal Mine Safety and Health Act Title II	201	Interim Mandatory Health Standards Coverage
Federal Mine Safety and Health Act Title II	202	Interim Mandatory Health Standards Dust Standard and Respiratory Equipment
Federal Mine Safety and Health Act Title II	203	Interim Mandatory Health Standards Medical Examinations
Federal Mine Safety and Health Act Title III	301	Interim Mandatory Safety Standards for Underground Coal Mines Coverage
Federal Mine Safety and Health Act Title V	501	Administration Research
Public Law 106-554 Title I	Div. B, Sec. 151(b)	Pursuant to the Balanced Budget and Emergency Deficit Control Act of 1985 (Amounts used for the Energy Employees Occupational Illness Compensation Program will be in the form of direct spending)
Global Health		
Title II		Administration and Miscellaneous Provisions

Legislative Citation (Public Health Service Act, unless otherwise indicated)	Subdivision	Function
Title III		General Powers and Duties of Public Health Service
Title XVII		Health Information and Health Promotion
Public Health Preparedness and Response		
Title II		Administration and Miscellaneous Provisions
Title III		General Powers and Duties of Public Health Service
Title XVII		Health Information and Health Promotion
Buildings and Facilities		
CDC-Wide Activities and Program Support		
Title II		Administration and Miscellaneous Provisions
Title III		General Powers and Duties of Public Health Service
Title XVII		Health Information and Health Promotion
Title XIX		Block Grants
Title XXVIII	Subtitle C, Sec. 2821	National All-Hazards Preparedness for Public Health Emergencies Strengthening Public Health Surveillance Systems Epidemiology-Laboratory Capacity Grants
Title XXVIII	Subtitle C, Sec. 2821, Subsec. (b), Paragraphs (1) through (3)	The specific amounts for activities under this authority were only valid for the years 2010-2013

Enabling Legislation Citation[1]	Enabling Legislation Status	Allocation Methods
Immunization and Respiratory Diseases		
PHSA Title II, §§ 301, 307, 310, 311, 317, 317N, 317S, 319, 319C, 319E, 319F, 322, 325, 327, 340C, 352, Title XVII*, 2102(a)(6), 2102(a)(7), 2125, 2126, 2127, 2821; Immigration and Nationality Act §§ 212 (8 U.S.C. 1182), 232 (8 U.S.C. 1222); Social Security Act § 1928 (42 U.S.C. 1396s)	Permanent Indefinite	Direct Federal/Intramural; Competitive Cooperative Agreements/Grants, including Formula Grants; Contracts; and Other
HIV/AIDS, Viral Hepatitis, STD, and TB Prevention		
PHSA Title II, §§ 301, 306(a-l), 306(n)*, 307, 308(d), 310, 311, 317, 317E(a-f)*, 317E(g)*, 317N(a-b), 317N(c)*, 317P(a-c), 318(a-d), 318(e)*, 318(f), 318B*, 322, 325, 327, 352, Title XVII*, 2315, 2320, 2341; Title II of P.L. 103-333;	Permanent Indefinite	Direct Federal/Intramural, Competitive Grant/Cooperative Agreements, Formula Grants/Cooperative Agreements, Contracts, and Other
Emerging and Zoonotic Infectious Diseases		
PHSA §§ 252, 264, 301, 304, 307, 308(d), 310, 311, 317, 317P, 317R, 317S, 319, 319D, 319E*, 319F, 319G, 321, 322, 325, 327, 352, 353, 361–369, 1102, Title XVII*, 2821*; P.L.	Permanent Indefinite	Direct Federal/Intramural, Contracts, and Competitive Grants/Cooperative Agreements

Enabling Legislation Citation[1]	Enabling Legislation Status	Allocation Methods
96–517; P.L. 111-5; Immigration and Nationality Act §§ 212, 232 (8 U.S.C. 1182, 8 U.S.C. 1222, 8 U.S.C. 1252)		
Chronic Disease Prevention and Health Promotion		
PHSA Title II §§ 301, 307, 310, 311, 317*, 317D*, 317H, 317K*, 317L*, 317M*, 317P*, 330E, 399B*–399D, 399E, 399NN*, 399Q*, 399V-3*–399Z*, 1501–1509*, Title XVII*; Fertility Clinic Success Rate And Certification Act of 1992 (P.L. 102-493); Comprehensive Smoking Education Act of 1984, P.L. 98-474 (15 U.S.C. 1335(a) and 15 U.S.C. 1341); Comprehensive Smokeless Tobacco Health Education Act of 1986 (P.L. 99-252); The Patient Protection and Affordable Care Act of 2010,§ 4201* (P.L. 111-148)	Permanent Indefinite	Direct Federal Intramural; Competitive Cooperative Agreements/Grants, including Formula Grants; and Competitive Contracts
Birth Defects and Developmental Disabilities		
PHSA Title II §§ 301, 304, 307, 308(d), 310, 311, 317, 317C(a)*, 317J*, 317K*, 317L*, 317Q, 327, 352, 399M, 399Q*, 399S, 399T, 399V-2*, 399AA*, 399BB, 399CC; 1102,1110, 1112-1114, Title XI, Title XVII*; The Prematurity Research Expansion And Education For Mothers Who Deliver Infants Early Act §§ 3,5 (42 U.S.C. 247b-4f* and 42 U.S.C. 247b-4g)	Permanent Indefinite	Direct Federal/Intramural, Competitive Grants, Cooperative Agreements and Contracts
Environmental Health		
PHSA Title II §§ 301, 307, 310, 311, 317*, 317A*, 317B*, 317I*, 327, 352, 361, 366, 1102; Title XVII*	Permanent Indefinite	PHSA Title II §§ 301, 307, 310, 311, 317*, 317A*, 317B*, 317I*, 327, 352, 361, 366, 1102; Title XVII*
Injury Prevention and Control		
PHSA Title II §§ 214, 215, 301, 304, 307, 308, 310, 311, 317, 319, 319D*, 327, 352, 391*, 392*, 393*, 393A*, 393B*, 393C*, 393D*, 394*, 394A*, 399P*, 1102; Title XVII*, Bayh-Dole Act of 1980 (P.L. 96-517); Safety of Seniors Act of 2007 (P.L. 110-202); Traumatic Brain Injury Reauthorization Act of 2014 (P.L. 113-196); Family Violence Prevention and Services Act §§ 303 (42 U.S.C. 10403)*, 314 (42 U.S.C. 10414)*	Permanent Indefinite	Direct Federal/Intramural; Competitive Cooperative Agreements/Grants, including Formula Grants; and Competitive Contracts
Public Health Scientific Services		
PHSA Title II §§ 241, Title III 301, 304, 306*, 307, 308, 310, 317, 317G, 318, 319, 319A, 353, 391, 399V, 778*, 1102, Title XVII*, 2315, 2341, 2521*; P.L. 107-347, Title V (44 U.S.C. 3501 note); Intelligence Reform and Terrorism Prevention Act of 2004 § 7211* (P.L. 108-458); Food, Conservation, And Energy Act of 2008 § 4403 (7 U.S.C. 5311a); P.L. 101-445 § 5341 (7 U.S.C. 5341); The Patient Protection and Affordable Care Act of 2010 (P.L. 111-148)	Permanent Indefinite	Direct Federal/Intramural, Competitive Grants/Cooperative Agreements, Contracts
Occupational Safety and Health		
PHSA Title II §§ 301, 304, 306, 307, 308(d), 310, 311, 317, 317A, 317B, 319, 327, 352, 399MM, 1102, Title XVII, 2695; Occupational Safety and Health Act of 1970 §§20–22, P.L. 91-596 as amended by P.L. 107-188 and 109-236 (29 U.S.C. 669–671); Federal Mine Safety and Health Act of 1977, P.L. 91-173 as amended by P.L. 95-164 and P.L. 109-236 (30 U.S.C. 811–813, 842, 843–846, 861, 951–952, 957, 962, 963, 964); Black Lung Benefits Reform Act of 1977 § 19, P.L. 95-	Permanent Indefinite	Direct Federal/Intramural, Competitive Grant/Cooperative Agreements, Contracts, Other

Enabling Legislation Citation[1]	Enabling Legislation Status	Allocation Methods
239 (30 U.S.C. 902); Bureau of Mine Act, as amended by P.L. 104-208 (30 U.S.C. 1 note, 3, 5); Radiation Exposure Compensation Act, §§ 6 and 12 (42 U.S.C. 2210 note); Energy Employees Occupational Illness Compensation Program Act of 2000, as amended (42 U.S.C. §§7384, et seq.); Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 §§ 3611, 3612, 3623, 3624, 3625, 3626, 3633 of P.L. 106-398; National Defense Authorization Act for Fiscal Year 2006, P.L. 109-163; Toxic Substances Control Act, P.L. 94-469 as amended by 102-550, (15 U.S.C. 2682, 2685); Ryan White HIV/AIDS Treatment Extension Act of 2009 § 2695, P.L. 111-87 (42 U.S.C. 300ff-131); **James Zadroga 9/11 Health And Compensation Reauthorization Act (2015), Division O, Title III, P.L 114-113**		
Global Health		
PHSA Title II §§ 301, 304, 307, 310, 319*, 327, 340C, 361–369*, Title VVII*, 2315, 2341; Foreign Assistance Act of 1961 §§ 104, 627, 628; Federal Employees International Organization Service Act § 3 (5 USC 3343); International Health Research Act of 1960 § 5; Agriculture Trade Development and Assistance Act of 1954 § 104; 38 U.S.C. § 3968; Foreign Employees Compensation Program (22 U.S.C. 3968); Tom Lantos and Henry J. Hyde United States Global Leadership Against HIV/AIDS, Tuberculosis, and Malaria Reauthorization Act of 2008 (P.L.110-293); PEPFAR Stewardship & Oversight Act of 2013 (P.L. 113-56); Section 212 of the Consolidated Appropriations Act, 2016 (P.L. 114-113, Division H)	Permanent Indefinite	Direct Federal/Intramural, Competitive Grants/Cooperative Agreements, Direct Contracts, Interagency Agreements
Public Health Preparedness and Response		
PHSA Title II §§ 301, 307, 310, 311, 319, 319C-1, 319D, 319F, 319F-2, 319G*, 351A*, 361, Title XVII*, 2801, 2812	Permanent Indefinite	Direct, Federal Intramural, Cooperative Agreements, including Formula Grants/Cooperative Agreements; and Contracts
Buildings and Facilities		
Consolidated Appropriations Act of 2016, PL 114-113	Permanent Indefinite	Direct Federal/Intramural, Contracts
CDC-Wide Activities and Program Support		
PHSA Title II §§ 301, 304, 306*, 307, 308, 310, 311, 317, 317F*, 319, 319A, 319D, 322, 325, 327, 352, 361–369, 391*,Title XVII*, 2821	Permanent Indefinite	Direct Federal/Intramural, Contracts, Competitive Grants/Cooperative Agreements

*Expired/Expiring

Order of Succession

CDC Order of Succession

1. Principal Deputy Director, CDC
2. Deputy Director for Infectious Diseases
3. Associate Director for Science
4. Deputy Director for Noncommunicable Diseases, Injury, and Environmental Health
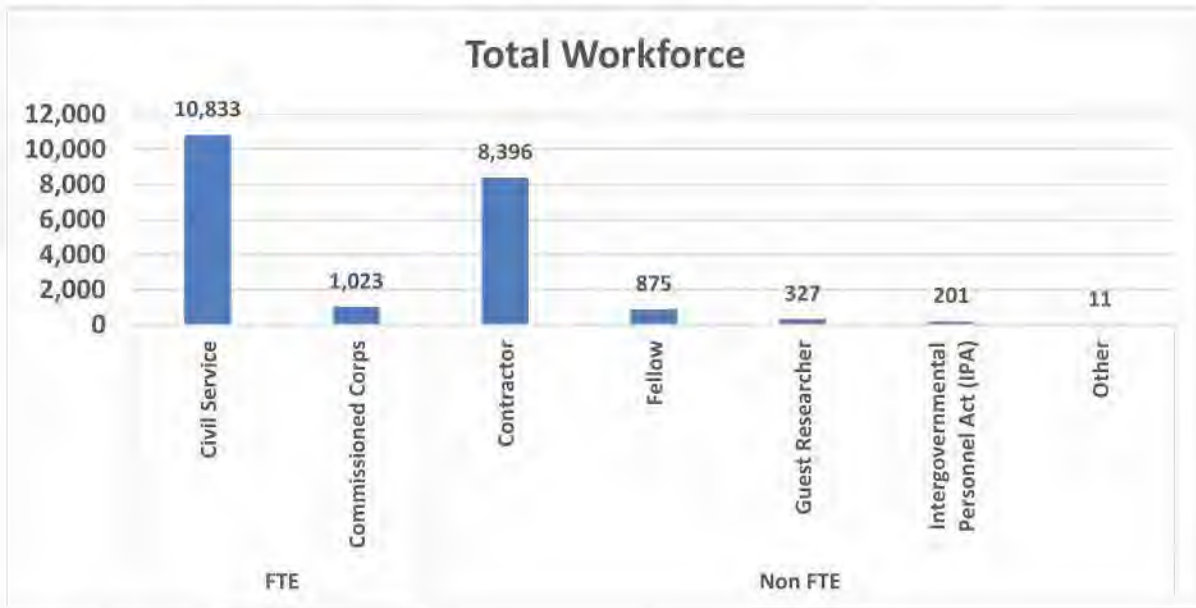
ATSDR Order of Succession

1. Administrator, ATSDR
2. Principal Deputy Administrator, ATSDR
3. Assistant Administrator, ATSDR
4. Deputy Director for Noncommunicable Diseases, Injury, and Environmental Health

Workforce Data and Trends

CDC's workforce, as of September 30, 2016, included 11,842 permanent full-time equivalent (FTE) employees, commissioned corps, and temporary/term appointees. As the only Federal agency headquartered outside Washington, D.C., 75 percent of CDC employees are located in Atlanta. Other CDC staff are stationed at CDC campuses outside Atlanta and in quarantine stations, and embedded in state and local health departments across the United States. CDC also has more than 2,000 staff (including locally employed staff) working in more than sixty countries outside the United States.

The following chart includes contractors, fellows, and other types of non-FTE appointments.

Total Workforce

Category	Value
Civil Service (FTE)	10,833
Commissioned Corps (FTE)	1,023
Contractor (Non FTE)	8,396
Fellow (Non FTE)	875
Guest Researcher (Non FTE)	327
Intergovernmental Personnel Act (IPA) (Non FTE)	201
Other (Non FTE)	11

The following charts include FTEs only.

Race and Gender

Race	Female	Male
2 or more races	10	6
AI/AN	25	15
Asian	652	434
Black	2,448	893
Hispanic	278	148
Unknown	246	117
White	3,866	2,701

Note: 17 respondents did not report on gender.

Grade

Grade	Count
GS-04 and below	20
GS-05	217
GS-06	55
GS-07	326
GS-08	59
GS-09	473
GS-10	54
GS-11	993
GS-12	1,801
GS-13	3,283
GS-14	2,573
GS-15	875
All Other	1,127

Age

Average Age = 47

Length of Federal Service

Average Years in Service = 13 years

About 14 percent of the CDC workforce is currently eligible to retire, and nearly a third of the CDC workforce is eligible to retire in the next five years.

Retirement Eligibility

Population Change, 2011 to 2016
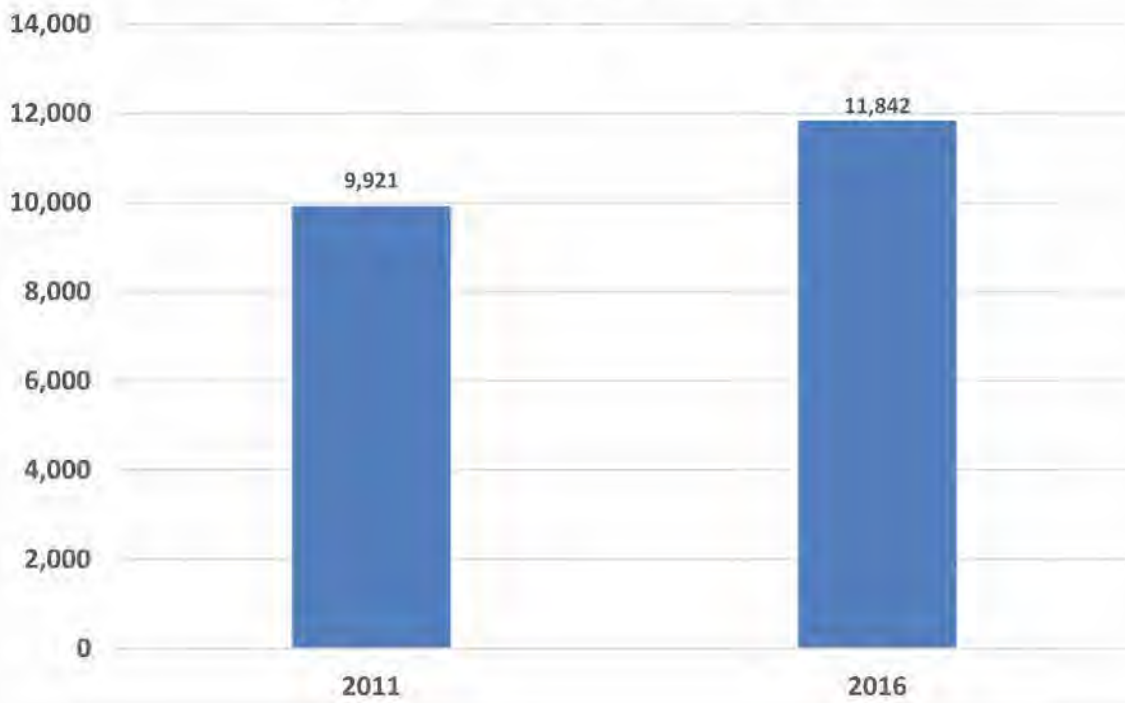
Occupational Series Change, 2011 to 2016

Legend: ■ 2011 Population ■ Increase ■ Decrease
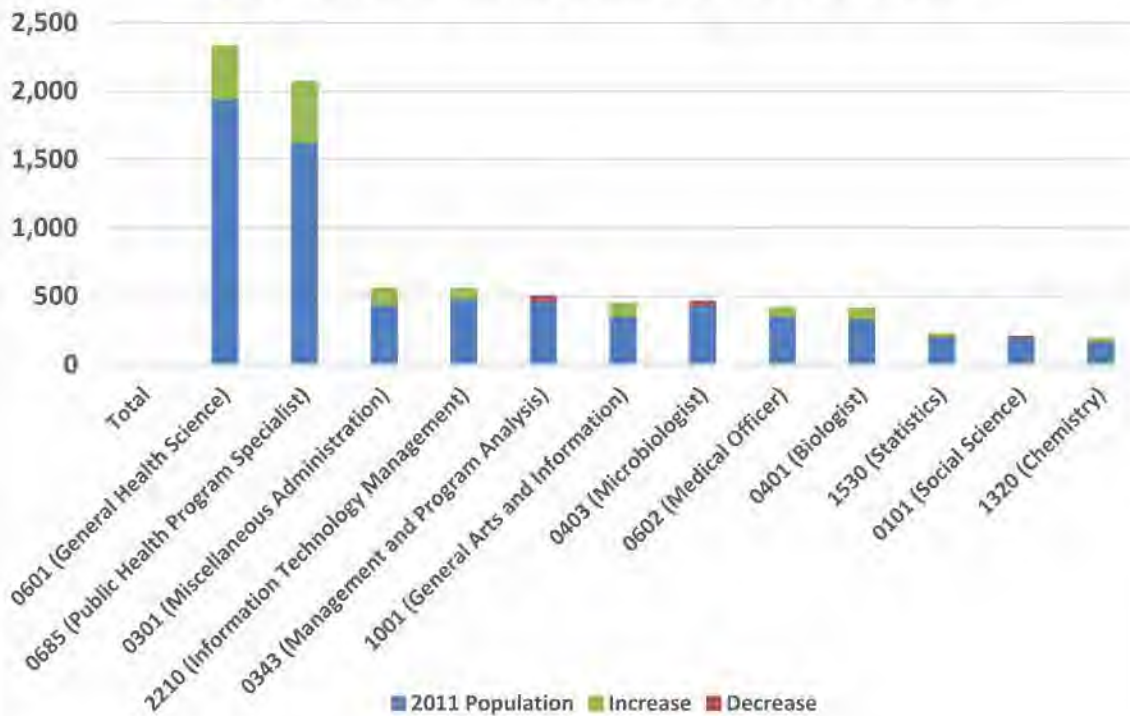
Note: Data limited to occupational series with at least 200 FTEs in 2016.

Organizational Culture

The Best Places to Work in the Federal Government® rankings group 75 Federal organizations into six mission areas: public health, law enforcement, national security, energy and environment, financial regulation and oversight. In 2015, CDC was ranked first in the public health mission area (70.9 Best Places to Work index score) and is consistently among the top tier of public health agencies when it comes to employee satisfaction and commitment. According to the Partnership for Public Service, which produces the Index, CDC's ranking is "in large part because of because of efforts by their leaders to improve the work environment and a generally high level of employee dedication to their jobs."

The Best Places to Work index is based largely on data from the Federal Employee Viewpoint Survey (EVS). CDC's EVS results show employee opinions about CDC are consistently higher than HHS and other Federal agencies.

EVS Satisfaction Index

CDC: 2011: 70.9%, 2012: 72.7%, 2013: 71.1%, 2014: 71.0%, 2015: 72.9%, 2016: 74.7%
HHS: 2015: 66.8%, 2016: 68.8%
USG: 2014: 61.2% (low point), 2015: 61.2%

EVS Engagement Index

CDC: 2011: 67.9%, 2012: 70.8%, 2013: 70.5%, 2014: 70.0%, 2015: 71.5%, 2016: 74.7%
HHS: 2015: 67.7%, 2016: 69.8%
USG: 2014: 64.0%, 2016: 65.0%
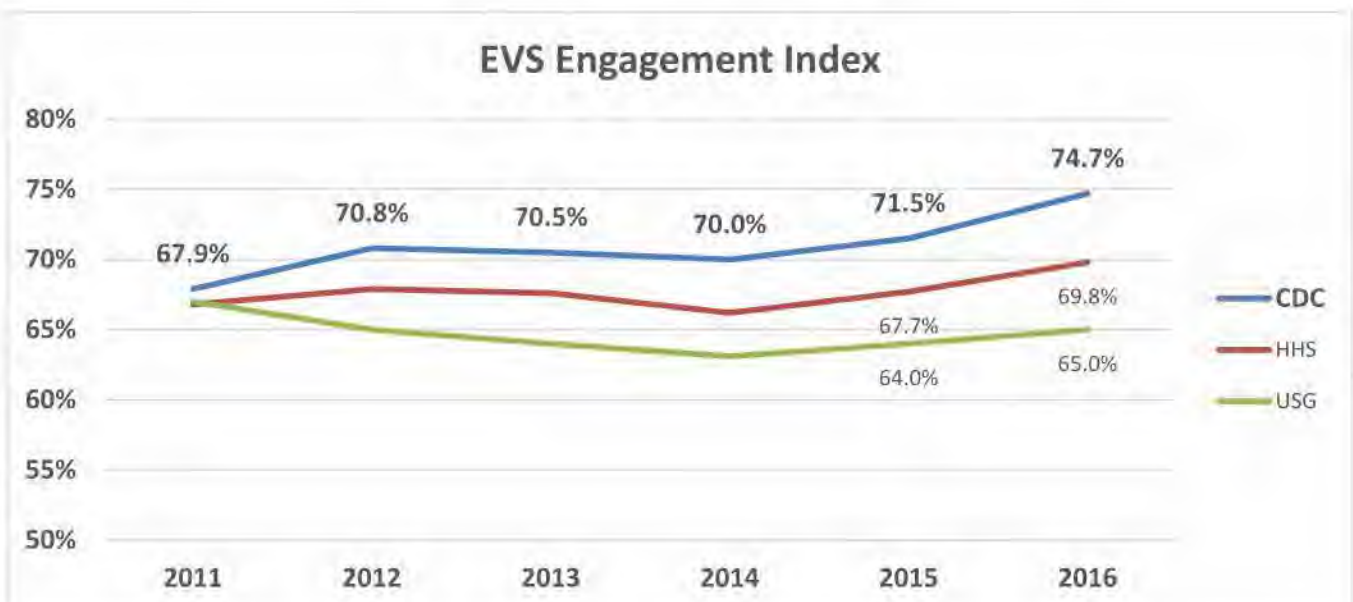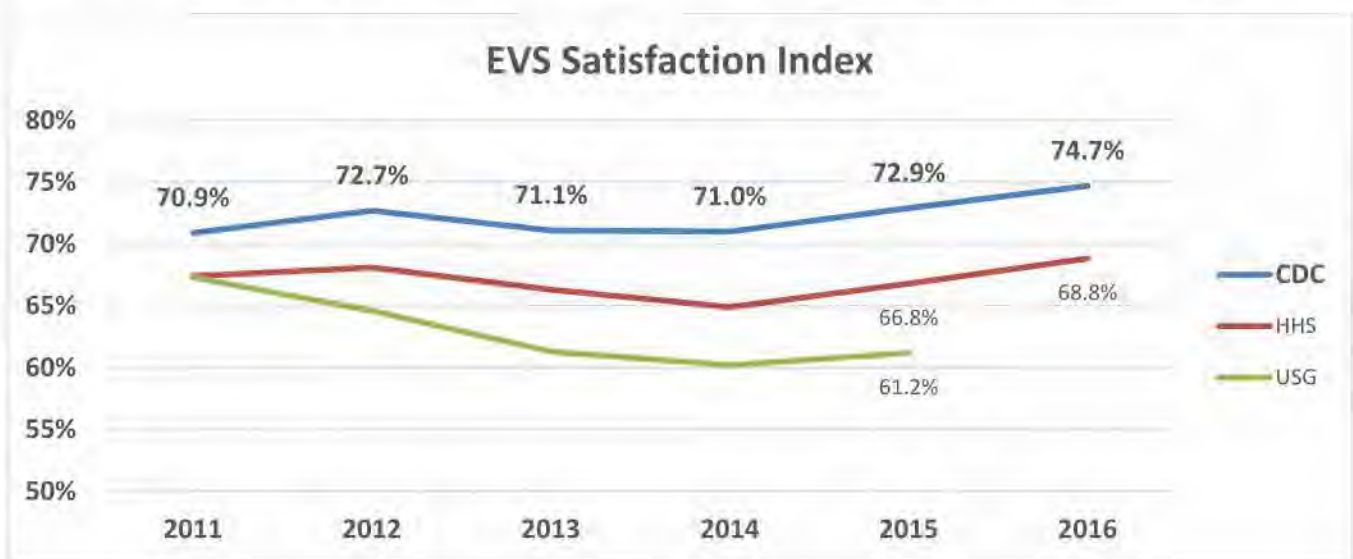
Public Opinion

The 2015 Harris poll found 89 percent of Americans understand what CDC does, and of those who understand, 69 percent feel positively about CDC.

The Pew Research Center also found CDC is the third most favorably viewed Federal agency (71 percent).

Positive Public View of Federal Agencies

A horizontal bar chart titled "Positive Public View of Federal Agencies" showing the percentage of total for each agency:
- USPS: approximately 84
- NPS: approximately 75
- CDC: approximately 71
- NASA: approximately 70
- FBI: approximately 68
- DHS: approximately 64
- DOD: approximately 63
- CIA: approximately 57
- SSA: approximately 55
- HHS: approximately 54

X-axis: Percentage of Total (0 to 100)

Source: Pew Research Center, Sept 2015

Important Relationships with Other Federal Agencies

CDC works collaboratively with virtually every Federal agency on a wide variety of critical issues. Listed below are examples of the type of work CDC does with outside agencies:

- CDC works closely with the **Department of Justice**, to address risk factors for violence. With partners, CDC implements violence prevention interventions to improve the ability to track trends, implement effective interventions, and share successes. The **Department of Education** is another partner CDC works with to gather and analyze data from a variety of sources to gain a more complete understanding of school violence.
- CDC emphasizes primary prevention of lead poisoning through the elimination and control of lead hazards before children are exposed. Working with the **Department of Housing and Urban Development** and the **Environmental Protection Agency**, CDC data help identify housing properties where multiple children have been lead poisoned and target lead hazard reduction enforcement actions.
- Building on efforts to establish Antibiotic Resistance tracking, CDC works with the **Department of Defense** and the **Department of Veterans Affairs** to facilitate antibiotic use reporting from their healthcare facilities to better prevent the spread of potentially untreatable infections in these settings.
- CDC works closely with the **Federal Drug Administration** and the **United States Department of Agriculture** on food safety issues recalls, in order to prevent and control foodborne outbreaks.
- CDC partners with the Animal and Plant Health Inspection Service of the **United States Department of Agriculture** to administer the Federal Select Agent Program. The program oversees the possession, use, and transfer of biological select agents and toxins that have the potential to pose a severe threat to public, animal, or plant health or to animal or plant products.
- CDC developed methods for testing and rating hearing protector performance and assessing exposure risk included in the **Department of Defense** noise limit criteria acquisition standard released April 2015. This new standard sets the maximum permissible noise levels for military systems, facilities, and equipment.
- CDC's Energy Employees Occupational Illness Compensation Program Act is a mandatory Federal program that provides compensation to **Department of Energy** employees or survivors of employees who have been diagnosed with a radiation-related cancer, beryllium-related disease, or chronic silicosis because of their work in producing or testing nuclear weapons.
- CDC receives interagency funding from the **Department of State** to implement President's Emergency Plan for AIDS Relief to accelerate progress toward achieving an AIDS-free generation and create a lasting infrastructure that allows partner countries to respond to a range of health challenges and threats. CDC works with many implementing partners overseas, including the **United States Agency for International Development**, **Peace Corps**, and the **Department of Defense**.
- CDC collaborated with the **Department of Defense** to expand the number of Laboratory Response Network laboratories that could quickly and accurately test for the Ebola virus in 2015.
- CDC's surveillance system for the timely exchange of syndromic data are accessed by Federal agencies including the **Department of Defense** and the **Department of Veterans Affairs** to improve nationwide situational awareness and enhance responsiveness to hazardous events and disease.
- CDC works with the **Department of Veterans Affairs** on research and surveillance studies on the health of veterans. The data and research findings from these studies help Veteran Affairs health professionals improve healthcare practices for veterans.
- CDC works with the **United States Agency for International Development** on various activities, including the Emerging Pandemic Threats program, which emphasizes early identification of, and response to, dangerous pathogens in animals before they can become significant threats to human health. These efforts are critical to the sustainability of long-term pandemic prevention and preparedness.

- CDC's HIV surveillance systems provide other Federal programs—including those at the **Health Resources and Services Administration** and the **Department of Housing and Urban Development**—with data to guide the allocation of Federal funding for HIV care, treatment, and housing programs.
- Through funding from the **Centers for Medicare & Medicaid Services**, CDC implements the Vaccines for Children program to provide immunization services for uninsured and underinsured populations in the United States and supports the scientific evidence base for vaccine policy and practices.
- CDC, in collaboration with the **Department of Homeland Security**, has implemented Federal travel restriction procedures to protect travelers and the public from communicable diseases that constitute a public health threat.
- CDC works with virtually every component of the **National Institutes of Health**. In the area of diagnostic innovation, CDC is working with the National Institutes of Health to evaluate a multiplex diagnostic assay that can detect exposure to multiple pathogens.
- CDC coordinates with the **Substance Abuse and Mental Health Services Administration** on opioid overdose prevention and suicide prevention.
- CDC collaborates with the **Administration on Children and Families** and the **Health Resources and Services Administration** to reach very young children in Federal early childhood services such as Early Head Start and Healthy Start with CDC's Legacy for Children™ parenting program.
- Million Hearts® is a national initiative co-led by CDC and the **Centers for Medicare & Medicaid Services** to coordinate and enhance cardiovascular disease prevention activities across the public and private sectors in an effort to change the environment to help prevent cardiovascular disease.
- CDC is providing support for full implementation of its surveillance, prevention, and stewardship activities to advance the goals of the White House's National Strategy for Combating Antibiotic-Resistant Bacteria. The interagency Combating Antibiotic-Resistant Bacteria Task Force, co-chaired by the secretaries of **Defense, Agriculture**, and **Health and Human Services**, coordinates implementation of the National Action Plan. Within HHS, CDC works with the **Centers for Medicare & Medicaid Services, National Institutes of Health, Food and Drug Administration**, and **Agency for Healthcare Research and Quality**.

Top Issues for New Leadership

Quick Wins

In the coming months, there will be a number of opportunities for the new Administration to enhance CDC's ability to meet its mission and increase the health security of Americans. These include:

Rapid Response Reserve for Public Health Emergencies

Need: Establishment of a funding mechanism, with authorities that allow CDC to engage and obligate dollars quickly, to better position the agency to save lives and money.

Timing: Several Congressional proposals have been introduced, including $300 million for an Infectious Disease Rapid Response Reserve Fund in the House Labor-HHS-Education appropriations bill, a $2 billion fund in the Centers for Disease Control and Prevention Emergency Response Act of 2016, and a fund containing an average of the costs prior emergencies in the Public Health Emergency Response and Accountability Act. These proposals differ in their purposes, with the $300 million fund providing a head start on large responses, and the larger funds supporting full responses. They also propose various triggers for use of the fund and a range of administrative flexibilities. The Administration will have the opportunity to include a reserve in the FY 2018 budget process, and Congress could promote a standalone bill, or include the reserve in proposed legislation, at any time.

Background: Public health emergencies are unpredictable and can be costly. The costs of the Severe Acute Respiratory Syndrome (SARS) epidemic in 2003 have been estimated at over $50 billion. In 2008, the World Bank estimated that a severe influenza pandemic could result in $3 trillion in global economic losses, which is equivalent to 4.8 percent of gross domestic product. The World Bank estimates the regional economic damage of West Africa's Ebola outbreak to have been $2.2 billion between 2014 and 2015. The World Bank has mobilized around $1.6 billion for Ebola response and recovery efforts, some of which could have likely been avoided with swifter action to contain the outbreak. Unlike the Federal Emergency Management Agency's Disaster Relief Fund, which they can use to direct, coordinate, manage, and fund eligible response and recovery efforts associated with domestic major disasters and emergencies, there is no readily available funding mechanism to quickly respond to public health emergencies, domestic or international. If U.S. government response capabilities were oriented toward public health emergencies, implementation of appropriate and immediate early interventions could prevent an aggressive outbreak from becoming an epidemic, and prevent an epidemic in a country or region from developing into a world-wide pandemic. A true contingency funding mechanism, with authorities that support rapid response, is an important opportunity to achieve better results during the early stages of a public health emergency.

Zika Virus

Need: Continued leadership focus and support for CDC's ongoing efforts to stop the spread of the Zika virus and to increase knowledge of the health effects of Zika virus, discover new tools to reduce the mosquito populations that can spread Zika and other diseases, and begin to rebuild the eroded capacity for vector surveillance in states and territories.

Timing: Since early 2016, CDC has been directly engaged with the U.S. response to the Zika virus and approximately 1,900 CDC staff members have provided support to date.

Background: CDC managed the response in fiscal year (FY) 2016 with reprogrammed resources. As of September 30, 2016, CDC obligated approximately $217 million in the United States and territories, and more than $56

million internationally (international funds from an interagency agreement with United States Agency for International Development). A Zika supplemental funding bill provided CDC with an additional $350 million through September 30, 2017. The majority of this funding will be provided to states, territories, localities, and universities in the first half of FY 2017 through cooperative agreements. Zika has been an unprecedented and complex response, and the world will be dealing with implications from this disease for years to come. CDC's key priority in responding to this epidemic is to reduce the risk of Zika virus infection for pregnant women. CDC is working intensively with Puerto Rico and other areas with local transmission of the virus to provide information to women who are or who may become pregnant (and their partners) to reduce the threat of Zika to the developing fetus. Knowledge of the health effects of Zika virus is continuing to evolve. Funding supports maximizing use of current tools to reduce the mosquito populations that can spread Zika and other diseases, beginning to rebuild the eroded capacity for vector surveillance in states and territories, and advancing innovative mosquito control tools that may be safer and more effective than today's methods. Puerto Rico is a particular focus for vector surveillance and control, and CDC has funded a partner to create a Puerto Rico Vector Control Unit. CDC's focus is protecting the health, safety, and security of Americans; learning more about Zika and fighting it is a top priority for the agency.

Non-recurring Expenses Fund and CDC's Buildings and Facilities

Need: HHS continued support for CDC's request for additional funds in FY 2017 and beyond from the Non-recurring Expense Fund (NEF) to complete critical infrastructure projects.

Timing: In early 2017, HHS leadership will consider how to allocate remaining FY 2017 NEF funds and begin the FY 2018 allocation process.

Background: NEF permits HHS to transfer unobligated balances of expired discretionary funds from FY 2008 and subsequent years into the NEF account. Congress authorized use of the funds for capital acquisitions including information technology and facilities infrastructure. CDC relies heavily on these funds to support critical infrastructure, including replacement of aging facilities.

Most urgently, current infrastructure at CDC's Roybal Campus headquarters is inadequate to support the intensive demands of ongoing laboratory work and the campus population of over 5,000 staff. Infrastructure improvements are necessary to support existing and planned laboratory facilities, which draw greatly on utilities, and require intricate and reliable support systems to maintain a safe and scientifically-advanced research environment. In addition, the parking demand on the Roybal campus exceeds capacity due to lack of public transportation in the surrounding area and increased space utilization requirements. Roybal infrastructure improvements are estimated at close to $100 million. This lack of support for the basic needs of CDC's infectious disease workforce and laboratory scientists inhibits scientific productivity and collaboration.

A lack of investment in facilities improvements has resulted in a nationwide decline in the condition of CDC facilities. CDC's buildings portfolio includes 192 buildings and 27 support facilities in metro Atlanta, Anchorage, Cincinnati, Morgantown, Pittsburgh, San Juan, Fort Collins, and Spokane. Of CDC's 192 buildings, only 33 are less than 10 years old. Forty-three percent are more than 40 years old. CDC's current backlog for repairs and improvements, as well as infrastructure projects, is well over hundreds of millions of dollars. Yet, CDC's FY 2016 appropriation for buildings and facilities was only $10 million.

Fiscal Year 2017 Continuing Resolution

Need: Engage with Congress to ensure support for CDC's top priorities in the FY 2017 President's Budget request.

Timing: CDC is currently operating under a continuing resolution (through December 9, 2016).

Background: Please refer to the section titled <u>Implications of Continuing Resolutions</u> for more information.

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Lead Poisoning Prevention Efforts across the United States

Need: Additional funding for CDC to enhance the on-going lead prevention activities and establish a registry for children who were exposed to lead in Flint, Michigan.

Timing: In FY 2016, the Senate passed the Water Resources Development Act, which included $30 million in mandatory spending for CDC for a registry, an advisory committee ($20 million), and an increase for the Childhood Lead Prevention Program ($10 million over 2 years). While the House-passed version does not include this funding, it is likely the House and Senate will agree to the Senate-passed version of these provisions.

Background: CDC's National Center for Environmental Health and the Agency for Toxic Substances and Disease Registry led CDC's response to the lead crisis in Flint, Michigan. As part of those efforts, the agency educated Congressional offices regarding the lead surveillance program that was eliminated by Congress in FY 2012. This funding was restored in FY 2014, however, at a considerably reduced level. With passage of the Water Resources Development Act in the Senate, there is support for further increasing program funding and expanding the program to additional states. Assuming funding is provided in late 2016, CDC will be well positioned to launch a revitalized national lead prevention program, while establishing a registry of affected children in Flint, Michigan.

Opportunities for Public Health Modernization

Looking beyond the first 90 days, the Administration will have the opportunity to promote CDC's unique role protecting America's health security by investing in the nation's public health infrastructure. A few key examples of these opportunities are listed below.

Public Health Innovation and Infrastructure

CDC supports public health innovation and makes investments in nationwide infrastructure, including laboratories, surveillance, and the public health workforce. These investments strengthen the nation's public health system. However, efforts by federal, state, and local public health departments around the country to

build a resilient public health system have been limited by funding and a shrinking public health workforce. A robust and well-trained public health workforce is critical to protecting America's health and successfully safeguarding our population. Enhancing the public health infrastructure will ensure the nation has the ability to prevent, detect, and respond to emerging health threats.

Advanced Molecular Detection: CDC can improve pathogen identification and detection, continue to develop next-generation diagnostics to meet evolving public health needs, implement sustainable and integrated laboratory information systems, and develop tools for prediction, modeling, and early recognition of emerging infections. Imagine doing a 10,000-piece jigsaw puzzle in the time it takes to finish a 100-piece puzzle. Apply that to infectious disease control, and that's Advanced Molecular Detection (AMD) at work. Now imagine putting together that 10,000-piece puzzle when key pieces are missing, disease is spreading, and people are dying. AMD gives CDC scientists the "key pieces" they need to protect people from ever-changing infectious disease threats. CDC received Congressional support in FY 2014 to launch AMD. AMD has allowed CDC to identify more precise methods of diagnosing known and emerging infections, detecting and responding to outbreaks, understanding, characterizing, and controlling antibiotic resistance, and developing and targeting health prevention measures, including vaccines.

Buildings and Facilities: For CDC's public health work to protect the health and safety of the nation, CDC must invest in buildings and facilities that support a safe, world-class research environment. Both major capital investment and repair of current buildings and facilities are essential to ensure that CDC is able to maintain its ability to respond to the public health needs in the next decade.

- (b)(5)

- Current infrastructure at CDC's Roybal Campus headquarters is inadequate to support the intensive demands of ongoing laboratory work and the campus population of over 5,000 staff. Infrastructure improvements are necessary to support existing and planned laboratory facilities, which draw greatly on utilities and require intricate and reliable support systems to maintain a safe and scientifically-advanced research environment. Furthermore, the parking demand on the Roybal campus exceeds capacity due to lack of public transportation in the surrounding area and increased space utilization requirements.
- In addition, there are opportunities to construct, renovate, or expand laboratories and office space around the United States:
  - High containment and special pathogen laboratory capacity in Atlanta, Georgia (Roybal campus)
  - Environmental health laboratory and office space in Atlanta, Georgia (Chamblee campus)
  - (b)(7)(E)
  - Pittsburgh, Pennsylvania Research Center
  - Occupational health laboratories in Morgantown, West Virginia
  - Lake Lynn Laboratory and underground research mine replacement (new location TBD)
  - Vector-borne laboratory and insectary capacity in San Juan, Puerto Rico
  - Vector-borne viral and bacterial laboratory capacity in Ft. Collins, Colorado

Laboratory Response Network: The Laboratory Response Network (LRN) was established by CDC in accordance with Presidential Decision Directive 39, which outlined national anti-terrorism policies and assigned specific missions to Federal departments and agencies, to ensure an effective laboratory response to bioterrorism by helping to improve the nation's public health laboratory infrastructure, which had limited ability to respond to bioterrorism. Today, the LRN maintains an integrated network of state and local public health, Federal, military, and international laboratories that can respond to bioterrorism, chemical terrorism, and other public health emergencies. LRN is a unique asset in the nation's growing preparedness for biological and chemical terrorism. The linking of state and local public health laboratories, veterinary, agriculture, military, and water- and food-testing laboratories is unprecedented. LRN plays an instrumental role in improving the public health infrastructure by helping to boost laboratory capacity.

Integrated Public Health Surveillance Platform: Modernization of informatics and information technology is critical for CDC to respond to new public health threats and effectively make use of growing health care data and information relevant to public health. By developing an integrated public health surveillance platform, CDC will enable public health programs to focus on practice and science using the effective technology, tools, and services developed on the platform. An integrated CDC surveillance platform will provide the environment and infrastructure to create shared services for public health surveillance functions. Modernization of the surveillance platform will enhance CDC's ability to fulfill its mission through:

- Improving the timeliness and quality of data received electronically by CDC and made available to public health programs
- Improving the cost efficiency of developing and maintaining surveillance activities
- Improving the bidirectional interoperability of CDC surveillance activities with electronic health records and other health information technology systems
- Reducing the number of independent, stand-alone systems
- Reducing the reporting burden on external partners to share public health data and information with CDC
- Reducing the length of time between determining surveillance data of interest, receiving data electronically, sharing with programs, and using the data to impact public health

Public Health Workforce Training Programs: The public health workforce must have the capacity to confront emerging communicable diseases, prevent chronic diseases and health effects from environmental hazards, assist communities in preparing for natural and man-made disasters, and be prepared to handle health threats that arise from outside our borders. The United States has seen a dramatic decline in the state and local public health workforce. CDC is a world-renowned leader in the field of workforce development. CDC sponsors a variety of workforce programs to help fill this gap. Examples include:

- Epidemic Intelligence Service (EIS) is a hands-on, two-year postgraduate training program in epidemiology, with a focus on field work. For more than 60 years, EIS officers have been ready responders, identifying causes of disease outbreaks, recommending prevention and control measures, and implementing strategies to protect people from injury, disability, illness, and death. As CDC's "disease detectives," EIS officers have significant impact on improving the public's health. When disease outbreaks or other threats emerge, EIS officers are on the scene. They support over 100 public health investigations each year in the U.S. and worldwide.
- Field Epidemiology Training Program (FETP) trains a global workforce of field epidemiologists to create a cadre of well-trained "disease detectives" with the necessary skills to collect, analyze, and interpret public health data and turn it into action. FETP residents and graduates are CDC's global "boots on the ground" in the ongoing battle against infectious diseases, environmental hazards, and chronic diseases.
- Public Health Associate Program (PHAP) is a competitive, two-year, paid training program to provide experiential learning to early career professionals. PHAP associates are assigned to public health

agencies and nongovernmental organizations and work alongside other professionals in a variety of public health settings. After completing the program, PHAP graduates are qualified to apply for jobs with public health agencies and organizations.

- Laboratory Leadership Service (LLS) is a two-year laboratory fellowship that provides early career laboratory scientists with a strong foundation for future leadership and management positions in laboratories conducting public health research or providing clinical or environmental testing services. The program provides high-quality training that focuses on biosafety, quality management systems, and management and leadership competencies.

Global Health

CDC could better protect Americans from diseases and other health threats that begin overseas by stopping them before they spread to our shores.

CDC leverages its core strengths to advance four overarching global health goals: improving the health and well-being of people around the world, improving capabilities for preparing and responding to infectious diseases and emerging health threats, building country public health capacity, and maximizing organizational capacity. CDC stations staff in more than 60 countries, many embedded in ministries of health (MOH) and at the World Health Organization, and deploys others from the United States to provide technical assistance, mentoring, and broad support to build national and regional capacity. These technical exchanges offer expertise from CDC to partners, but also create opportunities for CDC to learn from partners and communities from direct in-country engagement.

These important global health outcomes would protect Americans at home and abroad, and could be advanced with increased funding for CDC's work in malaria and tuberculosis (TB):

- The World Health Organization estimates that more than 6.2 million malaria deaths were averted worldwide between 2000 and 2015. Success in reducing prevalence, as well as the emergence of drug and insecticide resistance, is creating a different malaria landscape. New tools and approaches to reduce transmission completely and to overcome technical challenges are needed to support elimination. These include diagnostics, strategic use of treatment drugs, surveillance methods, vector control strategies, and vaccines. Malaria can be eliminated. Additional investment in CDC's programs will help the world meet this achievable target, in coordination with the global health community.
- Although tuberculosis is nearly 100 percent curable, it is still one of the world's deadliest diseases and the leading cause of death among people with HI . There were nearly 500,000 cases of new multi-drug resistant (MDR) TB in 2015, and MDR-TB is now found in every country in the world. In addition, nearly 50,000 cases of extremely drug resistant (DR) TB have been identified in more than 90 countries. Even in countries with relatively low TB burden, such as the United States, TB and drug-resistant TB strain public health systems that must maintain a supply of expensive drugs and provide health services for patients that can stretch from six months to two years. Additional funding will strengthen the tuberculosis prevention program, including drug resistance, prevention of the spread of tuberculosis to patients and health care workers in hospitals and other health care facilities, better mapping the spread of tuberculosis, and ensuring complete treatment in order to save lives and prevent drug resistant TB.

Environmental Health

CDC has an opportunity to strengthen its environmental health research and public health program that monitors environmentally-related disease trends, and apply scientific evidence to address public health problems.

Investments in environmental public health infrastructure will improve health through the elimination of childhood lead exposure and improvement in asthma, cardiovascular disease, and other respiratory conditions.

In FY 2012, Congress decreased funding for CDC's Lead Poisoning Prevention Program by 93 percent, from $29.2 million to $2 million. Congress limited CDC's role in supporting data systems that track lead exposures in children, conducting laboratory proficiency testing, and working on evidence-based healthy homes policies. CDC was unable to support its dedicated network of state and local lead poisoning prevention programs in delivering critical services to children exposed to lead, such as screenings and environmental inspections. Additionally, CDC could not provide technical assistance in developing state and local lead poisoning prevention laws, conducting trainings, or assisting over 180,000 locations in need of lead remediation. Childhood lead exposure continues to be a major concern and remains widespread in the United States. At least 4 million households have children who are being exposed to high levels of lead. The lead exposure in Flint, Michigan is a stark reminder of the damage that environmental health threats can cause. Specific environmental health threats include drinking water contamination, environment-related food hazards, expansion of infectious disease, radiation emergencies, and the decline of the state, local, and tribal environmental health workforce, which is the frontline defense for environmental health in our communities. With additional funds, CDC would support a comprehensive lead poisoning prevention program in all 50 states and major cities, including:

- Robust detection (surveillance) systems to provide early warning of lead exposure
- Dissemination of best practices to reduce lead exposure through partnership development at the local and state levels
- Systems to ensure lead-exposed children receive appropriate follow-up services

Alzheimer's Disease and the Healthy Brain Initiative

CDC has an opportunity to strengthen public health's role in maintaining cognitive health, a vital part of healthy aging and quality of life.

Alzheimer's disease is the most common form of dementia. Dementias are irreversible and progressive brain diseases that begin with mild memory loss leading to an inability to care for themselves and to remain independent. Alzheimer's disease involves parts of the brain that control thought, memory, and language and can seriously impair a person's ability to carry out daily activities. Scientists do not yet understand what causes Alzheimer's disease. In 2016, as many as 5.4 million Americans were living with Alzheimer's disease. The symptoms of the disease typically first appear after age 60 and the risk increases with age, although changes in the brain can begin years before the first symptoms appear. By 2050, 14 million Americans are expected to have Alzheimer's disease, a nearly three-fold increase. Efforts are needed to better understand both the national prevalence and trends of Alzheimer's disease, as well as risk and protective factors.

The need for a clearly delineated public health role comes at a critical time given the dramatic aging of the United States population, scientific advancements in knowledge about risk behaviors (e.g., lack of physical activity, uncontrolled high blood pressure) related to cognitive decline, and the growing awareness of the significant health, social, and economic burdens associated with cognitive decline. Cognitive decline, ranging from mild cognitive impairment to dementia, can have profound implications for an individual's overall health and well-being. Older adults and others experiencing cognitive decline may be unable to care for themselves or conduct routine activities of daily living, such as meal preparation and money management. Limitations in the ability to effectively manage medications and existing medical conditions are particular concerns when an individual is experiencing cognitive decline or dementia. Informal or unpaid caregivers are the backbone of long-term care provided in people's homes. According to data from the Behavioral Risk Factor Surveillance System, about 25 percent of United States adults reported providing care or assistance to a person with a long-term illness or disability. The value of this unpaid care is an estimated $221 billion.

Opportunities for maintaining optimal cognitive health are growing as public health professionals gain a better understanding of cognitive decline risk factors. CDC's Healthy Brain Initiative improves understanding of cognitive aging as a central part of public health practice. The initiative creates and supports partnerships, collects and reports data, increases awareness of cognitive aging, and promotes the use of The Healthy Brain Initiative: The Public Health Road Map for State and National Partnerships, 2013–2018. An Interim Progress Report highlights the Healthy Brain Initiative's accomplishments from 2013 to 2015.

Calendar

CDC uses an agency-wide tool to monitor and report upcoming high profile and significant activities. These activities are regularly reported, for awareness, to HHS, through CDC's Office of the Chief of Staff. Information is available upon request.

Key Management Initiatives and Mandates

CDC improved a number of critical management processes in the past eight years to enhance efficiency and effectiveness. For example:

- Laboratory science and safety
- Emergency preparedness and response activities
- Working Capital Fund
- Grant optimization
- Buildings and facilities management
- Enterprise risk management

Laboratory Science and Safety

CDC's guiding principles for laboratory work are to ensure the safety of all staff and the community and be as transparent as possible about our work as we conduct high-quality scientific research to protect people in this country and around the world. CDC established the position and Office of the Associate Director for Laboratory Science and Safety (OADLSS) reporting to the CDC director. OADLSS provides scientific, technical, and managerial expertise and leadership in the development and enhancement of laboratory safety programs; and oversees and monitors the development, implementation, and evaluation of the laboratory safety and quality management programs across CDC. OADLSS functions include:

- **Program Management:** Managing, directing, and evaluating laboratory science and safety initiatives
- **Policy Development and Implementation:** Developing, reviewing, and ensuring compliance with agency-level policies for laboratory science, safety, quality and training
- **Risk Management:** Advising on CDC's portfolio of laboratory risk management procedures and strategies
- **Communications:** Providing transparent flow of information across the laboratory community regarding laboratory science, safety, and quality; and sharing of best practices
- **Data and Information Management:** Collecting and synthesizing data to inform laboratory safety and quality improvements

Emergency Preparedness and Response Activities

Since 2008, CDC has continued to improve emergency management processes, most recently enabling historically successful responses to the Ebola and Zika virus outbreaks. These process improvements specifically helped CDC to:

- Address state and local workforce gaps and strengthen field staff operations through initiatives such as the Career Epidemiology Field Officers program, and Public Health Associate Program rotations with state and local public health preparedness teams.
- Establish a new medical countermeasure (MCM) operational readiness review process to evaluate a jurisdiction's ability to plan and successfully execute large-scale responses requiring distribution and dispensing of medical countermeasures.
- Achieve programmatic and administrative alignment of the Hospital Preparedness Program (HPP) and Public Health Emergency Preparedness (PHEP) cooperative agreements. As part of this, CDC developed a joint HPP-PHEP funding opportunity, funding application, and grant award; aligned grant cycle and reporting requirements and created a single grants management organization; aligned public health and healthcare system capabilities; and developed joint metrics, joint technical assistance planning and site visits, and a joint capabilities gap assessment tool.

- Develop automated data sharing between HHS and the Defense Threat Reduction Agency; this supports secure sharing of emergency management and public health information.
- Earn National Emergency Management Accreditation for CDC's Emergency Management Program; CDC remains the only Federal agency with this distinction.
- Execute the largest full-scale deployments of MCMs in history by successfully deploying 25 percent of stockpiled influenza countermeasures to 62 project areas in 7 days during the 2009 H1N1 pandemic, as well as distribution of 126 million doses of monovalent H1N1 vaccine to more than 67,000 provider sites once product became available October-December 2009.
- Improve the Vaccines for Children information technology system, VTrckS, which serves as a central distribution system pandemic module (option that can be exercised for a pandemic) as a result of CDC's response the 2009 H1N1 pandemic.

Working Capital Fund

In the FY 2012 appropriation bill, Congress authorized CDC to establish a Working Capital Fund (WCF). The impetus was to increase transparency, improve efficiency, and increase accountability in agency-wide business support services provision.

WCF, led by the CDC Chief Operating Officer, is a mechanism for providing business services that support CDC programs on a fee-for-service basis. Through WCF, CDC creates operational efficiencies and encourages resource conservation, cost awareness, and performance measurement. Additionally, WCF increases transparency by making the cost of the services visible to programs. Participating programs have the ability to monitor the amount of services they require to complete work, and to make necessary adjustments. WCF-provided services are performed at pre-established rates that cover the full cost of operations. WCF operates on fees collected for WCF services, rather than from the direct business services appropriation. This creates market-like incentives for both customers and service providers, and maximizes efficiency.

Implementation of WCF:

- Allows Center directors, as the majority voting members on the governance board, to have more ownership of business services provided to programs
- Promotes effective cost control within programs and service organizations
- Achieves greater transparency with a standard process for developing and reviewing rates and reporting on the actual costs of services
- Enables CDC to finance long-term capital investments, while avoiding cyclical funding spikes

Grant Optimization

Starting in October 2011, sparked in part by CDC's Advisory Committee to the Director recommendations to improve grants processes and procedures, CDC embarked on a grants optimization effort that has led to significant changes in the way the agency develops and announces funding opportunities. Beginning October 1, 2013, CDC instituted a new Funding Opportunity Announcement development process that helped standardize and improve the quality of FOAs. The Funding Opportunity Announcement planning process now begins 12-18 months prior to Funding Opportunity Announcement release and is used to review current program progress and plan program strategy. CDC now uses standard templates with guidance for both non-research and research Funding Opportunity Announcements that streamline and clarify guidance for external stakeholders. CDC also implemented GrantSolutions, a new grants management system that incorporates the entire lifecycle of the grants process. Once fully implemented, this comprehensive system will increase transparency, enable real-time updates on the status of requests, improve the consistency of decisions and actions, and increase efficiency.

Buildings and Facilities

CDC implemented several measures over the past eight years to enhance efficiency, accountability, and mission support for agency facilities, these include:

- **Function Alignment:** In 2013, CDC established a single office within the Office of the Chief Operating Officer to better align work in safety, security, buildings and facilities, property accountability, transportation, health and wellness, public health intelligence, and sustainability. This new approach improved coordination, collaboration, and efficiency.
- **CDC Capital Investment Review Board:** In 2012, CDC established the CDC Capital Investment Review Board (CCIRB), chaired by the chief operating officer. Leaders from CDC's centers, institute, and offices serve on the board, and they direct major facilities investments and guide a strategic direction for capital investment on campuses nationwide. The board ensures agency facility investments are made in the best interest of public health.
- **Space Consolidation:** CDC consolidated its leased space portfolio and reduced its space utilization rate (UR). Almost 2,000 staff have moved from leased to owned space, reducing operational costs from $44.3 million to $32.4 million. The agency has implemented widespread space-sharing practices to reduce the amount of office space needed and decrease costs. Since 2010, the agency has reduced leased rentable square footage by 461,521 square feet. Leased space has moved from a UR of 233 square feet per person to 215 square feet per person.

Enterprise Risk Management

The Office of Management and Budget released guidance on Federal enterprise risk management with instructions for all Federal agencies to implement enterprise risk management (ERM). ERM is coordinated and strategic risk management applied across an organization that addresses all types of risk (strategic, reputational, operational, financial, and compliance). ERM is the next step in the evolution of risk management, which in the past has focused mainly on finance and compliance. Some of the benefits of ERM include standardizing risk information to inform strategic decision-making, identifying crosscutting risks and root causes, and empowering employees at all levels to manage risk. With leadership from the Office of the Chief Operating Officer, CDC is in the process of implementing the ERM framework. Once the process is fully integrated into CDC operations, the framework will promote a holistic view of risk, including proactive risk assessment and management and a more transparent and risk-aware culture. The program will follow three guiding principles: promote transparency throughout the organization, raise risk awareness among leadership and staff, and use quality risk information to support better decision-making.

Budget Overview

In fiscal year (FY) 2016, Congress appropriated CDC just over $7 billion, more than $100 million over the President's Budget request. The FY 2017 President's Budget request significantly reduced CDC's overall program level.

Centers for Disease Control and Prevention (Dollars in Thousands)		
	FY 2016	FY 2017
President's Budget Request Program Level	**$7,010,103**	**$6,983,846**
Budget Authority	$6,095,803	$5,967,376
Public Health Service (PHS) Evaluation Funds	$0	$72,000
Prevention and Public Health Funds (PPHF)	$914,300	$944,470
Public Health and Social Services Emergency Fund (PHSSEF)	$0	$0
Final Program Level	**$7,178,045**	**TBD**
Budget Authority	$6,270,745	TBD
Public Health Service (PHS) Evaluation Funds	$0	TBD
Prevention and Public Health Funds (PPHF)	$892,300	TBD
Public Health and Social Services Emergency Fund (PHSSEF)	$15,000	TBD
Increase Above the President's Budget Request	**$167,942**	**TBD**

Top Budget Opportunities and Challenges

As presented in the Top Issues for New Leadership, CDC has a number of opportunities under the new Administration to improve the nation's health security by increasing investments in public health programs, both domestic and abroad. CDC faces a number of budget-related challenges, which are also highlighted below.

Public Health Emergency Response

Public health emergencies are unpredictable and can be costly. The global costs of the Severe Acute Respiratory Syndrome (SARS) epidemic in 2003 have been estimated at over $50 billion, and in 2008, the World Bank estimated that a severe flu pandemic could result in $3 trillion in global economic losses. The World Bank estimated the regional economic damage of the Ebola outbreak in West Africa to have been $2.2 billion in 2014-2015. The World Bank has mobilized around $1.6 billion for Ebola response and recovery efforts—some of which would likely have been avoided with swifter action to contain the outbreak. CDC needs to detect and analyze the threat, and develop, evaluate, and adjust public health strategies in real-time. However, CDC does not have a funding mechanism to respond to domestic or foreign public health emergencies. Such a fund will allow for appropriate and immediate interventions that could prevent an aggressive or fast-moving outbreak in the early stages from becoming an epidemic, and prevent an epidemic in a country or region from spreading to a world-wide pandemic.

Buildings and Facilities

Investments in buildings and facilities are needed to support a safe, world-class research environment. Both major capital investment and repair of current buildings and facilities are essential to ensure that CDC is able to maintain its ability to respond to the public health needs in the next decade. Most urgently, current infrastructure at CDC's Roybal Campus headquarters is inadequate to support the intensive demands of ongoing laboratory work and the campus population of over 5,000. Infrastructure improvements are necessary to

support existing and planned laboratory facilities, which draw greatly on utilities, and require intricate and reliable support systems to maintain a safe and scientifically-advanced research environment. The Roybal infrastructure improvement project is one of CDC's many facility improvement proposals requiring significant funding to meet the demands of the public health workforce and provide safe and secure laboratories and office space. The current lack of support for the basic needs of CDC's infectious disease workforce and laboratory scientists inhibits scientific productivity and collaboration. The situation at CDC's Pittsburgh Research Campus is worse, which is hampering occupational safety and health research—especially in mining.

Global Health

The most effective and least expensive way to protect Americans from diseases and other health threats that begin overseas is to stop them before they spread to our shores. CDC leverages its core strengths to advance four overarching global health goals: improving the health and well-being of people around the world, improving capabilities for preparing and responding to infectious diseases and emerging health threats, building country public health capacity and maximizing organizational capacity. CDC assigns staff in countries, many embedded in ministries of health (MOH) and the World Health Organization, and deploys others from the United States to provide technical assistance, mentoring, and broad support to build national and regional capacity. These technical exchanges offer technical expertise from CDC to partners, but also create opportunities for CDC to learn from partners and communities from direct in-country engagement. CDC recognizes the central role played by MOHs and understands that long-term sustainability for in-country health activities is contingent on country ownership and MOH programmatic and management capacity to plan, implement, monitor, and evaluate programs.

Environmental Health

Environmental health challenges are re-emerging threats for the United States and the world. Americans cannot be truly secure if basic, life-sustaining necessities are under threat. Threats against the water we drink, the air we breathe, the food we eat in restaurants, and the environments where we live, work, and play are reemerging and evolving as society changes. World Health Organization estimates that, overall, 13 percent of the disease burden in the United States is due to environmental factors. The Agency for Toxic Substances and Disease Registry estimated that 5.6 million disability-adjusted life years and 398,000 deaths annually can be attributed to environmental factors in America. To help ensure the security of the American people, CDC has an opportunity to strengthen its environmental health research and programs that monitor environmentally-related disease trends, and apply scientific evidence to address public health problems. CDC also identifies the environmental exposures that make people sick, investigates how the environment transmits those exposures, and finds ways to eliminate the threat to people's health—thereby saving money and lives.

Constraints within CDC Budget Structure; Need for Transfer Authority and Two-Year Fund Availability

CDC's appropriation includes 13 separate accounts and over 160 programs, projects, and activities that Congress determines in the annual appropriations bill. CDC's programs, projects, and activities range from $475,000 for the Cancer Survivorship Resource Center to $660 million for the Public Health Emergency Preparedness program. This structure is extremely complicated to manage and provides little to no flexibility to direct funds to emerging public health threats.

The majority of CDC's funding is appropriated for a one-year period of availability (POA). Appropriations delays make it difficult for CDC to award thousands of grants and contracts annually. This is particularly challenging for international programs or those that require coordination across CDC. Other international program agencies have two-year or no-year POAs for most international program accounts. With an expansion of the POA in CDC's accounts to two years, CDC could plan and execute its extramural programs more effectively.

The CDC director is unable to effectively use public health science to direct investment in an unanticipated priority or rapidly respond to a public health emergency. Constraints within CDC's budget structure and the limited POA prevent adjustments in spending when program priorities change. CDC also lacks authority to move funds between accounts, if needed. When priority issues emerge or there is an emergency, the CDC director has only two options:

- **Reprogramming:** Moving funds within an appropriations account. CDC must notify Congress if the reprogramming exceeds the lessor of 10 percent of the relevant programs, projects, and activities or $500,000.
- **Transfer:** Moving funds across appropriations accounts. CDC must use HHS's statutory transfer authority, which is limited to 1 percent of any current discretionary appropriations and cannot increase the receiving account by more than 3 percent.

CDC requested agency-level transfer authority in the FY 2017 President's Budget request. If enacted, this would allow the CDC director to leverage up to 3 percent from any account across the agency, with congressional notification, and ensure the timeliest response to immediate health threats either domestically or internationally.

Erosion of CDC's Budget Authority and the Prevention and Public Health Fund

Since FY 2010, Congress has used the Prevention and Public Health Fund (PPHF) to supplant budget authority. PPHF funding is now integral to CDC programs, and these funds currently support a range of CDC's base activities. PPHF funding has grown from 2.8 to 12.4 percent of CDC's total program budget. As the incoming Administration finalizes the FY 2018 President's Budget request, support for CDC's overall program level and increase in budget authority will be crucial.

CDC's Prevention and Public Health Fund
FY 2010-FY 2016
(Dollars in Millions)
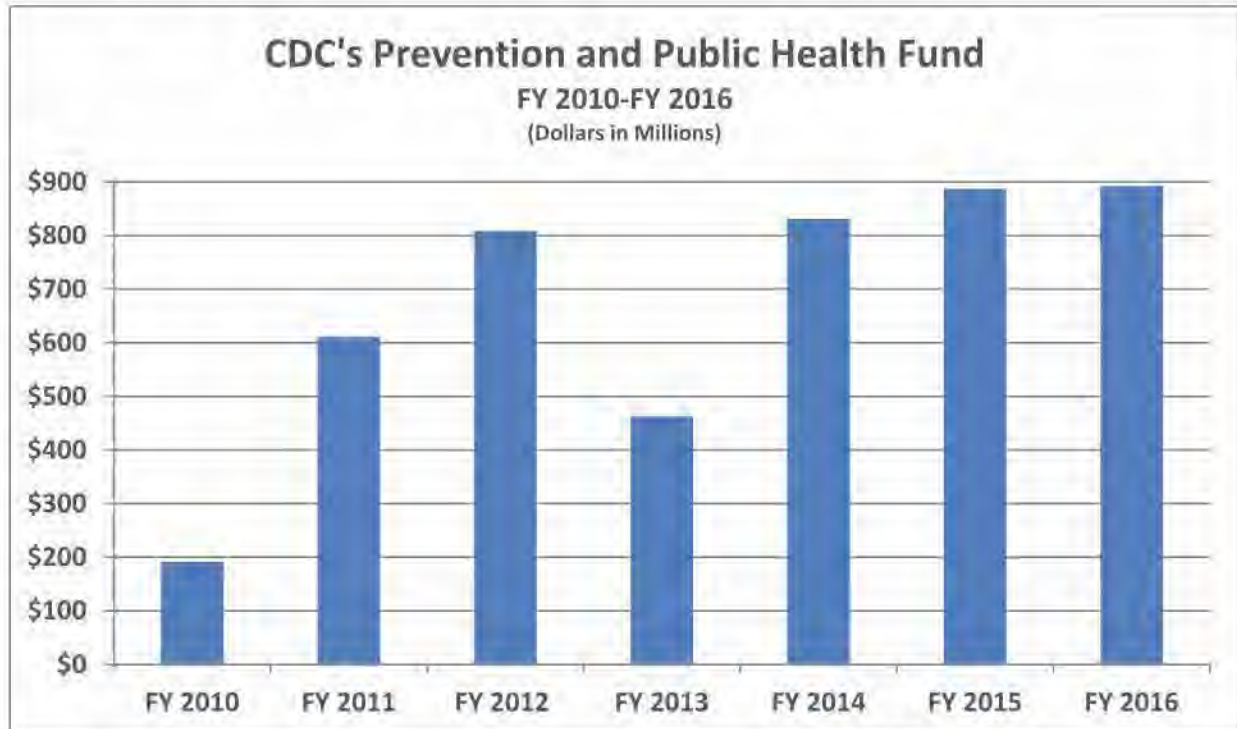
At CDC, a $119 million reduction in budget authority and the elimination of PHS Evaluation Transfers (-$352 million) has accompanied an increase in PPHF funding since FY 2010. The majority of these funds support five of CDC's existing state and local programs:

- **Preventive Health and Health Services Block Grant:** Funded entirely by PPHF, this program provides flexible funds to State health departments to address their unique public health needs in innovative and locally-defined ways.
- **Immunization:** PPHF funds more than 50 percent of this program, which protects individuals and communities from vaccine-preventable diseases through purchase vaccine, financial support of immunization state programs, provider and public education, and evaluation and research.
- **Racial and Ethnic Approaches to Community Health (REACH):** Funded entirely by PPHF, CDC partners use community-based, participatory approaches to identify, develop, and disseminate effective strategies for addressing health disparities across a wide range of chronic disease priority areas.
- **Tobacco:** PPHF funds more than 50 percent of this program, which supports the lifesaving TIPS from Former Smokers advertising campaign and tobacco uitline, two proven interventions for smoking cessation.
- **Childhood Lead Poisoning Prevention:** Funded entirely by PPHF, this program is committed to the Healthy People 2020 goals of eliminating blood lead levels 10 g dL and differences in average risk based on race and social class as public health concerns.

Fiscal Year 2018 Current Services Budget

			FY 2017		
Activity	**FY 2008 Enacted**	**FY 2016 Enacted**	**President's Budget**	**House**	**Senate**
Total Program Level	$6,449,686	$7,252,736	$7,088,537	$7,858,135	$7,134,439
Less PHS Eval	$(325,673)	$ -	$(72,000)	$ -	$ -
Less PPHF	$ -	$(892,300)	$(944,470)	$(908,300)	$(891,300)
Less PHSSEF	$ -	$(15,000)	$ -	$ -	$(15,000)
Total Budget Authority	$6,124,013	$6,345,436	$6,072,067	$6,949,835	$6,228,139
FTE	$8,951	$10,886	$10,886	$10,886	$10,886

FY 2018 Current Services Table (Dollars in Thousands)

(b)(5)

Facilities Repairs and Improvements

	FY 2016		FY 2017	
Project Category	**No. of Projects**	**Estimated Cost**	**No. of Projects**	**Estimated Cost**
Emergency	1	$1,000,000	1	$1,000,000
Fire & Life Safety	15	$5,364,000	42	$7,680,446
Security	5	$617,500	4	$2,150,500
Condition Index	68	$19,109,000	27	$16,059,054
Program Support	14	$4,935,000	13	$1,385,000
Space Utilization	2	$675,000	N/A	N/A
Other	8	$4,145,000	12	$2,725,000
TOTAL	**113**	**$35,845,500**	**99**	**$31,000,000**

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Budget History

Activity	FY 2008 Enacted[1]	FY 2016 Enacted	FY 2017 President's Budget	FY 2017 House	FY 2017 Senate
Immunization and Respiratory Diseases	$684,634	$798,405	$748,066	$748,066	$798,405
HIV/AIDS, Viral Hepatitis, STI and TB Prevention	$1,002,130	$1,122,278	$1,127,278	$1,122,278	$1,112,278
Emerging and Zoonotic Infectious Diseases	$217,771	$579,885	$629,485	$677,522	$578,885
Chronic Disease Prevention and Health Promotion	$833,827	$1,177,096	$1,117,145	$1,097,821	$1,064,646
Birth Defects, Developmental Disabilities, Disability and Health	$127,366	$135,610	$135,610	$135,310	$137,560
Environmental Health	$154,486	$182,303	$182,303	$160,800	$182,303
Injury Prevention and Control	$134,837	$236,059	$298,629	$261,059	$264,059
Public Health Scientific Services	$276,778	$491,597	$500,631	$485,397	$485,000
Occupational Safety and Health	$381,954	$339,121	$285,621	$329,100	$334,121
Global Health	$302,371	$427,121	$442,121	$556,721	$432,121
Public Health Preparedness and Response	$1,479,455	$1,405,000	$1,402,166	$1,485,800	$1,396,800
Cross-Cutting Activities and Program Support[2,3]	$725,016	$273,570	$113,570	$713,570	$273,570
Building and Facilities	$55,022	$10,000	$31,221	$10,000	$ -
ATSDR	$74,039	$74,691	$74,691	$74,691	$74,691
Total Program Level	**$6,449,686**	**$7,252,736**	**$7,088,537**	**$7,858,135**	**$7,134,439**
Less PHS Evaluation	$(325,673)	$ -	$(72,000)	$ -	$ -
Less PPHF	$ -	$(892,300)	$(944,470)	$(908,300)	$(891,300)
Less PHSSEF	$ -	$(15,000)	$ -	$ -	$(15,000)
Total Budget Authority	**$6,124,013**	**$6,345,436**	**$6,072,067**	**$6,949,835**	**$6,228,139**
FTE	**$8,951**	**$10,886**	**$10,886**	**$10,886**	**$10,886**

Centers for Disease Control and Prevention and ATSDR
OMB Current Services Baseline All-Purpose Table
(Dollars in Thousands)

Budget Trends

Since FY 2011, the President's Budget request for CDC has been below the average HHS-wide request.

President's Budget Request by Fiscal Year							
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
HHS Average for all OPDIVS	9.5%	9.2%	3.1%	10.2%	1.9%	5.6%	4.9%
CDC President's Budget change from prior appropriated year	(2.2%)	3.2%	(2.9%)	6.5%	(3.5%)	2.0%	(2.3%)
CDC Variance from HHS average	**(11.6%)**	**(5.9%)**	**(5.9%)**	**(3.7%)**	**(5.4%)**	**(3.6%)**	**(7.1%)**

Despite this challenge, in 5 of the past 7 years, Congress has appropriated more than the Administration requested for CDC.

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
President's Budget - Program Level	$6,643,460	$6,611,478	$7,090,384	$6,660,061	$6,589,283	$6,606,361	$7,010,103
Final/Operating - Program Level	$6,933,599	$6,837,086	$6,866,027	$6,286,547*	$6,833,158	$6,900,418	$7,178,045
Difference from President's Budget Request	**$290,139**	**$225,608**	**($224,357)**	**($373,514)**	**$243,875**	**$294,057**	**$167,942**

*FY 2013 operating level includes reductions from sequestration and the Prevention and Public Health Fund reallocation.

Since FY 2010, Congress has used the Prevention and Public Health Fund to supplant budget authority. Prevention and Public Health Fund funding is now integral to CDC programs, and these funds currently support a range of CDC's base activities. The biggest risk to CDC's budget, as a result of the changes that have occurred over the past eight years, is the erosion of budget authority:

- Since the Prevention and Public Health Fund inception in FY 2010, these funds have grown from 2.8 percent to 12.4 percent of CDC's budget.
- Prevention and Public Health Fund funding has been accompanied by a $119 million reduction in budget authority and the elimination of Public Health Service (PHS) Evaluation Transfers (-$352 million).
- While CDC has seen a $244 million net increase in funding; this increase has almost entirely come from Prevention and Public Health Fund at the expense of budget authority and PHS Evaluation funds.

Source	Fiscal Year 2010		Fiscal Year 2016		
	Funding Amount	% of Total	Funding Amount	% of Total	+/- 2010
Budget Authority	$6,389,442	92.2%	$6,270,745	87.4%	$(118,697)
PHS Evaluation	$352,357	5.1%	$ -	0.0%	$(352,357)
PHSSEF	$ -	0.0%	$15,000	0.2%	$15,000
PPHF	$191,800	2.8%	$892,300	12.4%	$700,500
Total	**$6,933,599**	**100%**	**$7,178,045**	**100%**	**$244,446**

Funding Sources

Since 2008, CDC has received funding from various sources:

- **American Recovery and Reinvestment Act (ARRA)**: AARA of 2009 (P.L. 111–5), commonly referred to as The Stimulus or The Recovery Act, was a stimulus package that the 111th United States Congress enacted and that President Obama signed into law in February 2009.
- **Budget Authority (BA)**: Broad responsibility conferred by Congress that empowers government agencies to spend Federal funds. Congress can specify criteria for how agencies spend these funds. For example, Congress may stipulate that a given agency must spend funds by any time in the future such as within a specific year or number of years.
- **Cooperative Research and Development Agreement (CRADA)**: CRADA makes government facilities, intellectual property, and expertise available for collaboration to promote development of commercialized products that meet a public health need. CRADA offers collaborators an option to license any CDC-developed intellectual property that results from the agreement.
- **Energy Employees Occupational Illness and Compensation Program Act (EEOICPA)**: EEOICPA was enacted in October 2000 to provide compensation and medical benefits to employees who worked at certain Department of Energy facilities, including contractors, subcontractors, and certain vendors.
- **Non-recurring Expenses Fund (NEF)**: NEF permits HHS to transfer unobligated balances of expired discretionary funds from FY 2008 and subsequent years into the NEF account. Congress authorized use of the funds for capital acquisitions including information technology and facilities infrastructure.
- **President's Emergency Plan for AIDS Relief (PEPFAR)**: PEPFAR is an initiative to address the global HIV/AIDS epidemic and help save the lives of those suffering from the disease (primarily in Africa).
- **President's Malaria Initiative (PMI)**: President George W. Bush created PMI in 2005 and President Barack Obama continued the Initiative. PMI's mission is to reduce malaria-related mortality by 50 percent across 15 high-burden countries in sub-Saharan Africa.
- **Prevention and Public Health Fund (PPHF)**: Section 4002 of the Patient Protection and Affordable Care Act of 2010 established PPHF. PPHF is the nation's first mandatory funding stream dedicated to improving our nation's public health system.
- **Public Health and Social Services Emergency Fund (PHSSEF)**: PHSSEF is an account HHS uses to provide annual or emergency supplemental appropriations for one-time or short-term public health activities in a variety of agencies and offices.
- **Public Health Service Evaluation Funds (PHS Evaluation)**: Section 241 of the Public Health Service Act (PHSA) authorizes the HHS Secretary, with the approval of congressional appropriators, to use a portion of the funds appropriated for programs authorized by PHSA to evaluate their implementation and effectiveness. This long-standing budgeting authority is known as the PHS Program Evaluation Set-Aside.
- **Vaccines for Children (VFC)**: VCF is a Federally-funded program providing no-cost vaccines to children who lack health insurance or who cannot otherwise afford vaccination costs. The Omnibus Budget Reconciliation Act of 1993 created the VFC program and required VCF to be a new entitlement of each State's Medicaid plan.
- **Working Capital Fund (WCF)**: WCF is a revolving fund that allows an agency to provide business services on a fee-for-service basis. CDC's WCF finances organizations that provide administrative and business services support to CDC programs. WCF refers to these organizations, commonly known as CDC's Business Services Offices (BSOs), as "service providers." WCF launched in the beginning of FY 2014.
- **World Trade Center Health Program (WTCHP)**: WTCHP provides medical benefits to individuals affected by the September 11, 2001 terrorist attacks on the United States. Title I of the James Zadroga 9/11 Health and Compensation Act of 2010 (P.L. 111-347), which amended the Public Health Service Act, established WTCHP.

Expenditures

Personnel and non-personnel expenses by program can be found in <u>Attachment H</u>.

Oversight

The Office of the Chief of Staff and has responsibility for CDC program reviews performed by the Government Accountability Office and audits or program evaluations conducted by the Office of Inspector General. The following table lists engagements with CDC since 2009.

Office of the Inspector General and Government Accountability Office Engagements

Start Date	Complete Date	Title	Status
2/18/2016	3/2/2016	Zika Virus http://www.gao.gov/products/GAO-16-470T	Closed; No Recommendations
5/5/2015	9/14/2015	E-cigarette Data and Revenue Implications http://www.gao.gov/products/GAO-15-771	Closed; No Recommendations
3/30/2015	7/30/2015	Federal Autism Research http://www.gao.gov/search?q=GAO-15-583R&Submit=Search	Closed; No Recommendations
3/2/2015	2/25/2016	Patient Safety Practices in Hospitals http://www.gao.gov/products/GAO-16-308	Closed; No Recommendations
2/19/2015	6/20/2016	Federal Autism Efforts http://www.gao.gov/products/GAO-16-446	Closed; No Recommendations
2/3/2015	1/13/2016	EBOLA, DHS, OIG Pandemic Planning and Response (Report not on the Web, hard copy available only)	Closed; No Recommendations
11/21/2014	12/17/2015	Preparedness of U.S. Aviation System to React to Health Threats from Infectious Diseases http://www.gao.gov/products/GAO-16-127	Closed; No Recommendations
10/27/2014	1/22/2016	Oversight and Costs of the Oak Ridge Institute for Science and Education Fellowship Program http://www.gao.gov/products/GAO-16-128	Closed; No Recommendations
10/16/2014	5/13/2015	Illicit Tobacco Imports and E-Cigarettes http://www.gao.gov/prerelease/Pkt2	Closed; No Recommendations
10/2/2014	1/20/2016	OIG Preliminary Research into Select Agents (No report issued)	Closed; No Recommendations
7/8/2014	8/1/2014	High-Containment Laboratories: Incident at CDC Laboratories http://www.gao.gov/assets/670/664799.pdf	Closed; No Recommendations
4/7/2014		Audit of CDC Grants and Cooperative Agreements Funded by the Prevention and Public Health Fund http://go.usa.gov/cPfGz	Follow-up on Recommendations Underway
4/1/2014		Climate Change and Public Health http://www.gao.gov/assets/680/672913.pdf	Follow-up on Recommendations Underway
2/13/2014		Review of Centers for Disease Control and Prevention's Accountability for Property https://oig.hhs.gov/oas/reports/region4/41403546.asp	Follow-up on Recommendations Underway
1/14/2014		Audit of the CDC's Award Process for President's Emergency Plan for AIDS Relief Cooperative Agreement http://go.usa.gov/cJzgP	Follow-up on Recommendations Underway
8/27/2013	12/30/2015	Project Bioshield: Anthrax Vaccine and Stockpile License http://www.gao.gov/products/GAO-08-88	Closed
4/19/2013		World Trade Center Health Program http://www.gao.gov/products/GAO-14-606	Follow-up on Recommendations Underway
2/13/2012	7/20/2012	U.S. Global Health Program Drug Procurement and Supply Chain Safeguards http://www.gao.gov/products/GAO-12-897R	Closed; No Recommendations

Start Date	Complete Date	Title	Status
11/10/2011		Infection Control Practices for Blood-Borne Pathogens http://www.gao.gov/products/GAO-12-712	Follow-up on Recommendations Underway
8/19/2011	5/31/2012	Review of Evaluations of PEPFAR Programs Implemented by CDC and USAID http://www.gao.gov/products/GAO-12-673	Closed; No Recommendations
8/4/2011	6/8/2015	Review of World Trade Center Health Program http://go.usa.gov/B4p5	Closed; No Recommendations
5/17/2011	10/19/2015	Duplication of Federal Inspections of High Containment Laboratories (HCL) http://www.gao.gov/products/GAO-13-154	Closed; No Recommendations
2/18/2011	8/4/2011	World Trade Center (WTC) Health Programs http://www.gao.gov/products/GAO-11-735R	Closed; No Recommendations
2/18/2011	7/15/2011	Timely Submission of Claims Data for World Trade Center Health Program http://www.gao.gov/products/GAO-11-793R	Closed; No Recommendations
1/13/2011	8/17/2011	Shelf Life Extension Program at the Centers for Disease Control and Prevention https://oig.hhs.gov/oas/reports/region4/41101001.asp	Closed; No Recommendations
8/16/2010	5/18/2011	High-Containment Laboratories: Duplication of Federal Oversight (No report issued)	Closed; No Recommendations
7/13/2010	8/9/2012	CDC's Policies and Practices Related to its Published Public Health Products, to Include CDC's Work on D.C.'s Lead in Water Crisis http://www.gao.gov/products/GAO-11-279	Closed
3/11/2010	3/25/2013	High-Containment Laboratories: GAO Assessment of Federal reports of Biosafety and Biosecurity http://www.gao.gov/products/GAO-13-466R	Closed; No Recommendations
7/2/2009	2/28/2011	Review of CDC's Resolution of Audit Recommendations https://oig.hhs.gov/oas/reports/region7/70903131.asp	Closed
4/15/2009	6/30/2011	ATSDR Policies and Procedures for Developing Public Health Products http://www.gao.gov/products/GAO-10-449	Closed

Governance

Key Structures and Decision-Making Processes

Meeting Calendar

Leadership Group	Regular Meeting Occurrences
Senior Leadership	Every other Monday, 9:00 – 10:30 a.m.
CDC Management Board	First Tuesday of every month, 1:30 – 3:00 p.m.
Working Capital Fund Board	Quarterly. Upcoming dates: • December 5, 2016 • March 13, 2017 • June 5, 2017 • December 18, 2017
Advisory Committee to the Director	Twice a year, in April and October. Upcoming dates: • April 20, 2017 • October 19, 2017 • April 26, 2018 • October 25, 2018

Senior Leadership Team

CDC's senior leadership team governs the agency's overall direction. A wide array of specific topic, functional, and project leadership boards work together to network, coordinate, and move the agency's agenda forward. The CDC Director manages the agency's primary leadership group, the senior leadership team.

CDC Management Board

The CDC Chief Operating Officer leads the CDC Management Board, which governs CDC's management practices in support of the agency's goals and strategic direction. The board is accountable for:

- Ensuring the health, welfare, morale, and development of an increasingly diverse workforce
- Improving management within CDC
- Providing cost-effective and efficient business services
- Communicating significant decisions and the associated rationales

Working Capital Fund Governance Board

The Working Capital Fund (WCF) is a revolving fund that allows an agency to provide business services on a fee-for-service basis. CDC's WCF finances organizations that provide administrative and business services support to CDC programs. A board presides over the WCF and approves the scope of services, associated rates, and service levels. The chief operating officer chairs the board, which is comprised of the CDC center directors, chief information officer, and chief financial officer.

Tribal Advisory Committee

The Tribal Advisory Committee provides CDC with input and guidance on policies, guidelines, and programmatic issues affecting the health of American Indian Alaska Native (AI AN) tribes. The TAC is composed of 16 delegates (and authorized representatives) from federally recognized tribes to provide specific representation for the regional and national concerns of tribal governments.

Advisory Committee to the Director

Federal advisory committees are a key component of CDC's overall strategy to achieve stakeholder and public engagement in its efforts and commitment to improve people's health. The Federal Advisory Committee Act (P.L. 92-463) provides a mechanism for experts and stakeholders to participate in the decision-making process, and to offer advice and recommendations to the Federal government.

The CDC Advisory Committee to the Director advises the CDC director on policy and broad strategies that enable CDC to fulfill its mission of protecting health through health promotion, prevention, and preparedness. The Advisory Committee to the Director recommends ways to prioritize CDC's activities, improve results, and address health disparities. It also provides guidance to help CDC work more effectively with its various private and public sector constituents to make health protection a practical reality.

Current membership:

- Jonathan E. Fielding, MD, MPH (chair)
- Dileep G. Bal, MD, MS, MPH
- Kenneth Berns, MD, PhD
- Benjamin K. Chu, MD, MPH, MCAP
- Christopher J. Elias, MD, MPH
- Thomas A. Farley, MD, MPH
- David W. Fleming, MD
- Lynn R. Goldman, MD, MS, MPH
- Anthony B. Iton, MD, JD, MPH
- Joseph A. Kanabrocki, PhD
- LaQuandra Sherese Nesbitt, MD, MPH
- Lynne D. Richardson, MD, FACEP
- Sara Rosenbaum, JD
- Wilma J. Wooten, MD, MPH

Other CDC Federal Advisory Committees

Currently, 21 Federal advisory committees provide advice and recommendations on a broad range of public health issues to help CDC achieve its mission to promote health and quality of life by preventing and controlling disease, injury, and disability.

- Advisory Board on Radiation and Worker Health
- Advisory Committee on Breast Cancer in Young Women
- Advisory Committee on Immunization Practices
- Advisory Committee to the Director, Centers for Disease Control and Prevention
- Advisory Council for the Elimination of Tuberculosis
- Board of Scientific Counselors, National Center for Environmental Health/Agency for Toxic Substances and Disease Registry
- Board of Scientific Counselors, National Center for Health Statistics
- Board of Scientific Counselors, National Center for Injury Prevention and Control
- Board of Scientific Counselors, National Institute for Occupational Safety and Health
- Board of Scientific Counselors, Office of Infectious Diseases
- Board of Scientific Counselors, Office of Public Health Preparedness and Response
- Breast and Cervical Cancer Early Detection and Control Advisory Committee
- CDC/HRSA Advisory Committee on HIV, Viral Hepatitis and STD Prevention and Treatment

- Clinical Laboratory Improvement Advisory Committee
- Disease, Disability, and Injury Prevention and Control Special Emphasis Panel
- Healthcare Infection Control Practices Advisory Committee
- Interagency Committee on Smoking and Health
- Mine Safety and Health Research Advisory Committee
- National Committee on Vital and Health Statistics
- Safety and Occupational Health Study Section
- World Trade Center Health Program – Scientific Technical Advisory Committee

Participation in Enterprise Government Activities

CDC is an active participant with many HHS and government-wide committees and working groups. These range from scientific, cross-cutting activities such as Combating Antibiotic-Resistant Bacteria to management and operations, such as the HHS Service and Supply Fund.

Policies and Regulations

For more information about CDC's regulations, please visit www.cdc.gov/regulations.

Historical Overview (2009-Present)

The majority of CDC's regulatory activities each year are revisions to current regulations. Since 2009:

- One new regulation has been added to the Code of Federal Regulations (CFR), the World Trade Center Health Program in 2011 (42 CFR 88).
- One regulation has been rescinded from the CFR, the Administrative Functions, Procedures, and Practices (42 CFR 80).
- Number of new rulemakings added to the Unified Agenda of Regulatory and Deregulatory Actions per year: 4 (average); 1-7 (range); 33 (total).
- Published regulations: 56.
- Percentage deemed significant by the Office of Management and Budget's Office of Information and Regulatory Affairs (OIRA): 39.2 percent (22 of 56).

Recently Adopted or Pending Policies and Regulations

Pending Regulations

Since 2009, CDC has published as few as 1 and as many as 14 new regulations per year. CDC's average is seven regulations per year.

- Biennial Review of Select Agents and Toxins Final Rule (0920-AA53), estimated publication late October to early November, 2016 (30-day effective date).
- World Trade Center Health Program Final Rule (0920-AA56), estimated publication mid-December 2016 (30-day effective date).
- Control of Communicable Diseases Final Rule (0920-AA63), estimated publication mid-December 2016.

Final Rules

- Addition of highly pathogenic avian influenza (HPAI) H5N1 Influenza strains to the List of HHS Select Agents and Toxins (42 CFR 73): notice of proposed rulemaking (NPRM) published July 16, 2015.
- Addition of *Bacillus cereus* Biovar *anthracis* to the List of HHS Select Agents and Toxins (42 CFR 73): IFR published September 14, 2016.

Proposed Rules

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Existing Regulatory Practice

Rulemaking identified through CDC's annual retrospective review of its regulations:

- Grants for Educational Programs in Occupational Safety and Health (42 CFR 86)
- National Institute for Occupational Safety and Health Research and Demonstration Grants (42 CFR 87)

Response to World Trade Center Health Program petitions:

- Response to one petition is in development; response should be published by December 31, 2016. The response will not require rulemaking
- At this time, it is unknown if other petitions will be submitted in the new Administration's first year

Request for comments:

- CDC routinely publishes requests for comments and requests for information on various draft scientific documents, vaccine information materials, and strategic plans
- CDC currently has no requests for comments and requests for information under review

Office of Information and Regulatory Affairs Relations

Relations between CDC employees and the Office of Information and Regulatory Affairs (OIRA) career staff:

- CDC works through policy coordinators in HHS's Office of the Executive Secretariat
- Within CDC, the Office of the Chief of Staff serves as the liaison for all regulatory matters

CDC's principal contacts on OIRA's career staff:

- CDC's desk officer at OIRA is Dr. Stephanie Mok
- CDC works with other OIRA staff as needed, including OIRA policy analysts, health statisticians, and health economists
- On select agent rulemaking, CDC works with Cortney Higgins, desk officer for the United States Department of Agriculture's Animal and Plant Health Inspection Service

The review process for regulations within CDC:

- CDC programs submit regulatory documents to the Office of the Chief of Staff for review
- Documents are disseminated to key CDC offices for review including:
  - Office of Associate Directors for Science, Policy, and Communications
  - Office of the General Counsel
  - Office of the Chief Operating Officer
  - Program Planning and Evaluation
  - CDC Washington Office
  - CDC privacy officer
  - CDC Information Collection Review Office (Paperwork Reduction Act)
  - Other CDC units as necessary
- After comments are resolved, the chief regulatory officer approves the regulation
- After approval by the chief regulatory officer, the chief of staff and the CDC director approve the rule for transmittal to HHS Office of the Executive Secretariat

CDC employees responsible for managing the regulatory process and assembling the CDC section of the Unified Agenda:

- Cynthia K. Clark, director, Division of Issues Management, Analysis, and Coordination, Office of the Chief of Staff
- Anne E. O'Connor, senior regulations issues manager, Division of Issues, Management, Analysis, and Coordination, Office of the Chief of Staff

Enforcement Issues

Foreign Quarantine Regulations: Human Remains (42 CFR 71.55)

- Current regulations require that remains are: a) properly embalmed and placed in a hermetically sealed casket; b) cremated; or c) accompanied by a permit signed by the director.
- Body brokers repeatedly import body parts in containers that are considered unsafe and without appropriate documentation.
- Current regulations only pertain to quarantinable diseases, but have no requirements for human remains of an individual infected with other infectious diseases such as Hepatitis B or C.
- Current regulations need revision to clarify requirements for family members who are repatriating remains for final burial.
- Current regulations need revision regarding repatriating remains of an individual who has died from a viral hemorrhagic fever.

Foreign Quarantine Regulations: Cats, Dogs, Ferrets (42 CFR 71.51)

- CDC has little oversight or control of an animal after it enters the United States—especially a dog in confinement due to inadequate vaccination for rabies.
- There are no vaccination requirements for cats or ferrets. And current regulations do not require a valid health certificate for any animal entering the United States.

Foreign Quarantine Regulations: African Rodents (42 CFR 71.56)

- Revised regulations would ban the importation of all rodents, except for science, education, or exhibition.

Foreign Quarantine Regulations: All Imports (42 CFR 71, Section F)

- Current regulations contain no provisions regarding the treatment of animal products to render them non-infectious for all imports.
- Revised regulations would require that the animal or product is no longer capable of introducing, transmitting, or spreading a communicable disease to humans. It would also detail several specific methods and include new options at the discretion of the CDC director.

The following table outlines CDC's regulatory authorities.

Regulatory Authority	Statutory Authority	Title of Regulation
42 CFR Part 7	Sec. 215, 58 Stat. 690, as amended (42 U.S.C. 216); title V of the Independent Offices Appropriations Act of 1952 (31 U.S.C. 9701); and secs. 301(a) and 352 of the Public Health Service Act, as amended (42 U.S.C. 241(a) and 263).	Distribution of Reference Biological Standards and Biological Preparations
42 CFR Part 34	42 U.S.C. 252; 8 U.S.C. 1182 and 1222	Medical Examination of Aliens
42 CFR Part 37	Sec. 203, 83 Stat. 763; 30 U.S.C. 843.	Specifications for Medical Examinations of Coal Miners
42 CFR Part 70	Secs. 215 and 311 of the Public Health Service (PHS) Act, as amended (42 U.S.C. 216, 243); section 361-369, PHS Act, as amended (42 U.S.C. 264-272); 31 U.S.C. 9701.	Interstate Quarantine
42 CFR Part 71	Secs. 215 and 311 of Public Health Service (PHS) Act as amended (42 U.S.C. 216, 243); secs. 361-369, PHS Act, as amended (42 U.S.C. 264-272).	Foreign Quarantine
42 CFR Part 73	42 U.S.C. 262a; sections 201-204, 221 of Title II of Public Law107-188; 116 Stat.637	Select Agents and Toxins
42 CFR Part 81	42 U.S.C. 7384n(c); EO 13179, 65 FR 77487, 3 CFR, 2000 Comp., p. 321	Guidelines for the Probability of Causation under the Energy Employees Occupational Illness Compensation Program Act (EEOICPA) of 2000
42 CFR Part 82	42 U.S.C. 7384n(d) and (e); EO 13179, 65 FR 77487, 3 CFR, 2000 Comp., p. 321	Methods for Conducting Dose Reconstruction under EEOICPA 2000
42 CFR Part 83	42 U.S.C. 7384q; EO 13179, 65 FR 77487, 3 CFR, 2000 Comp., p. 321	Procedures for Designating Classes of Employees as members of the Special Exposure Cohort under EEOICPA 2000
42 CFR Part 84	29 U.S.C. 651 *et seq.;* 30 U.S.C. 3, 5, 7, 811, 842(h), 844.	Approval of Respiratory Protective Devices
42 CFR Part 85	Sec. 8(g), 84 Stat. 1600; 29 U.S.C. 657(g) and sec. 508, 83 Stat. 803; 30 U.S.C. 957	Requests for Health Hazard Evaluations
42 CFR Part 85a	Sec. 8(g), 84 Stat. 1600; 29 U.S.C. 657(g) and sec. 508, 83 Stat. 803; 30 U.S.C. 957	Occupational Safety and Health Investigations of Places of Employment
42 CFR Part 86	Sec. 8(g), 84 Stat. 1600, 29 U.S.C. 657(g); sec. 21(a), 84 Stat. 1612, 29 U.S.C. 670(a)	Grants for Educational Programs in Occupational Safety and Health
42 CFR Part 87	Sec. 8(g), 84 Stat. 1600 (29 U.S.C. 657(g), sec. 508, 83 Stat. 803 (30 U.S.C. 957)	NIOSH Research and Demonstration Project
42 CFR Part 88	42 U.S.C. 300mm-300mm-61, Pub. L. 111-347, 124 Stat. 3623, as amended by Pub. L. 114-113, 129 Stat. 2242.	World Trade Center Health Program
42 CFR Part 90	42 U.S.C. 9604(i); 42 U.S.C. 6939a(c)	Health Assessments and Health Effects Studies of Hazardous Substances, Releases and Facilities
42 CFR Part 493	Sec. 353 of the Public Health Service Act, (42 U.S.C. 263a)	Clinical Laboratory Improvement Amendments of 1988: Laboratory Requirements

Summary of Litigation

For the latest information about litigation, please contact the HHS's Office of the General Counsel.

Congressional Relations

Relevant Committees

Oversight Committees and Leadership (as of October 2016)

Committee	Majority Leadership	Minority Leadership
House Energy and Commerce Subcommittee on Oversight and Investigations	Tim Murphy (R-PA), Chairman	Diana DeGette (D-CO), Ranking
House Committee on Oversight and Government Reform	Jason Chaffetz (R-UT), Chairman	Elijah Cummings (D-MD), Ranking
Senate Homeland Security and Governmental Affairs	Ron Johnson (R-WI), Chairman	Thomas Carper (D-DE), Ranking

Authorization Committees and Leadership (as of October 2016)

Committee	Majority Leadership	Minority Leadership
House Energy and Commerce Committee Subcommittee on Health	Fred Upton (R-MI), Chairman Joe Pitts (R-PA), Chairman	Frank Pallone (D-NJ), Ranking Gene Green (R-TX), Ranking
Senate Health, Education, Labor and Pensions	Lamar Alexander (R-TN), Chairman	Patty Murray (D-WA), Ranking
House Committee on Foreign Affairs (Global Health)	Ed Royce (R-CA	Eliot Engel (D-NY)
Senate Committee on Foreign Relations (Global Health)	Bob Corker (R-TN), Chairman	Ben Cardin (D-MD)
House Transportation and Infrastructure Committee (ATSDR)	Bill Shuster (R-PA), Chairman	Peter DeFazio (D-OR), Ranking Member
House Education and the Workforce Committee Subcommittee on Workforce Protections (NIOSH)	Chairman John Kline (R-MN) Tim Walberg (R-MI), Chairman	Bobby Scott (D-VA) Joe Courtney (D-CT), Ranking
Senate Environment and Public Works Committee (ATSDR)	Jim Inhofe (R-OK), Chairman	Barbara Boxer (D-CA), Ranking Member

Appropriations Committees and Leadership (as of October 2016)

Committee	Majority Leadership	Minority Leadership
House of Representatives Appropriations Committee	Harold Rogers (R-KY), Chairman	Nita Lowey (D-NY), Ranking Member
Senate Appropriations Committee	Thad Cochran (R-MS), Chairman	Barbara Mikulski (D-MD), Vice Chairwoman
Senate Appropriations Subcommittee on Labor, Health and Human Services, Education, and Related Agencies	Roy Blunt (R-MO), Chairman	Patty Murray (D-WA), Ranking Member
House of Representatives Appropriations Subcommittee on Labor, Health and Human Services, Education, and Related Agencies	Tom Cole (R-OK), Chairman	Rosa DeLauro (D-CT), Ranking Member
Senate Appropriations Subcommittee on State, Foreign Operations, and Related Programs	Lindsey Graham (R-SC), Chairman	Patrick Leahy (D-VT), Ranking Member
House of Representatives Appropriations Subcommittee on State, Foreign Operations, and Related Programs	Kay Granger (R-TX), Chairwoman	Nita Lowey (D-NY), Ranking Member (see Appropriations, above)
Senate Appropriations Subcommittee on Interior, Environment, and Related Agencies	Lisa Murkowski (R-AK), Chairwoman	Tom Udall (D-NM), Ranking Member
House of Representatives Appropriations Subcommittee on Interior, Environment, and Related Agencies	Ken Calvert (R-CA), Chairman	Betty McCollum (D-MN), Ranking Member

Membership and Key Issues

Key CDC staff

- The CDC Washington Office manages relations with oversight and authorization committees
- CDC's Office of the Chief Operating Officer manages relations with appropriations committees

Overview of previous hearings

- Attachment I contains a list of CDC's hearings since 2009.

Current inquiries

- House Committee on Oversight and Government Reform: Vaccine Safety
- House Energy and Commerce Committee: Laboratory Safety and Select Agents
- House Energy and Commerce Committee: Prescription Drug Overdose

Members with Special Interest or Subject Matter Expertise

House Members

- Rep. Rosa DeLauro (D-CT): Food Safety
- Rep. Charles Dent (R-PA): HIV/AIDS, Viral Hepatitis, STD and TB, Polio
- Rep. Kay Granger (R-TX): Cancer Survivorship
- Rep. Kevin McCarthy (R-CA): Mycotics/Valley Fever
- Rep. Martha Roby (R-AL): Diabetes
- Rep. Lucille Roybal-Allard (D-CA): Alzheimer's Disease, Women's Health
- Rep. Chris Smith (R-NJ): Global Public Health

Senate Members

- Sen. Susan Collins (R-ME): Lyme Disease, Tobacco, Diabetes
- Sen. Dick Durbin (D-IL): Tobacco, Global Public Health, Prescription Drug Overdose, Food Safety, Congenital Heart Disease
- Sen. Dianne Feinstein (D-CA): Cancer Survivorship, Antibiotic Resistance, Prescription Drug Overdose, Food Safety
- Sen. Brian Schatz (D-HI): Infectious and Vector-borne Diseases, Tobacco

Implications of Continuing Resolutions

CDC provides billions of dollars to state, local, tribal, and territorial agencies on an annual basis. The uncertainty of funding levels during a continuing resolution can have significant impact on CDC and its partners' ability to meet critical program goals.

Similar to prior continuing resolutions, the FY 2017 continuing resolution poses a problem to perform fiscal planning and impacts a number of high-priority program decisions. Examples of FY 2017 priorities that will not be met under a continuing resolution include:

Antibiotic Resistance

CDC's request for $200 million in FY 2017 (+$40 million over FY 2016) will expand the nation's ability to detect, respond to, and prevent antibiotic resistant (AR) infections across healthcare settings and in the community in up to 50 states, 6 large cities, and Puerto Rico. Without this funding, CDC will not be able to work with HHS to build on existing critical investments to launch a department-wide response to all threats identified in CDC's Antibiotic Resistance Threat Report.

CDC will not be able to fully implement the surveillance, prevention, and stewardship activities outlined in the Combating Antibiotic-Resistant Bacteria National Strategy to reach the goals and prevention targets. CDC will not be able to expand programs reducing inappropriate antibiotic use and preventing the spread of AR threats across all healthcare settings, including inpatient, outpatient, and long-term care settings. In addition, CDC will not be able to expand programs that will help prevent the spread of other AR threats included in CDC's AR Threat Report such as: multidrug-resistant Acinetobacter, fluoconozale-resistant Candida, extended-spectrum β-lactamase (ESBL)-producing Enterbacteriaceae, and vancomyocin-resistant Enterococcus. Without the increase, CDC will not be able to expand state public health laboratory capacity from 10 States in FY 2016 to all 50 states, 6 large cities, and Puerto Rico to rapidly screen enteric bacteria for resistance. This expansion would have ensured the nation's ability to rapidly detect and investigate AR across the country and in more enteric pathogens, specifically Campylobacter and Shiga toxin-producing E. coli. CDC will not be able to expand the Emerging Infections Program, neither in the scope of AR activities in current sites nor by potentially adding one to two additional sites to the network.

Building and Facilities Improvements

The FY 2017 budget request included an increase of $21.2 million for CDC's Buildings and Facilities for repair and improvement of CDC's existing facilities portfolio in Atlanta and other locations across the United States. Without this funding for life safety and mission-support repair and improvement projects, CDC will not be able to ensure facilities are safe and support the public health mission needs. The functional replacement value of CDC's 188 buildings and 22 support and infrastructure facilities is $3.8 billion. As many of CDC's non-Atlanta campuses are approaching or are beyond a half century or more in age—including the Pittsburgh Research Campus—not only do requirements for routine repair and improvement continue to increase, but so do demands for asset demolition and/or disposal to improve CDC's overall condition index to 90 or above.

Prescription Drug Overdose

The FY 2017 budget request included an increase of $10 million to fully expand efforts to promote opioid prescribing guideline dissemination and uptake. Without this funding, CDC will not be able to further support, pilot test, evaluate and adapt the comprehensive translation and dissemination of prescribing guidelines into succinct, usable formats accessible to providers across the country. CDC will not be able to fully develop, evaluate, and publicly disseminate clinical decision support tools derived from the opioid prescribing guidelines.

Good Health and Wellness in Indian Country

In FY 2017, CDC requested $15 million to expand its current investment in Indian Country. American Indians and Alaska Natives (AI/ANs) bear a disproportionate burden of death, disease, disability, and injury compared to other racial and ethnic groups in the United States. Currently, CDC supports a five-year, $14 million per year cooperative agreement that aims to prevent diabetes, heart disease and stroke, and associated risk factors through a holistic approach to population health and wellness with funding from several areas of the Chronic Disease Prevention and Health Promotion budget. Without this funding, CDC will not be able to build on its existing program to more comprehensively address the leading causes of death and their associated risk factors, and further incorporate the culturally driven wellness practices that build resilience and strengthen social and emotional well-being. CDC will not be able to more effectively address chronic diseases, as well as depression and mental health, suicide, substance use, and alcohol-related motor vehicle injuries.

External Stakeholders

CDC alone cannot protect the health of the American people. By engaging with others—from state and local health departments and private corporations, to media outlets and the general public—the agency can achieve the vision of a better world, with safer, healthier people.

State, Tribal, Local and Territorial Health Departments

Annually, CDC awards billions of dollars to support the nation's public health system, which includes state, local, tribal, and territorial entities. CDC's Office for State, Tribal, Local, and Territorial Support (OSTLTS) plays a vital role in helping health agencies work to enhance their capacity and improve their performance to strengthen the public health system on all levels. CDC provides an online interactive data tool to get information since FY 2010 about grant funding to recipients in states, the District of Columbia, and territories. The tool allows users to view, sort, and analyze data by funding opportunity announcement, funding source, and recipient. In addition to financial support, CDC provides technical assistance to public health officials by:

- Serving as an informal sounding board and consultation
- Sharing data to support health departments for decision making
- Distributing toolkits and other resources for conducting epidemiologic investigations
- Developing materials for communicating with the public in regards to emerging issues of concern
- Convening discussions with stakeholders to increase awareness and discuss solutions
- Connecting partners to other jurisdictions with similar issues
- Assigning staff to work in the field

CDC can also conduct an **Epi-Aid**, if requested. An Epi-Aid is an investigation of an urgent public health problem, such as infectious or noncommunicable disease outbreaks, unexplained illnesses, or natural or manmade disaster. When a public health authority requests assistance from CDC, an Epi-Aid provides rapid, short-term support by Epidemic Intelligence Service officers and other CDC subject matter experts. The Epi-Aid investigation team helps partners make timely decisions to control the public health problem. The CDC team joins local staff in the community, while the requesting public health authority provides overall leadership for the investigation.

CDC is available to provide other support services to health officials:
- **Health Hazard Evaluation (HHE):** The program provides services to assess potential health hazards in workplaces.
- **Community Assessment for Public Health Emergency Response (CASPER):** Health officials can request assistance in conducting a rapid needs assessment to determine the health status, basic needs, or knowledge, attitudes, and practices of a community in a quick and low-cost manner.
- **Assessment of Chemical Exposures (ACE):** Health officials can use ACE tools to conduct, or can request assistance from the ACE program in performing an epidemiologic assessment after a chemical incident. The ACE Toolkit contains materials that can quickly be modified to meet the needs of a local team performing an epidemiologic assessment, including surveys, consent forms, medical chart abstraction form, training manual, and Epi Info™ databases to enter and analyze the data.
- **Customized Support for Health Officials (CSHO):** The program provides customized support for health officials to improve population health in their communities by connecting them with world-class subject matter experts, developing customized data and resource packages, and coordinating peer-to-peer networking opportunities.

International Partners

Additionally, CDC works in close partnership with a wide array of international agencies and institutions to shape global health policies and to fund, implement, and evaluate programs. CDC's partnerships with international and multinational organizations include the World Health Organization and its regional offices, other United Nations agencies (such as UNICEF) and affiliated agencies (such as the United Nations Foundation), the World Bank, other Federal agencies within the U.S. Government, private foundations, universities, and global health organizations. CDC works closely with Ministries of Health and other partners to maintain strong programs overseas.

Health Professionals

CDC is the key source of information for health professionals around the world. Ranging from recommendations from the Advisory Committee on Immunization Practices to clinical guidance on emerging health threats like Zika virus and Ebola, health professionals count on CDC for accurate and timely guidance and breaking news.

Some of CDC's key publications and information sources:

- **Health Alert Network (HAN)**: HAN is CDC's primary method of sharing cleared information about urgent public health incidents with public information officers. CDC's HAN collaborates with Federal, state, territorial, and city/county partners to develop protocols and stakeholder relationships to ensure a robust interoperable platform for the rapid distribution of public health information.
- **Morbidity and Mortality Weekly Report (MMWR):** MMWR is often called "the voice of CDC." The MMWR series is the agency's primary vehicle for scientific publication of timely, reliable, authoritative, accurate, objective, and useful public health information and recommendations. MMWR readership predominately consists of physicians, nurses, public health practitioners, epidemiologists and other scientists, researchers, educators, and laboratorians. The data in the weekly MMWR are provisional, based on weekly reports to CDC by state health departments.
- **Vital Signs:** CDC Vital Signs monthly report was launched in 2010. It includes an MMWR Early Release, a fact sheet and media release, and social media tools. Most materials are available in English and Spanish. Vital Signs is released the first Tuesday of each month. CDC Vital Signs links science, policy, and communications with the intent of communicating a call-to-action for the public action.
- **Epi-X:** Epi-X supports postings and discussions about disease outbreaks and other public health events that potentially involve multiple jurisdictions. Epi-X was created to provide public health officials with a single source for up-to-the-minute alerts, reports, discussions, and comments to respond to public health emergencies, and encourage professional growth and exchange of information. The reports are contributed by health professionals and moderated by medical epidemiologists and laboratorians at CDC.

Non-Governmental Organizations

The US public health system is most effective when government teams up with national nonprofit organizations to address emerging epidemics, develop the public health workforce, communicate public health information, translate science to practice, and evaluate effective public health services. National public health partners with their memberships and associations have the reach, influence, access, and capabilities for an effective public health response. A key role for national public health partners is to provide capacity-building assistance to ensure a capable and efficient public health workforce.

Private Sector Partners

CDC works with business to successfully carry out its mission. Engaging business can improve workforce and community well-being, lead to innovative strategies, and change the way CDC conceptualizes and solves problems. Opportunities for both formal and informal collaborations may lead to valuable, mutual benefits. For example, CDC partners with industry, academia, non-profits, and other government agencies to transfer its research portfolio into products and services to improve public health and facilitate the use of Cooperative Research and Development Agreements.

The 6|18 Initiative is a partnership between CDC and health care purchasers, payers, and providers to improve health and control health care costs. CDC provides rigorous evidence about six common and costly health conditions – tobacco use, high blood pressure, healthcare-associated infections, asthma, unintended pregnancies, and diabetes – and 18 proven specific interventions to inform decisions to have the greatest health and cost impact. This initiative offers proven interventions that prevent chronic and infectious diseases by increasing coverage, access, utilization and quality. Additionally, the initiative aligns evidence-based preventive practices with emerging value-based payment and delivery models.

Labor-Management Partnership Council

The Labor-Management Partnership Council fosters partnerships that create and maintain a strong, cooperative relationship between labor and management at all levels of CDC. The council:

- Makes decisions on agency-wide issues affecting management, labor, and mission achievement (at the director or a designee's request).
- Exchanges facts and information about agency-wide issues affecting management, labor, and mission achievement.
- Serves as a forum for discussions and guidance on agency-wide issues affecting management, labor, and mission achievement.
- Promotes and facilitates labor-management relationships at all appropriate levels.
- Provides guidance and support to any cooperation councils that form at other levels of CDC.

Local councils in Atlanta, Cincinnati, Morgantown, Pittsburgh, Research Triangle Park, and Hyattsville help improve and maintain good relations between union and management at all levels to promote outcomes that are in the best interests of employees and CDC.

The council includes 14 primary members (7 management and 7 union) and 14 alternates (7 management and 7 union). Unions include:
- American Federation of Government Employees (AFGE) – Locals 1916, 2883, 2923, 3430, 3840
- National Treasury Employees Union (NTEU) – Chapter 287
- National Alliance of Postal and Federal Employees (NAPFE) – Local 303

Crisis Management and Emergency Response

Emergency Response Plan

- CDC develops and implements internal emergency response planning for the agency.
- Planning occurs under the umbrella of the Occupant Emergency Program. CDC's Occupant Emergency Program is an all-hazards approach that ensures that CDC is capable of responding to and managing any incident that may impact CDC staff or facilities.
- CDC's current major focus is on improving the emergency response capacity at CDC's Atlanta-area facilities through the redevelopment of CDC's Occupant Emergency Plan, and through a series of nine emergency response exercises, including seminars, tabletop exercises, and full-scale exercises.
- Activities in the coming year will focus on continuing to build capacity within the Atlanta area, and on working with CDC facilities outside of the Atlanta area to update their response plans, and bring them into better alignment with CDC's Occupant Emergency Program.

Continuity of Operations Information

- CDC develops and implements continuity of operations planning (COOP).
- CDC maintains a COOP plan designed to ensure the continuation of pre-identified essential functions. CDC also maintains two alternate operating facilities to assist in the continuation of CDC's essential functions.
- COOP activities in the coming year will focus on continuing to meet or exceed the requirements that the Federal Government will identify in its upcoming continuity planning guidance.

Primary Points of Contact

Jonathan Trapp, Emergency Management Branch, Security Services Office
Jut3@cdc.gov
(b)(6)

Administrative Information

Division Transition Team Contacts

HHS Presidential Transition Council Representative

Sherri Berger, MSPH
Chief Operating Officer
Centers for Disease Control and Prevention
(404) 639-7846
sberger@cdc.gov

Security Procedures, Transportation, and Parking Information

CDC's headquarters are located in Atlanta, Georgia. The main address: 1600 Clifton Road NE, Atlanta, Georgia 30333. CDC has a number of additional locations in the Atlanta area. CDC can reserve visitor parking on campus with advance notice.

For more information:
Joe Henderson
Director, Office of Security, Safety, and Asset Management
Centers for Disease Control and Prevention
(404) 639-7131
jfh0@cdc.gov

Information Technology and Computer Access

CDC's cybersecurity infrastructure plan and procedures, as well as privacy infrastructure, is under the chief information officer.

CDC will provide Wi-Fi and computer access to on-site visitors, using the government-issued PIV card.

For more information:
Jim Seligman
Chief Information Officer
Centers for Disease Control and Prevention
(404) 639-7601
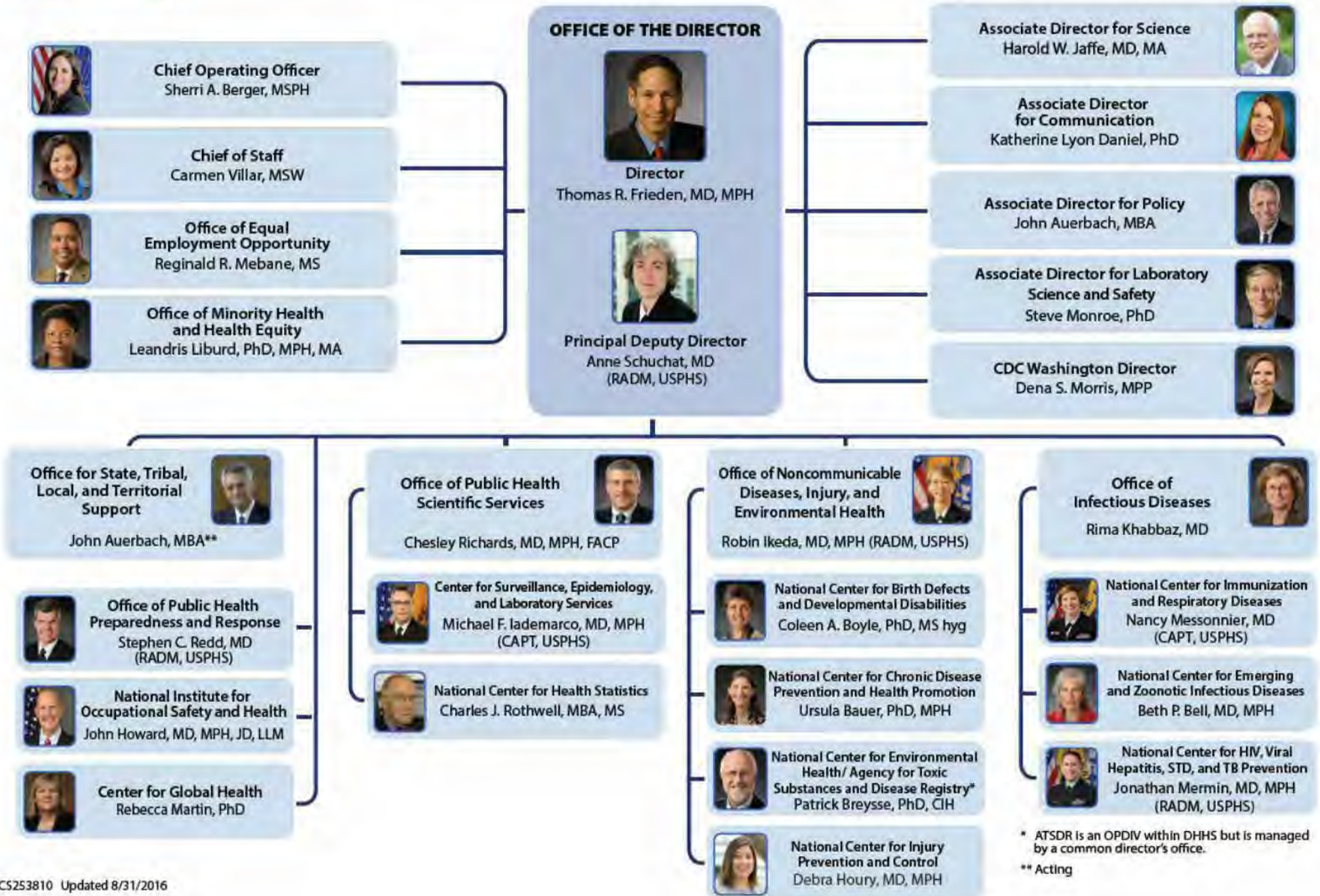jds1@cdc.gov

Map of Organization Facilities

Attachment J contains maps for all CDC locations across the United States.

Attachments

Attachment A: CDC's organizational chart

ORGANIZATIONAL CHART

Centers for Disease Control and Prevention
Office of the Director

OFFICE OF THE DIRECTOR

Director
Thomas R. Frieden, MD, MPH

Principal Deputy Director
Anne Schuchat, MD
(RADM, USPHS)

Chief Operating Officer
Sherri A. Berger, MSPH

Chief of Staff
Carmen Villar, MSW

Office of Equal Employment Opportunity
Reginald R. Mebane, MS

Office of Minority Health and Health Equity
Leandris Liburd, PhD, MPH, MA

Associate Director for Science
Harold W. Jaffe, MD, MA

Associate Director for Communication
Katherine Lyon Daniel, PhD

Associate Director for Policy
John Auerbach, MBA

Associate Director for Laboratory Science and Safety
Steve Monroe, PhD

CDC Washington Director
Dena S. Morris, MPP

Office for State, Tribal, Local, and Territorial Support
John Auerbach, MBA**

Office of Public Health Preparedness and Response
Stephen C. Redd, MD
(RADM, USPHS)

National Institute for Occupational Safety and Health
John Howard, MD, MPH, JD, LLM

Center for Global Health
Rebecca Martin, PhD

Office of Public Health Scientific Services
Chesley Richards, MD, MPH, FACP

Center for Surveillance, Epidemiology, and Laboratory Services
Michael F. Iademarco, MD, MPH
(CAPT, USPHS)

National Center for Health Statistics
Charles J. Rothwell, MBA, MS

Office of Noncommunicable Diseases, Injury, and Environmental Health
Robin Ikeda, MD, MPH (RADM, USPHS)

National Center for Birth Defects and Developmental Disabilities
Coleen A. Boyle, PhD, MS hyg

National Center for Chronic Disease Prevention and Health Promotion
Ursula Bauer, PhD, MPH

National Center for Environmental Health/ Agency for Toxic Substances and Disease Registry*
Patrick Breysse, PhD, CIH

National Center for Injury Prevention and Control
Debra Houry, MD, MPH

Office of Infectious Diseases
Rima Khabbaz, MD

National Center for Immunization and Respiratory Diseases
Nancy Messonnier, MD
(CAPT, USPHS)

National Center for Emerging and Zoonotic Infectious Diseases
Beth P. Bell, MD, MPH

National Center for HIV, Viral Hepatitis, STD, and TB Prevention
Jonathan Mermin, MD, MPH
(RADM, USPHS)

* ATSDR is an OPDIV within DHHS but is managed by a common director's office.

** Acting

CS253810 Updated 8/31/2016

ORGANIZATIONAL CHART: TEXT VERSION

Centers for Disease Control and Prevention
- Thomas R. Frieden, MD, MPH
  - Principal Deputy Director Anne Schuchat, MD (RADM, USPHS)

The following offices report directly to the Director:
- CDC Washington Office
  - Dena Morris, MPP
- Chief Operating Officer
  - Sherri A. Berger, MSPH
- Associate Director for Laboratory Science and Safety
  - Stephan Monroe, PhD
- Associate Director for Policy
  - John Auerbach, MBA
- Associate Director for Science
  - Harold W. Jaffe, MD, MA
- Chief of Staff
  - Carmen H. Villar, MSW
- Associate Director for Communication
  - Katherine Lyon Daniel, PhD
- Office of Equal Employment Opportunity
  - Reginald R. Mebane, MS
- Office of Minority Health and Health Equity
  - Leandris Liburd, PhD, MPH, MA
- Office of Public Health Scientific Services (CDC Deputy Director)
  - Chesley L. Richards, MD, MPH, FACP
- Office of Noncommunicable Diseases, Injury, and Environmental Health (CDC Deputy Director)
  - Robin M. Ikeda, MD, MPH (RADM, USPHS)
- Office of Infectious Diseases (CDC Deputy Director)
  - Rima F. Khabbaz, MD
- Office for State, Tribal, Local and Territorial Support (CDC Deputy Director)
  - John Auerbach, MBA (Acting)
- Office of Public Health Preparedness and Response
  - Stephen C. Redd, MD (RADM, USPHS)
- National Institute for Occupational Safety and Health
  - John Howard, MD, MPH, JD, LLM
- Center for Global Health
  - Rebecca Martin, PhD

The following offices report to the CDC Deputy Director, Office of Public Health Scientific Services:
- National Center for Health Statistics
  - Charles J. Rothwell, MS, MBA
- Center for Surveillance, Epidemiology and Laboratory Services
  - Michael F. Iademarco, MD, MPH (CAPT, USPHS)

The following offices report to the CDC Deputy Director, Office of Noncommunicable Diseases, Injury, and Environmental Health:
- National Center on Birth Defects and Developmental Disabilities

- o Coleen A. Boyle, PhD, MS hyg
- National Center for Chronic Disease Prevention and Health Promotion
  - o Ursula Bauer, PhD, MPH
- National Center for Environmental Health/Agency for Toxic Substances and Disease Registry*
  - o Patrick Breysee, PhD, CIH
- National Center for Injury Prevention and Control
  - o Debra Houry, MD, MPH

The following offices report to the CDC Deputy Director, Office of Infectious Diseases:
- National Center for Immunization and Respiratory Diseases
  - o Nancy Messonnier, MD (CAPT, USPHS)
- National Center for Emerging and Zoonotic Infectious Diseases
  - o Beth P. Bell, MD, MPH
- National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention
  - o Jonathan H. Mermin, MD, MPH (RADM, USPHS)

*ATSDR is an OPDIV within HHS, but is managed by a common director's office

Attachment B: Fact sheets for CDC's centers, institute, and offices (CIOs)

CENTER FOR GLOBAL HEALTH

SNAPSHOT

MISSION

To protect and improve health globally through science, policy, partnership, and evidence-based public health action.

ORGANIZATION

Division of Global Health Protection

Division of Global HIV and TB

Division of Parasitic Diseases and Malaria

Global Immunization Division

PRIORITIES

One CDC: Bring cohesiveness to CDC's global health work to improve the health and well-being of people around the world.

Global health is local health: CDC cannot protect the health of people living in the United States without addressing infectious disease problems that are occurring elsewhere in the world. Helping other countries to control disease outbreaks prevents those diseases from spreading to the United States, saving lives and dollars.

Sustain, intensify, and accelerate CDC's global health work: We must increase and expand the proven interventions to prevent, detect, and respond to disease threats.

CDC's Work in Global Health

Disease knows no borders. A health threat anywhere is a health threat everywhere. By ensuring that countries have the capacity to prevent, detect, and respond to threats within their borders, the Center for Global Health (CGH) helps prevent regional and global health crises that affect health, security, and economic stability abroad and at home. We provide a global safety net by monitoring for disease outbreaks 24/7 around the world. CGH uses scientific data to track diseases and other health threats and target services to those who need them most across a variety of programs, including global immunization, HIV/AIDS, tuberculosis, parasitic diseases and malaria, and disease detection and response, as well as health systems and laboratories.

Nearly 80% of CDC's Field Epidemiology Training Program (FETP) graduates continue to serve in public health programs in their home countries.

Countries Participating in FETPs

Learn more about where we work.
http://www.cdc.gov/globalhealth/healthprotection/fetp/index.htm

How We Work

- **Respond** quickly to threats posed by infectious diseases like Ebola, Zika, MERS-CoV, avian influenza, and others.

- **Implement** proven prevention and treatment programs for global epidemics like HIV, malaria, and tuberculosis.

- **Train** public health leaders and health workers to build a ready workforce and enhance global capacity to identify and report outbreaks from leading disease threats.

- **Increase** epidemiology and laboratory capacity within ministries of health around the world.

- **Provide** assistance to ministries of health to develop emergency operations centers and catch outbreaks faster.

- **Build** health infrastructure and strengthen information systems needed for data-driven decision-making for faster local action.

CS268819

Key Accomplishments

Training a Ready Workforce: In 2014, Field Epidemiology Training Program graduates and residents participated in more than 400 outbreak investigations. Their response was critical in controlling the 2014 Ebola outbreak as well as more recent yellow fever and cholera outbreaks.

Eradicating Polio: Since 1988, polio cases have dropped by more than 99%, and 80% of the world's population now live in polio-free regions.

Helping Provide Anti-retroviral Treatment (ART): By the end of 2015, as a result of CDC's support of HIV care and treatment, 5,841,782 patients were on ART. This is over half the 2015 PEPFAR achievement of 9.5 million.

Eliminating Parasitic Diseases: CDC helped make significant progress toward wiping out Lymphatic filariasis in Haiti; 94% of the 48 communities assessed (representing 2 million people) no longer need to provide preventive treatment drugs to their residents.

Reducing Deaths from Malaria: CDC, working in collaboration with partners, saved an estimated 6.2 million lives during 2001–2015 as a result of proven malaria interventions like vector control, use of treated bed nets, and strategic use of antimalarial drugs.

What's Needed

CGH's top challenges to program success include:

- **Challenging environments:** We often work to build and sustain health security in unstable, high-risk areas.

- **Low levels of preparedness:** We live in a world where two thirds of all countries remain unprepared to handle a public health emergency.

- **Disease control:** We face many remaining challenges to prevent the leading causes of death and disease globally.

- **Intensify and accelerate:** We have proven, successful interventions that must scale up significantly to reduce disease rates and improve public health.

- **Disease elimination and eradication initiative:** We need to know more than we know now in order to develop new tools to face these challenges and intensify and accelerate gains in global health.

- **Greater momentum:** With additional resources, CDC stands ready to meet these challenges and ensure that the health and economic prosperity of the United States continues to flourish while mitigating health and instability threats around the world.

BY THE NUMBERS

10 — 10 Global Disease Detection Centers around the world support over 50 countries.

140 — Tracked over 140 unique diseases globally.

12 — Discovered 12 pathogens that were identified for the first time anywhere in the world.

Long-Term Opportunities

- **Global Health Safety Net** – Strengthen our rapid response workforce, global disease monitoring, and regional disease detection centers.

- **Safe and Prepared Global Community** – Support the development and sustainability of the underlying public health systems in countries around the world so they are able to detect and diagnose disease and efficiently respond with a ready, trained workforce.

- **End Polio Transmission** – Use life-saving scientific research to interrupt transmission of polio in countries where it continues and move toward global eradication by 2019.

- **Intensify, Sustain, and Accelerate** – Scale up known, proven interventions and advance the science base to develop the public health tools to continue the fight against HIV, TB, malaria, parasitic, and vaccine-preventable diseases.

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

SNAPSHOT

MISSION

To generate new knowledge in the field of occupational safety and health and to transfer that knowledge into workplace practice to prevent work-related injury, illness, and death.

ORGANIZATION

Education and Information Division

Division of Applied Research and Technology

Division of Compensation Analysis and Support

Division of Safety Research

Division of Surveillance, Hazard Evaluations, and Field Studies

Health Effects Laboratory Division

National Personal Protective Technology Laboratory

Pittsburgh Mining Research Division

Respiratory Health Division

Spokane Mining Research Division

Western States Division

World Trade Center Health Program

PRIORITIES

Implement the third decade of the National Occupational Research Agenda with partners and stakeholders.

Implement a systematic burden, need, and impact framework to set research priorities.

Advance translation research in occupational safety and health.

Why We're Here

The Occupational Safety and Health Act of 1970 established the National Institute for Occupational Safety and Health (NIOSH) with the mandate to provide "every man and woman in the Nation safe and healthful working conditions and to preserve our human resources." NIOSH is the only federal entity responsible for conducting research and making recommendations for the prevention of work-related injury and illness. NIOSH works closely with the Occupational Safety and Health Administration and the Mine Safety and Health Administration in the U.S. Department of Labor to protect American workers and miners. NIOSH also administers the World Trade Center Health Program, which provides medical monitoring and treatment for eligible 9/11 responders and survivors and funds research into health conditions associated with the September 11, 2001, terrorist attacks.

BEFORE AFTER

NIOSH developed "Mini Bag House" control technology to reduce harmful silica dust exposure. Data have shown a 98% reduction in respirable silica dust emissions during hydraulic fracturing.

How We Work

NIOSH's research efforts are aligned under the National Occupational Research Agenda, which partners with industry, labor, government, academia, professional associations, and others to maximize the impact of occupational safety and health research.

- Conduct innovative, multidisciplinary scientific research based on surveillance information to prevent worker injury, illness, and death.

- Perform on-site investigations to determine if workers are being exposed to hazardous materials or harmful conditions.

- Disseminate new scientific knowledge to reduce risks of workplace injury and death.

Centers for Disease Control and Prevention

CS268819

Current Intelligence Bulletin on carbon nanotubes and nanofibers: This publication contains the first government-issued recommended exposure limits for a major class of nanomaterials.

Mini-baghouse Retrofit Assembly: NIOSH developed and patented this control technology to protect workers from harmful exposures during hydraulic fracturing. Recent data show a 98% reduction in respirable silica dust emissions from sand movers.

Update of the NIOSH hazardous drugs list: Provides guidance on using personal protective equipment in healthcare settings to prevent mishandling of hazardous drugs.

Stand-alone respirable coal mine dust collector: Partnered with a manufacturer to develop this device to reduce worker respirable dust exposures and help eliminate black lung disease.

Development of the NIOSH Ladder Safety Smartphone app: This app has been downloaded more than 50,000 times. It provides graphical guidance on safe ladder use and includes a patented innovation that allows users to set safe ladder angles more accurately and quickly than other methods.

What's Needed

Infrastructure Improvements

- Pittsburgh – most of the site and utility infrastructure at the NIOSH campus in Pittsburgh, Pennsylvania, is obsolete and failing, which has resulted in frequent utility outages, delays in research activities, lost time for employees, and other problems.

- Cincinnati – the two aging NIOSH facilities should be merged into one updated, consolidated building. CDC is working with GSA on acquiring an appropriate property in Cincinnati for NIOSH to continue its important research activities.

Human Capital Management and IT Support

- Multidisciplinary workforce needs across eight cities must be addressed.

- Varied IT needs, including diverse data management needs, must be supported and addressed across these eight cities.

NIOSH Locations

Spokane, WA · Denver, CO · Pittsburgh, PA · Cincinnati, OH · Washington, DC (HQ) · Morgantown, WV · Atlanta, GA (HQ) · Anchorage, AK

Long-Term Opportunities

- Reduce oil and gas extraction worker fatality rates.

- Increase the dissemination of guidance documents on how to use engineered controls and personal protective equipment to mitigate exposure to nanomaterials.

- Reduce the percentage of respirable coal mine dust overexposures for the tailgate shearer operator.

- Reduce the number of fatalities from falls in construction.

- Reduce the rate of work-related assaults.

- Increase the proportion of employees who have access to workplace programs that prevent or reduce employee stress.

OFFICE FOR STATE, TRIBAL, LOCAL, AND TERRITORIAL SUPPORT

SNAPSHOT

MISSION

To advance U.S. public health agency and system performance, capacity, agility, and resilience.

ORGANIZATION

Division of Public Health Performance Improvement

Partnership Support Unit

Public Health Associate Program

Public Health Law Program

Tribal Support Unit

PRIORITIES

Improve health department performance and services.

Build the public health workforce.

Strengthen CDC program and STLT agency relationships.

Collaborate with national partners on system-wide improvements.

Build capacity to use public health law.

Administer the Preventive Health and Health Services (PHHS) Block Grant.

Improve collaboration with and support to tribes.

Why We're Here

The public counts on accessible, timely, high-quality, and sustainable public health services for their health and safety—every day and in times of crisis. Prolonged under-resourcing of public health infrastructure and capacity has resulted in a less agile, less resilient public health system, putting the health of Americans at risk. State, tribal, local, and territorial (STLT) health departments need tools, resources, and a sustainable, well-trained workforce to work better, faster, and smarter. OSTLTS helps health departments improve delivery of services to the public, reduce costs, and improve health in a cross-cutting way that maximizes other investments in public health.

Maximizes Investments

Boosts Efficiency

Leads to Better Service and Improved Health Outcomes

Increases Use of Public Health Best Practices and Standards

Technical Assistance

Performance Improvement

OSTLTS

Workforce Development

How We Work

- Administer the Preventive Health and Health Services Block Grant (PHHS), a flexible source of funding for all 50 states, D.C., 8 U.S. territories, and 2 tribes.

- Build capacity to use public health law.

- Build the public health workforce through the Public Health Associate Program (PHAP).

- Diffuse public health knowledge and resources across the health system.

- Help health departments improve their performance based on national standards and advance toward national accreditation.

- Collaborate with national partners on system-wide improvements.

- Monitor state use of evidence-based policies and practices to address priority public health problems.

- Coordinate CDC activities to improve service and support for health departments, including facilitating joint planning and problem solving.

- Coordinate CDC/ATSDR government-to-government Tribal Advisory Committee and consultations with American Indians/Alaska Natives.

Division of Public Health Performance Improvement: As of September 2016, 55% of the U.S. population is being served by an accredited health department (19 state, 1 tribal, 130 local, and 1 centralized state integrated system of 67 local health departments).

Public Health Law Program: Trained nearly 23,200 people since 2011, including 2,528 at the Zika Action Plan Summit.

Public Health Associate Program: As of May 2016, 310 associates are supporting the capabilities of state, tribal, local, and territorial public health agencies, nongovernmental organizations, and CDC quarantine stations across 43 states, Puerto Rico, and the District of Columbia.

Tribal Support Unit: Held 13 meetings of the CDC/ATSDR Tribal Advisory Committee (January 2010 to present) with tribal consultation.

Partnership Support Unit: In FY16, managed cooperative agreements with 25 national nonprofit organizations to implement 331 public health capacity-building projects totaling approximately $104 million.

What's Needed

- A next-generation cooperative agreement program based on national public health accreditation standards that provides health departments with flexible resources to sustain and improve infrastructure and service delivery to the public.

- Flexible and sustainable funding for PHAP to support public health workforce infrastructure across the United States and its territories.

- Sustainable funding and an improved funding formula for the PHHS Block Grant.

- Increased direct CDC support to tribes, including more funding, technical assistance, and data for action.

- Greater attention and support through partnerships for improving public health infrastructure in U.S. territories.

- Expanded legal evaluation studies, including those that compare legal trends with trends in public health outcomes.

Cumulative Growth in Accredited Health Departments
(State, Tribal, Local, and Locals in Centralized State System)*

Bar chart — Accredited Health Departments:
2013: 22; 2014: 60; 2015: 96; 2016: 217
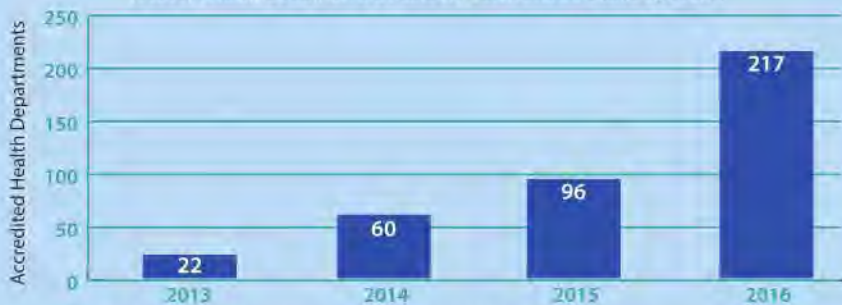
*By 2016, the grand total includes 19 state, 1 tribal, 130 local, and 1 integrated state system of 67 local health departments

Long-Term Opportunities

- In FY18, release a new funding opportunity announcement for the national partnership cooperative agreement on behalf of CDC.

- Identify sustainable and flexible funding strategies to establish and safeguard the delivery of basic and core public health services in all communities.

- Develop or support emerging initiatives to revitalize and transform population health.

- Expand support for accreditation readiness to help more health departments meet national accreditation standards.

- Revisit formula for awardee allocations under the PHHS Block Grant to reduce funding disparities and enable completion of impactful and measurable activities.

- Work with program partners to facilitate more job opportunities for PHAP graduates.

OFFICE OF INFECTIOUS DISEASES

SNAPSHOT

MISSION

To lead, promote, and facilitate science, programs, and policies to reduce the burden of infectious diseases in the United States and globally.

ORGANIZATION

National Center for Emerging and Zoonotic Infectious Diseases

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

National Center for Immunization and Respiratory Diseases

PRIORITIES

Strengthen public health fundamentals, including infectious disease surveillance, laboratory detection, and epidemiologic investigation.

Identify and implement high-impact public health interventions to reduce infectious diseases.

Develop and advance policies to prevent, detect, and control infectious diseases.

Why We're Here

The Office of Infectious Diseases (OID) was established to advise the CDC director and help set agency strategic priorities, as well as to lead CDC's three infectious disease national centers and support their work to prevent and control infectious diseases. OID's vision is a world safe from infectious diseases.

- CDC'S INFECTIONS DISEASE NATIONAL CENTERS
- BOARD OF SCIENTIFIC COUNSELORS, OID
- CDC'S INFECTIOUS DISEASE FRAMEWORK

How We Work

OID is led by CDC's Deputy director for Infectious Diseases. OID's Office of the Director (OD) consists of a small team of senior staff who provide strategic leadership to CDC's infectious disease national centers—the National Center for Emerging and Zoonotic Infectious Diseases; the National Center for HIV, Viral Hepatitis, STD, and TB Prevention; and the National Center for Immunization and Respiratory Diseases—including setting priorities, developing and implementing infectious disease goals and objectives, and evaluating and adjusting activities to ensure optimal effectiveness and efficiency.

OID leadership works with internal and external partners to advance infectious disease prevention programs and priorities. OID collaborates with CDC's infectious disease centers and other CDC/OD offices on cross-cutting issues, including policy development and coordination, budget, program, personnel, scientific priorities, and informatics activities. OID actively identifies opportunities to strengthen CDC capacities and connect programs.

Strategic Partnerships:

- Convened the Board of Scientific Counselors, OID, for external engagement in CDC's efforts and to monitor overall strategic direction.

- Convened, managed, and hosted international conferences on emerging infectious diseases, which brought together more than 1,500 professionals from around the world to encourage the exchange of information on global emerging infectious diseases.

Laboratory Leadership:

- Identified gaps in bioinformatics resources and led development of AMD budget initiative, resulting in improvements that allow our scientists to better detect and respond to outbreaks.

- Facilitated the opening of the new Office of the Associate Director for Laboratory Science and Safety (OADLSS) and the enhancement of laboratory policy across the agency.

Policy/Program Development:

- Supported center priorities by developing key policy documents.

- Provided leadership and staffing to outbreak response efforts.

Improved Efficiencies:

- Coordinated across infectious disease programs and labs.

- Implemented cost-saving strategies and shared services.

What's Needed

- Sustaining priority infectious disease initiatives, including advanced molecular detection (AMD), the Antibiotic Resistance Solutions Initiative, and the Global Health Security Agenda.

- Strengthening CDC's infectious disease laboratories, including implementing enhanced oversight structures and systems to ensure effective and safe operation of CDC's infectious disease laboratories, and expanding CDC's capacities in advanced molecular technologies and bioinformatics.

- Advancing and monitoring progress of infectious disease program activities that cross CDC's infectious disease programs, including initiatives to combat antibiotic-resistant bacteria and to prevent infections with human papillomavirus.

- Enhancing work with state and local health departments and other partners to sustain and upgrade public health fundamentals and address infectious disease issues of special concern, including those above and chronic viral hepatitis, food safety, healthcare-associated infections, HIV/AIDS, respiratory infections, safe water, vaccine-preventable diseases, and zoonotic and vector-borne diseases.

Long-Term Opportunities

In the future, OID will continue to identify and evaluate opportunities to use scientific advances and technical innovations to strengthen its programs and develop (and implement) new tools for disease detection, disease prevention, and outbreak response.

A recent CDC stakeholder assessment of OID's role found that OID fulfills key roles as:

- Strategic advisor.

- Internal and external advocate.

- Connector and convener, enhancing collaborations and increasing public health impact of infectious disease programs.

- Incubator and accelerator for cutting-edge public health activities.

- Buffer and negotiator to improve efficiencies.

NATIONAL CENTER FOR EMERGING AND ZOONOTIC INFECTIOUS DISEASES

SNAPSHOT

MISSION

To reduce illness and death associated with emerging and zoonotic infectious diseases anywhere in the world and protect against the spread of infectious diseases.

ORGANIZATION

Division of Foodborne, Waterborne, and Environmental Diseases

Division of Global Migration and Quarantine

Division of Healthcare Quality Promotion

Division of High-Consequence Pathogens and Pathology

Division of Preparedness and Emerging Infections

Division of Scientific Resources

Division of Vector-borne Diseases

PRIORITIES

Antibiotic resistance.

High-consequence deadly diseases.

Healthcare-associated infections.

Zoonotic diseases.

Food safety.

Vector-borne diseases.

Advanced molecular detection.

Infectious disease preparedness.

Migrating populations, including travelers.

Why We're Here

The National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) is committed to protecting people from infectious diseases no matter where they occur. NCEZID targets infectious diseases ranging from the familiar, such as foodborne illnesses and healthcare-associated infections, to the less common but deadly, such as anthrax and Ebola. NCEZID manages a broad portfolio of science-based programs that combine laboratory, epidemiologic, analytic, and prevention technologies with public health tools. NCEZID collaborates with state and local health departments, other U.S. government agencies, industry, and foreign ministries of health.

Approximately 75% of emerging infectious diseases that affect humans (like the Zika virus, right) are diseases of animal (zoonotic) origin.
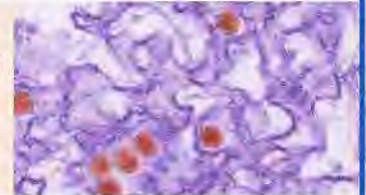
How We Work

NCEZID works globally to prevent, detect, and respond to outbreaks of infectious diseases—natural, accidental, or intentional. Areas the center is engaged in include:

- **Vector-borne diseases,** which are complex and common worldwide. Dengue virus infects as many as 400 million people worldwide each year.

- **Foodborne illness:** One in six Americans gets sick each year from contaminated foods or beverages.

- **Infections spread in hospitals, nursing homes, and other healthcare settings:** At any given time, about 1 in every 25 patients has an infection related to their hospital care. Healthcare-acquired infections (HAI) contribute to approximately $30 billion in excess healthcare costs per year.

- **Migration health and quarantine:** Infectious diseases that emerge anywhere can pose a risk to populations everywhere. During the Ebola outbreak, CDC screened almost 340,000 travelers who were leaving a country with widespread transmission.

- **Advanced laboratory diagnostics:** Laboratory technologies based on next-generation gene sequencing, such as those used by CDC's Advanced Molecular Detection program, are more powerful and can detect outbreaks sooner vs. traditional methods.

- **High-consequence diseases:** Last year, over 600 unknown infections were diagnosed and investigated by CDC scientists who worked with more than 70 dangerous viruses and bacteria in the field or our high containment laboratories.

CDC — Centers for Disease Control and Prevention

Key Accomplishments

CDC's PulseNet has been the most effective tool for detecting foodborne disease outbreaks. Each year, PulseNet prevents an estimated 270,000 infections and saves approximately $500 million in medical costs and lost productivity. More than 1 billion pounds of contaminated food has been recalled since PulseNet was launched.

CDC, in collaboration with FDA, launched the **AR Isolate Bank**, a centralized repository that includes more than 450,000 antibiotic-resistant isolates and more than 18,000 characterized genomes. This bank is open to both public- and private-sector researchers to help design the next generation of clinical tests and therapeutic agents.

CDC has excelled in developing **new diagnostics and vaccines for vector-borne pathogens.** NCEZID developed the first affordable rapid diagnostic test for plague. The test yields results in minutes, requires no electricity or refrigeration, and costs less than $1 to produce, making it a particularly effective tool in resource-poor settings. NCEZID has also invested in developing a dengue vaccine, which is currently in trials.

CDC launched a **new electronic platform called e-Pathology,** which allows physicians and scientists from anywhere in the world to electronically submit images and scanned pathology slides to CDC scientists to review in real time.

- **Increase domestic and international capacity to address antibiotic resistance (AR):** CDC's Antibiotic Resistance Solution Initiative will expand our antibiotic use reporting, create a nationwide laboratory network to fill data gaps and inform prevention, and expand HAI/AR detection and response programs to all 50 states, six cities, and Puerto Rico. This investment will result in better tracking of and response to AR nationwide and could avert $7.7 billion of the direct medical costs due to infections. Because the scope of AR is so vast, continued financial commitment will be needed to reach domestic and global goals.

- **Continue expansion for AMD:** Since 2013, AMD has increased next-generation gene sequencing and bioinformatics capacities. This technological revolution shows no signs of slowing down, and CDC will need to keep up with innovations at both national and state levels. In addition, CDC needs to fully implement whole genome sequencing to modernize and streamline foodborne outbreak detection and response.

- **National, state, and local investment in vector-control programs:** Diseases spread by mosquitos and ticks will continue to evolve and move into new areas, including the United States. Outbreaks like Zika will not be a one-time event. Capacity building at all levels, as well as innovation in diagnostics, is needed to prevent and control these outbreaks and understand more about the vectors.

ANTIBIOTIC RESISTANCE GROWTH
2 MILLION CASES / 23,000 DEATHS EACH YEAR

1940   2015

Long-Term Opportunities

- CDC's Antibiotic Solutions Initiative will transform how public health partners tackle resistant threats. Some expected outcomes include:
  » Reducing inappropriate antibiotic use by 50% in outpatient settings and by 20% in inpatient settings.
  » Testing every Salmonella isolate available for drug resistance.
  » Increasing the ability in 50 states to track and stop the nightmare bacteria, carbapenem-resistant Enterobacteriaceae (CRE).
  » Ensuring that less than 2% of all gonorrhea infections are resistant to the current treatment.

- Strengthen support to state and local health departments and partners through CDC's Epidemiology and Laboratory Capacity grants and our Emerging Infections Programs.

- Accelerate implementation of and long-term support for Global Health Security, to prepare countries for the next epidemic or emerging infection.

NATIONAL CENTER FOR HIV/AIDS, VIRAL HEPATITIS, STD, AND TB PREVENTION

SNAPSHOT

MISSION

To save lives, protect people, and reduce health disparities associated with HIV, viral hepatitis, STDs, and tuberculosis.

ORGANIZATION

Division of Adolescent and School Health

Division of HIV/AIDS Prevention

Division of STD Prevention

Division of Tuberculosis Elimination

Division of Viral Hepatitis

PRIORITIES

Decrease incidence of infection with HIV, viral hepatitis, STDs, and TB.

Decrease illness and death from HIV, viral hepatitis, STDs, and TB.

Decrease health disparities across groups affected by HIV, viral hepatitis, STDs, and TB.

Why We're Here

The National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) prioritizes cost-effective, scalable programs, policies, and research to achieve the greatest impact on reducing the incidence of HIV, viral hepatitis, STDs, and tuberculosis and preventing related illness and death. These infections result in high personal, societal, and economic costs, both in the United States and around the world. NCHHSTP also works to reduce health disparities associated with these diseases and to help adolescents avoid infection.

- Only 57% of people living with HIV in the United States are currently receiving medical care for HIV infection.
- Nearly 20 million STDs occur in the United States each year, mostly among young persons.
- Annual hepatitis C-related mortality in 2013 surpassed the total number of deaths from 60 other infectious diseases combined.
- Millions of Americans are infected with the bacteria that cause TB and are at risk of developing active disease.
- Lesbian, gay and bisexual (LGB) adolescents have disproportionality high rates of health risks and negative health impacts. Twenty nine percent of LGB students attempted suicide in the past year compared to 6% of heterosexual students.

How We Work

HIV, viral hepatitis, STDs, and TB all share similar or overlapping characteristics:

- Risk factors such as unsafe sexual behaviors and drug use.
- Disease interactions, such as HIV increasing the risk of developing TB.
- At-risk populations, including some racial and ethnic minorities, men who have sex with men, adolescents, and injection drug users.
- Social, environmental, and economic determinants of health.

NCHHSTP allocates approximately 85% of its budget for extramural funding, 70% of which supports state and local health departments. We focus on high-impact prevention activities to promote efficient and effective use of limited resources, including:

- Investing in prevention, testing, and linkage to care by health departments and community-based organizations.
- Expanding the use of public health and clinical data to identify populations and ensure access to testing and care.
- Conducting research and evaluation.
- Developing guidelines and training for healthcare providers.
- Educating the public, partners, and key populations about essential health information and preventive actions.

CS268819

Key Accomplishments

Increased awareness: The proportion of persons living with HIV who know their HIV status is at the highest level ever: 87% in 2014.

Decreased HIV diagnoses: The number of new HIV diagnoses in the United States decreased by 19% between 2005 and 2014. Dramatic declines occurred in key populations, including heterosexuals, people who inject drugs, and African-American women.

Spearheaded the first nationally representative study on the health risks of U.S. lesbian, gay, and bisexual high school students: This study helps us understand more about behaviors that can contribute to negative health outcomes.

Developed the Large Outbreaks of Tuberculosis in the United States (LOTUS) surveillance program: This led to the identification of outbreaks of 10 or more genotype-matched TB cases.

Updated guidelines: With STD experts across the country, we worked to preserve the last available effective treatment option for gonorrhea for as long as possible by updating the guidelines. During the past 3 decades, $3.7 billion has been saved by preventing 32 million cases of gonorrhea.

What's Needed

- **Increasing response to viral hepatitis:** Hepatitis C is common and deadly, yet curable. The timing is right to gain critical ground.

- **Expanding use of pre-exposure prophylaxis (PrEP):** The progress we've made in HIV prevention in the United States has been uneven. Many people living with HIV are not virally suppressed, and PrEP is reaching only a fraction of those who could benefit from it.

- **Shoring up public health STD infrastructure:** This critical infrastructure is eroding. Syphilis, gonorrhea, and chlamydia are increasing in the United States. There is also a growing threat from antibiotic-resistant gonorrhea.

- **Preventing TB:** Prevention saves lives and money. More can be done to screen and test for latent TB infection.

- **Offering comprehensive health education in schools:** More can be done to ensure that young people have the knowledge and skills they need to prevent infections.

- **Expanding testing and treatment for infectious diseases such as HIV infection and hepatitis B and C among persons who inject drugs (PWID):** Syringe services programs are an effective part of a comprehensive approach to infectious disease and substance use prevention among PWID.

FOCUS DISEASES

20 MILLION

STDs Nearly 20 million STDs occur in the United States each year; about half occur among **teens and young adults.** STDs can cause infertility, ectopic pregnancy, cancer, and increased HIV risk. The healthcare costs from new STDs, excluding HIV, that occur each year, are approximately $37.7 billion.

1.2 MILLION

HIV More than 1.2 million persons in the United States are infected with HIV. Estimated lifetime treatment costs are $403,000 per person living with HIV.

4.4 MILLION

Viral Hepatitis Approximately **4.4 million** people are living with chronic viral hepatitis infection. Viral hepatitis is the **leading cause of liver cancer and liver transplants** in the United States. Curing hepatitis C costs $45,000 to $94,000 per person.

MILLIONS AT RISK

Tuberculosis Fewer than **10,000 cases of** TB occur annually in the United States. Up to 13 million **Americans are infected** with the bacteria that causes TB. Without treatment, these **Americans are at risk of developing active TB** disease. Drug-suceptible TB costs, on average, $17,000 per year to treat, a figure that rises to $134,000 if the person has multiple drug-resistant TB, and $430,000 if the case is extensively drug resistant.

Long-Term Opportunities

- **Support** a pathway to eliminating hepatitis B and hepatitis C. Viral hepatitis is the leading cause of liver cancer in the United States.

- **Implement** comprehensive syringe services programs to test, treat, and link PWIDs to care in U.S. counties with the greatest needs.

- **Strengthen** public health STD infrastructure and continue to pursue advanced molecular detection approaches to syphilis and gonorrhea.

- **Target** investments in populations at greatest risk for acquiring HIV infection and in communities with high HIV prevalence. Use advanced molecular detection to identify and respond to outbreaks.

- **Hasten** progress toward TB elimination and save additional lives and money by finding and curing persons with latent TB infection.

- **Strengthen** health education and identify effective strategies for preventing initial substance use among children and adolescents.

NATIONAL CENTER FOR IMMUNIZATION AND RESPIRATORY DISEASES

SNAPSHOT

MISSION

To prevent disease, disability, and death through immunization and by controlling respiratory and related diseases.

ORGANIZATION

Division of Bacterial Diseases

Division of Viral Diseases

Immunization Services Division

Influenza Division

PRIORITIES

Preserve core public health immunization infrastructure at the local, state, and federal levels.

Maintain an adequate amount of vaccine purchase to provide a vaccination safety net for uninsured adults and respond to VPD outbreaks and other urgent vaccine needs.

Improve seasonal influenza response and pandemic influenza preparedness and response.

Ensure capacity for detecting and responding to emerging respiratory disease threats.

Why We're Here

CDC protects Americans from infectious diseases by issuing recommendations and guidance for the prevention and control of vaccine-preventable diseases and respiratory diseases. Through programs such as the Vaccines for Children (VFC) Program, CDC improves access to immunization services for uninsured and underinsured U.S. populations and supports the scientific base for vaccine policy and practices. CDC delivers critical epidemiology and laboratory capacity to detect, prevent, and respond to vaccine-preventable and respiratory infectious disease threats and conducts preparedness planning for pandemic influenza.

How We Work

CDC partners with state and local health agencies and private healthcare providers to implement a safe and effective immunization system.

- Provides funds to build and maintain immunization programs as well as vaccines to protect uninsured and other priority populations and to respond to disease outbreaks.

- Provides a range of support including disease surveillance, evaluation of vaccine effectiveness and safety, ordering and distribution systems, public awareness campaigns and resources, and provider education and tools.

CDC partners with domestic and international partners to build surveillance and laboratory capacity.

- Provides the scientific and programmatic foundation and leadership for the diagnosis, prevention, and control of influenza and works to build capacity to respond to and control seasonal and pandemic influenza.

CDC works with federal, state, and local partners to address emerging and reemerging respiratory infectious disease threats.

- Provides expertise and new innovative technologies to detect and respond to these emerging threats.

- Conducts research that will support the development of effective prevention measures.

Vaccines for Children

20 years of protecting America's children

The Vaccines for Children Program was launched in 1994 to make vaccines available to uninsured children. CDC estimates that vaccination of children born between 1994 and 2013 will:

prevent **322 million** illnesses → more than the current population of the entire U.S.A

help avoid **732,000** deaths → greater than the population of Boston, MA

save nearly **$1.4 trillion** in total societal costs (that includes $295 billion in direct costs) → or $4,473 for each American

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CDC

Centers for Disease Control and Prevention

CS268819

In the United States today, we enjoy **record high immunization coverage rates** for most childhood vaccines and increasing coverage rates for adolescent and adult vaccines. Less than 1% of children receive no vaccinations.

As a result, Americans have benefited from significant **reductions in, and in some cases elimination of, once common and deadly diseases** such as diphtheria, smallpox, measles, and polio. Most vaccine-preventable diseases are at the lowest levels ever—greater than 90% reduction for most vaccine-preventable diseases.

Influenza vaccination coverage for children ages 6 months through 17 years reached nearly 60% for the 2015–2016 influenza season, compared to 44% in the 2009–2010 influenza season.

What's Needed

- Sustaining adequate support of the public health immunization infrastructure at the federal, state, and local levels.
- Providing adequate vaccine supply to respond to VPD outbreaks and other urgent public health vaccine needs.
- Addressing lagging vaccine coverage rates for some vaccines in specific populations (human papilloma virus [HPV]; adults; and, in certain areas, children living below the poverty level).
- Modernizing immunization information systems so that real-time, consolidated immunization data and services for all ages are available for authorized clinical, administrative, and public health users, as well as consumers, anytime and anywhere.
- Maintaining epidemiology and laboratory capacity to respond to VPD outbreaks.
- Improving seasonal influenza vaccine by improving virus characterization and candidate vaccine virus development.
- Responding to emerging and reemerging infectious disease threats, such as Middle East Respiratory Syndrome Coronavirus (MERS-CoV) and Legionnaires' disease.

[HPV VACCINE IS CANCER PREVENTION.]

Long-Term Opportunities

- Decrease hospitalizations and deaths with more timely and effective seasonal influenza vaccines.
- Prevent HPV-related cancers by improving HPV vaccination coverage among adolescents.
- Better understand zoonotic risks of animal coronaviruses, like MERS-CoV, for emerging pathogens.
- Improve diagnostics for early detection of emerging and reemerging respiratory diseases.
- Study the effectiveness and safety of new vaccines post-licensure, such as that anticipated for respiratory syncytial virus (RSV).

OFFICE OF NONCOMMUNICABLE DISEASES, INJURY, AND ENVIRONMENTAL HEALTH

SNAPSHOT

MISSION

To lead, promote, and facilitate science, programs, and policies to reduce the burden of noncommunicable diseases, disabilities, injuries, and environmental health hazards in the United States and abroad.

ORGANIZATION

National Center for Chronic Disease Prevention and Health Promotion

National Center for Environmental Health / Agency for Toxic Substances and Disease Registry

National Center for Injury Prevention and Control

National Center on Birth Defects and Developmental Disabilities

PRIORITIES

Support priorities and strengthen science and program impact in the noncommunicable disease centers.

Enhance integration across the noncommunicable disease centers, CDC, and within the larger public health community.

Increase collaboration and innovation among the noncommunicable disease centers and across CDC.

Why We're Here

The Office of Noncommunicable Diseases, Injury, and Environmental Health (ONDIEH) serves as the principal advisor to the CDC director on issues related to the prevention and control of noncommunicable diseases, disabilities, injuries, and environmental health hazards. ONDIEH provides strategic direction and leadership for CDC's four noncommunicable disease national centers: NCBDDD, NCEH/ ATSDR, NCCDPHP, and NCIPC.

How We Work

ONDIEH is led by CDC's deputy director for Noncommunicable Diseases, Injury, and Environmental Health. The office works to identify, facilitate, and promote cross-center and cross-agency collaboration, innovation, and new initiatives, including those related to policy development and coordination, budget, programs, personnel, and scientific priorities. ONDIEH provides strategic leadership to CDC's four noncommunicable disease centers and public health programs that cross the centers, institutes, and offices at CDC.

ONDIEH also serves as a home for the incubation of new public health initiatives. Current topics of ongoing ONDIEH work include:

- Marijuana use and health outcomes.
- Mental health.
- Substance abuse.
- Non-occupational hearing loss and its prevention.

CS268819

Key Accomplishments

Provided strategic leadership and championed the science and programs of CDC's noncommunicable disease centers.

Developed strong OD leadership teams in each of the noncommunicable disease centers.

Fostered incubation of new and cross-cutting topics: Marijuana use and related health outcomes, substance abuse, mental health, non-occupational hearing loss, and the Atlanta Westside Health Collaborative.

Fostered organizational efficiency across noncommunicable disease centers by implementing lean and focused resource management.

Co-located noncommunicable disease centers on the Chamblee campus which has resulted in:

- Improved integration among centers.

- Coordinated and enhanced efficiencies.

- A sense of community that improved cross-center collaboration.

What's Needed

- Sustaining the priority noncommunicable disease initiatives of the four noncommunicable disease centers.

- Increasing the capacity of ONDIEH to add additional cross-cutting topics with current resources.

- Transitioning new or cross-cutting topics to programmatic areas.

ONDIEH provides guidance in addressing critical public health issues like opioid addiction.

Long-Term Opportunities

Moving forward, ONDIEH will:

- Continue to advance and monitor progress of CDC's national noncommunicable disease centers.

- Enhance integration among the noncommunicable disease centers and with other CDC centers, institutes, and offices.

- Facilitate greater knowledge sharing among the noncommunicable disease centers and agency stakeholders.

- Continue to drive strategic activities.

- Clarify the external engagement strategy and role of the office.

- Seek out new opportunities for additional efficiencies with the noncommunicable disease centers.

NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION

SNAPSHOT

MISSION

To lead the nation's efforts to create expertise, information, and tools to support people and communities in preventing chronic diseases and promoting health for all.

ORGANIZATION

Division for Heart Disease and Stroke Prevention

Division of Cancer Prevention and Control

Division of Community Health

Division of Diabetes Translation

Division of Nutrition, Physical Activity, and Obesity

Division of Oral Health

Division of Reproductive Health

Division of Population Health

Office on Smoking and Health

PRIORITIES

Increase (healthy) life expectancy.

Increase quality of life.

Reduce healthcare costs.

Why We're Here

Chronic diseases are the main cause of sickness, disability, death, and healthcare costs. They are often preventable. Most chronic diseases are caused by a few risk behaviors: tobacco use, poor nutrition, lack of physical activity, and excessive alcohol consumption. CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) works to prevent these behaviors and support healthy living from birth through old age.

Leading Causes of Death

Cause	Death rate	Number of deaths
Heart Disease	193*	614,348**
Cancer	186	591,699
Chronic lower respiratory diseases	46	147,101
Unintentional Injuries	43	136,053
Stroke	42	133,103
Alzheimer's disease	29	93,541
Diabetes	24	76,448
Pneumonia/ Influenza	17	55,227
Kidney Disease	15	48,146

* Death rates per 100,000
** Number of deaths

Percentage (of all deaths): 0 5 10 15 20 25 30
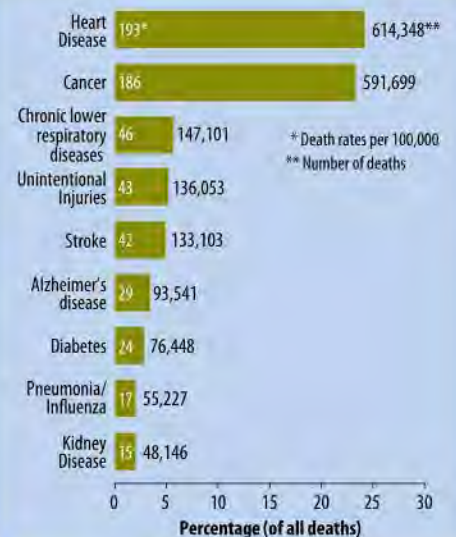
What We Do to Promote Health for All Ages

- **Infants:** Improve women's health before, during, and after pregnancy so they can have healthy babies.

- **Children and Adolescents:** Support healthy communities, child care, and schools so children can eat well, stay active, and avoid risky behaviors.

- **Adults:** Help adults lead healthy, active, tobacco-free lives and access quality preventive services like cancer screenings.

- **Older Adults:** Promote quality of life and independence for people as they age.

How We Work

We work with partners to strengthen healthy behaviors and opportunities using four approaches:

- **Tracking** chronic diseases and risk factors through surveys and research.

- **Improving** environments to make it easier for people to make healthy choices.

- **Strengthening** the healthcare sector to deliver prevention services to keep people well and diagnose diseases early.

- **Connecting** clinical services to community programs that help people prevent and manage their chronic diseases and conditions.

CDC

Centers for Disease Control and Prevention

CS268819

Reducing Obesity: Obesity prevalence among children ages 2–5 years has dropped significantly, from 13.9% during 2003–2004 to 9.4% during 2013–2014.

Helping Smokers Quit: Since 2012 more than 5 million smokers have attempted to quit because of the TIPS campaign, and an estimated 400,000 smokers have quit for good.

Preventing Breast Cancer Deaths: From 2010 through 2013, breast cancer deaths among women aged 55–74 decreased from 58.0% to 52.3% for white women and from 79.3% to 73.3% for black women.

Increasing Physical Activity: The percentage of adults engaging in regular physical activity increased from 44% to 50% from 2008 to 2015.

What's Needed

- **Continue support for state, tribal, and territorial chronic disease prevention and health promotion programs.** CDC supports states, tribes, and territories to implement evidence-based interventions that increase access to healthy foods, physical activity, and smoke-free environments; increase availability and use of electronic health records and team-based care to improve the management of chronic diseases; and availability and use of lifestyle change programs to prevent chronic diseases, such as type 2 diabetes.

- **Continue support for community programs, such as High Obesity in Rural Counties, Racial and Ethnic Approaches to Community Health (REACH), and funding for communities through states.** For the last 17 years, CDC has administrated community health programs to prevent and control chronic diseases. Through these programs, CDC promotes community health and reduces health disparities in communities with the highest burden of death, disability and illness due to chronic diseases.

Long-Term Opportunities

- **Healthcare Delivery Transformation** – The recent health insurance expansions and changes in payment models provide an opportunity to expand efforts focused on quality of patient care, especially related to cancer screening, and community-delivered programs like the National Diabetes Prevention Program.

- As current **cooperative agreements** come to a close in FY 2017 and FY 2018, CDC has an opportunity to increase program efficiency and effectiveness through coordinated strategies that support healthy living from birth through old age.

CDC's Tips from Former Smokers Campaign (TIPS) Dramatically Increased Calls to Tobacco Quitlines[1]
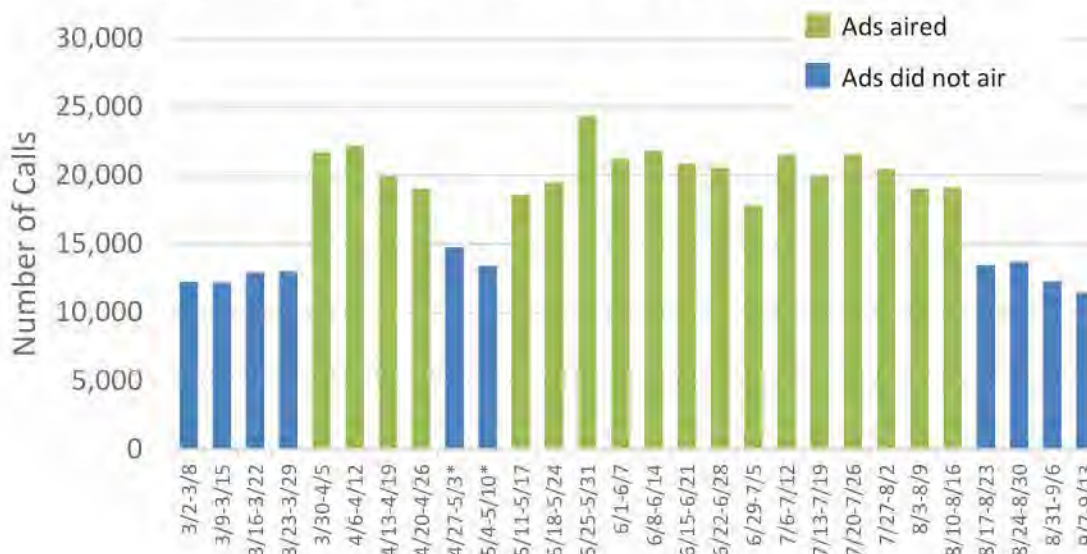
[1] Number of weekly telephone calls made to 1-800-QUIT-NOW before, during, and after CDC's 2015 Tips from Former Smokers campaign in the United States during March 30 - August 16, 2015.

SNAPSHOT

MISSION

To protect people's health from environmental hazards that can be present in the air we breathe, the water we drink, and the world that sustains us by investigating relationships between environmental factors and health, developing guidance, and building partnerships.

ORGANIZATION

Division of Emergency and Environmental Health Services

Division of Environmental Hazards and Health Effects

Division of Laboratory Sciences

PRIORITIES

Ensure safe drinking water.

Protect vulnerable populations from harmful environmental exposures.

Detect and prevent environmental diseases and conditions.

Why We're Here

CDC protects America's health from environmental hazards that can be present in the air we breathe, the water we drink, and the world that sustains us. The National Center for Environmental Health (NCEH) investigates the relationship between environmental factors and health, develops guidance, and builds partnerships to support healthy decision-making. These investments contribute to CDC's overall goal of keeping Americans safe from environmental hazards.

A 93% funding cut to NCEH's Lead Program in FY 2012 led to decreased testing for lead among children and eroded critical public health capacity, reversing significant gains in lead poisoning prevention.

U.S. Totals, Childhood Blood Lead Surveillance, 1997–2015
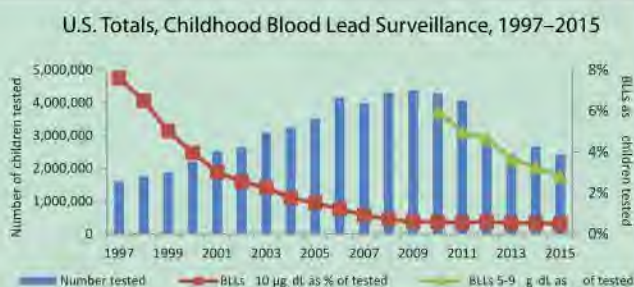
How We Work

- Track and report on trends in environmentally related diseases.

- Collect and share environmental health data that are used to prevent sickness, disability, and death from harmful exposures and natural, chemical, and radiologic disasters and incidents.

- Identify and disseminate the environmental health best practices that are the most effective at improving health and reducing medical costs.

- Track and report on trends in environmentally related diseases.

- Collect and share environmental health data that are used to prevent sickness, disability, and death from harmful exposures and natural, chemical, and radiologic disasters and incidents.

- Identify and disseminate the environmental health best practices that are the most effective at improving health and reducing medical costs.

- Maintain the most advanced environmental public health laboratory in the world.

- Support state, tribal, territorial, and local environmental health programs and laboratories.

- Prepare for and respond to natural disasters and environmental emergencies.

- Use innovative laboratory methods and environmental public health tracking to detect and prevent environmental diseases and conditions.

CS268819

Provided leadership in environmental health emergency management: NCEH led CDC's response to the lead contamination of drinking water in Flint, Michigan, including EOC activation, epidemiologic studies, and community outreach.

Increased focus on prevention of Legionella bacteria: Legionella causes 66% of documented waterborne disease outbreaks. NCEH responded to outbreaks in New York City, Illinois, Ohio, and Texas in FY 2016 and provided support to CDC's prevention and response activities through NCEH's Safe Water Program.

Funded Building Resilience Against Climate Effects (BRACE) framework: BRACE helps forecast climate and health impacts in communities, identify vulnerabilities, and create and implement adaptation plans. New York City, Maine, and Michigan now have climate surveillance and modeling systems to identify people at risk for heat-related illness and death in extreme weather.

Awarded grants to help keep water safe: Increased safe water protection knowledge and capabilities in 14 states and 5 counties during the last 5 years through the Safe Water for Community Health (Safe WATCH) grant program.
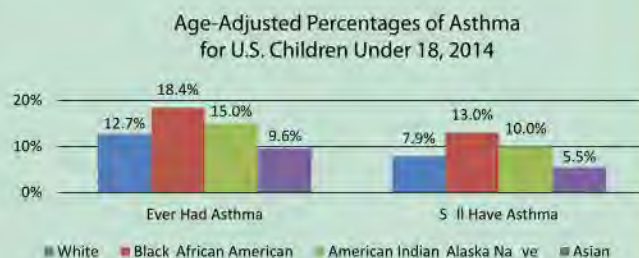
Helped prevent waterborne illness: Released the 2016 Model Aquatic Health Code to support prevention of waterborne illness and other risks in recreational water sources. The MAHC provides guidance on design, construction, operation, and maintenance of pools, spas, and hot tubs.

Improved the public's health through environmental public health tracking: 277 data-driven actions were taken during the last 5 years.

What's Needed

- **Promising solutions** that are piloted and scaled to keep water safe from chemicals and toxins such as per- and poly-fluoroalkyl substances (PFAS).

- **Continued vigilance** to protect children from lead exposure through a nationwide Lead Poisoning Prevention Program and elimination of exposure to lead in the environment.

- **A comprehensive campaign** to equip all Americans with the information they need to understand the impact of the environment on their health.

- **Expanded environmental public health tracking** to strengthen the nationwide tracking network and integrate environmental and health data to drive evidence-based actions in communities.

- **More tools and methods** for enabling state and local health departments to adapt to the effects of climate change on health and be prepared to take action when climate-related vector-borne diseases or extreme weather events strike.

Significant racial disparities still remain in asthma prevalence, highlighting the ongoing need to implement comprehensive state-based asthma control programs that focus on the most vulnerable populations.

Age-Adjusted Percentages of Asthma for U.S. Children Under 18, 2014

	Ever Had Asthma	Still Have Asthma
White	12.7%	7.9%
Black/African American	18.4%	13.0%
American Indian/Alaska Native	15.0%	10.0%
Asian	9.6%	5.5%

Long-Term Opportunities

- Expand NCEH's **Safe Water program** by building state and local public health infrastructure to protect millions of people from waterborne contaminants, control legionellosis, and respond to water quality issues in drinking water distribution systems.

- Develop and maintain a **lead exposure early warning system** to proactively identify exposures, and support a **registry** in Flint, Michigan, to follow children who were exposed to lead over time.

- Continue exploring the benefits of incorporating electronic health records and emerging chemical exposures (e.g., PFAS) into **environmental public health tracking.**

- Highlight **asthma** as a priority health condition through CDC's 6|18 Initiative, an effort to engage health insurance plans, businesses, and clinical providers in implementing evidence-based interventions targeting six of the most common and costly health conditions, including asthma.

- Increase NCEH's capacity to perform **biomonitoring** testing to provide environmental chemicals exposure information by state or locality.

AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

SNAPSHOT

MISSION

To investigate environmental exposures to hazardous substances in communities and take action to reduce harmful exposures and their health consequences.

ORGANIZATION

Division of Community Health Investigations

Division of Toxicology and Human Health Sciences

PRIORITIES

Reduce exposures to harmful chemicals in communities.

Protect children and vulnerable populations from the health risks of harmful exposures.

Advance environmental science and medicine.

Why We're Here

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980—a.k.a., the "Superfund" Act—created the Agency for Toxic Substances and Disease Registry (ATSDR) to serve as a science-based public health agency working to address community concerns about hazardous waste. For 3 decades, ATSDR has kept people in more than 6,000 U.S. communities safe from environmental hazards.

- ATSDR protects Americans' health by preventing exposure to harmful contaminants in our soil, water, and air.

- ATSDR responds to requests from environmental agencies, health agencies, policymakers, and community members across the country to protect people from exposures to harmful levels of substances in the environment.

- ATSDR provides funds to state health departments and supports environmental health professionals in regional and field offices. Along with Atlanta-based headquarters staff, ATSDR experts are ready 24/7 to respond to environmental health threats from natural disasters, chemical spills, and other emergencies.

Communities Where ATSDR Assessed Exposures and Human Health During FY 2013–2016

How We Work

- Work in communities to assess human exposures to potentially harmful contaminants.

- Advise federal and state regulatory agencies and community members on actions needed to protect health.

- Respond to questions about environmental exposures and provide guidance to healthcare providers.

CS268819

Key Accomplishments

Assessed more than 1 million people who were potentially at risk of harmful exposures to chemicals through nearly 170 health consultations and assessments in FY 2015.

Provided on-the-ground, local support to communities through the work of 400 environmental health professionals located in regional offices, state public health departments, and pediatric environmental health specialty units headquarters.

Assisted the Michigan Department of Health and Human Services with investigating reports of new or worsening skin rashes in people exposed to Flint municipal water; conducted interviews and provided follow-up to better understand rash cases and make appropriate recommendations for public health interventions.

Released new ToxProfiles that were used to guide public health decision-making by helping assess health effects, identify exposure routes and environmental sources of concern, and determine which chemicals and exposures posed public health risks.

Developed guidelines, tools, and resources to help ensure child care centers are located where chemical hazards have been considered, addressed, and mitigated to best protect children's health.

Reduced Amyotrophic Lateral Sclerosis (ALS) disease burden by improving identification of incidence, prevalence, and risk factors and conducting research leading to the launch of the National ALS Biorepository in late 2016.

What's Needed

- **Close the gap** between communities' needs to protect themselves from harmful environmental exposures and ATSDR's current capacity to respond, provide assistance, and prevent harmful health effects.

- **Increase understanding** about the health effects of toxic exposures and how biomonitoring activities can lead to health improvement.

- **Expand** the use of technological tools and new methods to increase effectiveness and timeliness in protecting communities from environmental hazards.

- **Conduct more research** to increase knowledge about how the combination of chemicals at hazardous waste sites affect human health and the ways in which toxic exposures affect vulnerable populations such as pregnant women and young children.

- **Increase dissemination** of the ToxProfiles and other toxicological analyses to provide data for public health action.

Long-Term Opportunities

- Expand ATSDR's capacity to investigate harmful exposures in communities and recommend actions to protect health.

- Expand the APPLETREE cooperative agreement to all 50 states and increase awards to enable each state to promote and implement child care safe-siting initiatives to protect children from health risks caused by placing child care and early learning facilities in hazardous locations.

- Expand the Brownfields/Land Reuse cooperative agreements to assess and safely redevelop brownfields and land reuse sites.

- Create a new ATSDR Tribal Health Initiative to support investigations of adverse health effects in American Indian (AI) and Alaska Native (AN) populations.

- Continue to expand the Navajo Birth Cohort Study to investigate possible neonatal health effects caused by uranium exposure from past mining and milling operations in the Navajo Nation.

NATIONAL CENTER FOR INJURY PREVENTION AND CONTROL

SNAPSHOT

MISSION

To prevent violence and injuries and reduce their consequences.

ORGANIZATION

Division of Analysis, Research, and Practice Integration

Division of Unintentional Injury Prevention

Division of Violence Prevention

PRIORITIES

CDC-wide Priorities
  » Motor vehicle injury.
  » Prescription drug overdose.

Growth Areas
  » Child abuse and neglect.
  » Older adult falls.
  » Sexual violence.
  » Youth sports concussion.

Why We're Here

As the nation's leading authority on violence and injury prevention, the National Center for Injury Prevention and Control (NCIPC) is committed to saving lives, protecting people, and lowering the social and economic costs of violence and injuries. NCIPC collects data to identify problems and monitor progress, uses research to understand what works, and promotes evidence-based strategies to inform real-world solutions. Our goal is to offer individuals, communities, and states timely, accurate information and useful resources to keep people safe where they live, work, play, and learn.

Oregon: A new prevention plan was developed after NVDRS data showed that older adult suicides were 3 times higher than in other groups.

Oklahoma: Linked Medicaid and prescription monitoring data to identify and prevent high-risk patient and provider behaviors.

Arizona: Hopi Tribe saw 36% increase in driver seat belt use and 32% increase in child safety seat use.

North Carolina: Injury researchers are working to reduce head injury risks for athletes through technology and changes to technique.

How We Work

NCIPC prevents or reduces injuries in the United States and around the world by:

- Supporting research to understand what works, including two major external research programs—the Injury Control Research Centers and the Youth Violence Prevention Centers.

- Monitoring injuries and violent deaths to inform prevention through programs and activities such as:

  » National Violent Death Reporting System.

  » National Intimate Partner and Sexual Violence Survey.

  » Enhanced State Surveillance of Opioid-Involved Morbidity and Mortality.

  » Violence Against Children Surveys.

- Providing state and local partners with direct funding and scientific expertise through programs like:

  » Core State Violence and Injury Prevention Program.

  » Rape Prevention and Education Program.

  » Essentials for Childhood Framework.

  » Overdose Prevention in States Programs.

  » Striving To Reduce Youth Violence Everywhere Program.

  » Domestic Violence Prevention Enhancements and Leadership Through Alliances, Focusing on Outcomes for Communities United with States (DELTA FOCUS).

Combatting Prescription Drug Overdose: NCIPC has started three funded programs that support 44 states and D.C., released the *Guideline for Prescribing Opioids for Chronic Pain*, and engaged partner groups like medical schools to implement and disseminate the guideline.

Improving Motor Vehicle Safety: NCIPC has collaborated with federal, state, and nongovernmental partners to improve safety among tribes, develop tool kits and resources for states to improve their prevention strategies, and educate teens on the importance of seat belt use.

Preventing Traumatic Brain Injuries: In 2005, NCIPC launched HEADS UP, a series of educational initiatives and tool kits. HEADS UP improves prevention, recognition, and response to concussions. Studies show that after using the tool kit, 77% of coaches were more easily able to identify concussions, and 63% reported viewing concussions more seriously. HEADS UP is a strong brand and continues to improve youth sports concussion awareness and response.

Reducing Child Abuse and Neglect: In 2016, NCIPC released the "Preventing Child Abuse and Neglect" technical package. Strategies in the package include those with a focus on preventing child abuse and neglect from happening in the first place, as well as approaches to lessen the harms of child abuse and neglect. This is a culmination of research done by NCIPC and the field to build evidence on what works.

Implementing the Stopping Elderly Accidents and Deaths (STEADI) tool: NCIPC created STEADI to help primary care providers screen their older adult patients for falls. For every 5,000 providers who adopt STEADI, over a 5-year period, more than 6 million patients could be screened and over 1 million falls, and costs associated with treating them, could be prevented.

What's Needed

A greater capacity to anticipate, describe, and impact the instances of injury. In the face of complex national problems, NCIPC needs to:

- Fully launch a national traumatic brain injury surveillance system to determine the incidence of sports-related concussions.
- Start research into the causes and prevention of firearm-related violence.
- Implement and evaluate comprehensive suicide prevention programs.

A more robust evidence base for prevention programs. In sexual violence alone, additional research could help:

- Expand the inventory of sexual violence prevention strategies with known effectiveness.
- Assess the impact of approaches such as community- and society-level strategies, community environmental change on reducing rates of sexual violence, and the application of social media activities.

Expanded monitoring of violence and injuries:

- Growing the National Violent Death Reporting System (NVDRS). Having NVDRS nationwide will equip states and communities with vital information to better track, understand, and address the preventable characteristics of violent deaths.
- Expanding both NVDRS and illicit opioid surveillance will increase our ability to track, understand, and address related injuries and help states draft prevention plans and programs.

VIOLENCE has lasting impacts on health.

Consequences of violence are PREVENTABLE.

PREVENT risk early.

Visit cdc.gov/violenceprevention.

Long-Term Opportunities

- Expand our opioid work with states, promote and disseminate the *Opioid Prescribing Guidelines*, and increase their uptake.
- Disseminate new technical packages on youth violence, suicide, and intimate partner violence prevention, along with existing ones on child abuse and neglect and sexual violence prevention.
- Expand our support to states to analyze data, develop state plans, and implement interventions that work through our Core State Violence and Injury Prevention Program.
- Expand research to inform prevention strategies through programs such as the Injury Control Research Centers and the Youth Violence Prevention Centers.
- Support the Violence Against Children Survey in additional countries, and then support the implementation of the *INSPIRE: Seven Strategies for Ending Violence Against Children* technical package in the countries that have completed the survey.

NATIONAL CENTER ON BIRTH DEFECTS AND DEVELOPMENTAL DISABILITIES

SNAPSHOT

MISSION

To study and address the causes of birth defects, help children reach their potential by understanding developmental disabilities, reduce complications of blood disorders, and improve the health of people living with disabilities.

ORGANIZATION

Division of Blood Disorders

Division of Congenital and Developmental Disorders

Division of Human Development and Disability

PRIORITIES

Birth defects surveillance.

Safer medications in pregnancy.

Fetal alcohol syndrome disorders.

Autism and other developmental disabilities.

Early hearing loss detection and intervention.

Attention deficit and hyperactivity disorder.

Hemophilia.

Venous thromboembolism prevention.

Health promotion and disability.

Why We're Here

The National Center on Birth Defects and Developmental Disabilities (NCBDDD) prevents birth defects and developmental disorders where possible and enhances the health and quality of life for people who live with them.

- **Saving babies through birth defects prevention and research.** Birth defects afflict 1 in 33 babies and are a leading cause of infant death in the United States. More than 5,000 infants die each year because of birth defects.

- **Helping children live to the fullest by understanding developmental disabilities.** One in six children aged 3 through 17 years have one or more developmental disabilities.

- **Protecting people and preventing complications of blood disorders.** Blood disorders—such as sickle cell disease, anemia, and hemophilia—affect millions each year in the United States, cutting across the boundaries of age, race, sex, and socioeconomic status.

- **Improving the health of people with disabilities.** Anyone of any age can have a disability. An estimated 37 million to 57 million Americans report having some level of disability.

How We Work

To achieve its mission, NCBDDD works to:

- **Understand the problem** — Characterize the occurrence and distribution of priority health conditions to inform public health action.

- **Identify where we can intervene** — Conduct research to help us understand the major modifiable risk factors that must be addressed when developing intervention and prevention programs and policies.

- **Develop plans that work and take them to scale** — Formulate, evaluate, and disseminate effective programs and policies.

CDC Centers for Disease Control and Prevention

CS268819

Key Accomplishments

Established the U.S. Zika Pregnancy Registry to collect information about laboratory evidence of possible Zika virus infection among pregnant women. Findings will provide insights that may help CDC develop strategies to protect newborns.

Provided scientific assistance to partners that led to a successful petition to FDA to allow folic acid fortification of corn masa flour, protecting against neural tube defects in babies.

Reported progress in identifying children with autism spectrum disorders (ASD) at younger ages. The earlier children are identified as having ASD, the sooner they can get the services they need to help them reach their full potential.

Established an open-access hemophilia mutation database (CHAMPS) that catalogues factor 8 and 9 mutations and developed a more sensitive, reproducible inhibitors test to use in clinical labs.

Published first national report estimating the percentage of adults living with select functional disabilities in each state.

What's Needed

- **Sustaining and recruiting** epidemiology and laboratory capacity.
- **Increasing** the number of funded birth defects surveillance systems that provide quality data to conduct epidemiologic studies of birth defects and guide the development and evaluation of primary and secondary prevention efforts.
- **Modernizing and improving data systems** to allow for timely data analysis on genetic risk factors.
- **Expanding effective programs and developing tools** for individuals, families, and providers to prevent disability and promote health.

NCBDDD conducts research and analysis to help families, providers, and public health partners identify and implement programs to address developmental disabilities.

1 in 6 children has a developmental disability

Long-Term Opportunities

- Become more nimble and responsive to emerging science on drugs and other substances that may cause birth defects (e.g., Zika) by incorporating the collection of biosamples into current studies and preparing questionnaire modules that could be rapidly implemented to respond to newly identified concerns.
- Expand neonatal abstinence syndrome (NAS) research, with a focus on understanding outcomes in affected children.
- Expand autism spectrum disorder (ASD) surveillance and research to include adolescents and adults to inform efforts to improve long-term outcomes for people with ASD.
- Publish findings from the more than 80 distinct Study to Explore Early Development (SEED) analyses on various maternal health and behavioral risk factors and provide important information on the health status of children with ASD.
- Expand research into gene–environment interaction risk factors for hemophilia complications to inform prevention.
- Expand the evidence base for interventions that currently prevent secondary conditions (e.g., heart disease, diabetes) in people with disabilities.

OFFICE OF PUBLIC HEALTH PREPAREDNESS AND RESPONSE

SNAPSHOT

MISSION

To strengthen and support the nation's health security to save lives and protect against public health threats.

ORGANIZATION

Division of Emergency Operations

Division of Select Agents and Toxins

Division of State and Local Readiness

Division of Strategic National Stockpile

PRIORITIES

Monitor and respond to public health emergencies 24/7.

Support state and local health department preparedness.

Ensure critical medical supplies (countermeasures) are available and can be rapidly deployed.

Ensure lifesaving research with select agents and toxins is conducted safely and securely.

Support the Global Health Security Agenda.

Why We're Here

CDC's Office of Public Health Preparedness and Response protects the safety, security, and health of the United States from public health threats—foreign and domestic, intentional, and naturally occurring.

We provide lifesaving response to chemical, biological, radiological, and nuclear threats as well as other disasters, outbreaks, and epidemics.

In the last 7 years, CDC's Emergency Operations Center has been activated more than 91% of the time.

How We Work

The Office of Public Health Preparedness and Response invests in state and local public health emergency management and response programs, which are the first line of defense during public health emergencies.

We strengthen national preparedness by supporting response-ready state and local public health departments through CDC's Public Health Emergency Preparedness (PHEP) cooperative agreement.

Our Emergency Management Program supports CDC's response to public health threats in the United States and around the world. We conduct real-time monitoring of public health events, outbreaks, and hazardous agents. In the past 7 years, CDC's Emergency Operations Center has been activated more than 91% of the time.

The Strategic National Stockpile maintains a $7 billion repository of lifesaving medical supplies, known as emergency medical countermeasures, to support state and local response to public health emergencies. We stand ready to deploy these assets when needed, and we provide training and support to state and local health departments preparing to receive and use countermeasures.

We keep communities safe by overseeing and regulating laboratories that work with deadly pathogens and toxins.

We support global health security, working with international partners to build emergency management skills programs and emergency operations centers capacity around the world.

Responding to public health emergencies: Provide 24/7 expertise, staffing, resources, and coordination in response to natural disasters, terrorist attacks, and infectious disease threats like Zika and Ebola.

Supporting nationwide capability to receive and use medical countermeasures: 1,661 federal, state, territorial, and local responders were trained to receive, distribute, and dispense Strategic National Stockpile assets in 2015.

Providing critical funding: PHEP funds supported preparedness activities in 50 states, 4 localities, and 8 territories and freely associated states.

Keeping deadly pathogens safe and secure: Nearly 200 inspections of laboratories and thousands of assessments of those who handle select agents and toxins were conducted to keep these materials safe, secure, and out of the hands of those who would misuse them.

Assessing readiness: A new review process evaluates state and local operational readiness to plan and execute a large-scale response requiring medical countermeasures.

Training emergency experts: Training in incident management systems builds emergency operations center capacity at home and around the world.

Connecting state and local partners: Our efforts promote more effective state and local coordination of preparedness planning between the emergency management, public health, and healthcare sectors.

What's Needed

Events such as natural disasters, terrorist attacks, and pandemics stretch the current day-to-day public health system beyond normal capabilities. To address this, we need trained public health responders and infrastructure to handle large-scale public health emergencies at state and local levels. Being prepared requires:

- Administrative flexibility to support complex responses. This includes the ability to rapidly move funding and people so CDC can more effectively respond to public health emergencies.

- Strengthening strong partnerships to prepare against public health threats across the world. Continued training and exercise of response plans with emergency managers both at home and abroad will help to stop emerging health treats early and close to the source.

- Improving the quantity, quality, and consistency of the laboratory inspection process to better ensure that labs working with dangerous pathogens do so as safely and securely as possible.

- Continuing training and education about preparedness activities, opportunities, and threats.

Long-Term Opportunities

- Establish an emergency response fund to allow for rapid response without diverting critical resources.

- Improve the public health, healthcare, and emergency management capabilities in the top 10 U.S. urban areas to ensure highly functioning response capabilities.

- Integrate the public/private emergency medical supply chain, to ensure access to critical medicines and supplies when they are needed the most.

- Build emergency management capacity in other countries as a part of the comprehensive Global Health Security Agenda in an effort to create all-hazards response capabilities that could stop or contain public health emergencies before they become global threats.

OFFICE OF PUBLIC HEALTH SCIENTIFIC SERVICES

SNAPSHOT

MISSION

To lead, promote, and facilitate science, standards, and policies to reduce the burden of diseases in the United States and globally.

ORGANIZATION

Center for Surveillance, Epidemiology, and Laboratory Service

National Center for Health Statistics

PRIORITIES

Surveillance Data Platform.

CDC's Surveillance Strategy implementation.

Data and analytics visualization.

Why We're Here

The Office of Public Health Scientific Services (OPHSS) leads CDC's efforts to improve the collection, analysis, and availability of public health data and information to improve America's health, safety, and security. Through direct supervision of the National Center for Health Statistics and the Center for Surveillance, Epidemiology, and Laboratory Sciences, OPHSS provides guidance and advice to the broader agency and advances data system modernization and interoperability, information innovation, and enhanced data analysis, synthesis, and translation.

In 2016, OPHSS launched the *Conversations on Public Health Surveillance* video series to discuss timely issues around public health surveillance.

How We Work

- **Convene and influence** – OPHSS engages the CDC community, public health partners, private industry, vendors, and healthcare entities, as well as state and local health departments, to facilitate discussion of data challenges and solutions.

- **Provide governance** – OPHSS chairs and provides support for CDC's Surveillance Leadership Board, which governs decisions regarding policy, management, and strategic direction of CDC's surveillance enterprise. OPHSS also co-chairs the CDC Information Resources Governance Council.

- **Develop innovations** – OPHSS fosters innovation and facilitates sharing of best practices at CDC in public health surveillance, data collection and processing, and technology adoption.

- **Accelerate data synthesis and translation** – OPHSS leads with technical expertise regarding new methods and provides venues to share and disseminate novel analysis and visualization techniques.

Key Accomplishments

Initiated development of platform: $17 million was awarded to OPHSS through the Nonrecurring Expenses Fund to conceptualize, plan, and begin building a flexible data services platform for CDC.

Assessed CDC's systems: Characterized CDC's existing surveillance systems and assessed benefits and barriers to development of a platform.

Advanced data visualization across CDC: *Places and Spaces: Mapping Science* featured exhibits, lectures, and a workshop series about geographic information systems.

Fostered innovation – the CDC Health Information Innovation Consortium: Awarded more than $1 million in $10,000 to $50,000 increments to CDC programs to foster innovation in public health surveillance.

Created the Hack-a-thon: Convened an agency-wide effort to focus on a technology initiative to improve data tools and support sharing of data services.

Presented *Conversations on Public Health Surveillance:* Video series launched to discuss issues around public health surveillance at CDC and with partners.

What's Needed

CDC's public health surveillance capabilities are essential for responding to public health threats. However, the system critically needs modernizing to be interoperable, flexible, and timely. CDC currently operates more than 100 separate, independent systems dedicated to specific surveillance activities, and multiple systems collect data from the same CDC partners. CDC has made progress through four key initiatives of its Surveillance Strategy: improving mortality reporting, notifiable disease reporting, syndromic surveillance, and electronic laboratory reporting. CDC is modernizing its surveillance enterprise by designing, developing, and adopting a modular, interoperable collection of shared services that function as an information technology platform that will enable public health programs to more quickly and efficiently use surveillance data.

CDC's new Surveillance Data Platform Initiative will provide shared data services to CDC programs and public health partners.

Long-Term Opportunities

- Transform the agency's scientific data enterprise into an agency-wide shared services model through the integrated platform.

- Dramatically enhance the agency's ability to respond to both emergency data needs and routine work while also reducing the burden imposed on states.

- Prepare CDC's workforce to meet the integrative needs of public health and modernized surveillance systems and methods.

CENTER FOR SURVEILLANCE, EPIDEMIOLOGY, AND LABORATORY SERVICES

SNAPSHOT

MISSION

To provide scientific services to advance public health nationwide.

ORGANIZATION

Division of Health Informatics and Surveillance

Division of Laboratory Systems

Division of Public Health Information Dissemination

Division of Scientific Education and Professional Development

PRIORITIES

Superb Data and Information— Transform the public health system with improved systems for surveillance, dissemination of health information, access to data, and analytic tools.

Excellent People—Recruit and prepare a dynamic public health workforce and its future leadership to conduct scientific investigations, find solutions, and respond to new challenges to keep us safe.

Outstanding Laboratories—Enhance the quality and interpretation of patient clinical laboratory results through the development of guidance, standards, training, and systems.

Why We're Here

The Center for Surveillance, Epidemiology, and Laboratory Services (CSELS) works at the interface between CDC programs and partners in state, territorial, local, and tribal public health agencies. We provide scientific services, expertise, tools, and access to data to empower their efforts to promote health, prevent disease, and prepare for emerging health threats. CSELS leads the national surveillance strategy, operates two national health surveillance systems, and provides leadership for national public health efforts in scientific education and professional development through didactic training and experiential learning. CSELS strengthens the nation's laboratory system by continually improving quality and safety, informatics and data science, and the workforce through research, training, and the development of guidance, standards, and tools.

CSELS uses Web metrics to track, reach, help, and refine dissemination.

How We Work

As a new cross-cutting center that provides essential scientific services to others, CSELS works by building strategic partnerships and systems to benefit the public's health. Many of our activities (e.g., publication of the **Morbidity and Mortality Weekly Report [MMWR]**, the transformation and provision of data through the **National Notifiable Disease Surveillance System**, operation of the **CDC Library**) have a long and robust history as flagship CDC components. Many are in the process of technological modernization, while other activities—like our new **Laboratory Leadership Service** created to train the nation's public health laboratorians or our effort to build new systems to allow **electronic case reporting** directly to state and local public health agencies from a patient's electronic health record— reflect the changing landscape of healthcare and science.

CS268819

Epidemic Intelligence Service:
160 disease detectives serve in state and local health agencies and CDC programs to address health problems by conducting scientific investigations on a broad range of topics and responding to outbreaks and disasters. In FY16, 131 EIS officers conducted 52 Epi Aid investigations and played pivotal roles in the response to Zika virus infections in Puerto Rico, American Samoa, Brazil, the U.S. Virgin Islands, and Utah; the opioid overdose epidemic in multiple states; and an unprecedented outbreak of HIV infection in Indiana.

Timely Information for Action:
MMWR (the voice of CDC) worked tirelessly with partners to publish more than 40 reports on polio eradication, 80 on Ebola, and 40 on Zika virus infection to guide clinicians, laboratorians, travelers, and public health authorities during these emergency responses.

Laboratory Workforce Development: 39,224 training hours were provided to 18,918 individuals on 98 laboratory topics including laboratory testing, safety, preparedness, and bioinformatics.

Improved Laboratory Practice:
Disseminated over 20,000 quality and safety products and tools designed to guide quality clinical laboratory testing.

Modernizing Surveillance: BioSense has been revitalized as a community-focused National Syndromic Surveillance Program. CSELS has worked with STLT partners to provide them with cloud-based data storage and state-of-the-art analytic tools (SAS, R and ESSENCE).

What's Needed

- **Providing** resources for products and services to support state, local, and international efforts to protect health.

- **Collaborating** across sectors and stakeholders to conduct optimal surveillance to improve public health action, sustain and strengthen a workforce of tomorrow, and enhance clinical laboratory systems.

- **Modernizing** both surveillance and information dissemination systems and workforce education and training to support fast and effective detection and response to health threats.

- **Articulating** the value of CSELS work as the "utility company" that provides essential services for the nation's public health system.

DSEPD State, Tribal, Local, and Territorial Field Trainees – 9/30/2016
Total = 102

DSEPD has more than 100 field assignees providing support at the state and local levels.

Long-Term Opportunities

- Modernize health data systems, connecting the electronic health record to public health, information dissemination procedures, and laboratory systems.

- Obtain more complete and timely data on notifiable diseases and health conditions and improve federal, state, and local health agencies' access to tools for analyzing and acting on syndromic data.

- Strengthen the knowledge and skills of the public health workforce, including laboratory scientists, by providing training, guidelines, and evidence-based recommendations.

- Improve public health response and support through short-term technical assistance.

- Expand collaboration between the healthcare and public health sectors, transforming the health system and leading to heathier people.

NATIONAL CENTER FOR HEALTH STATISTICS

Why We're Here

High-quality health statistics are necessary to make evidence-based decisions to improve health and healthcare in the United States. As one of the nation's principal statistical agencies, the National Center for Health Statistics (NCHS) collects, analyzes, and disseminates accurate, objective data to monitor long-term trends as well as detect short-term changes of public health importance. Leaders, health professionals, and an increasingly connected public look to NCHS for relevant, credible, and objective health information.

NCHS efforts on getting cause of death reported more rapidly help identify emerging trends in mortality and strategies to address them.

Improving Timeliness: Percent of Deaths Reported to NCHS within 10 Days of Event

14% (2012), 18% (2013), 27% (2014), 38% (2015), 48% (First half of 2016)
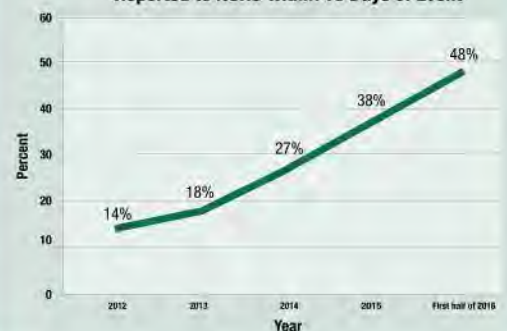
How We Work

We present a complete picture of the health of the U.S. population using a variety of data collection mechanisms, including:

- Birth and death records from the 57 vital registration jurisdictions.
- In-person household interviews on health status and health behaviors.
- Direct physical examinations and laboratory testing.
- Surveys of healthcare providers.

NCHS provides credible statistics and evidence to guide policies and actions, including:

- 2016 opioid prescription guidelines.
- Tobacco use prevention and cessation programs.
- Pediatric growth charts for American children.
- Research on statistical methods to ensure data quality and promote innovation.

CDC — Centers for Disease Control and Prevention

CS268819

What's Needed

New and innovative approaches for data collection and assessments of data quality – Survey response rates have been declining; low participation rates may introduce the potential for bias based on non responses in survey estimates.

Major redesign for the National Health Interview Survey (NHIS), which will require support to evaluate the impact of survey changes on estimates and trends for critical health variables, including health insurance coverage and risk behaviors.

Better use of existing data for evidence and evaluation – NCHS plays a critical role in finding ways to use administrative data across the federal system to enhance information for improving analytic utility.

Appropriate statistical methods for use and analysis of electronic health records (EHRs) – The incorporation of EHRs into provider surveys and records requires refinement. An interface is needed for analyzing information from different EHR vendors that are not currently interoperable.

Recruitment and retention of statisticians – Hiring and retaining skilled statisticians is critical for the future of NCHS as a federal statistical agency.

Strengthened the role of data to enhance the health and well-being of all Americans: DHHS relies on NCHS data to monitor the implementation of health reform and changes in the health system, and to report on health insurance coverage at the national and state levels.

Made significant improvements in the timeliness and quality of public health data: The percentage of deaths reported within 10 days of the event increased from 12% in 2012 to 48% for the first half of 2016, providing virtual real-time surveillance information and therefore information for rapid action to reduce preventable deaths.

Provided critical prescription drug data in the development of CDC's 2016 *Guidelines for Prescribing Opioids for Chronic Pain:* NCHS data provided evidence for the new CDC guidelines, which are expected to improve patient outcomes and reduce adverse events and death.

Contributed to updated 2012 recommendations from CDC on children's blood lead levels: Contributions from NCHS data helped shift the focus to primary prevention of lead exposure. CDC will use NCHS data going forward to monitor and update recommendations to prevent lead exposure before it occurs and to promote children's health.

Provided evidence for new national guidelines for diagnosing and treating hypertension in children and adolescents: NCHS data supported the development of new guidelines from the National Institutes of Health and the National High Blood Pressure Program.

NCHS research found that rates of suicide have increased by 24% in the past 15 years.

Age-adjusted Suicide Rates by Sex: United States, 1999–2014
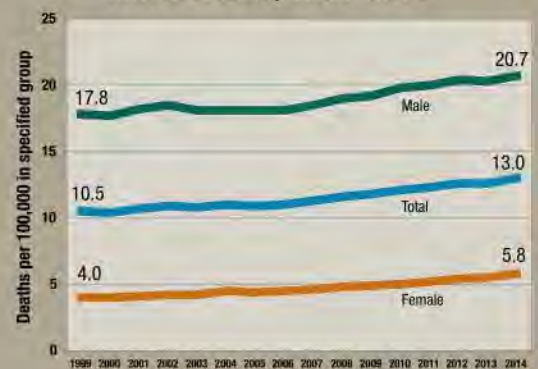
Long-Term Opportunities

Expand the value of mortality records by exploring the literal text from death certificates. This will improve our understanding of the contribution of different causes or factors to death, such as antibiotic resistance, Alzheimer's disease, and other conditions.

Explore options for geocoding birth and death records to improve the national infrastructure for geographic information below the county level and strengthen the surveillance capability.

Expand the use of electronic health records and encounters: The data being collected in the new National Hospital Care Survey far exceed information collected in previous surveys of providers, providing substantially richer information and detail, including information on rare events. Recent data included more than 20 million patient visits to hospitals, outpatient facilities, and emergency rooms, and these numbers are increasing exponentially, providing tremendous potential for evidence to inform decision-making.

Improve the use and reuse of existing data: Improvements would support evaluation and evidence-building for performance, policy, and decision-making, such as including the efforts of the Commission on Evidence-Based Policymaking.

CENTERS FOR DISEASE CONTROL AND PREVENTION WASHINGTON OFFICE

SNAPSHOT

MISSION

To design legislative strategies for complex public health issues and develop plans for CDC's work with Congress to advance CDC's public health goals.

PRIORITIES

Inform Congress about CDC's research, programs, and priorities.

Track legislation.

Provide preparation of CDC's Congressional testimony.

Inform policy proposals through technical assistance.

Why We're Here

The CDC Washington Office (CDCW) helps position CDC in Washington to Congress, the Department of Health and Human Services and other federal agencies and partners. CDCW designs legislative strategies to address complex public health issues and advance CDC's work with Congress to improve public health. CDCW translates public health developments to the Washington-based policy community; provides strategic direction and support for CDC leadership in briefings and hearings; and delivers technical assistance on legislation that impacts CDC programs.

CDC Washington provides information to members and their staff that increases understanding of Public Health issues and relevance to their constituents.

How We Work

CDC Washington provides the following:

- Congressional perspectives to CDC leadership and centers

- Expert analysis of CDC programs as they relate to Congressional and other policy actions

- Technical assistance on public health policy and legislative initiatives

- Rapid and reliable response to Administration and Congressional requests for information

- Expertise in risk communication on breaking news and oversight

- CDC materials, services, and tours of facilities for Congressional Members and their staff

- Regular updates for policy audiences on emerging CDC topics of interest

CS268819

In the 114th Congress, CDCW:

- Developed testimony and prepared CDC witnesses for 22 Congressional hearings (including 6 hearings specific to CDC's Zika response).

- Prepared and staffed CDC leadership for more than 500 Congressional briefings to educate Members and staff on CDC's critical work protecting health in their states and communities.

- Organized more than 20 Congressional Member and staff visits to CDC headquarters in Atlanta, CDC's Fort Collins laboratory, and NIOSH.

- Provided technical assistance on legislation impacting CDC's work in Flint, MI; CDC's Global Health Security Agenda; and CDC's response to emerging infectious disease threats.

- Developed and maintained relationships with Congressional Members and Committee staff.

What's Needed

- Clear communications for the Washington-based policy community on complex public health issues.

- A Washington-based staff of experts in CDC priorities to represent the Atlanta-based agency in Washington.

- A team with expertise in legislative and executive branch processes.

CDC Washington works with CDC staff to ensure information presented in expert testimony to Congressional committees is timely, accurate and provides helpful scientific context to the issues being discussed.

Long-Term Opportunities

- Educate congressional offices and Washington-based partners on CDC's mission.

- Highlight CDC's role in current events and outbreak response.

- Broaden partnerships to better match the diverse activities in CDC's portfolio.

- Strengthen coordination and communication between CDC and other federal agencies.

OFFICE OF EQUAL EMPLOYMENT OPPORTUNITY

SNAPSHOT

MISSION

To end employment discrimination and promote equal employment opportunity in the workplace.

ORGANIZATION

Affirmative Employment Program

Alternative Dispute Resolution Program

Complaints and Adjudication Section

Reasonable Accommodation Services

PRIORITIES

Customer service.

EEO compliance.

Training.

Why We're Here

The Office of Equal Employment Opportunity (OEEO) is a critical partner in achieving CDC and ATSDR's public health goals. Our office supports the agency's responsibility to maintain a model equal employment opportunity (EEO) program and a diverse workforce. The Equal Employment Opportunity Commission (EEOC) guidelines state that a model EEO program effectively considers and addresses concerns arising under both Title VII and Section 501 of the Rehabilitation Act. The elements of a model EEO program are 1) leadership commitment, 2) EEO integration with the agency's strategic mission, 3) accountability, 4) proactive prevention of discrimination, 5) efficiency, and 6) responsiveness and legal compliance.

EEO is a legal requirement.

How We Work

OEEO is responsible for oversight of matters related to equal employment opportunity, affirmative employment, dispute resolution, and disabilities and reasonable accommodations. The impact of CDC OEEO programs has national significance. OEEO organizational components consist of four major sections: The **Complaints Processing and Adjudication Section (CPAS)** processes and adjudicates EEO complaints. The activities performed are pre-complaint counseling, overseeing investigations, and coordinating hearing requests. The **Affirmative Employment Section (AEP)** generates annual and quarterly submissions of the Management Directive 715 (MD-715) workforce analysis report. This report provides a barrier analysis, policy guidance, and standards for establishing and maintaining effective affirmative action and equal employment opportunity programs. The **Alternative Dispute Resolution (ADR)** program provides an opportunity to address and resolve workplace conflict in a neutral, confidential manner through the use of various creative methods, such as early intervention, mediation, facilitation, fact-finding, and conciliation. The **Reasonable Accommodation Services (RA)** section helps the agency establish and maintain a work environment in which persons with disabilities receive full and fair consideration for any job for which they apply and reasonable accommodations to perform their essential job functions.

CDC

Centers for Disease Control and Prevention

What's Needed

OEEO is committed to fostering an inclusive culture through equity, opportunity, and respect. To end employment discrimination and promote equal employment opportunity, we need to:

Become a model EEO program: OEEO has made significant gains in customer service, effectiveness, and efficiency, but continuous changes in the EEO landscape will require additional commitment to meet new EEO mandates.

Increase training opportunities for managers and supervisors: We must ensure leaders have the knowledge, skills and abilities to understand their ADR, EEO, and RA roles and responsibilities. This knowledge can give CDC an advantage in recruiting and retaining a qualified and dedicated workforce, as well as help CDC decrease risk.

CDC works to ensure that supervisors and managers understand EEO requirements and the benefits of a diverse workforce.

Long-Term Opportunities

As the number of complex cases and EEO changes grow, OEEO will need to expand its focus from routing and handling routine complaints to civil rights and contract compliance.

- **Strengthening Collaborations and Partnerships:** This includes more involvement with global initiatives involving deployed staff and the inherent issues associated with EEO in other countries.

- **Improving Training:** Training is the most effective way to address EEO challenges. Dedicated regulatory and legal training would be proactive and effective and help CDC decrease risk.

- **Digital Tracking:** All EEO components should have this capacity. With enhancements to its reasonable accommodation system, OEEO has an opportunity to help other federal agencies achieve CDC's ability to handle reasonable accommodation requests.

OFFICE OF MINORITY HEALTH AND HEALTH EQUITY

SNAPSHOT

MISSION

To advance health equity and women's health issues across the nation through CDC's science and programs and increase CDC's capacity to leverage its diverse workforce and engage stakeholders toward this end.

ORGANIZATION

Minority Health

Diversity and Inclusion Management

Office of Women's Health

PRIORITIES

Eliminate health disparities.

Advance health equity.

Protect the health and safety of women and girls.

Ensure a diverse public health workforce.

Why We're Here

The Office of Minority Health and Health Equity (OMHHE) aims to accelerate CDC's health impact and eliminate health disparities. OMHHE does this by facilitating implementation of science, programs, and policies across CDC to reduce health disparities and achieve health equity; advancing CDC's research, policy, and prevention initiatives to improve women's health; and ensuring a diverse CDC workforce that enhances population health outcomes.

— REACHING FOR —
Health Equity

Reducing health disparities brings us closer to reaching health equity.

BEST HEALTH POSSIBLE

BEST HEALTH POSSIBLE

Programs designed to reduce health disparities

How We Work

- Monitor and report on the health status of vulnerable populations.

- Initiate and maintain strategic partnerships with governmental, non-governmental, national, and regional organizations to advance science, practice, and workforce for eliminating health disparities.

- Provide leadership for CDC-wide policies, strategies, action planning, and evaluation to eliminate health disparities.

- Promote women's health and ensure a diverse and inclusive workforce.

CDC

Centers for Disease Control and Prevention

CS268819

Key Accomplishments

Leading CDC's efforts on health equity and social determinants of health by representing the agency as the co-lead of the Healthy People 2020 Social Determinants of Health topic area, coordinating the advisory committee to the director/ health disparities subcommittee, and convening the annual State of Health Equity at CDC forums to increase agency-wide collaboration.

Shaping the public health workforce of the future through the CDC Undergraduate Public Health Scholars (CUPS) program and the Millennial Health Leaders Summits to equip the next generation of public health leaders with the tools they need to eliminate health disparities.

Leading science through publication of CDC's first comprehensive reports to assess health disparities (the CDC Health Disparities & Inequalities Report), the first-ever CDC report on Hispanic Health (*CDC Vital Signs*), and a special supplement on health equity (*Journal of Public Health Management and Practice*) and through a partnership with Tuskegee University to host annual Public Health Ethics forums.

Providing support to state, local, tribal, and territorial offices of minority health by hosting CDC's first-ever National Health Equity Leadership Academy.

Shaping a diverse CDC workforce by establishing and co-leading CDC's Diversity and Inclusion Executive Steering Committee and by conducting two CDC-wide diversity culture audits.

What's Needed

- **Increase the capacity of public health practitioners** to decrease health disparities and health inequities through targeted national, regional and state level partnerships.

- **Build capacity** to collect data and conduct epidemiological health equity studies.

- **Ensure health equity** is included in the health in all policies approach.

- **Improve community health** by increasing knowledge of evidence-based strategies that work to reduce preventable morbidity and premature mortality in vulnerable populations.

PAVING THE ROAD TO HEALTH EQUITY

Health Equity is when everyone has the opportunity to be as healthy as possible

Programs
Successful health equity strategies

Measurement
Data practices to support the advancement of health equity

Policy
Laws, regulations, and rules to improve population health

Long-Term Opportunities

- Support evaluations of health equity and health disparities initiatives in the field, for example, evaluate the impacts of multi-sectoral collaborations.

- Expand the Millennial Health Leaders' program by offering 3- to 12-month internship opportunities for graduate and medical students to engage with vital health equity topics. This gives OMHHE a great opportunity to shape the future health equity workforce and extend CDC's credibility in this area.

- Increase the diversity and skills of the emerging public health workforce trained through the CUPS program.

- Expand the understanding and application of SDH (i.e., SES, cultural, language access, health literacy, and environmental barriers) as they relate to Women's Health and lead CDC's centers, institutes, and offices in integrating related Women's Health disparities in their programs.

OFFICE OF THE ASSOCIATE DIRECTOR FOR COMMUNICATION

SNAPSHOT

MISSION

OADC extends CDC's health security mission by providing timely and accurate information needed to save lives and protect people.

ORGANIZATION

Office of Communication Science

Division of Communication Services

Division of Public Affairs

PRIORITIES

Increase public trust in and credibility of CDC's science, research, and recommendations.

Ensure delivery of health information that is accessible, understandable, and actionable.

Maximize strategic communication opportunities.

Why We're Here

The Office of the Associate Director for Communication provides agency-level communication strategy and advice, reporting to the CDC director. OADC works alongside agency programs to harmonize CDC communication efforts and maximize their impact. OADC also coordinates awareness with HHS on media issues and prepares the CDC director as a public health thought leader on multiple media platforms. Whether speaking to international partners, presenting on the Hill, giving interviews to top-tier reporters on complex issues, or motivating CDC staff and leaders, OADC helps the agency and the CDC director deliver clear and effective messages.

CDC 24/7

Saving Lives.
Protecting People.
Keeping America Safe,
Healthy, and Secure.™

OADC developed 24/7 messaging to remind those who CDC serves of the agency's commitment to preserving health security.

How We Work

Whether responding to a public health emergency such as Zika or Ebola or confronting epidemics like prescription drug overdose, CDC is America's front line of defense against threats to our nation's health security. As the centralized leader of communication at CDC, OADC provides critical support to CDC's centers, institutes, and offices to disseminate life-saving information that people need to make decisions to protect their health and that of their families and communities.

OADC achieves its mission through a determined focus on providing accurate, clear health information when, where, and how people need to see it. OADC provides expertise and services supporting CDC programs in the areas of crisis and risk communication, health literacy, graphic design, video production, public affairs, employee communication, digital media, language translation, CDC INFO, CDC Museum, and communication research and evaluation. OADC works to expand CDC's health communication capacity and contributes to the field of communication across the country and around the world.

CDC

Centers for Disease Control and Prevention

Digital Acceleration: OADC has led the way in government communication by expanding and integrating digital strategies into CDC's health communication and public affairs work.

Best practices in content syndication, social media, and responsive design ensure that CDC's health and science information is easily accessible when and where people seek information.

Clear Communication: The CDC Clear Communication Index is a research-based tool to help develop and assess public communication. It has been used to train more than 700 CDC staff, grantees, and partners, as well as staff from other agencies.

*Vital***signs**™ CDC

Vital Signs: CDC's *Vital Signs* is a monthly digital publication that reaches, on average, nearly 1.2 billion people monthly with important public health messages. OADC leads communication support and production of all issues relating to *Vital Signs.*
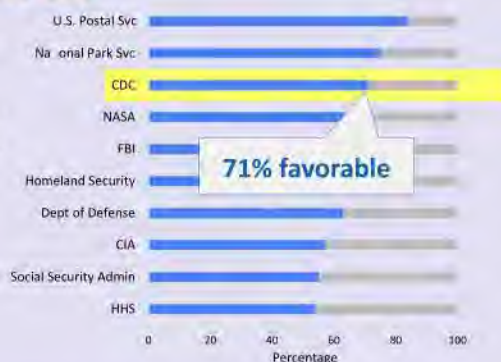
What's Needed

Today's communication landscape is characterized by fast-paced technological changes that require CDC to remain on the cutting edge of innovations in communication science in order to effectively reach priority audiences. OADC works to build the capacity for enabling agency communicators to succeed. To continue meeting new communication challenges, OADC must focus efforts on:

- Adapting to newly emerging communication technologies.

- Addressing demographic trends that point to wider cultural changes in communication behaviors and preferences.

- Maintaining tools for segments of the population that still prefer or require traditional or adaptive modes of communication.

HOW THE PUBLIC VIEWS CDC

CDC is ranked as **3rd most favorably viewed federal agency (71%).** Fewer than 1 in 5 U.S. citizens express a negative view of CDC.

Pew Research Center, Sept 2015

71% favorable

U.S. Postal Svc
National Park Svc
CDC
NASA
FBI
Homeland Security
Dept of Defense
CIA
Social Security Admin
HHS

0   20   40   60   80   100
Percentage

Long-Term Opportunities

Help people see themselves in CDC's messages: OADC provides leadership and direct support to CDC programs that work to place scientific findings in plain language and reviewed for cultural competence. When appropriate, they are translated into other languages and/or told through compelling stories.

Increase data-driven communication: OADC uses information collected from its communication channels (web, media releases, CDC-INFO, social media) to tailor health information and delivery methods to specific audiences for their needs.

Use communication science to enhance two-way communication: CDC is a leader in the use of tools for engagement with our audiences, which the public increasingly expects.

Workforce development: Shifts in U.S. demographics, information-seeking behaviors, technology, and expectations for 24/7 engagement, while also maintaining traditional, science-based communication practices, demand a savvy communication and public affairs workforce with specialized skills and experience. OADC works to expand and prepare the communication workforce both within CDC and among its partners.

OFFICE OF THE ASSOCIATE DIRECTOR FOR LABORATORY SCIENCE AND SAFETY

SNAPSHOT

MISSION

To strengthen the CDC culture of laboratory science and safety through leadership, collaboration, training, and continuous quality improvement.

ORGANIZATION

Office of Laboratory Safety

Office of Laboratory Science

PRIORITIES

Strengthen the culture of laboratory safety and quality.

Improve laboratory safety and quality.

Work to build a strong cadre of junior and senior leaders with particular expertise in laboratory management.

Focus consistent attention on obtaining and maintaining appropriate accreditation.

Engage and train laboratory scientists.

Why We're Here

The Associate Director for Laboratory Science and Safety (ADLSS) serves as the key point of oversight and accountability for laboratory quality and safety at CDC. The Office of the ADLSS (OADLSS) was established in 2015 to centralize oversight and leadership of laboratory safety and quality following widely publicized laboratory safety incidents in 2014. Congress remains deeply interested in CDC's laboratory safety reforms. OADLSS's core functions are to ensure laboratory safety compliance, build a well-trained CDC laboratory workforce, and improve the quality of CDC's laboratory science.

CDC's guiding principles for laboratory work are to ensure the safety of all staff and the community and be as transparent as possible about our work as we conduct high-quality scientific research to protect people in this country and around the world.
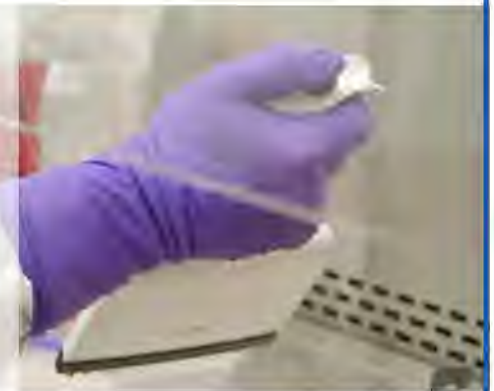
How We Work

The creation of OADLSS represents a major success in transforming laboratory quality and safety oversight at the agency. By centralizing all laboratory quality and safety functions under a single point of accountability, OADLSS merged the scientific and safety priorities of its diverse laboratories and established a framework for effective leadership of CDC's laboratories.

OADLSS's ultimate goals are to strengthen the culture of safety at every level of the agency; foster the culture of quality, where CDC laboratories meet the highest standards of accuracy, reliability, and timeliness; and ensure CDC laboratories strive for continuous improvement to scientific rigor and safety.

OADLSS comprises an Office of Laboratory Safety and an Office of Laboratory Science. The Office of Laboratory Safety provides comprehensive safety oversight of CDC laboratories, including compliance with biosecurity regulations under the Federal Select Agent Program, biosafety inspections, and chemical and radiation safety. The Office of Laboratory Science provides leadership of laboratory quality initiatives at the agency and the implementation of quality management systems in CDC laboratories.

Key Accomplishments

Laboratory Safety Review Board (LSRB): Established in 2015, the LSRB is charged with reviewing and approving every protocol for the transfer of biological materials out of Biosafety Level 3 (BSL-3) and BSL-4 laboratories to lower levels of containment, a key issue in the 2014 laboratory incidents. The LSRB reviews all new and amended protocols for these transfers and conducts annual reviews of existing protocols. The LSRB has authority to suspend any protocol that it finds is not being conducted appropriately.

Creation of the Laboratory Leadership Service: CDC established the Laboratory Leadership Service, or LLS, a fellowship program that prepares early-career laboratory scientists to become future laboratory leaders. LLS is modeled after the Epidemic Intelligence Service, and it combines competency-based public health laboratory training with practical, applied investigations and service. LLS fellows are deployed to help investigate laboratory incidents and near misses to understand what happened and what steps are needed to prevent safety lapses in the future.

Laboratory Quality Council (LQC): Established in 2016, the LQC is charged with improving the quality of CDC laboratory operations by providing guidance and establishing policies for the agency. The council advises on strategic planning and provides recommendations for harmonizing quality systems across CDC laboratories.

What's Needed

Strengthening the safety culture and long-established practices in every laboratory group in the agency is a challenging and ongoing task. Congressional oversight committees and the media remain intensely interested in CDC laboratory safety, which is both an opportunity and a challenge to ensure that CDC clearly communicates the progress of its reforms and is transparent about potential safety issues.

OADLSS has advanced laboratory quality and safety significantly since its creation in 2015. Its continued success requires buy-in from agency and CIO leadership as well as bench-level laboratory staff. There are two key initiatives needed to further advance laboratory safety and excellence at the agency. The first includes the successful implementation of a laboratory quality program to help CDC laboratories obtain external accreditation and ensure scientific excellence. The second is a major investment in CDC's laboratory training programs, including creating new laboratory safety and quality trainings and running a new laboratory training facility in Building 15 on the CDC Roybal campus.

LLS trains fellows to integrate safety and quality into every aspect of laboratory practice while working to protect the public's health, safety, and security.

Long-Term Opportunities

- **External Accreditation of CDC Laboratories:** OADLSS is implementing an agency-wide laboratory quality program that requires CDC laboratories to undergo external assessment. External assessment presents an invaluable opportunity to strengthen and promote scientific excellence in CDC's laboratories.

- **Reinvigorate Laboratory Training:** Creating new laboratory safety and quality training is an ongoing priority for OADLSS. Continued efforts and investments are needed to create comprehensive safety and quality training across the workforce.

OFFICE OF THE ASSOCIATE DIRECTOR FOR POLICY

MISSION

To identify and advance opportunities to use policy, leverage health system transformation, and engage other sectors to improve the public's health.

ORGANIZATION

Office of Health System Collaboration

Policy, Research, Analysis, and Development Office

PRIORITIES

Support public health and healthcare sector collaboration.

Identify high-value public health policies.

Increase use of evidence that demonstrates prevention's impact.

Conduct economic and policy analyses to inform decisions.

Why We're Here

The Office of the Associate Director for Policy (OADP) supports CDC policy activities and leads CDC's strategic priority to strengthen the public health and healthcare sector collaboration. OADP ensures that CDC speaks with a consistent policy voice and supports the agency's capacity for economic and policy analyses. It effectively engages the healthcare delivery system through its **6|18 initiative** and its proposal of 18 health-promoting and cost-effective interventions. OADP also collaborates with public health agencies through its **Health Impact in 5 Years (HI-5)** initiative, which identifies 14 evidence-based community-wide interventions. In addition, OADP provides technical assistance on health reform topics and manages CDC's relationships with the Center for Medicare and Medicaid Services (CMS) and other stakeholders.

CDC's Strategic Directions

PUBLIC HEALTH–HEALTHCARE COLLABORATION
Strengthen public health and healthcare collaboration

HEALTH SECURITY
Improve health security at home and around the world

LEADING CAUSES OF DEATH
Better prevent the leading causes of illness, injury, disability, and death

How We Work

OADP includes the Office of the Policy Director (OD), the Office of Health System Collaboration (OHSC), and the Policy Research, Analysis, and Development Office (PRADO).

- **OD** supports linkages with the Health and Human Services Secretariat, CMS and other federal agencies, the Office of the Surgeon General, and the Domestic Policy Council.

- **OHSC** leads CDC's public health–healthcare collaboration strategy; builds partnerships with public and private insurers, healthcare systems, and clinicians to increase access to health-promoting interventions; summarizes and shares CDC's evidence base on effective clinical interventions; and builds public health capacity to productively engage in health system transformation activities.

- **PRADO** analyzes the policy, economic, and budgetary impacts of preventive interventions, establishes guidance and standards for conducting policy analyses, analyzes the evidence associated with phases of the policy process, strengthens the policy analytic capacity of CDC employees through technical assistance and trainings, maintains and conducts CDC's regulatory and "policy awareness and review process," hosts the chief regulatory officer, and translates CDC science for use in informing decisions to improve public health.

Key Accomplishments

Support for public health and healthcare sector collaboration: Established partnerships with state Medicaid and public health programs to implement 6|18 interventions. Also established partnerships with CMS and commercial health insurance companies. Developed the Community Health Improvement Navigator, a tool that helps hospitals conduct community health needs assessments.

High-value public health policies: Led the development and implementation of the National Prevention Strategy. Developed the 6|18 and Health Impact in 5 Years (HI-5) initiatives. Published white papers on emerging healthcare finance models.

Use of evidence that demonstrates prevention's impact: Established CDC-wide policy community of practice and policy review process. Increased capacity in health system literacy and created innovative Web tools, trainings, and resources.

Economic and policy analyses used to inform decisions: Established core economic and budgetary impact indicators. Published seminal *AJPM* supplement on "The Use of Economics in Informing U.S. Public Health Policy." Developed public health economic modeling calculators.

What's Needed

- **Improving** the identification, development, implementation, and evaluation of various policy approaches to address critical public health problems.

- **Identifying and communicating** the economic and health impacts of public health initiatives to policymakers and leaders in the health, business, and other sectors.

- **Integrating** the buckets of prevention framework into public health practice to promote meaningful collaboration between public health and healthcare.

- **Developing and sharing** tools and resources to help public health stakeholders more effectively partner with the healthcare delivery system on prevention measures.

3 BUCKETS OF PREVENTION

Traditional Clinical Prevention	Innovative Clinical Prevention	Total Population Community-wide Prevention
HEALTHCARE		PUBLIC HEALTH

Long-Term Opportunities

- Create and support sustainable partnerships between the public health and healthcare sectors that result in practice changes that prioritize and institutionalize evidence-based prevention.

- Improve access to and use and quality of clinical prevention services and community-wide prevention interventions.

- Improve health and cost outcomes for high-burden, high-cost health conditions and total community or population health.

- Apply evidentiary criteria to expand HI-5 and 6|18 initiatives, policy analyses, and economic analyses for high-burden conditions in locales that are ready to implement them.

OFFICE OF THE ASSOCIATE DIRECTOR FOR SCIENCE

2017 SNAPSHOT

MISSION

To provide CDC/ATSDR with scientific vision, advice, and leadership in promoting quality and integrity of CDC science and serve as the advocate for the application of science to solve important public health problems.

ORGANIZATION

Office of Scientific Integrity

Office of Science Quality

Office of Technology and Innovation

Special Projects Activity

PRIORITIES

Promote and protect the welfare of human subjects and laboratory animals involved in CDC-sponsored research.

Promote and improve public access to CDC scientific data and publications.

Promote and improve technology transfer to private industry, and foster and support innovation at CDC for improving the effectiveness of public health practice.

Why We're Here

The Office of the Associate Director for Science (OADS) includes the Offices of Scientific Integrity (OSI), Science Quality (OSQ), Technology and Innovation (OTI), and the Special Projects Activity (SPA). The OADS vision is to be the catalyst for science integrity, quality, and relevance to translate CDC science into action. OSI exists to provide efficient services that will streamline the processes for demonstrating regulatory compliance, ensuring CDC science is timely and current. The OSQ mission is to provide leadership, guidance, and support to agency scientists to enhance the impact of CDC research and science while OTI is the champion for innovative science and technologies at CDC/ATSDR.
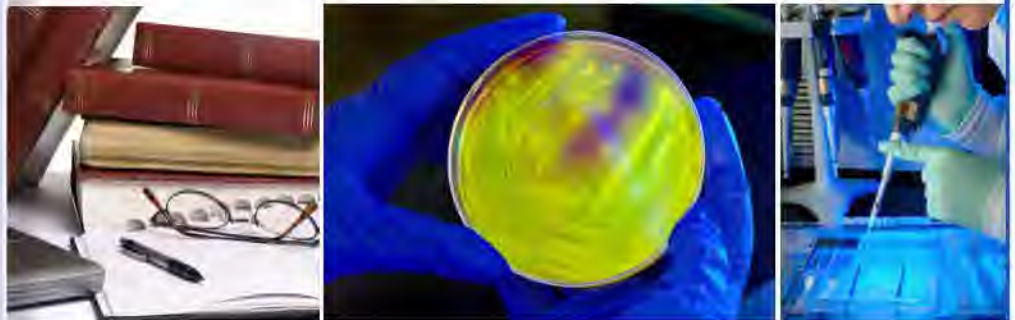
How We Work

OSI is the focal point for achieving scientific integrity by meeting federal regulatory compliance responsibilities and protecting the rights and welfare of research subjects. OSI works to streamline processes, procedures, and guidance to improve intramural and extramural research, and reduce administrative burdens placed on CDC scientists and collaborators.

OSQ works to increase the impact of CDC research and science by promoting standards and recommended practices for scientific quality, relevance, credibility, and transparency within the agency and throughout the public health community.

OTI works to encourage, foster, and develop innovative science, technologies, processes, and policies that support the agency. OTI supports scientific outreach, training, and collaboration in research and development activities, and technology transfer that advance CDC's mission and engage other agencies, global partners, academia, innovators, and consumers.

SPA works within OADS to provide oversight and leadership in major or cross-cutting scientific activities through internal and external collaboration and partnerships. Cross-cutting impact is achieved by participation on high-level internal and external scientific activities and groups.

What's Needed

- Developing an IT system that will efficiently and effectively automate scientific processes, replace legacy systems, and provide information and reports on agency research and investigations.

- Resolving the appropriateness of the 12-month embargo of federal employee publications via discussions with the White House Office of Science and Technology Policy and other HHS Operating Divisions.

- Fostering a culture of innovation in support of the processes and communications necessary to enable technology transfer to the private sector for advancing public health.

- Managing and tracking projects and outcomes across CDC to enable evaluation and reporting of the impact and added value of the Academic Partnerships Program.

- Encouraging consistency across the agency for data management plans, and data management to make public health data discoverable, accessible, and usable.

The Animal Care and Use Program Office (ACUPO) was awarded full re-Accreditation by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC). ACUPO held inspections of CDC animal laboratories to maintain highest standards of welfare for our laboratory animals.

The mandatory Scientific Integrity and Quality Overview Course was launched through the HHS Learning Portal. Over 7,500 CDC staff have enrolled.

The public access to publications repository system has been launched across CDC. CDC public access publications have been downloaded more than 3 million times.

Since its inception in 2011, the iFund has supported and financed over 60 mission-driven projects. For FY2016, OTI received 82 proposals.

CDC Technology Transfer Office facilitated robust distribution of Zika virus specimens for emergency R&D purposes in response to the current outbreak. To date, 146 material transfer agreements have been executed.

Launched "We Were There" series to provide insight into the rich past and impact of CDC and to share first-hand accounts from the frontline responders.

2015 iFund Awardee developed an inexpensive dry method for rapid field decontamination of firefighters. System can be used while the firefighter is still wearing a self-contained breathing apparatus (SCBA) and enables gear to be ready for immediate reuse.

Long-Term Opportunities

- Support the expansion of public access to publications to make other document collections publicly available.

- Update, expand, and offer OADS training in the HHS Learning Portal.

- Increase recognition for CDC scientists who create inventions to improve public health.

- Explore partnership opportunities with local accelerators or incubators to further build, design, engineer, or manufacture CDC inventions.

- Grow commonalities among HHS OPDIVs, such as the finalization of the Common Rule.

- Establish an accredited Institutional Review Board at CDC.

- Expand the Academic Partnerships program to more universities in Georgia and neighboring states.

- Grow the impact of public health research and non-research data through a more consistent approach to data accessibility.

OFFICE OF THE CHIEF OF STAFF

SNAPSHOT

MISSION

To provide strategic direction and advice to the CDC director and agency senior leadership for coordination, synchronization, and implementation of agency-wide priorities, policies, and programs.

ORGANIZATION

Budget and Operations Management Team

Division of Issues Management, Analysis, and Coordination

Meeting and Advance Team

Public–Private Partnerships Team

PRIORITIES

Strategically advise the CDC director.

Maintain internal and external relations.

Provide information management with Executive Branch across the agency.

Conduct proactive issues management.

Coordinate and synchronize leadership activities.

Why We're Here

CDC's Office of the Chief of Staff (OCoS) brings together the critical functions of a nimble knowledge management asset in support of the director and leadership team. The office allows the agency to anticipate, prepare for, and respond to emerging issues while remaining focused on accomplishing long-term priorities. OCoS works across the department and the entire agency to ensure decisions are timely and resources are aligned with priorities.

How We Work

- **Meeting and Advance Team:** Deliver full-spectrum, direct support to the agency director, deputy director, and chief of staff, inclusive of executive and special assistance, for scheduling, high-profile visits, meeting and event management, and logistics.

- **Division of Issues Management, Analysis, and Coordination:** Provide strategic advice and information to the CDC director for informed decision-making on critical issues, serve as Executive Secretariat and coordinate review of policy documents, lead forecasting and management of critical issues, and provide strategic coordination of the regulatory agenda and all Government Accountability Office (GAO) and Office of the Inspector General (OIG) engagements.

- **Budget and Operations Management Team:** Serve as the Management Official for all OD offices, including financial management; executive recruitment and human resources; purchasing; and safety, security, and asset information management.

- **Public–Private Partnerships Team:** Establish and sustain partnerships, including those with the CDC Foundation, as the hub of external relations with the private sector on behalf of the director and agency. Provide technical support for partnership teams across the agency, including conflict of interest guidance and review of gifts, and deliberately form and sustain relationships on behalf of the director and agency.

CDC — Centers for Disease Control and Prevention

CS268819

Formalized and Centralized Issues Management: Launched Forecasting Portal, a searchable repository of upcoming CDC activities feeding multiple recurring reports, and centralized coordination of CDC's regulatory and *Federal Register* activities.

Established Public–Private Partnerships activities within and outside of CDC:

- Conducted 129 conflict of interest reviews in 22 months.

- 571 Corporate Medical Officials registered and attended six Business Health Executive Calls during 2015–2016.

- $58 million to CDC Foundation Domestic and International Emergency Funds for Ebola and Zika responses.

Full Service Advance Team: Provided executive assistance, scheduling, travel and event advance planning and logistics, meeting and event planning and management, and protocol and VIP visit coordination.

What's Needed

The knowledge management function relies on strong relationships with the centers, institutes, and offices that make up the agency. Our ability to fully support the director and leadership team relies on maintaining the expectation that the systems and procedures will be used. This includes forecasting, reviewing and clearing requests for information, receiving and responding to congressional correspondence, processing invitations for the director, maintaining relationships with the CDC Foundation, and coordinating communications and information sharing among the other OD offices.

Driving CDC Priorities

Leveraging CDC Partners

ENGAGEMENT WITH PARTNERS BY INDUSTRY

- 66 BIOTECH/DIAGNOSTICS
- 42 PHARMACEUTICAL
- 20 HEALTH/SOCIAL SERVICES
- 15 HOSPITALITY
- 8 ARTS/ENTERTAINMENT/RECREATION
- 8 HEALTH & INFORMATION TECHNOLOGY
- 8 INFORMATION TECHNOLOGY
- 7 MULTI
- 6 HEALTHCARE SYSTEM
- 6 VETERINARY
- 5 BUSINESS/ECONOMIC DEVELOPMENT
- 5 OTHER
- 5 PHILANTHROPY
- 5 RETAIL & HEALTHCARE

Strategic Positioning with Stakeholders

- GAO- 262 total engagements; 216 closed, 46 ongoing
- OIG- 91 total engagements; 71 closed, 20 ongoing
- 348 trips, including 62 international, across 33 countries
- 43 dignitary visits to CDC
- 57 CDC rule makings; removed one rule from the Code of Federal Regulations

Long-Term Opportunities

- **Review** CDC regulatory agenda for priority setting in 2017.

- **Engage** select high-impact corporate health groups to champion public health priorities.

- **Institutionalize** conflict of interest and transparency practices across agency for partnerships.

- **Coordinate** visits for transition team members and new leadership teams.

- **Coordinate** all executive-level recruitments for leadership positions within the agency, including hiring, onboarding, and relocation of personnel.

OFFICE OF THE CHIEF OPERATING OFFICER

SNAPSHOT

VISION

To be partners in protecting health through exemplary business service, innovative practice, and continuous workforce development.

ORGANIZATION

Office of the Director:

- Business Integrity and Strategic Management (BISM) Unit
- Executive Officer (EO)
- Working Capital Fund (WCF)

Human Resources Office (HRO)

Office of Financial Resources (OFR)

Office of Safety, Security, and Asset Management (OSSAM)

Office of the Chief Information Officer (OCIO)

PRIORITIES

Customer Service: Provide high-quality services and solutions that are timely, accurate, and meet mission needs.

Efficiency: Implement business practices and cost-effective strategies that ensure OCOO is a model for efficient government operations.

Effectiveness: Provide compliant, high-quality services.

Healthy Enterprise: Be a desired employer that attracts, develops, and retains a skilled and diverse workforce.

Why We're Here

The Office of the Chief Operating Officer (OCOO) provides oversight and support for all of CDC's centralized business operations. Led by the chief operating officer, OCOO ensures that CDC employees and contractors have the tools and resources they need in a safe, secure, and healthy workplace as they strive to fulfill CDC's mission.

From human resources to finance to IT to safety and wellness, OCOO provides more than 100 services to CDC staff.

How We Work

OCOO's business services offices administer CDC's budget, grants, facilities, physical security, workforce health and wellness, human resources, and information technology programs. In 2014, CDC began working under a working capital fund (WCF), which seeks to achieve greater efficiency, transparency, and accountability for business services support. BSOs provide services to CDC programs and the WCF bills programs for the services consumed based on preestablished rates.

Human Resources Office (HRO): Leads human capital management activities, delivers agencywide training and workforce development services, advises and assists agency hiring managers with recruitment and workforce needs, and manages and oversees ethics and compliance activities.

Office of Financial Resources (OFR): Leads CDC's financial management activities, manages budget formulation, integration, and execution, oversees a system of internal budget, financial, and payment processes and systems, and leads and directs CDC's contract and grant activities.

Office of the Chief Information Officer (OCIO): Leads CDC's IT program, including capital planning, enterprise architecture, project management, employee IT services, business systems and analytics, information security, and other management services.

Office of Safety, Security, and Asset Management (OSSAM): Provides a safe, secure, and healthy workplace for CDC staff, manages facilities and ensures environmental stewardship, runs a model workforce wellness program, and provides transportation services.

- $14.6 billion obligated

- 245,000 commercial payments processed

- 230,000 FOIA pages provided

- 23,000 travel orders issued, including 4,500 international orders

- 22,700 email accounts maintained

- 20,700 contract and grant actions processed

- 10,000 employees trained in more than 500 classes

- 8,000 personnel awards processed

- 5,500 flu shots administered to staff

- 4,100 immigration actions processed

- 3,200 hiring certificates issued

- 800 IT system security certifications completed

- 300 retirements processed

What's Needed

Human Resources: Improve time to hire and other personnel practices by expanding CDC's *Partnering 2 Win* recruitment and hiring transformation program.

Enterprise Risk Management: Implement an enterprise risk management framework to provide a holistic risk management approach that addresses strategic, reputational, operational, financial, and compliance risks.

Facilities: Support repairs to and replacement of aging CDC facilities.

Rapid Response for Public Health Emergencies: Establish authorities and mechanisms to quickly support emergency public health responses to help CDC save lives and money.

Business Services Funding as a Percentage of CDC's Total Budget*

Legend:
- Working Capital Fund
- All Business Services Sources
- Total CDC Budget

Chart values (percentages shown at base of bars):
FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
3.4%	3.5%	3.5%	4.1%	3.9%	3.5%	3.4%

*Dollars in millions; WCF total is operating budget only (reserves excluded); CDC budget includes mandatory, discretionary, and transfer amounts.

Key Accomplishments

- Completed organizational and leadership changes to streamline and improve service.

- Implemented the CDC's Working Capital Fund.

- Implemented major new systems for travel (Concur Government Edition), grants (GrantSolutions), and financial management (Unified Financial Management System).

- Enhanced systems and processes to reduce Freedom of Information Act request backlog.

- Enhanced communications, including a services and operations portal and intranet sites designed to meet CDC program needs.

- Enhanced IT, including the design and implementation of a high-speed research network for genomics big data, Wi-Fi access on all CDC domestic campuses, and expanded mobile device choices and use.

Attachment C: Biographies and photographs of key leaders

CDC Leadership Bios

Thomas R. Frieden, MD, MPH
Director, Centers for Disease Control and Prevention
Administrator, Agency for Toxic Substances and Disease Registry (ATSDR)

Thomas R. Frieden, MD, MPH, became Director of the Centers for Disease Control and Prevention (CDC) in June 2009. Dr. Frieden has worked to control health threats from infectious diseases, respond to emergencies, and battle the leading causes of suffering and death in our nation and around the world.

As the director of our nation's health protection agency, he is leading CDC to address these challenging health priorities.

1. **Improving health security at home and around the world** – by preparing for, detecting, rapidly responding to and preventing health threats 24/7 to save lives and safeguard communities. These include global disease threats, antimicrobial resistance, foodborne illness and health care-acquired infections.
2. **Reducing the leading causes of death and illness** – by focusing on reducing disease that sap the quality of life and longevity of Americans, including tobacco, uncontrolled blood pressure, diabetes, obesity, physical inactivity, motor vehicle safety, prescription drug overdoses, and HIV/AIDS.
3. **Strengthening public health & health care collaboration** - by aligning, coordinating and integrating public health and health care to improve health outcomes.

Dr. Frieden has intensified the agency's 24/7 work to save lives and protect people, including:
- Establishing more effective responses to outbreaks and other health threats at state, local and global levels, including the global effort to eradicate polio forever.
- Preventing infections from food and in health care facilities with new programs and guidance.
- Helping Americans to quit smoking, reducing childhood obesity, prevent diabetes, and saving teens and others lives from car crashes through focused programs.
- Extending life-saving treatment, disease prevention and infection control in more than 50 countries to save lives globally and protect Americans from health threats outside our borders.

Career Highlights
- As a CDC EIS officer disease detective from 1990-1992, Dr. Frieden conducted many epidemiologic investigations, including outbreaks of measles, typhoid, cryptosporidium, and multidrug-resistant tuberculosis.
- From 1992-1996, as a CDC assignee, he led New York City's program that rapidly controlled tuberculosis, including reducing cases of multidrug-resistant tuberculosis by 80 percent.
- While working in India for five years as a CDC assignee to the World Health Organization, he assisted with national tuberculosis control efforts. The program in India has treated more than 10 million patients and has saved more than three million lives.

- As Commissioner of the New York City Health Department from 2002-2009, he directed the city's effort that reduced the number of smokers by 350,000, and reduced teen smoking by half.
- New York City also became the first place in the United States to eliminate trans-fats from restaurants, leading more than 50 national chains to eliminate transfat from their menus, and require certain restaurants to post calorie information prominently.
- The New York City health department also established the largest community electronic health records project in the country. It became the model to expand electronic health record use across the nation.
- Immediately upon his appointment as CDC Director in 2009, Dr. Frieden led the nation's response to the 2009 H1N1 influenza virus pandemic.
- Dr. Frieden launched the first-ever national paid anti-tobacco media campaign, CDC's *Tips from Former Smokers*, projected to help more than 100,000 smokers quit, saving money and preventing tens of thousands of deaths.
- He also prioritized CDC's efforts to reduce infections in healthcare settings, cutting some life-threatening infections by a third or more.
- Dr. Frieden created CDC's *Vital Signs*, a monthly clear-language publication, pointing out today's most critical health problems, and guiding the public health community and clinical providers to actionable solutions.

A physician with training in internal medicine, infectious diseases, public health, and epidemiology, Dr. Frieden is especially known for his expertise in tuberculosis control. Dr. Frieden worked for CDC from 1990 until 2002. He began his career at CDC as an Epidemic Intelligence Service (EIS) Officer at the New York City Health Department.

Dr. Frieden speaks Spanish and graduated from Oberlin College. He received both his medical degree and master's of public health degree from Columbia University and completed infectious disease training at Yale University. He has received many awards and honors and has published more than 200 scientific articles.

Anne Schuchat, MD (RADM, USPHS)
Principal Deputy Director

Anne Schuchat, M.D. has been Principal Deputy Director for CDC since September 2015.
Dr. Schuchat began her public health career in 1988 when she came to CDC as an Epidemic Intelligence Service Officer. She was director of CDC's National Center for Immunization and Respiratory Diseases from 2006-2015. Other CDC leadership posts include: acting director of the National Center for Infectious Diseases (NCID) and the Center for Global Health; chief of the Respiratory Diseases Branch and Chief Health Officer for CDC's 2009 H1N1 pandemic influenza response. Schuchat was the initial medical director of ABCs - the Active Bacterial Core surveillance of the Emerging Infections Program Network and spearheaded prevention of newborn infection from group B streptococcal disease in the 1990s. She also served as CDC's interim deputy director for Science and Program in early 2009. She was promoted to Rear Admiral in the United States Public Health Service in 2006 and earned a second star in 2010. Schuchat was elected to the Institute of Medicine of the National Academy of Sciences in 2008.

John Auerbach, MBA
Associate Director for Policy
Deputy Director, CDC (Acting)
Director, Office for State, Tribal, Local, and Territorial Support (OSTLTS) (Acting)

John Auerbach is the associate director for policy at the Centers for Disease Control and Prevention (CDC), and the acting director of the Office for State, Tribal, Local and Territorial Support (OSTLTS). He oversees the Office of the Associate Director for Policy, which focuses on the promotion of public health and prevention as components of health care and payment reform and health system transformation. As acting director of OSTLTS, he oversees key activities and technical assistance that support the nation's health departments and the public health system.

Previously, he was a distinguished professor of practice in health sciences and director of the Institute on Urban Health Research and Practice at Northeastern University from 2012 to 2014.

Auerbach was the commissioner of public health for the Commonwealth of Massachusetts from 2007 to 2012. Under his leadership, the department developed innovative programs to address racial and ethnic disparities, promote wellness (including the Mass in Motion campaign), combat chronic disease, and support the successful implementation of the state's healthcare reform initiative.

Prior to that, Auerbach was the executive director of the Boston Public Health Commission for nine years during which health equity, emergency preparedness, and tobacco prevention became priorities. In addition to Boston's public health programs, he oversaw its emergency medical, homeless, and substance abuse services. Auerbach worked at the state health department for a decade, first as chief of staff and later as an assistant commissioner overseeing the HIV/AIDS Bureau during the early years of the epidemic.

Sherri A. Berger, MSPH
Chief Operating Officer

Sherri Berger, MSPH, became Chief Operating Officer of the Centers for Disease Control and Prevention (CDC), one of 10 major operating divisions of the Department of Health and Human Services (HHS), in August 2011. As COO, she oversees management, facilities, and operations at the Atlanta-based public health agency. She provides substantial strategic direction for CDC's 10,000 employees, 5,000 contractors, and $13 billion budget – while ensuring CDC has proper resources to fulfill its critical work to save lives and protect people from health threats.

Specifically, Berger manages CDC's budget; oversees facilities design, maintenance, security, management analysis, and safety and personnel security; leads acquisitions, contractual assistance and grants; manages information technology and security; and directs human resources strategy, training, and workplace development.

Berger's oversight and management as Chief Operating Officer has intensified CDC's business services by:
- Transitioning the agency's business services offices from a direct appropriation to the Working Capital Fund
- Consolidating the agency's financial management functions into a single Office of Financial Resources to ensure fiscal accountability, oversight, and ensure compliance with external and internal controls
- Consolidating five offices responsible for a broad portfolio of crosscutting services, including safety and security, to effectively deliver a safe, secure functional, and healthy workplace for CDC staff
- Ensuring the agency's information technology portfolio is current and state-of-the art with a customer-driven focus
- Serving as a champion for the Federal Employee Viewpoint Survey, using results to drive agency improvements to better serve CDC staff and the public they serve

Berger is a manager with extensive experience at both the program and senior leadership level. Berger worked as an epidemiologist at the community level until moving to CDC headquarters in Atlanta to serve as a principal epidemiologic investigator. As a result of her management at the program level, she was nominated to participate in the Senior Executive Service Candidate Development Program, where she expanded her career into business management. Berger has held several leadership positions at CDC, including associate director for formulation, evaluation, and analysis in CDC's Financial Management Office, deputy director of one of CDC's national centers, and director of the agency's Recovery Act Coordination Unit. Berger received her bachelor's in political science from the University of Florida and a master's of science in public health with a concentration in epidemiology from the University of South Florida.

Harold W. Jaffe, MD, MA
Associate Director for Science

Harold W. Jaffe, MD, MA, received his undergraduate degree in genetics from the University of California, Berkeley, and his medical degree from the University of California, Los Angeles. He trained in internal medicine at the UCLA Medical Center and in infectious diseases at the University of Chicago hospitals.

He served as an Epidemic Intelligence Officer at the U.S. Centers for Disease Control (CDC). In 1981, he joined a CDC task force investigating a new disease, soon to become known as AIDS. He led the first national case-control study to determine risk factors for the disease and the first natural history study of HIV. Over the next 2 decades, he served in leadership positions in CDC's expanding HIV/AIDS programs and in 2001 became Director of the National Center for HIV, STD, and TB Prevention. He also spent a sabbatical year at The Institute of Cancer Research in London, UK.

In 2004, Dr. Jaffe accepted a position as Fellow of St Cross College and Head of the Department of Public Health at the University of Oxford. At Oxford, he established a new master's degree program in Global Health Science. The course has trained more than 130 students, half of whom come from developing countries. In June 2010, he returned to CDC to become the Associate Director of Science.

Dr. Jaffe is a member of the Institute of Medicine of The National Academies, the Infectious Diseases Society of America, and has been a Fellow of the UK Faculty of Public Health. His research interests include a focus on HIV/AIDS and global health.

Leandris Liburd, PhD, MPH, MA
Director, Office of Minority Health and Health Equity (OMHHE)

Leandris Liburd, PhD, MPH, MA, is the Director of the Office of Minority Health and Health Equity at the Centers for Disease Control and Prevention (CDC). In this role, she oversees the work of CDC's Offices of Minority Health & Health Equity and Women's Health, and of Diversity & Inclusion Management. In addition, she provides agency leadership, direction, and accountability for CDC's policies and programs to ensure they are effective in improving women's and minority health. She also serves as the agency's principal advisor on health equity issues with the Department of Health and Human Services, other federal agencies, national organizations, academic institutions, and the public.

Dr. Liburd is a respected public health leader who has over the course of her career championed community health promotion, chronic disease prevention, community engagement, eliminating health disparities, and addressing the social determinants of health. She has worked in public health at the local, state, and federal levels, and has held a variety of leadership positions at CDC since joining the agency in 1987. Dr. Liburd has published extensively on community-based public health approaches to chronic disease prevention and control, the influence of culture and gender on health beliefs and behaviors, and racial and ethnic health disparities. In 2010, she published her first edited volume Diabetes and Health Disparities: Community-Based Approaches for Racial and Ethnic Populations which serves as a key resource for those interested in socio-ecological approaches to reducing diabetes disparities.

Dr. Liburd holds a Bachelor of Arts degree from the University of Michigan at Ann Arbor, a Master of Public Health in health education from the University of North Carolina at Chapel Hill, and a Master of Arts in cultural anthropology and a Doctor of Philosophy degree in medical anthropology from Emory University.

Katherine Lyon Daniel, PhD
Associate Director for Communication

Katherine Lyon Daniel, PhD, is the Centers for Disease Control and Prevention's Associate Director for Communication. She leads the agency's external and internal communication aimed at putting the best information available into the hands of people who need it to protect their health or the health of others. Dr. Daniel combines her experience in strategic communication and behavioral science to advance CDC's mission of saving lives and protecting people.

Integrated communication - When she stepped into her agency-wide role in 2011, Dr. Daniel had already identified a need for CDC's information to be available more broadly and through more channels. With the aim of developing communication that would help everyone within CDC understand how their work fits into the overall mission by creating a clear, concise summary of the agency's mission: *CDC 24/7. Saving Lives. Protecting People*. She led the integration of digital and traditional media so that agency information appears simultaneously on multiple platforms, and she folded the work of the agency's broadcast and graphics units into the overall communication strategy.

Accessible information - Under Dr. Daniel's leadership, CDC has adopted a Clear Communication Index that guides authors in developing materials that meet an agency-wide accessibility and readability standard. Earlier, as deputy director of CDC's National Center for Health Marketing, she helped accelerate the agency's eHealth movement. She supported the migration of CDC's flagship *Morbidity and Mortality Weekly Report* to electronic distribution and the inclusion of interactive features. And she continues to push the agency's adoption of health literacy, plain language, and clear communication.

Strategic communication - Throughout her CDC career, Dr. Daniel has championed the need to think ahead about what may happen next and to plan communication interventions for those events. She supported research and a proactive focus to help the agency become more effective in helping people. For example, in her early CDC career she initiated the development of the agency's parenting and pregnancy portals. These portals connect parents and others not only to the topic they first seek, but also to other topics that are part of their total health needs.

Digital media - Use of digital media has increased substantially, reaching more than 11 million people through the agency's YouTube channel, 13 blogs, 18 Facebook profiles, and 50 Twitter profiles. Dr. Daniel supports communicators throughout the agency with services that help them select and integrate the multiple channels most appropriate to their audiences and messages.

Gateways to health information - In addition to the parenting and pregnancy portals, Dr. Daniel originated CDC's Gateway to Health Communication and Social Marketing Practice. This encyclopedia for health communication and public health professionals collects communication planning resources in a single location to help support more effective outreach to populations needing reliable health information. She was a key player

in the development of CDC's national conference on Health Communication, Media, and Marketing that convenes university scholars, public health researchers, and practitioners from the government and private sectors for cross-disciplinary dialogue.

Campaigns for health behavior change - Dr. Daniel initiated the government's first communication campaign to support early autism screening. The "Learn the Signs. Act Early" campaign that has improved early identification of developmental delay and disability by engaging parents, public health and healthcare partners, so that families get the services and support they need as early as possible. She also led CDC's landmark communication campaign to increase awareness of folic acid consumption among women of child-bearing age.

Dr. Daniel earned a B.A. in Psychology from the University of Virginia, and the Ph.D. in Social Ecology from the University of California at Irvine. Her dissertation research focused on communicating long-term health risks to the US Senate. She has conducted and published research on risk perception and understanding risk behavior. She has authored or co-authored more than a dozen scientific articles. In 2010-2011, she completed the National Preparedness Leadership Initiative at Harvard University. She has received numerous professional communication awards, including two HHS Secretary's Awards for Distinguished Service, the International Academy of Arts and Sciences Questar Grand award, the MarCom Creative Gold award, and the Public Relations Society of America's prestigious Silver Anvil award.

As a mother, Dr. Daniel's aim is to empower moms—or anyone who cares for others—to be the best advocates for their families' health by putting the information they need at their fingertips. As a communication and behavioral science professional, she seeks to extend CDC's ability to promote and improve health by putting the most reliable, helpful information possible in the best places for those who need it.

Reginald R. Mebane, MS
Director, Office of Equal Employment Opportunity

Reginald R. Mebane, MS, is currently the Director of CDC's Office of Equal Employment Opportunity (OEEO). As Director, Mr. Mebane is responsible for advising and counseling CDC's executive leadership team on a variety of equal employment opportunity, diversity management, civil rights and human resources issues impacting the agency's complex and diverse global workforce. His key responsibilities include but are not limited to matters related to Affirmative Employment(AEP), Disability, Reasonable Accommodation(RA), Alternative Dispute Resolution(ADR), Special Emphasis Programs(SEP), and EEO Complaints Processing and Settlements for all CDC centers, institutes and offices. He is also responsible for the design and direction of programs, policies and procedures based on the Equal Employment Opportunity Commission's(EEOC) rules, regulations, laws and Executive Orders governing equal opportunity, diversity management, civil rights, and human resources that further ensure prevention of individual and systematic discrimination across the enterprise. As the agency's EEO Director, he is the officer with direct liaison responsibility to the EEOC, Health and Human Services (HHS), Office of General Counsel (OGC) and all other respective internal and external customers and stakeholders regarding employment and civil rights regulatory matters. "Our overarching strategy is to make CDC a world class model EEO program."

Mr. Mebane joined CDC in February 2005 as Chief Management Officer of CDC's Coordinating Center for Infectious Diseases (CCID). In this role, he had direct authority for the management of the estimated $4.0B CCID budget which included business operations, human capital, information technology, grants, facilities, and administrative services for the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention; National Center for Immunization and Respiratory Diseases; National Center for Preparedness, Detection, and Control of Infectious Diseases; and National Center for Zoonotic, Vector-Borne and Enteric Diseases. Under his leadership, CCID grew in size and scope to $7B, comprising over half the agency's programs, assets, people and EEO activities.

Prior to working at CDC, Mr. Mebane spent over 23 years at FedEx. After starting his career with the company in 1981, Mr. Mebane was promoted from dock worker, to manager, to the Director of International Operations. In 2001, Mr. Mebane moved to Buffalo, New York, to become the Chief Operating Officer for a $2.0B company that FedEx acquired. In addition to his management duties at FedEx, Mr. Mebane was the corporate lead for the Diversity training curriculum for the corporation from 1995 to 1997 where he became part of the critically acclaimed Fed Ex Leadership Institute. While there he taught leadership, diversity and management practices to FedEx employees from around the world.

Outside of his corporate work, Mr. Mebane has served on the faculty of the University of Memphis, the University of Buffalo and Georgia Tech. He also worked as a psychotherapist and psychiatric case manager in Memphis during the national crises associated with homelessness and the de-institutionalization of the severely mentally ill. As a result of this experience, he was inspired to later become Chairman of the Memphis Health,

Education & Housing Finance Facility Board (1994-2001). The restructuring of this board under his chairmanship is his legacy to Memphis in making housing affordable and sustainable for moderate income families.

Since joining CDC, Mr. Mebane has been very active in serving others and the community as a proud graduate of Leadership Atlanta, CDC's Speakers Bureau and the Office of Equal Employment Opportunity's (OEEO) monthly mentoring circles in addition to serving on the board of directors for Georgia's Visiting Nurse Association and Sisters of Mercy Health System headquartered in St. Louis.

Steve Monroe, PhD
Associate Director for Laboratory Science and Safety

Steve Monroe, PhD, is the Associate Director for Laboratory Science and Safety (ADLSS) at the Centers for Disease Control and Prevention (CDC). He oversees the Office of the Associate Director for Laboratory Science and Safety (OADLSS) which provides high-level oversight and coordination of critical laboratory policies and operations, particularly those associated with laboratory safety and quality management programs at all CDC campuses.

He was the Deputy Director of the National Center for Emerging and Zoonotic Infectious Diseases. He previously served as director of the Division of High-Consequence Pathogens and Pathology at the National Center for Zoonotic, Vector-borne, and Enteric Diseases, and before then he was director of the Division of Viral and Rickettsial Diseases.

Dr. Monroe began his career at CDC in 1987 as a National Research Council fellow in the Viral Gastroenteritis Section in DVRD. He spent the next 17 years studying the biology and molecular epidemiology of enteric viruses, particularly astrovirus and norovirus. He was instrumental in defining the properties that led to the formal classification of astroviruses as a new virus family and served as chair of the first Astroviridae Study Group of the International Committee on Taxonomy of Viruses. Dr. Monroe pushed the development and implementation of real-time polymerase chain reaction (RT-PCR) assays for detecting and characterizing noroviruses and provided formal and informal hands-on training to numerous collaborators in state health department laboratories. In 1998, he received the Pekka Halonen Award in diagnostic virology.

Dr. Monroe received a PhD in molecular biology from Washington University in St. Louis and a bachelor of science degree in biochemistry from Iowa State University. He completed a post-doctoral fellowship in virology at the University of Wisconsin prior to moving to CDC. Dr. Monroe has been the co-author of more than 130 scientific manuscripts and book chapters and co-author of more than 130 scientific manuscripts and holds two patents.

Dena S. Morris, MPP
Director, CDC Washington Office

Dena Morris is the Director of the CDC Washington Office (CDCW), which serves as a critical link between CDC and the Washington policy community. CDCW translates CDC's critical work to Members of Congress and identifies opportunities for CDC to engage in important public health policy developments on Capitol Hill. Dena's extensive experience on Capitol Hill provides a strong foundation to guide CDC's legislative strategy and strengthen the bridges between the agency and Congress, the Administration, and Washington-based public health partners. For eight years, Dena served as legislative director for a senior member of Senate leadership. In addition to helping guide major US policy issues, Dena played a key role in public health issues such as food safety, pandemic influenza, smoking cessation, and childhood obesity. Before working in the Senate, Dena was senior vice president of FaegreBD, a Washington-based consulting firm where she helped strengthen relationships between non-profit organizations and Congress.

Dena has a bachelor's degree from Indiana University in political science, and a master's degree in public policy from Georgetown University's Graduate Public Policy Institute.

Carmen Villar, MSW
Chief of Staff

Carmen Villar is Chief of Staff for the Centers for Disease Control and Prevention (CDC) and is responsible for managing day-to-day operations of the Office of the Director. She resolves issues that cross organizational lines, coordinates decision-making processes, and ensures that CDC focuses on its highest priority initiatives. She has exemplary expertise in public health management and makes a visible impact on staff morale throughout the agency.

Before becoming Chief of Staff in 2010, Ms. Villar was Deputy Director of CDC's Nigeria office. In this capacity, Ms. Villar served as the principal advisor to the Country Director on policy and program development. She oversaw the management and operations of the approximately $200 million portfolio of public health activities including The President's Emergency Plan for AIDS Relief (PEPFAR); avian influenza surveillance; and the Field Epidemiology and Laboratory Training Program. As a member of the USG interagency senior management team, Ms. Villar exercised strategic planning and diplomatic skills that increased collaboration and coordination with the government of Nigeria and improved public health across the country.

Prior to joining the CDC-Nigeria team, Ms. Villar served as both Acting Director and Deputy Director for the CDC-Zambia program. She has a strong passion for global health and frequently shares fond memories and lessons learned from her 5 years serving abroad for CDC's Division of Global HIV/AIDS.

Before moving overseas, Ms. Villar served as Acting Deputy Director for Management and Operations (DDMO) for CDC's Division of HIV/AIDS Prevention (DHAP), where she oversaw the administration and management of a $630 million budget, nearly 400 cooperative agreements, and 700 staff. Her experience in managing and guiding research, program, HIV prevention community planning, and capacity building activities in various positions throughout DHAP and the Bioterrorism Preparedness and Response Program refined her management skills and prepared her for senior leadership roles both domestically and internationally.

Ms. Villar joined CDC in 1997 as a Presidential Management Intern, where she completed policy rotations in the National Center for HIV, STD, and TB Prevention, the Division of Cancer Prevention and Control, the Financial Management Office, and the Health Resources and Services Administration's HIV/AIDS Bureau. Ms. Villar's interest in HIV/AIDS and government was apparent early on in her career. Prior to joining the federal government, she gained policy experience working for the California State Assembly and as the Government Affairs Coordinator for the AIDS Healthcare Foundation in Los Angeles. Ms. Villar completed both her Bachelor of Arts in anthropology and Master of Social Welfare at the University of California at Berkeley.

She has received numerous awards in recognition of her work in government including the HHS Secretary's Award for Distinguished Service and the State Department's Meritorious Honor Award.

John Howard, MD, MPH, JD, LLM
Director, National Institute for Occupational Safety and Health (NIOSH)

John Howard, MD, MPH, JD, LLM serves as the Director of the National Institute for Occupational Safety and Health and the Administrator of the World Trade Center Health Program the U.S. Department of Health and Human Services in Washington, D.C. He first served as NIOSH director from 2002 through 2008, and again from 2009 to the present. In 2015, Dr. Howard was re-appointed to an unprecedented third six-year term by Dr. Thomas Frieden, the Director of the Centers for Disease Control and Prevention.

Prior to his appointment as Director of NIOSH, Dr. Howard served as Chief of the Division of Occupational Safety and Health in the California Department of Industrial Relations, Labor and Workforce Development Agency, from 1991 through 2002.

Dr. Howard received his Doctor of Medicine from Loyola University of Chicago, his Master of Public Health from the Harvard School of Public Health, his Doctor of Law from the University of California at Los Angeles, and his Master of Law in Administrative Law and his Master of Business Administration in Healthcare Management from the George Washington University in Washington, D.C.

Dr. Howard is board-certified in internal medicine and occupational medicine. He is admitted to the practice of medicine and law in the State of California and in the District of Columbia, and he is a member U.S. Supreme Court bar. He has written numerous articles on occupational health law and policy and serves as a professorial lecturer in environmental and occupational health in the Milken Institute School of Public Health at The George Washington University in Washington, D.C.

Rebecca Martin, PhD
Director, Center for Global Health (CGH)

Rebecca Martin, PhD, is the Director of the Center for Global Health (CGH) at the US Centers for Disease Control and Prevention (CDC). Since 2012, Dr. Martin has served as the Director for the Global Immunization Division, in CGH, which leads CDC's global polio eradication efforts, accelerated disease control for vaccine-preventable diseases, introduction of new and underutilized vaccines, and the strengthening of immunization systems. Dr. Martin began her career with CDC in 1997 in the National Immunization Program, Epidemiology and Surveillance Division, and has held positions both domestically and globally in immunization and HIV/AIDS. Prior to joining CDC, Rebecca worked at the Maryland Department of Hygiene and Mental Health in Baltimore Maryland as the immunization program epidemiologist leading efforts to increase vaccination coverage, conducting outbreak investigations, coordinating the development and introduction of Maryland's immunization registry, and supporting the state's Vaccines for Children Program. She also has worked at the Montgomery County Health Department in Maryland in HIV/AIDS programs for high-risk populations. Since 1991, Dr. Martin has worked in the global health arena in Haiti, and has had CDC assignments in Kenya, Tanzania, and Denmark (2002-2011). Over the past 15 years, she has collaborated with multilateral organizations, including the World Health Organization (WHO) and UNICEF, and development partners, and has worked closely with ministries of health and non-governmental organizations.

Prior to her current position as director of GID, Rebecca was detailed to the WHO European Regional Office as the Regional Advisor for Immunization (2008-2011) for its 53 member states, where she spearheaded regional efforts to strengthen immunization and surveillance systems, provide evidence for the introduction of new vaccines, achieve the goal of measles and rubella elimination, and maintain the region's polio-free status. From 2006-2008, Dr. Martin served as Program Director for Strategic Information and Human Resources for Health with the CDC Country Office in Tanzania. She led and implemented studies, in partnership with the ministry of health, to measure and evaluate the HIV/AIDS epidemic and strengthen national capacity. Rebecca was detailed to the WHO African Regional Office from 2002-2006, based in Kenya as the senior epidemiologist in the inter-country immunization program office for the eight east African countries; she served as the team lead from 2005-2006.

She received her Doctorate of Philosophy from the Johns Hopkins Bloomberg School of Public Health in international health and infectious disease epidemiology, conducting her research in Haiti on high-titer measles vaccines. Dr. Martin serves as a technical advisor on global advisory groups to WHO and GAVI Alliance. She has co-authored manuscripts and global guidelines on immunization strategies, vaccine-preventable diseases and surveillance methods.

Stephen C. Redd, MD, (RADM, USPHS)
Director, Office of Public Health Preparedness and Response (OPHPR)

Stephen Redd, MD (RADM, USPHS), is the Director of the Office of Public Health Preparedness and Response (PHPR) at the Centers for Disease Control and Prevention (CDC). This office is responsible for all of CDC's public health preparedness and response activities.

Before coming to PHPR, Dr. Redd served as director of CDC's Influenza Coordination Unit. During the H1N1 pandemic, he served as Incident Commander for the nearly year-long response.

A Rear Admiral and Assistant Surgeon General in the United States Public Health Service, Dr. Redd has served 29 years as a Commissioned Officer. He has investigated outbreaks such as Legionnaires' Disease, developed strategies to control malaria, and worked to eliminate measles in the US. A graduate of Princeton and Emory universities, he received his medical degree with honors and trained in medicine at Johns Hopkins. Rear Admiral Redd has authored more than 120 scientific publications and received numerous awards, including the Public Health Service Distinguished Service Medal and the Meritorious Service Medal.

Robin M. Ikeda, MD, MPH (RADM, USPHS)
Deputy Director, CDC
Director, Office of Noncommunicable Diseases, Injury and Environmental Health (ONDIEH)

Robin M. Ikeda, MD, MPH, (RADM, USPHS), is the Director for the Office of Noncommunicable Diseases, Injury and Environmental Health (ONDIEH). In this position, she is responsible for providing guidance and leadership to the CDC's scientific and programmatic portfolios. Previously, she served as Acting Director for the National Center for Injury Prevention and Control (NCIPC) from January to November 2010, while also serving as Deputy Director.

Prior to these appointments, from April 2006 to September 2009, Dr. Ikeda served as NCIPC's Associate Director for Science. From 2003 to 2006, she held the position as Associate Director for Science within CDC's Epidemiology Program Office and the Office of Workforce and Career Development. During 1993 – 2006, she held a range of positions within NCIPC, including Team Leader and staff epidemiologist, and worked on a number of injury prevention issues including youth violence, suicide, and motor-vehicle related crashes. She began her career at CDC as an Epidemic Intelligence Service Officer assigned to the Bureau of Communicable Disease Control at the New York State Department of Health.

Dr. Ikeda holds a B.A. from Stanford University, a M.D. from Cornell University Medical College, and a M.P.H. (Epidemiology) from the Emory University Rollins School of Public Health. She is board-certified in both Internal Medicine and Preventive Medicine and holds the rank of Rear Admiral in the United States Public Health Service.

Coleen A. Boyle, PhD, MSHyg
Director, National Center on Birth Defects and Developmental Disabilities (NCBDDD)

Coleen Boyle serves as Director of the National Center on Birth Defects and Developmental Disabilities (NCBDDD) at CDC. Dr. Boyle began her career at CDC in 1984 as part of a large effort to study the adverse health effects of exposure to Agent Orange, a herbicide used during the Vietnam War. Following that project, Dr. Boyle joined CDC's work in birth defects and developmental disabilities holding various positions of increasing responsibility until her appoint as Center Director in 2010.

Dr. Boyle's interest and expertise span a number of areas related to child health and development. She directed a major public health response on cochlear implants and risk of meningitis, resulting in the product recall of particular implant device. She contributed widely to the field of newborn screening guiding CDC's work in newborn hearing and congenital heart disorder screening and has served on the HHS Secretary's Advisory committee on Heritable Disorders in Newborn and Children. She has lead the development of CDC's autism research and surveillance activities that have documented the changing prevalence of autism in the United States.

Dr. Boyle has twice received CDC's highest award for scientific excellence, the Charles C. Shepard Award for outstanding scientific publication and has authored or co-authored many peer-reviewed and other scientific publications.

Ursula E. Bauer, PhD, MPH
Director, National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)

Ursula Bauer, PhD, MPH, is the director of the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), a position she assumed on January 4, 2010. Prior to becoming director of NCCDPHP, Dr. Bauer held various chronic disease prevention leadership positions at the New York State Department of Health, the Florida Department of Health, and the Louisiana Office of Public Health, where she was stationed as an Epidemic Intelligence Service Officer.

As NCCDPHP Director, Dr. Bauer sets the strategic direction for the center's portfolio, focused on surveillance and epidemiology to move data into action; policy and environmental improvements to support health and healthful behaviors; health care system collaboration to strengthen effective delivery of clinical and other preventive services; and links between community and clinic to improve self-management of chronic conditions and enhance quality of life. Together, these strategies drive improvements in health status, including reductions in morbidity, mortality and health care costs related to heart disease, cancer, stroke, diabetes, tobacco use, obesity and many other conditions and risk factors.

NCCDPHP has an annual budget of about $1.2 billion and more than 1,000 staff dedicated to preventing chronic diseases and promoting health across the life span, in key settings, and with attention to the primary chronic disease risk factors. Under Dr. Bauer's leadership, the center takes a coordinated, collaborative approach to investing its resources, working across divisions and programs and with grantees and partners to offer a more seamless, mutually reinforcing approach to advancing population health.

Dr. Bauer received a PhD in epidemiology from Yale University, an MPH in family health from Columbia University, and a master's degree in political science from Rutgers University.

Pat Breysse, PhD
Director, National Center for Environmental Health (NCEH)/Agency for Toxic Substances and Disease Registry (ATSDR)

Pat Breysse, PhD, joined CDC in December 2014 as the Director of NCEH/ATSDR. Dr. Breysse leads CDC's efforts to investigate the relationship between environmental factors and health. He came to CDC from the Johns Hopkins University where he served as Associate Chair for Educational Programs within the Department of Environmental Health Sciences, Program Director for the Industrial Hygiene Training Program, and co-director of the Johns Hopkins Center for Childhood Asthma in the Urban Environment.

During his 30 years at Johns Hopkins, Dr. Breysse established a long-standing expertise in environmental health as well as a strong record as a leader in the field. He has published over 200 peer-reviewed journal articles and has presented at more than 25 scientific meetings in just the past 5 years. His research has focused on the evaluation and control of chemical, biological, and physical factors that can affect health, with a particular concentration on risk and exposure assessment.

Dr. Breysse received his PhD in Environmental Health Engineering from Johns Hopkins University in 1985 and completed postdoctoral training at the British Institute for Occupational Medicine in Edinburgh, Scotland. He is also a board certified Industrial Hygienist and an editorial review board member for the Journal of Exposure Science and Environmental Epidemiology.

Debra Houry, MD, MPH
Director, National Center for Injury Prevention and Control (NCIPC)

Debra Houry, MD, MPH, is the Director of the National Center for Injury Prevention and Control (NCIPC) at CDC. In this role, Dr. Houry leads innovative research and science-based programs to prevent injuries and violence and to reduce their consequences. She joined the CDC in October 2014. She has previously served as Vice-Chair and Associate Professor in the Department of Emergency Medicine at Emory University School of Medicine and as Associate Professor in the Departments of Behavioral Science and Health Education and in Environmental Health at the Rollins School of Public Health. Dr. Houry also served as an Attending Physician at Emory University Hospital and Grady Memorial Hospital and as the Director of Emory Center for Injury Control. Her prior research has focused on injury and violence prevention in addition to the interface between emergency medicine and public health, and the utility of preventative health interventions and screening for high-risk health behaviors. She has received several national awards for her work in the field of injury and violence prevention.

Dr. Houry received the first Linda Saltzman Memorial Intimate Partner Violence Researcher Award from the Institute on Violence, Abuse, and Trauma and the Academy of Women in Academic Emergency Medicine's Researcher Award. She is past president of the Society for Academic Emergency Medicine, the Society for Advancement of Violence and Injury Research, and Emory University Senate. Dr. Houry has served on numerous other boards and committees within the field of injury and violence prevention. She has authored more than 90 peer-reviewed publications and book chapters on injury prevention and violence. Dr. Houry received her MD and MPH degrees from Tulane University and completed her residency training in emergency medicine at Denver Health Medical Center.

Rima Khabbaz, MD
Deputy Director, CDC
Director, Office of Infectious Diseases (OID)

Rima Khabbaz, MD, is the CDC Deputy Director for Infectious Diseases and the Director of the Office of Infectious Diseases (OID). As such, she provides leadership to the efforts of CDC's infectious disease national centers and helps to advance the Agency's cross-cutting infectious disease priorities including the integration of advanced molecular detection (AMD) technologies into public health.

Previous CDC positions include acting director of the National Center for Immunization and Respiratory Diseases (NCIRD), acting director of the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), director of the National Center for Preparedness, Detection, and Control of Infectious Diseases (NCPDCID); director, acting deputy director, and associate director for epidemiologic science in the National Center for Infectious Diseases (NCID); and deputy director and associate director for science in the Division of Viral and Rickettsial Diseases (DVRD).

Her first job at CDC was an Epidemic Intelligence Service (EIS) Officer in NCID's Hospital Infections Program. She later served as a medical epidemiologist in NCID's Retrovirus Diseases Branch, where she made major contributions to defining the epidemiology of the non-HIV retroviruses, specifically human T lymphotropic viruses (HTLV) I and II, in the United States and to developing guidance for counseling HTLV–infected persons. Following the hantavirus pulmonary syndrome outbreak in the southwestern United States in 1993, she led CDC's efforts to set up national surveillance for this syndrome. She also played a key role in developing and coordinating CDC's blood safety and food safety programs related to viral diseases.
She has served in leadership positions during many of CDC's responses to outbreaks of new and/or reemerging infections, including Nipah, Ebola, West Nile virus, SARS, and monkeypox, and she led the CDC field team to the nation's capital during the public health response to the anthrax attacks of 2001.

Dr. Khabbaz is a graduate of the American University of Beirut in Lebanon, where she obtained both her bachelor's degree in science (biology/chemistry) and her medical doctorate degree. She trained in internal medicine and completed a fellowship in infectious diseases at the University of Maryland in Baltimore. In addition to her CDC position, she serves as clinical adjunct professor of medicine (infectious diseases) at Emory University.

Dr. Khabbaz is a fellow of the Infectious Diseases Society of America (IDSA), a member of the American Epidemiological Society, and a member of the American Society for Microbiology and of the American Society for Tropical Medicine and Hygiene. She is a graduate of the Public Health Leadership Institute at the University of North Carolina and the National Preparedness Leadership Initiative at Harvard University. She served on IDSA's Annual Meeting Scientific Program Committee and serves on the society's Public Health Committee. She also is a member of the Institute of Medicine's Forum on Microbial Threats.

Nancy Messonnier, MD (CAPT, USPHS)
Director, National Center for Immunization and Respiratory Diseases (NCIRD)

Dr. Nancy Messonnier (CAPT, USPHS) is the Director for the National Center for Immunization and Respiratory Diseases (NCIRD). Since beginning her public health career in 1995 as an Epidemic Intelligence Service Officer in the National Center for Infectious Diseases (NCID), Dr. Messonnier has held a number of leadership posts across CDC and within NCIRD. She brings strong management and leadership skills, commitment to staff mentoring and development, and a passion for immunization and infectious disease prevention.

Dr. Messonnier has played critical roles in several successful public health initiatives including the vaccination of millions of people living in the African Meningitis Belt with MenAfriVac; serving on anthrax response teams during the 2001 intentional anthrax release; leading the evaluation of an anthrax vaccine and post-exposure antibiotic; overseeing a family of studies exploring resurgence of pertussis; championing for prevention and control of bacterial meningitis in the U.S; and providing vital leadership to CDC's cross-cutting laboratory, global health, and surveillance initiatives. She has written more than 140 articles and chapters and received numerous awards.

Dr. Messonnier received her BA from the University of Pennsylvania and MD from the University of Chicago School of Medicine. She completed internal medicine residency training at the University of Pennsylvania.

Beth P. Bell, MD, MPH
Director, National Center for Emerging and Zoonotic Infectious Diseases (NCEZID)

Beth P. Bell, MD, MPH, is the director of the National Center for Emerging and Zoonotic Infectious Diseases (NCEZID). She provides leadership for the prevention and control of a broad spectrum of infectious diseases, including rare but deadly diseases like Ebola and anthrax, and more common conditions like foodborne diseases and healthcare-associated and antibiotic-resistant infections. In addition, Dr. Bell provides oversight for a diverse portfolio of science-based programs that promote water safety, global health and the health of migrating populations, and the identification and control of diseases transmitted by animals and insects. She is responsible for providing leadership and direction for NCEZID's world-class laboratories, which are developing new tests, vaccines, and, since the 2014 launch of Advanced Molecular Detection, next-generation sequencing to enable faster diagnosis and more effective prevention and control of infectious diseases.

Since Dr. Bell assumed the position in 2010, she has led NCEZID's response to several major infectious disease threats, including the largest Ebola epidemic in history affecting multiple countries in West Africa, chikungunya spreading throughout the Americas, a multistate outbreak of fungal meningitis that exposed thousands of patients who had received contaminated steroid injections, the second-largest outbreak of West Nile virus disease in the United States, the worst cholera outbreak in recent history that caused more than 8,000 deaths in Haiti, and dozens of outbreaks of foodborne disease that occur each year.

Throughout her tenure at CDC, Dr. Bell has worked in multiple roles requiring medical, public health, scientific, and management expertise. She joined CDC in 1992 as an Epidemic Intelligence Service officer assigned to the Washington State Department of Health, where she was the lead officer in the seminal investigation of *Escherichia coli* O157:H7 infections from contaminated hamburgers. She joined the Hepatitis Branch in the Division of Viral and Rickettsial Diseases and later served as chief of the Epidemiology Branch in the Division of Viral Hepatitis. She then moved on to several center leadership positions, serving as the associate director for epidemiologic science, acting deputy director, and acting director at the National Center for Immunization and Respiratory Diseases. Dr. Bell has made numerous contributions in the epidemiology and prevention of viral hepatitis and also held leadership roles during CDC responses to the 2001 anthrax attacks, Hurricane Katrina, and the 2009 H1N1 influenza pandemic. The author/co-author of more than 135 scientific publications, Dr. Bell has received many awards for her work, including the Alexander Langmuir Prize and the Iain Hardy Award.

Dr. Bell received a BA from Brown University, an MD from Yale University, and an MPH from the University of Rochester School of Medicine. She is a Fellow of the Infectious Diseases Society of America, the American Academy of Family Medicine, and the American Academy of Preventive Medicine.

Jonathan Mermin, MD, MPH (RADM, USPHS)
Director, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP)

Jonathan Mermin, MD, MPH (RADM, USPHS), is the Director of the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP).

From 2009-2013, Dr. Mermin served as Director of the Division of HIV/AIDS Prevention, NCHHSTP. Under his leadership, the Division spearheaded a new approach to HIV prevention, called High Impact Prevention, that aligned funding with epidemiology and ensured program and research activities had the greatest effect on reducing incidence and improving health equity. Dr. Mermin also served as Director of CDC-Kenya and HHS Public Health Attaché for the U.S. Embassy from 2006-2009, where he oversaw CDC's largest country office, implementing programs and research involving a broad range of infectious diseases, including HIV, malaria, tuberculosis, and emerging infections. From 1999-2006, he was Director of CDC-Uganda where he oversaw CDC's HIV prevention and care programs, including implementation of the first antiretroviral treatment program funded by CDC outside of the United States, and the development of a basic care package that was incorporated into PEPFAR and World Health Organization guidelines.

Dr. Mermin began his career at CDC in 1995 as an EIS officer with the Foodborne and Diarrheal Diseases Branch. He completed an internal medicine residency at San Francisco General Hospital and a preventive medicine residency at CDC and the California Department of Health Services. He is a graduate of Harvard College and Stanford University School of Medicine, and received his MPH from Emory University. He has co-authored more than 150 scientific articles. He currently serves as an Adjunct Professor at Emory University School of Public Health.

Chesley Richards, MD, MPH, FACP
Deputy Director, CDC
Director, Office of Public Health Scientific Services

In these two roles, Dr. Richards is a key advisor to the CDC Director and oversees the National Center for Health Statistics (NCHS) and the Center for Surveillance, Epidemiology and Laboratory Services (CSELS) with activities that include the MMWR, Vital Signs publications, the Epidemic Intelligence Service and other scientific training programs, the Guide to Community Preventive Services, and a broad range of cross cutting epidemiology, public health surveillance, and laboratory services.

Dr. Richards earned his M.D. from the Medical University of South Carolina, an M.P.H. in Health Policy and Administration from University of North Carolina at Chapel Hill and is a graduate of the Epidemic Intelligence Service (EIS) at CDC, the Cancer Control Education Fellowship at UNC Lineberger Cancer Center and the Program on Clinical Effectiveness at Harvard School of Public Health. He completed Internal Medicine (Medical College of Georgia), Geriatric Medicine (Emory University) and General Preventive Medicine and Public Health (UNC Chapel Hill).

Michael F. Iademarco, MD, MPH (CAPT, USPHS)
Director, Center for Surveillance, Epidemiology, and Laboratory Services (CSELS)

Dr. Michael Iademarco is Director of the Center for Surveillance, Epidemiology, and Laboratory Services (CSELS) at the U.S. Centers for Disease Control and Prevention (CDC). His expertise as a physician-scientist and laboratorian provides a strong foundation to lead CDC's efforts to track America's health, strengthen laboratory networks, and help public health officials identify urgent health threats.

CSELS provides scientific service, expertise, skills, and tools in support of CDC's mission. CSELS contains many of CDC's core scientific services and products, including the *Morbidity and Mortality Weekly Report (MMWR), The Community Guide*, Epi Info™, the Epidemic Intelligence Service, the CDC Learning Connection, Stephen B. Thacker CDC Library, and crucial national disease surveillance systems.

Prior to this appointment, Dr. Iademarco served as Laboratory Branch Chief of CDC's Division of Tuberculosis Elimination, where he oversaw clinical laboratory referral services and helped strengthen laboratory capacity building. From 2006 to 2010, he was the Department of Health and Human Services Health Attaché at the U.S. Mission in Vietnam, where he coordinated U.S. health activities for the Embassy and was the in-country representative for the Office of the Secretary. In 2011, Dr. Iademarco was awarded a Government of Vietnam medal by the country's prime minister in part for his work against HIV/AIDS. In addition, he served as Associate Director for Science for the Division of Tuberculosis Elimination, where he oversaw the issuance of major TB guidelines.

Dr. Iademarco obtained his undergraduate degree from Franklin & Marshall College, medical degree from the University of Virginia, and master's degree in public health from Saint Louis University. He trained clinically and in research at Temple University Hospital in internal medicine and Barnes-Jewish Hospital in pulmonary medicine. Prior to joining CDC, he was a faculty member of Washington University in St. Louis. Currently, he is an adjunct faculty member of Emory University and serves as an attending physician at the Atlanta Veterans Administration Medical Center Medical Intensive Care Unit.

Charles J. Rothwell, MBA, MS
Director, National Center for Health Statistics (NCHS)

Charles J. Rothwell, MBA, MS, serves as the director for the National Center for Health Statistics (NCHS). He came to Federal government service in 1987 as Associate Director of NCHS responsible for IT and information services of the Center. In 2003, he became the Director of the Division of Vital Statistics.

Before entering Federal service, Mr. Rothwell spent thirteen years in the State Health Department in North Carolina and while there developed the position and became the first director of the State Center for Health Statistics. He was responsible for health statistics, public health IT and statewide public health planning activities, and served as an adjunct assistant professor of biostatistics at the University of North Carolina, School of Public Health, and the University of North Carolina, Health Services Research Center.

Over the years he has been an advisor to the Agency for the International Development (AID) and the United Nations (U.N.) for automating Peru's national statistical activities; served as a member of a U.S. multi-disciplinary scientific team providing on-site consultative services to East Germany, and U.S. representative to a U.N. technical advisory committee that helped develop electronic data transmission standards between countries, U.N. affiliates and the U.N. He was a past member of the Robert Wood Johnson Advisory Committee on Information Technology for state governments. He helped to develop the National Science Foundation's (NSF) digital government initiative to build partnerships between computer science academia and non-defense federal agencies and was a member of the IT Board of National Institute of Standards and Technology (NIST) Advanced Technology Program and NSF Computer Science Large Systems selection committee.

He also served on a peer review team for the Library of Congress for their National Digital Information Infrastructure and Preservation Program (NDIIPP). For a change of pace he also served as a legislative assistant for Senator Lieberman, working primarily on bipartisan health care reform legislation and as the lead legislative staffer on education issues.

Mr. Rothwell served as an officer in the U.S. Marine Corps, reaching the rank of captain. He attended the Virginia Military Institute in Lexington, Virginia, majoring in physics, minor in mathematics and received a bachelor of science. He received his master of science in operations research and systems analysis, from the University of North Carolina at Chapel Hill, North Carolina, and his master of business administration from the University of Maryland, College Park, Maryland.

Attachment D: CDC Strategic Guidance Framework

Centers for Disease Control and Prevention's Strategic Framework FY 2016–FY 2020

CDC works 24/7 to protect the health, safety, and security of Americans. CDC fights disease whether it starts at home or abroad, is infectious or not, occurs naturally, by accident, or from a deliberate attack. CDC promotes the health and well-being of Americans of all ages—doing all it can to prevent infections, injuries, and illnesses from ever occurring.

CDC protects the nation and the world by:

- Detecting, responding to, and stopping new and emerging health threats.
- Preventing injuries, illnesses, and premature deaths.
- Discovering new ways to protect and improve the public's health through science and advanced technology.

With an annual budget of more than $13 billion and more than 15,000 staff, CDC supports communities throughout the U.S. and protects Americans by working in more than 60 countries around the world. Almost 85% of CDC's domestic funding is provided directly to state and local entities to detect and control disease, prevent the leading causes of death, and prepare for health threats.

Strategic Priority #1: Improve health security at home and around the world.

CDC's expertise in preparedness, rapid detection, and response saves lives and safeguards communities from health threats. We are employing faster, more advanced ways to find, stop, and prevent infectious disease outbreaks here and abroad. The spread of infectious diseases in the U.S. not only causes suffering and death, it also has a substantial impact on healthcare costs and our economy. Foodborne illnesses alone account for roughly 48 million illnesses and more than $15.5 billion in costs per year. About 2 million people become infected with antibiotic-resistant bacteria each year, and roughly 23,000 die of these infections. And each year, 75,000 Americans with healthcare-associated infections die while hospitalized. Building a skilled workforce, using proven intervention strategies, and strengthening laboratory networks across the U.S. and throughout the world provide the strong systems needed to protect the public's health.

Increase access to high-quality laboratory testing, including the use of advanced molecular detection (AMD) technologies.

- By employing new, cutting-edge AMD technologies in CDC and partner laboratories across the country and around the world, we now have the ability to more quickly detect, identify, and respond to emerging and antibiotic-resistant infectious disease outbreaks.

- As technologies advance, CDC continues to help state and local laboratories—which are at the frontlines in preparing for and responding to health threats—to implement modern, high-quality testing for infectious diseases.
- CDC's Environmental Health Laboratory provides service, standardization, and quality assurance to laboratories testing for newborn disorders, life-threatening diseases, nutrition status, and environmental exposures.
- CDC's laboratories serve as global reference centers solving new disease mysteries and preparing for annual influenza vaccines. CDC has 23 programs designated as WHO global collaborating centers, providing our expertise and capabilities to protect Americans at home from threats abroad.

Enhance Global Health Security by building and sustaining capacity to detect and respond to disease threats such as polio, influenza, Ebola, the Middle East Respiratory Syndrome (MERS) virus, and insect-borne threats such as the Zika virus.

We are accelerating progress toward a world safe and secure from infectious disease threats and promoting global health security by increasing countries' capacity to:

- **Prevent** and reduce the likelihood of outbreaks—natural, accidental, or intentional.
- **Detect** threats early to save lives.
- **Respond** rapidly and effectively using multisector, international coordination and communication.

Enhance state and local abilities to prevent, detect, and respond to health threats.

- CDC supports state and local preparedness systems to increase molecular diagnostic testing capacity.
- CDC's select agent registry keeps Americans safer by tracking possession and use of pathogenic and toxic agents to prevent accidental or intentional misuse.
- By developing new tools such as the medical countermeasure operational readiness review, we make sure states can rapidly dispense medicines to reduce disease and death during a crisis.

- Our National Syndromic Surveillance Program (NSSP)—a partnership among local, state, and national public health programs—enables partners to detect and characterize disease outbreaks, other hazardous events, or conditions of public health concern to strengthen regional and national situational awareness.
- CDC supports state and local rapid, population-based surveillance of microcephaly and other adverse outcomes possibly linked to Zika virus infection.

Some recent strategic priority accomplishments:

- The 2014–2016 Ebola epidemic in West Africa demonstrated the importance of readiness and remaining prepared for Ebola and other health threats to the United States. More than 4,000 CDC staff protected people in the U.S. and helped stop the spread of Ebola in Guinea, Sierra Leone, and Liberia through surveillance, contact tracing, laboratory testing, community engagement, infection prevention and control, and vaccine evaluation. CDC's field laboratory in Bo, Sierra Leone, operated for 421 days in a row, testing more than 27,000 specimens. At the height of the response, more than 200 CDC staff worked in the field in West Africa and 400 staff worked on Ebola at CDC's Atlanta headquarters. CDC investments in health infrastructure also prevented widespread transmission in other West African countries. For example, the substantial investment for polio eradication programs in Nigeria ensured that responders there were prepared for Ebola, enabling Lagos to rapidly stop its outbreak. If Ebola had not been stopped in Lagos, it likely would have spread for months or years to other parts of Nigeria and Africa, killing hundreds of thousands of people and setting back a decade of progress in saving lives.
- CDC also played a critical role protecting the United States from Ebola by aiding state and local health departments in their preparedness activities. Together with international, federal, and state partners, CDC established airport risk assessments for travelers leaving affected countries and entering the U.S., monitored travelers and other potentially exposed persons for 21 days, and helped hospitals across the country prepare to manage possible cases of Ebola or other hemorrhagic disease through intensive training and preparedness activities.
- CDC continues to work to improve laboratory safety. In the past 10 years, CDC performed 2,072 laboratory inspections and restricted 338 people from accessing select agents and toxins.
- Lifesaving medical countermeasures from CDC's Strategic National Stockpile can be delivered in 12 hours or less to anywhere in the U.S. For example, CDC provided 50 vials of botulinum antitoxin to the Ohio Department of Health within 10 hours for an outbreak in April 2015.
- Since adoption of advanced molecular detection technologies, including whole genome sequencing (WGS), we are able to solve outbreaks more quickly and prevent illness and death that would have otherwise occurred. For example, more than 95% of tuberculosis isolates in

the nation were tested for drug resistance, and molecular testing identified multiple outbreaks.
- During the past 10 years, CDC has deployed 294 pathogen-specific tests in 59 countries, helping to find and stop spread of disease at the source. In addition, CDC and our in-country collaborators discovered 61 pathogens that were new to the region in which they were discovered and 12 new pathogens identified for the first time anywhere in the world.
- CDC supports more than 50 partner countries as well global partners to rapidly identify and share novel influenza strains. Sharing strains improves vaccine virus selection and enhances pandemic preparedness and provides the basis for response capacity for other infectious diseases such as MERS and Ebola.
- Since CDC and partners began to work towards eradication, polio cases have decreased from more than 350,000 per year in 1988 to 74 in 2015 and 19 through the first half of 2016. Following CDC surges in India and then Nigeria, India was declared polio-free in March 2014, and Africa completed a year with no wild poliovirus cases when Nigeria was verified to be polio-free in 2015, leaving only Afghanistan and Pakistan with continuing transmission.
- Provided more than 107 million rapid diagnostic tests and 243 million treatments for malaria since 2006 as part of the President's Malaria Initiative.
- In 2016, CDC rapidly identified the link between Zika virus and microcephaly in newborns and implemented prevention strategies appropriate to different parts of the United States.

Strategic Priority #2: Better prevent the leading causes of illness, injury, disability, and death.

The stakes are high—the top 10 leading causes of death account for nearly 75% of all deaths in the U.S., with cardiovascular disease, stroke, and cancer accounting for more than half of all deaths and more than $472 billion in healthcare costs.

Provide timely, quality data on priority health and healthcare issues at the national, state, and local levels to better monitor and improve the health of Americans.

- CDC's gold-standard health surveys and public-use data sets provide accurate, timely, and comprehensive information on health and healthcare issues.
- We continue to lead the nation in conducting high-quality research related to the public's health, including population health surveillance and epidemiology at national and state levels and building the science basis for decision-making on public health programs, policies, and services.
- We are building and improving information systems, which will enable enhanced data exchange to improve internal and external information sharing.
- CDC is a trusted source of information for consumers and healthcare professionals through a variety of

communication platforms including scientific publications, emergency health alerts for practicing clinicians, a comprehensive internet presence, and news and social media outreach.

Work with communities to prevent injury, disease, and disability.

- Vaccination programs, including the Vaccines for Children Program (VFC) provide half of all childhood vaccines in the U.S., in addition to epidemiology and laboratory capacity to detect and respond to vaccine preventable diseases. Childhood immunization saves $3 in direct costs and $10 in direct and indirect costs for every $1 spent.
- We prevent heart attacks, strokes, cancer, diabetes, and other diseases that are the leading causes of illness and premature death by helping reduce tobacco use, improve physical activity and nutrition, and reduce obesity. For example, our scientific research shows increasing access to tobacco-free environments, improving access to fluoridated water, and providing children with healthier food options in schools result in better health. We also work to ensure that tools for healthy living are accessible for people with disabilities.
- Our proven approaches to injury and violence prevention help reduce deaths due to motor vehicle crashes, still a leading cause of death and injuries in the U.S., with effective interventions to increase use of restraints and reduce speeding and alcohol-impaired driving. We focus on vulnerable populations, including American Indians and Alaska natives and older Americans. We also apply our scientific expertise to help reduce deaths from the opioid overdose epidemic by supporting states to implement effective strategies, and equipping healthcare providers with the tools they need to improve safe opioid prescribing.
- We work to help children thrive by preventing child abuse and neglect, improving asthma management, increasing early identification of developmental disabilities such as autism spectrum disorder, improving treatment of children with Attention Deficit and Hyperactivity Disorder (ADHD), and preventing harms that include birth defects from maternal exposures such as medication use during pregnancy.
- We prevent work-related injuries, illnesses, and fatalities due to hazardous exposures and falls.

Support doctors, nurse practitioners, nurses, pharmacists, and other health professionals by increasing workforce capacity at the state and local levels.

We help build and train the public health workforce through financial and technical support to states and localities. Fellowship programs such as the Public Health Associate Program (PHAP), the Laboratory Leadership Service(LLS), and the Epidemic Intelligence Service (EIS) assign more than 500 CDC-trained public health workers and disease detectives to state, local, tribal, and territorial health departments.

Some recent strategic priority accomplishments:

- Most vaccine-preventable disease case counts are at their lowest levels ever, with greater than 90% coverage for many vaccines. Vaccination of children born in the U.S. between 1994 and 2013 prevented 322 million illnesses, avoided 732,000 deaths, and will save nearly $1.4 trillion in societal costs. Influenza vaccination alone prevented 1.9 million illnesses and 67,000 hospitalizations during the 2014–2015 flu season.
- Although more than 35 million Americans still smoke cigarettes, adult cigarette-smoking rates decreased to a new low of 15.1% in 2015, representing an estimated 10 million fewer smokers than in 2009.
- The Tips from Former Smokers (TIPS) campaign has helped at least 400,000 smokers quit for good since 2012. TIPS costs just $393 to save a year of life and less than $3,000 per life saved; it is a public health best buy.
- There was a 9% decrease in HIV diagnoses between 2010 and 2014.
- Providers using CDC's new HIV testing algorithm can detect acute infection just 4 days after RNA positivity.
- CDC released its STEADI (Stopping Elderly Accidents, Deaths, and Injuries) Initiative, which gives healthcare providers evidence-based tools and guidance needed to address and prevent falls among their patients.
- CDC data and research paved the way for a 2016 U.S. Food and Drug Administration (FDA) decision to permit fortification of corn masa flour with folic acid, which could reduce neural tube defects—severe birth defects of the brain and spine—particularly among the nation's Hispanic population.
- CDC's National Institute for Occupational Safety and Health (NIOSH) conducted a health-hazard evaluation study that found a high rate of carpal tunnel syndrome among workers at a poultry-processing plant that employed workers from an underserved population. These findings led to safer working conditions and updated industry guidelines.
- Encouraging widespread adoption of directly observed therapy for tuberculosis and increased support to local health departments have helped prevent tens of thousands of tuberculosis cases in the United States since 1993.
- EIS officers conduct more than 200 investigations per year, ranging from assessing the effectiveness of a vaccination campaign to preventing meningococcal disease in university students to determining risk factors for healthcare-associated infections.
- More than 350 Public Health Associate Program (PHAP) associates are assigned to public health agencies in 44 states, one territory, and the District of Columbia in addition to 34 Career Epidemiology Field Officers (CEFOs) in 27 state, territorial, or local public health programs.

Strategic Priority #3: Strengthen public health and healthcare collaboration.

We have a unique opportunity to increase the value of our nation's health investments by better aligning public health and healthcare.

Leverage partnerships with clinicians and healthcare organizations to decrease healthcare-associated and antibiotic-resistant infections and prevent prescription drug overdoses.

- CDC has invested in practical and proven efforts to counter the threat of untreatable antibiotic-resistant infections. In 2014, the Chicago Prevention Epicenter completed a multicenter evaluation of a new prevention package in four long-term acute care hospitals, demonstrating a 56% reduction in deadly antibiotic-resistant carbapenem-resistant Enterobacteriaceae (CRE) infections.

- Our 6/18 Initiative increases use of proven prevention practices. CDC provides partners with rigorous evidence and practical information on implementation to address high-burden health conditions and associated interventions to inform their decisions so they have the greatest health and cost impact. Multiple state Medicaid programs, commercial payers, and large employers are adapting their covered benefits to provide access to specific 6/18 interventions.

- The CDC Guideline for Prescribing Opioids for Chronic Pain provides recommendations for the prescribing of opioid pain medication for patients 18 or older in primary care settings outside of active cancer treatment, palliative care, and end-of-life care. Improving the way opioids are prescribed through clinical practice guidelines can ensure patients have access to safer, more effective chronic pain treatment while reducing the number of people who overdose or die of these drugs, as well as reducing rates of neonatal opioid withdrawal syndrome.

Increase ability of public health and healthcare systems to reduce disease threats and improve health by increasing prevention through the use of community, clinical, and laboratory services.

- Our cancer programs increase access to recommended preventive screening to reduce mortality.
- Partnerships among community and clinical care providers help improve blood pressure and cholesterol control and help people stop smoking.
- Our community and school-based programs reduce the risk that teens develop HIV, STDs, and unintended pregnancy.

Use emerging data sources, existing surveys, and innovative information delivery to inform clinical care systems to improve population health.

- CDC links our national surveys with Medicaid enrollment and claims records collected from the Centers for Medicare and Medicaid Services (CMS) to better understand and improve changes in health status and healthcare use, including among low-income families with children, the elderly, and people with disabilities.

- Through the National Health Interview Survey (NHIS), CDC increased the number of states with accurate estimates of health insurance coverage, from 32 states in 2011 to all 50 states and Washington, D.C., in 2014.

- CDC has expanded the number of states and territories in the National Violent Death Reporting System (NVDRS) and has used this data to identify circumstances and prevention strategies for suicide.

- In FY 2015, CDC Vital Signs electronic media had a total potential reach of 6.6 million people.

- Annual mortality data are being reported more quickly than ever. We released final 2014 mortality data in early December 2015 and preliminary 2015 data in June 2016. In 2015, CDC received 38% of death records within 10 days of the event, a proportion which more than doubled since 2013.

- Specialized websites, such as the Community Health Improvement Navigator and Sortable Stats assist states, local communities, tribes, and territories with data, useful information and tools.

Some recent strategic priority accomplishments:

- The combination of CDC data systems, guidelines, and programs has contributed to significant reductions of healthcare-associated infections, including a 50% reduction in central line-associated bloodstream infections between 2008 and 2014.

- As of 2015, the Million Hearts® Hypertension Control Challenge recognized nearly 60 public and private healthcare practices and systems that reach more than 12 million adult patients in 29 states for achieving blood pressure control for at least 70% of their patients with hypertension.

- By September 30, 2015, the World Trade Center (WTC) Health Program had enrolled 73,199 eligible responders and survivors. In FY 2015, the WTC Health Program paid claims for eligible treatment, including medication, for more than 22,100 of these responders and survivors.

- Provided timely guidance to healthcare providers and the public in the U.S. and globally to prevent Zika virus infection and its effects, including immediately communicating with the American and global public about the importance of travel avoidance for pregnant women to avoid Zika virus infection following determination of its effects on pregnancy.

Attachment E: CDC's performance overview from the FY 2017 Congressional Justification

OVERVIEW OF PERFORMANCE

As the nation's prevention agency and a leader in improving health around the world, CDC is committed to reducing the leading causes of death, disability and injury. CDC staff work 24/7 around the world to save lives, protect people, and save money through prevention. To achieve maximum public health impact, CDC conducts research; implements strategic, evidence-based programs; and monitors results through ongoing data collection.

CDC's priorities form the core of its public health programs. These programs require the scientific excellence and leadership of our highly trained staff, who are dedicated to high standards of quality and ethical practice. The agency's priorities are:

- Strengthen public health and clinical linkages.
- Protect Americans from infectious diseases.
- Prevent the leading causes of disease, disability, and death.
- Ensure global disease protection.
- Keep Americans safe from environmental and work-related hazards.
- Protect Americans from natural and bioterrorism threats.
- Monitor health and ensuring laboratory excellence.

> *As we continue to expand and strengthen our collection and use of data, we gain greater knowledge and insight about the extent of our biggest health problems, which populations are most affected by them, and what we need to do to solve them. Information is power — and this power makes it possible for us to implement programs that fulfill our promise to keep Americans healthy and our nation strong.*
>
> *– Dr. Tom Frieden, Director, CDC*

Performance in each of these areas and in all of CDC's work is strengthened through the use of rigorous and ongoing performance metrics and program evaluation data to monitor program effectiveness and compare performance to established targets. The accomplishments described below highlight the importance of investing in public health, preventing disease, and protecting health.

Strengthen Public Health and Clinical Linkages and Protect Americans from Infectious Diseases

- Healthcare facilities monitor and prevent healthcare-associated infections (HAI) through CDC's National Healthcare Safety Network (NHSN). As of December 2015, over 18,000 healthcare facilities, including nearly all US hospitals, participate in NHSN for quality improvement. The number of acute care hospitals currently reporting antibiotic use data in NHSN increased from 64 (in FY 2014) to 130 facilities. In addition, 500 long- term acute care hospitals (LTACHs) began reporting Clostridium difficile and Methicillin-resistant Staphylococcus aureus (MRSA) infections this year. Since 2008, the combination of CDC data systems, guidelines and programs has contributed to significant reductions of HAIs in healthcare settings, including:

  o 50% reduction in central line-associated bloodstream infections (since 2008).
  o 13% reduction in laboratory identified healthcare-associated MRSA bloodstream infections (since 2011).
  o 11% reduction in catheter-associated urinary tract infections for LTACHs (since 2014).

- In January 2015, CDC added the Targeted Assessment for Prevention (TAP) report NHSN. TAP allows NHSN users to review data for the facilities and facility locations they have access to in order to identify where excess infections are occurring. Since being introduced, NHSN TAP reports for hospitals have been used on average every 20 minutes. TAP reports are currently available for central line-associated bloodstream infections (CLABSI), catheter-associated urinary tract infections (CAUTI), and Clostridium

difficile infections. State health departments), and nine Centers for Medicare and Medicaid Services (CMS) Quality Improvement Networks (QIN) representing 26 states have already used these reports to reduce HAI infections and focus their Clostridium difficile prevention efforts.

- CDC has invested in practical interventions to counter the threat of untreatable antibiotic resistant infections. In 2014, the Chicago Prevention Epicenter completed a multicenter evaluation of a novel prevention package bundle in four long-term acute care hospitals, which demonstrated a 56% reduction in carbapenem-resistant Enterobacteriaceae (CRE) infections. An important antibiotic resistance prevention strategy, the prevention package included improved patient screening, CRE positive patient isolation, daily chlorhexidine bathing, and enhanced healthcare worker training and monitoring.

- CDC has expanded its HIV testing efforts, especially focusing on communities that have a high burden of HIV infection among African Americans and Latinos. CDC-supported health departments performed nearly 3.2 million HIV tests in 2014, with more than 12,000 people newly identified as HIV positive.

- In 2015, Indiana activated its emergency operations center to investigate and respond to an outbreak of HIV and hepatitis C infections among persons who inject drugs. Previous planning and exercising required by CDC's Public Health Emergency Preparedness (PHEP) cooperative agreement enabled the state health department to rapidly establish an Incident Command System structure to support the outbreak and leverage other state agencies to address transportation needs, Medicaid issues, and other healthcare concerns. This included integrating 49 Disease Intervention Specialists (DIS) from other state programs who identified infected persons, connected them to care, and contained the outbreak.

- CDC has improved its ability to detect large TB outbreaks in the U.S. by establishing surveillance for outbreaks of ≥10 genotype-matched TB cases related by recent transmission. CDC detected 18 suspected large outbreaks in the U.S. from April 2014-March 2015. Most (78%) of these suspected outbreaks were initially identified by CDC, instead of solely relying on CDC-funded TB programs. This novel surveillance system can provide data to better understand the epidemiology of large outbreaks, inform advocacy and policy initiatives, and lead to quicker and more efficient public health responses.

Ensure Global Disease Protection

- During FY 2015, 138 Epidemic Intelligence Service (EIS) officers had an EOC-coordinated deployment for CDC's Ebola response, either domestically or internationally. These 138 EIS officers deployed for a total of 5,798 days during FY 2015.

- CDC's direct technical assistance to PEPFAR-supported countries significantly contributed to 9.1 million voluntary medical male circumcision procedures performed in 14 PEPFAR countries in 2014. This represents a 22% increase in procedures from 2013 and a 750% increase from 2010. This one-time intervention has a lifelong benefit of reducing the risk of HIV infection to uninfected men.

- •In 2015, CDC and its partners published study results on the efficacy and safety of strategies for prevention and treatment of malaria in pregnancy. These findings were critical in revising the World Health Organization recommendations on the use of intermittent preventative treatment in pregnancy (IPTp), which were released in November 2015. Since October 2014, PHEP awardees have actively monitored more than 21,500 travelers from countries in West Africa with widespread Ebola cases. This includes daily monitoring for a 21-day incubation period for every traveler. PHEP resources and guidance enabled the establishment of active monitoring procedures in only 10 days within the 62 PHEP jurisdictions. As an example, within one week, IT and epidemiology staff in one state collaborated to rapidly develop a novel electronic Ebola monitoring surveillance system, increased its call center capacity, and hired Ebola duty officers to work seven days a week to successfully monitor more than 125 travelers a day.

- CDC began a presumptive treatment and vaccination pilot program in 2013, partnering with the International Organization for Migration (IOM) and the bureau of Population, Refugees, and Migration (PRM). After only two years of implementation in countries with high rates of U.S. bound refugees, 60%

now receive at least one round of ACIP recommended vaccines, and 74 percent receive appropriate antiparasitic and antimalarial treatment. Current interventions in refugee groups have reduced imported malaria cases by 98 percent, and intestinal parasite infections by 81 percent.

Prevent the Leading Causes of Illness, Injury, Disability, and Death

- In 2015, CDC launched the Tips from Former Smokers national education campaign with a series of powerful new ads. The ads highlighted health conditions such as colorectal cancer and macular degeneration, the benefits of quitting for smokers' loved ones, and the importance of quitting smoking completely. This continues the long-running success of the Tips campaign, which has helped hundreds of thousands of Americans quit smoking for good. The campaign has proven to be a "best buy" in public health by costing just $393 to save a year of life (well under the widely accepted limit for the cost-effectiveness of a public health program of $50,000 per year of life saved).

- CDC's surveillance of emerging tobacco products and their use highlighted critical national trends—particularly the rapid increase in e-cigarettes use among youth. Hookah smoking roughly doubled for middle and high school students from 2013-2014; e-cigarette use now surpasses use of every other tobacco product overall, including conventional cigarettes.

- As of 2015, through the National Diabetes Prevention Program (DPP), evidence-based lifestyle change programs have been delivered to approximately 32,000 people at high risk for type 2 diabetes in 49 states and the District of Columbia, and over 7,463 lifestyle coaches have been trained. The National DPP helped secure coverage for diabetes prevention for over 1 million employees in eight states.

- CDC's Breast and Cervical Cancer Early Detection Program provided breast and cervical cancer screening to 451,209 low-income, uninsured and underinsured women in 2014, diagnosing 5,312 women with breast cancer and 3,220 women with invasive cervical cancer or high-grade premalignant lesions.

- The 2014 Million Hearts® Hypertension Control Challenge recognized 30 public and private health care practices and systems for achieving blood pressure control for at least 70% of their patients with hypertension, reaching over 3.5 million adult patients in 19 different states. One 2014 Champion, the Peninsula Community Health Center in Bremerton, WA, increased their blood pressure control rate from 78% to 84% within one year.

- In 2013-2014, nearly 88,000 children received sealants through CDC-sponsored school-based sealant programs. Over nine years, school-based sealant programs prevented 8.5 cavities per every 10 children sealed.

- In 2014, several states, including Tennessee and Iowa, increased water access in schools by providing water bottle filling stations for students to use during the school day and at lunch, replacing less healthy beverage options, increasing students' overall water consumption, and maintaining hydration. Adequate hydration may improve cognitive function in children and adolescents.

- CDC investments assist U.S. hospitals in becoming Baby-Friendly, a designation based on adherence to the evidence-based Ten Steps to Successful Breastfeeding. As of November 2015, CDC's promotion of Baby-Friendly hospitals contributed to 14.8% of all U.S. births (~590,000 babies per year) occurring at Baby-Friendly hospitals (306hospitals across 48 states), more than double the percent of 2012 births at Baby Friendly hospitals.

- CDC's Division of Reproductive Health supports state Perinatal Quality Collaboratives (PQC) to improve pregnancy outcomes for women and newborns using continuous quality improvement methods. Between 2010 and December 2013 the California PQC has shown a 57% decrease in the percentage of elective deliveries (37-38 weeks gestation); the New York PQC has shown a 92% decrease in elective deliveries (36-38 weeks gestation), including an 86% decrease in labor inductions and a 94% decrease in scheduled C-sections without a medical indication. From September 2008 to March 2014, the Ohio PQC has seen an estimated cost savings of over $27,789,000 associated with a shift of 48,400 births to 39

weeks gestation or greater and a 68% decline in the rate of deliveries less than 39 weeks without a medical indication.

- A large, regional healthcare provider began integrating CDC's Elderly fall's prevention initiative (STEADI) into its primary care practices in 2012, modifying its electronic health records (EHR) to incorporate STEADI and providing point-of-care clinical decision support. As of 2015, 17 of its primary care practices and 74 clinicians are presently using the EHR-based tools. Among practices that have implemented STEADI more than 70% of patients aged 65+ were screened for falls. Over 75% of those patients screened also underwent assessments.

Keep Americans safe from environmental and work-related hazards, and natural and bioterrorism threats

- In February 2015, PHEP-funded staff quickly responded to a train derailment in West Virginia that spilled 3 million gallons of crude oil, contaminating the area's primary water source. Public health response staff rapidly mobilized the public health emergency management system, enabling the health department to provide the 2,000 affected residents with clean, alternative sources of water and the information needed to appropriately treat the water once the water system was re-established.
- In FY 2015, the CDC-funded Louisiana Healthy Homes and Childhood Lead Poisoning Prevention Program piloted blood-lead testing at Women, Infants, and Children (WIC) clinics in four Louisiana parishes. The partnership with WIC demonstrated WIC clinics are an efficient place to screen children ages 12 to 24 months who are at risk for lead poisoning and who would not otherwise be tested. The program reached an additional 581 children, 79% of whom had never before been tested.
- CDC's National Institute of Occupational Safety and Health (NIOSH) conducted a Health Hazard Evaluation study that found a high rate of carpal tunnel syndrome in a poultry processing plant employing workers from an underserved population. The findings received national media attention and helped support OSHA activities, including expanded enforcement and updated guidelines for the industry.
- CDC distributed more than 1,189 radiation emergency tool kits in FY 2015 to public health professionals and clinicians. Recent evaluation research has found that the toolkits were valuable resources for planning (pre-event) and just-in-time (intra-event) use. Since the creation of the toolkits in 2005, CDC has provided more than 29,200 kits to professionals across the nation and internationally to assist clinicians in developing plans and response capacity for radiation emergencies.

Monitor health and ensuring laboratory excellence

- States continue to show progress in electronic lab reporting (ELR) implementation, which is vital to increasing notifiable disease reporting to health departments and improving disease surveillance. In FY 2015, over 40 jurisdictions (of 55 total) increased the volume of lab reports received electronically, with more than 20 jurisdictions increasing their volume of electronic reports by over 10%.
- In response to the Ebola outbreak, Laboratory Preparedness training courses saw a 151% increase in successful course completions among global public health and clinical laboratories in FY 2015. More than 4,200 laboratory professionals successfully completed training and qualified for mandated certification necessary to safely package and ship infectious agents such as Ebola.
- In 2015, CDC's STD lab discovered gonorrhea in vitro that is susceptible to a novel antibiotic inhibits DNA biosynthesis. This antibiotic demonstrated a high level of antimicrobial activity against gonorrhea, including isolates with decreased susceptibility or resistance to currently available agents.
- CDC recently identified two novel viruses, Heartland and Bourbon, which were isolated from fatal human cases. Evidence suggests that ticks transmit these viruses. To support surveillance and diagnosis of these pathogens, CDC produced diagnostic reagents and designed assays to test for the viruses. With CDC reagents, cases that would have remained undiagnosed are now being confirmed.

- CDC now has almost two years of data on the impact of Advanced Molecular Detection (AMD) technologies (specifically, whole genome sequencing, or WGS) on foodborne listeriosis. Since the adoption of WGS, the number of outbreaks detected has increased by 50% while the number of cases per outbreak has decreased by 50%. Outbreaks are being detected earlier and the number of cases linked to specific food sources has increased 15-fold.
- From 2014-2015, CDC Enhanced EHR-Immunization Information System interoperability at 8,400 practice sites through standardized data transport protocols, tools to aid HL7 messaging, and patient-level de-duplication best practices and test cases.

Other CDC Accomplishments

- In June 2015, CDC released the first federal estimates of 2014 health insurance coverage for the civilian noninstitutionalized U.S. population using the National Health Interview Survey (NHIS). For the first time, the NHIS produced estimates for 50 states and the District of Columbia, allowing for comparisons of coverage before and after implementation of the Health Insurance Marketplaces and Medicaid expansion. Typically, the NHIS produces health insurance coverage estimates for about 20 states; a sample increase of nearly 10,000 made it possible to expand the number of states for which reliable estimates could be made.
- In FY 2015, CDC Vital Signs electronic media reach was 6.6 million potential viewings, almost doubling the annual year-end goal of 3.9 million. The significant increase in reach was driven by increased traffic to the CDC Vital Signs website, which readers use to access information about each monthly release. During FY 2015, CDC published over 250 MMWR Weekly and Serial publications and increased total electronic media reach by eight percent since FY 2013 from 21.4 million to 23.0 million during FY 2015. During the year, MMWR Weekly was also ranked as the number one epidemiology journal by Google Scholar, based on citations, with multiple Vital Signs publications represented among the most often cited MMWR reports.
- CDC supported health departments in increasing the capacity and performance of the public health system:
  - Currently 45% of the US population is being served by an accredited health department. As of November 2015, 84 local and 12 state health departments have achieved public health accreditation, and another 250 health departments have formally applied. Eighty-six percent (86%) of states and 45% of local health departments indicate they have applied or are preparing to apply for accreditation.
  - Among 79 local and tribal health departments funded through Accreditation Support Initiatives 60% have applied for accreditation and 19% have since been accredited. Results indicate that even small investments ($4,000-$40,000) can have significant impact and accelerate a health department's ability to meet these national consensus standards. As of December 2015, CDC funded an additional 33 local, tribal and territorial health departments for accreditation readiness activities.

- As of November 2015, CDC.gov's satisfaction score of 82 continues its rank as a "top performer" among 100 participating federal websites, maintaining high customer satisfaction scores as measured by the American Customer Satisfaction Index.
- CDC completed its Roybal Campus Water Study in May of 2015. Since completion of the study and its remediation actions, CDC estimates a reduction of at least 85 million gallons of water use per year, totaling almost 45% of water used on the Roybal campus. This has resulted in savings of over $2,000,000.

Agency Performance Planning and Management

CDC conducts continuous quality improvement through priority and goal setting, performance measurement, and program evaluation. CDC collects information on program priorities, measurable outcomes, strategies, and progress through annual updates.

The CDC awards nearly 80 percent of its budget through grants and contracts to help accomplish its mission to promote health and quality of life by preventing and controlling disease, injury, and disability. Contracts procure goods and services used directly by the agency, and grants assist other health-related and research organizations that contribute to CDC's mission through health information dissemination, preparedness, prevention, research, and surveillance.

Many CDC grant announcements require applicants to assess the health burden of their region, state or community. CDC surveillance systems often serve as the basis for the data used in applications. Data systems at CDC provide data at various levels depending upon data collection methodology, including national, state, regional and county level data. While CDC strives to have more health burden data available at the county level, the methodology can be costly and as such, currently a subset of health burden data is available across on the 3,100 counties in the United States. CDC has recently re-launched the Community Health Status Indicators website (http://wwwn.cdc.gov/CommunityHealth) where community level health data can be accessed easily by grantees, health departments and the general public to be used in grant applications as well as for planning purposes. Users can examine health data for their county and compare their county with comparable counties around the nation matched on a variety of demographic and predictive factors (i.e. population, educational attainment, housing factors, income, poverty, urbanicity).

CDC considers all data submitted in grant applications during the application review process. Actual award amount may be based off of grantee burden levels in some CDC grants (i.e. higher burden=more money). Once funding is awarded, data submitted by a grantee is used to monitor finances and grantee performance throughout the life of the award period.

Agency use of evaluation and evidence

CDC fully supports the use of evidence and evaluation. CDC supports scientific advances and the use of evidence and data to support program design and budget decisions. CDC continues to focus on the development and use of evidence to enhance all aspects of the Agency's mission.

CDC builds evidence regarding effective programs through its own evaluation, through systematic reviews of existing literature (Community Guide), through the use of rigorous methods to develop vaccination recommendations (ACIP's GRADE), and by finding innovative ways to make data accessible for public health decision making (Data Warehouse, Sortable Stats, Prevention Status Reports, National Health Report).

CDC promotes evidence-based prevention interventions in our grant announcements, shares best practices through websites, searchable databases and other means, and is exploring additional strategies for promoting the use of evidence in practice such as performance-based grant making and recognition awards (Million Hearts).

CDC is increasing its internal capacity to oversee and conduct program evaluation by expanding and enhancing the evaluation training available to employees through CDC University, developing an evaluation fellowship to expand program evaluation expertise, recruiting external subject matter planning and evaluation experts to "coach" CDC programs on related challenges, and by putting standard program evaluation guidelines and recommendations into place. CDC has also adapted an IOM framework to measure the impact of CDC science and gauge its scientific influence on subsequent events and actions that lead to health improvements.

Alignment to Administration Priorities and Initiatives

CDC is committed to supporting the national priorities set by the Administration. For example, CDC has supported the implementation of the President's National HIV/AIDS Strategy (NHAS) goals of reducing the number of new HIV infections, increasing access to care for people living with HIV, and reducing HIV-related health disparities through domestic HIV programs.

CDC is a key implementer of the Global Health Security (GHS) Agenda because of the agency's unmatched technical expertise, existing country platforms, and strong government-to-government relationships—unique assets critical for successful implementation. Through full implementation of the GHS Agenda, CDC can further accelerate and expand efforts with partner countries and other partners to accelerate progress toward a world safe and secure from infectious disease threats.

CDC is providing support for full implementation of its surveillance, prevention, and stewardship activities to advance the goals of the White House's National Strategy for Combating Antibiotic-Resistant Bacteria (CARB). Through its "detect and protect" strategy, CDC is building a more robust network to "detect" our most serious AR threats and "protect" patients and communities.

In alignment with the First Lady's Let's Move Initiative to combat the childhood obesity epidemic and the President's Task Force on Childhood Obesity, CDC funds school health programs to improve food and beverage options and increase physical activity.

CDC is committed to HHS Sustainability Efforts in construction of new facilities designed and built to meet Guiding Principles. Moreover, Guiding Principle compliance is embedded in Repairs & Improvements projects for existing facilities across CDC.

In support of the National Prevention, Public Health, and Health Promotion Council (National Prevention Council) chaired by the Surgeon General, CDC helped lead the implementation of the National Prevention Strategy by providing technical and content expertise, participating in stakeholder engagement, and assisting in the development and review of recommendations and actions.

CDC is a co-founding partner of The Million Hearts initiative, a national public-private initiative designed to prevent one million heart attacks and strokes by January 2017. CDC provides leadership and communications support for the initiative, which includes a number of complementing public and private strategies.

CDC also provides substantial support to Healthy People (HP) 2020. CDC is committed to the success of the Healthy People process and to assisting in prioritizing and achieving HP 2020 goals and objectives, as well as supplying the bulk of the data used to measure progress. Through engagement in the development process and CDC's integration of HP 2020 measures into our strategic and operational planning efforts, CDC is strategically aligned with and making major contributions to the health objectives for the nation.

CDC actively supports the HHS Action Plan to Reduce Racial and Ethnic Health Disparities by helping to eliminate persistent health disparities in the leading causes of death and disability through effective and scalable public health interventions.

CDC leads key activities for 19 measures in the FY 2017 HHS performance plan. These include:

- improving health care quality and patient safety
- strengthening public health surveillance and epidemiology
- enhancing support of the public health infrastructure at the state, tribal, local, and territorial levels
- addressing obesity through childhood nutrition, food labeling, and physical fitness
- protecting Americans in public health emergencies
- increasing impact in global health
- preventing and controlling tobacco use

- enhancing food safety
- mitigating and preventing infectious and chronic diseases

Building on CDC's contributions to prior Agency Priority Goals, CDC plays a significant role in four Agency Priority Goals for FY 2016–2017, contributing our expertise in surveillance and promotion of evidence-based practices in accomplishing these goals:

- preventing adult tobacco consumption
- combating antibiotic resistance bacteria
- improving food safety in the United States
- reducing opioid-related morbidity and mortality

Attachment F: CDC Winnable Battle Progress Report

CDC Winnable Battles 2010-2015 Progress Report
2014

CDC

Centers for Disease Control and Prevention
Office of the Director

EXECUTIVE SUMMARY

An update to the first CDC Winnable Battles Progress Report released in November 2013, this document captures recent data and contributions across each CDC Winnable Battle: Tobacco, Nutrition / Physical Activity / Obesity, Food Safety, Healthcare-Associated Infections, Motor Vehicle Injuries, Teen Pregnancy, and HIV. CDC Winnable Battles utilize evidence-based, cost-effective strategies to tackle specific health challenges working together with partners in public health.

Notable in this update is the continued progress of several Winnable Battles. Teen birth rates continue to fall. Fatalities due to motor vehicle crashes are fewer. The percentage of adults who smoke is decreasing, and the percent of youth who smoke has declined past the 2015 Winnable Battles target. Some healthcare-associated infections, including methicillin-resistant Staphylococcus aureus (MRSA) and central line-associated blood stream infections (CLABSI) have declined. And, the percent of people living with HIV who know their status is increasing. Rates of breastfeeding, which helps protect against childhood obesity and other illnesses, continue to climb. While not yet evident in the data, indications of progress are emerging in other areas as well. Better, more focused use of food safety data to inform agencies who have oversight of food industries is poised to help prevent foodborne illness and outbreaks.

Despite these gains, much work remains. For instance, new potential health threats such as e-cigarettes are emerging and need evaluation to determine how they may affect our health.

Together with our partners, we are having a positive impact on health by focusing on what works now. We've made progress in most areas, but still have more to do to meet our 2015 goals. The Winnable Battles were chosen based on the magnitude of the health problems and the ability of CDC and its public health partners to make significant progress to improve outcomes. There are evidence-based strategies available now to address the critical health challenges presented by each of the Winnable Battles areas. By continuing to work closely with our public health partners and educating stakeholders about these evidence-based strategies, we can achieve our Winnable Battles goals.

TOBACCO

NUTRITION, PHYSICAL ACTIVITY, OBESITY & FOOD SAFETY

HEALTHCARE-ASSOCIATED INFECTIONS

MOTOR VEHICLE SAFETY

TEEN PREGNANCY

HIV

TARGETS

A comprehensive set of indicators establishes baselines and targets for all Winnable Battle areas. These indicators help us measure the impact of programs and policies on our nation's health, and support the Department of Health and Human Services' strategic plan and other priorities. Derived from Healthy People 2020 and other established measures, the related targets are ambitious yet achievable, evidence-based, and specific to the priorities and opportunities within each of these health areas.

This dashboard gives a snapshot of each indicator by comparing recent data trends to the 2015 Winnable Battle targets.

- ● Red = Not on track to reach 2015 target
- ● Yellow = Progress is being made, but overall progress is limited or slow
- ● Green = On track to reach 2015 target
- ✓ Green Checkmark= Exceeded 2015 target

2015 Targets	Progress
Tobacco	
Decrease the percent of adults who smoke cigarettes by 17.5%	●
Decrease the percent of youth who smoke cigarettes by 12%	✓
Increase the proportion of the U.S. population covered by smoke-free laws by 59%	●
Nutrition, Physical Activity, and Obesity	
Reduce the proportion of children and adolescents age 2-19 who are obese by 8%	●
Increase the proportion of infants who are breastfed at 6 months by 35%	●
Food Safety	
Reduce foodborne illness caused by *Salmonella* by 14.5%	●
Reduce foodborne illness caused by Shiga toxin-producing Escherichia coli (STEC) O157:H7 by 29%	●
Healthcare-associated Infections (HAIs)	
Reduce central line-associated blood stream infections (CLABSI) in hospitals by 60%	●
Reduce healthcare-associated invasive methicillin-resistant Staphylococcus aureus (MRSA) by 60%	●
Reduce surgical site infections (SSI) in hospitals by 30%	●
Reduce catheter-associated urinary tract infections (CAUTI) in hospitals by 30%	●
Motor Vehicle Safety	
Reduce fatalities due to motor vehicle crashes by 31%	●
Teen Pregnancy	
Decrease teen birth rates by 20%	✓
HIV	
Reduce the number of new HIV infections by 25%	●
Increase the percent of people living with HIV who know their status by 11%	●

TOBACCO

Prevent the initiation of tobacco use, promote quitting, and ensure smoke-free environments

Key Strategies

- Monitor tobacco use and prevention policies
- Protect people from secondhand smoke
- Offer help to quit tobacco use

- Warn about the dangers of tobacco
- Enforce bans on tobacco advertising, promotion and sponsorship
- Raise taxes on tobacco

Key Highlights 2014

- **2014 Surgeon General's Report: The Health Consequences of Smoking – 50 Years of Progress** was released in January 2014. The new report concluded that that despite progress, smoking and exposure to tobacco smoke are responsible for more than 480,000 premature deaths annually, as well as at least $289 billion in health care expenses and other economic costs each year.

- The evidence-based guide **Best Practices for Comprehensive Tobacco Control Programs** was updated and released in 2014. The report describes an integrated programmatic structure for implementing interventions proven to be effective and provides levels of state investment to prevent and reduce tobacco use in each state. The report includes expanded information on health equity from the previous versions of Best Practices.

- In 2014, CDC launched the third **Tips from Former Smokers** campaign, focusing on health conditions such as premature birth, periodontal (gum) disease and tooth loss, and HIV complications. The campaign resulted in 80% call volume increase to 1-800-QUIT-NOW and a more than 1,000% increase in average weekly unique visitors to the TIPS website.

- Two states and the District of Columbia increased tobacco taxes in 2014, a proven strategy to reduce tobacco use. Additionally, 63 jurisdictions around the country acted to protect the public from secondhand smoke by implementing smoke free ordinances.

- CDC staff examined poison control calls related to e-cigarettes for the first time. The analysis assessed total monthly poison center calls related to e-cigarettes or conventional cigarettes, and found the proportion of e-cigarette calls jumped from 0.3 percent in September 2010 to 41.7 percent in February 2014. More than half of the calls related to e-cigarettes were for children five years of age or younger.

- CDC researchers found that prohibiting smoking in subsidized housing would yield annual cost savings of $496.82 million, including $310.48 million in secondhand smoke-related care, $133.77 million in renovation expenses, and $52.57 million in smoking-attributable fire loses. By state, annual overall cost savings ranged from $0.58 million in Wyoming to $124.68 million in New York. See King, B.A., Peck, R.M. and Babb, S.D., National and State Cost Savings Associated with Prohibiting Smoking in Subsidized and Public Housing in the United States, Preventing Chronic Disease, October, 2014.

TOBACCO

Progress to Date

Trends in percentage of adults who smoke cigarettes, 2006–2013
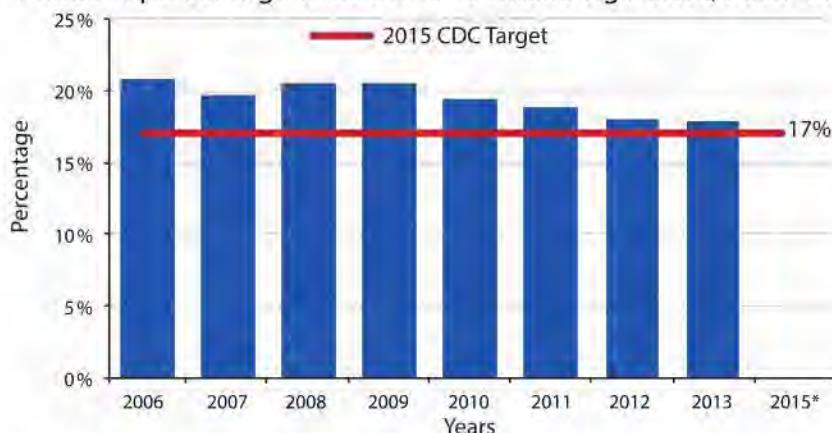
Source: National Health Interview Service (NHIS)   *data anticipated June 2016

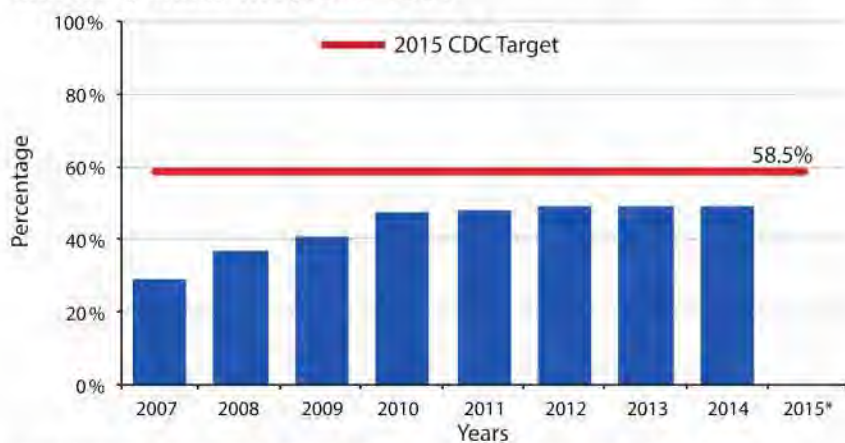## Trends in percentage of youth who smoke cigarettes, 2005–2013
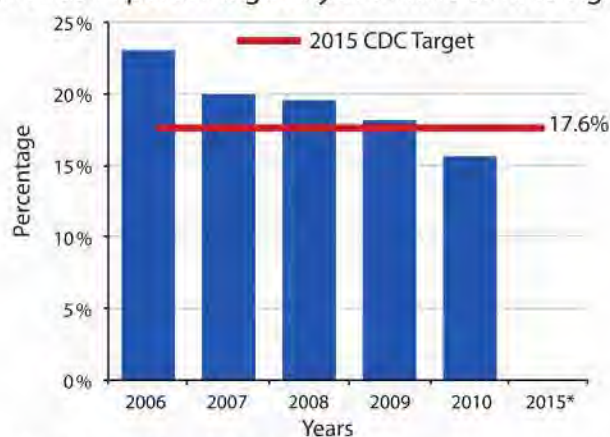
Source: Youth Risk Behavior Surveillance System (YRBSS)   *data anticipated June 2016

Trends in proportion of U.S. population covered by comprehensive state and/or local laws making workplaces, including restaurants and bars, smoke-free, 2007–2014

Source: Americans for Nonsmokers' Rights (ANR), CDC   *data anticipated March 2016

NUTRITION, PHYSICAL ACTIVITY, & OBESITY

Support all Americans in achieving optimal health by making nutritious foods and physical activity easy, attractive, and affordable choices

Key Strategies

- Promote healthy eating and physical activity in child care centers, schools, hospitals, workplaces, and communities

- Promote food service guidelines in cafeterias, concessions, vending, restaurants, grocery stores, and markets

- Increase breastfeeding support in early care settings, hospitals, worksites, and communities

- Reduce consumption of calories from added sugars

- Eliminate artificial trans fat in the food supply

- Reduce sodium in the food supply

Key Highlights 2014

- Illustrating the extent of the U.S. obesity burden, the **State Adult Obesity Prevalence and Maps** were released in September 2014.

- Today, 11% of all births in the U.S. occur at Baby-Friendly hospitals, up from less than 2% in 2007. This achievement surpasses the Healthy People 2020 goal of 8.1%. The CDC funded Best Fed Beginnings project contributed to the acceleration of Baby-Friendly designated U.S. hospitals. Nearly one third of all hospitals earning designation as Baby-Friendly in 2014 and early 2015 enrolled in *Best Fed Beginnings*, a nationwide effort to make quality improvements to maternity care to better support mothers and babies to be able to breastfeed.

- Breastfeeding rates continue to rise, according to the **2014 Breastfeeding Report Card**. Professional breastfeeding support can help mothers start and continue breastfeeding to meet personal goals and national health recommendations; the Report Card tracks such support. From 2006 through 2013, the number of International Board Certified Lactation Consultants increased from 2.1 to 3.5 per 1,000 live births.

- Released in July 2014, **The State Indicator Report on Physical Activity** presents state-level information on physical activity behaviors and on environmental and policy supports for physical activity.

- The Comprehensive School Physical Activity Program (CSPAP) Guide was developed to assist schools and school districts to develop, implement, and evaluate comprehensive physical activity programs. For example, teachers that participated in a CSPAP training in Monroe County, Tennessee changed academic testing days to coincide with mornings that students had before-school physical activities because teachers noticed a positive difference in student behavior.

- Participation in Let's Move Child Care by early care and education providers increased from 11,981 to 15,963 providers, who serve over 910,000 children. In 2014, learning collaboratives were launched in California (Los Angeles), Kentucky, and Virginia (in addition to 6 states in 2013), and thousands of additional ECE providers across the nation pledged to meet best practices for food, beverages, breastfeeding support, physical activity, and screen time through participation in Let's Move Child Care.

- Through the Sodium Reduction in Communities Program (SRCP), ten grantees across the country are working with partners to increase access to and accessibility of healthier food options, focusing on lower sodium products. Each community is working with a combination of independent restaurants, distributive food programs and/or governmental and non-governmental organizations that sell and serve food. Communities are seeing quantifiable success in reducing sodium. For example Philadelphia, a SRCP awardee, is working with multiple partners to reduce sodium content in meals in Chinese take-out Restaurants. As of January 2015, 185 restaurants were enrolled in the initiative. Over 24 months, significant reductions in sodium content in three main dishes were seen, ranging from 13% to 34%.

- As of August 2014, 100% of the U.S. General Services Administration-managed cafeteria's contracts include the HHS/GSA Health and Sustainability guidelines in the National Capital Regions, moving toward increased adoption of the Food Service Guidelines.

NUTRITION, PHYSICAL ACTIVITY, & OBESITY
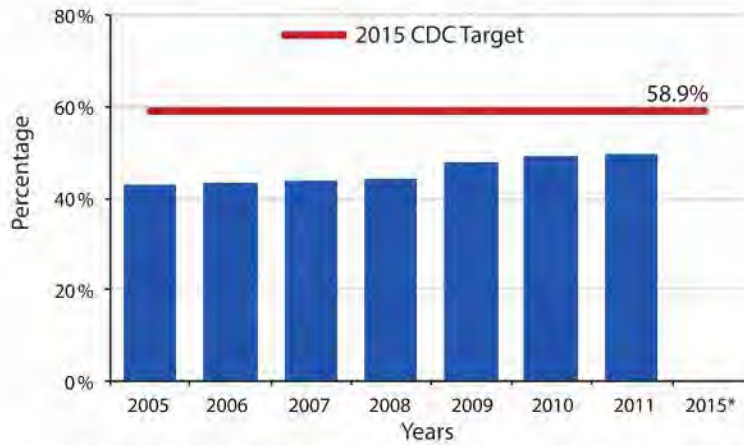
Progress to Date

Trends in the prevalence of obesity among U.S. children and adolescents, aged 2–19, 2006–2012

Source: National Health and Nutrition Examination Survey (NHANES)   *data anticipated July 2017

Trends in percentage of infants who are breastfed at 6 months, 2005–2011

Source: National Immunization Survey (NIS)   *data anticipated August 2019

FOOD SAFETY
Keep America's food supply safe by preventing and responding to foodborne illness

Key Strategies

- Drive policy and prevention with data and analyses

- Investigate outbreaks to stop current and prevent future foodborne outbreaks

- Address challenges of culture-independent diagnostic testing with advanced technologies.

- Support state and local public health and other partners to fulfill their primary roles in addressing food safety priorities.

- Improve environmental public health practice to prevent foodborne illness outbreaks at restaurants.

Key Highlights 2014

- Available for hands-on web access for the first time, the **Atlas of *Salmonella* in the United States, 1968-2011** summarizes surveillance data on 32 types of *Salmonella* isolates from people, animals, and other sources. The information is organized by demographic, geographic and other categories. The Atlas enables the reader to compare trends in *Salmonella* serotypes by following their spread or decline over time and location. This could lead to tailored prevention efforts targeted at specific serotypes.

- Since CDC began applying advanced molecular detection (AMD) and enhanced epidemiology methods for nationwide surveillance of *Listeria* infections, CDC has been able to detect seven clusters of illness that would not have been detected by the older methods. The percentage of *Listeria* clusters for which a food source was found increased from 6% in FY 2013 to 21% in FY 2014. One example of a success is a *Listeria* outbreak that affected at least 32 people in 11 states between October and December 2014. Seven of those people died. Using whole genome sequencing, CDC was able to identify the illnesses as a cluster one week faster than would have occurred with the older methods. CDC worked with state and local health departments, the Food and Drug Administration, and food industries to identify prepackaged caramel apples as the source of the outbreak. Investigation partners were then able to take action to inform the public and get caramel apples off the shelves to keep more people from becoming ill.

- The country's largest grocery retailer is partnering with CDC to decrease pathogens such as *Salmonella* and *Campylobacter* in chicken products provided by its suppliers. The new program, announced in December 2014, requires the retailer's poultry suppliers to implement holistic controls from farm to final product and is designed to significantly reduce potential contamination levels, in fresh whole chickens and chicken parts. It also requires suppliers to validate that the measures they have implemented are effective through specialized testing. All poultry suppliers of this grocery retailer must be in compliance with the new requirements by June 2016.

- CDC released the **2012 National Antimicrobial Resistant Monitoring System (NARMS) Annual Human Isolates Report** to aid in better understanding trends in antibiotic resistance, which helps doctors prescribe effective treatment and helps public health officials investigate outbreaks faster.

- Researchers provided evidence for the importance of kitchen manager certification in restaurant food safety through a CDC-funded study on "Restaurant manager and worker food safety certification and knowledge" (December 2014 *Foodborne Pathogens and Disease*). Findings from this study and others indicate certified managers have better food safety knowledge with improvement in food safety practices.

- Researchers also identified gaps in restaurant policies and practices concerning ill workers (e.g., lack of policies requiring sick workers to stay home), that if addressed, could help prevent foodborne illness outbreaks, according to a CDC-funded study on "Managerial practices regarding workers working while ill" (January 2015 *Journal of Food Protection*).

- The **National Voluntary Environmental Assessment and Information System (NVEAIS)**, launched in April 2014, is a national effort to systematically collect, analyze, interpret, and disseminate environmental factor data from foodborne illness outbreak investigations. More than half of all foodborne illness outbreaks are associated with restaurants, banquet halls, and schools and other institutions. The environmental factor data collected through NVEAIS will be used to help determine the causes of outbreaks in these settings, improve outbreak response efforts, and prevent future outbreaks. 8 state and 3 local health departments have registered for NVEAIS since its launch, and 44 outbreaks have been reported by sites in NVEAIS.

- CDC's **e-Learning on Environmental Assessment of Foodborne Illness Outbreaks** is new, free virtual training that teaches state, local, territorial and tribal environmental health professionals how to collect environmental factor data during foodborne illness outbreak investigations. Over 1,100 people from 48 states and 282 localities across the nation have participated in the e-Learning course since its April 2014 launch.

FOOD SAFETY

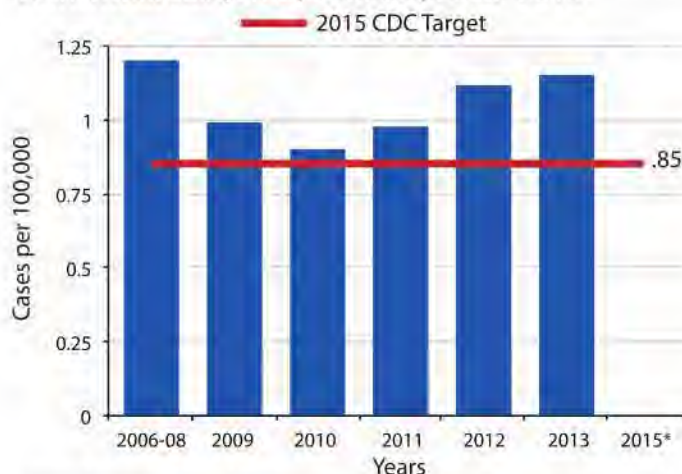Progress to Date

Trends in the rate of infections caused by *Salmonella*, 2006–2013
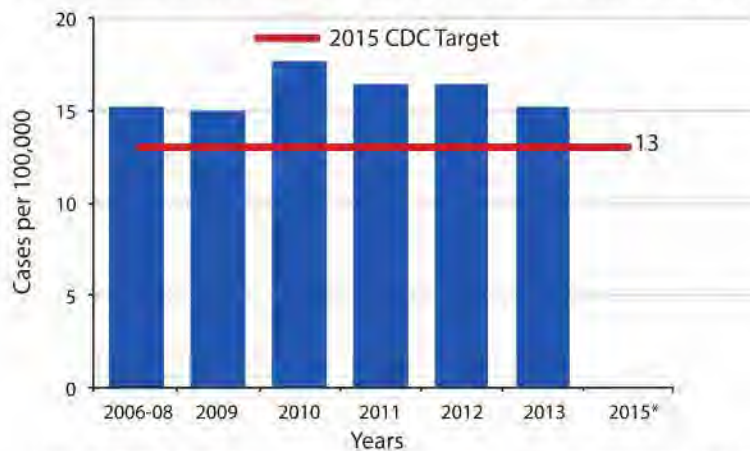
Source: Foodborne Diseases Active Surveillance Network (FoodNet)　　*data anticipated August 2016

Trends in the rate of infections caused by Shiga toxin-producing *Escherichia coli* (STEC) 0157:H7, 2006–2013

Source: Foodborne Diseases Active Surveillance Network (FoodNet)　　*data anticipated August 2016

HEALTHCARE-ASSOCIATED INFECTIONS (HAI)

Ensure safe healthcare for all Americans by eliminating healthcare-associated infections

Key Strategies

- Promote use of National Healthcare Safety Network (NHSN) data to target prevention
- Expand collaborations and partnerships to promote and implement proven HAI prevention practices
- Develop innovative approaches to prevent HAIs across the healthcare system

Key Highlights 2014

- National Healthcare Safety Network (NHSN)—the nation's most widely used HAI tracking system—became the first fully automated system that electronically captures antibiotic prescriptions and drug susceptibility test results that show which antibiotics work on specific bacteria. This feature is now available to over 15,000 facilities which will contribute to improved physician, pharmacy and laboratory decision making around antibiotic use. CDC continues working to extend the use of the Antimicrobial Use and Resistance (AUR) reporting options nationally.

- A new approach to using data for action to protect patients from HAIs, CDC's *Targeted Assessment for Prevention (TAP)* strategy allows state agencies, hospitals, and other NHSN users to focus prevention efforts on facilities and units within facilities with excess infections. A pilot of seven Quality Improvement Organizations partnering with CDC to focus catheter-associated urinary tract infections (CAUTI) prevention in low-performing facilities showed early success generating TAP reports and using facility assessment tools.

- CDC released updated estimates of the national HAI burden in acute care hospitals following a multistate prevalence survey of HAIs and antibiotic use which estimated the full spectrum of HAIs, identifying where to focus prevention efforts. CDC also released the **National and State Healthcare-Associated Infection Progress Report** showing how each state and the country as a whole are doing in eliminating six of the most common HAIs. CDC continues to promote these data to inform national, state, and local efforts to protect patients across the healthcare spectrum.

- As a part of the effort to promote stewardship to fight antibiotic resistance, CDC issued Vital Signs: Improving Antibiotic Use Among Hospitalized Patients as a call to action and is working with partners to help hospitals establish stewardship programs through practical implementation tools that include *Core Elements of Hospital Antibiotic Stewardship Programs* and a self-assessment checklist.

- CDC continues to promote the role of health departments to assist healthcare facilities in detecting and preventing the spread of HAIs and AR pathogens. In 2014, CDC supported implementation of the regional collaborative approach in 12 states (i.e. Illinois, Vermont, Wisconsin) to control the spread of healthcare-associated multidrug-resistant organisms (MDRO) between healthcare facilities. The Wisconsin/Milwaukee Health Department prevention activity used NHSN to track AR data and focus prevention in all acute care and long term care facilities in the state.

Healthcare-Associated Infections (HAI)

Progress to Date

Trends in central line-associated blood stream infections (CLABSI) in hospitals, 2006–2013
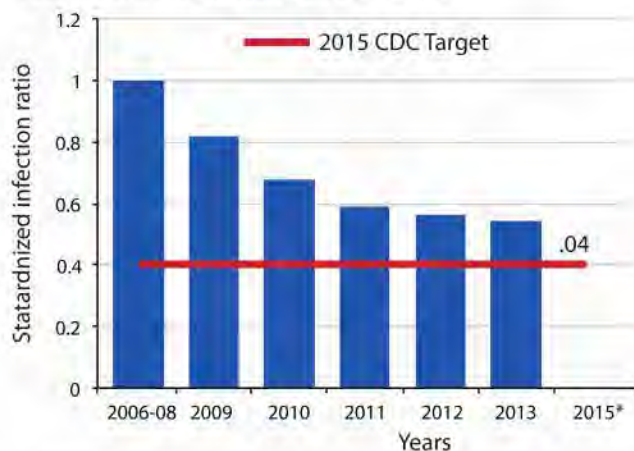
Source: CDC's National Healthcare Safety Network (NHSN)   *data anticipated November 2016

Trends in healthcare-associated invasive methilicillin-resistant *Staphylococcus aureus (MRSA)* infections, 2007–2013

Source: Emerging Infections Program/Active Bacterial Core Surveillance   *data anticipated November 2016

Healthcare-Associated Infections (HAI)

Progress to Date

Trends in surgical site infections (SSI) in hospitals, 2006–2013
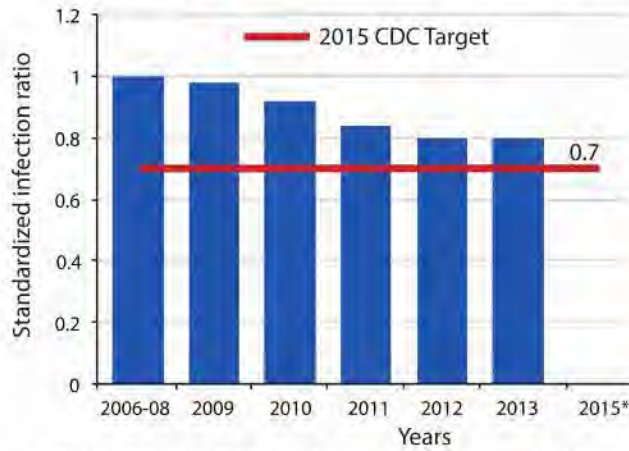
Source: CDC's National Healthcare Safety Network (NHSN)   *data anticipated November 2016

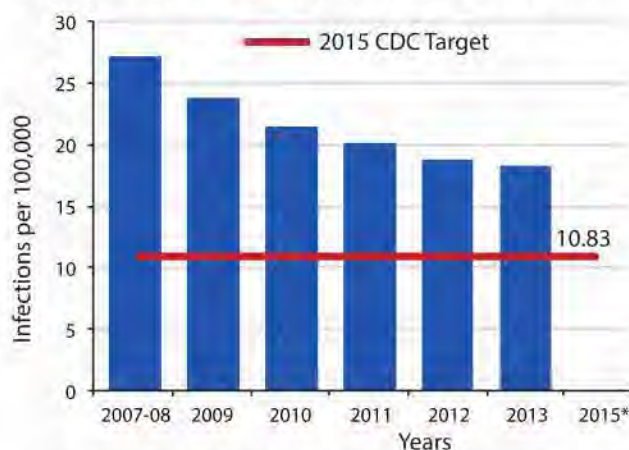## Trends in catheter-associated urinary tract infections (CAUTI) in hospitals, 2006–2013
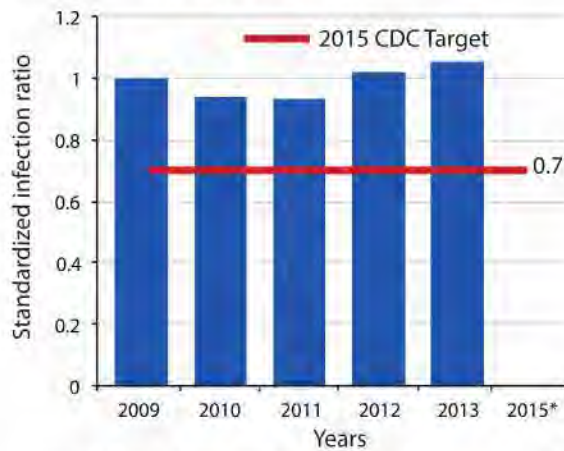
Source: CDC's National Healthcare Safety Network (NHSN)   *data anticipated November 2016

MOTOR VEHICLE SAFETY

Keep people safe on the road – everyday

Key Strategies

- Improve proper restraint use (including seat belts, car seats, and booster seats)
- Prevent crashes and injuries among vulnerable populations, including teens, older adults, American Indians and Alaska Natives

- Reduce alcohol-impaired driving
- Develop and communicate occupational motor vehicle injury prevention and protection information to manufacturers, employers, workers, and others who need it

Key Highlights 2014

- Released in October 2014, **MV PICCS (Prioritizing Interventions and Cost Calculator for States)** is an on-line interactive calculator that can help state decision makers prioritize and select motor vehicle injury prevention strategies from a suite of 12 effective interventions that are not in widespread use. MV PICCS calculates the expected number of injuries prevented and lives saved at the state level, as well as the costs of implementation, while taking into account the state's available resources.

- **State specific fact sheets on restraint use and drunk driving** were created and broadly disseminated. The fact sheets detail the state-level public health burden for both topics and successful strategies for reducing the burden.

- Employer and worker information was prepared and broadly disseminated on motor vehicle safety to employers and workers at high risk for motor vehicle crashes. Information included a pamphlet to inform truckers on the importance of quality sleep to prevent drowsy driving, and an article that describes how employers can develop effective motor vehicle safety programs using a consensus-based standard influenced by CDC science.

- Four new standards were developed with partners to enhance safety in ambulance compartments to better withstand crashes and protect emergency medical service workers and patients.

- CDC worked to expand work with tribal nations to identify specific risk behaviors associated with motor vehicle fatalities and to focus on opportunities to improve motor vehicle safety, decrease crashes, and reduce motor vehicle related fatalities. Video and online resources were created and updated.

- An estimated 2,519,471 Emergency Department visits resulted from nonfatal crash injuries, which resulted in 188,833 hospitalizations and an estimated $18.4 billion in lifetime medical costs and $32.9 billion in lifetime work loss costs, according to CDC Vital Signs on motor vehicle crash injuries released in October 2014. Primary seat belt laws, child passenger restraint laws, ignition interlocks to prevent alcohol impaired driving, sobriety checkpoints, and graduated driver licensing (GDL) systems have demonstrated effectiveness for reducing motor vehicle crashes and injuries. To date, no state has implemented all of these safety measures in accordance with evidence and expert recommendation.

- Motor vehicle crash deaths among children age 12 and younger decreased by 43% from 2002-2011; however, still more than 9,000 children died in crashes during that period, according to CDC Vital Signs released on child passenger safety in February 2014. Of children who died in a crash, one in three was not buckled up, and more black and Hispanic children were not buckled compared with white children. CDC recommends that states and communities consider using proven strategies to increase car seat, booster seat, and seat belt use and reduce child motor vehicle deaths.

- Sobriety checkpoint programs are effective, according to a systematic review released in conjunction with the Community Guide. However, in looking at the overall use of all sobriety checkpoints (not just those that are publicized or part of a program), 12 states do not allow them at all, and only one-third of the other states use them regularly.

- Re-launched in October 2014, **Parents Are the Key** campaign provides information and tools for parents, pediatricians, and communities that focus on reducing teen driving-related injuries and deaths. Motor vehicle crashes are the leading cause of death among teens. Over 100,000 people have accessed the website and 40,000 materials have been downloaded.

MOTOR VEHICLE SAFETY

Progress to Date

Trends in motor vehicle-related fatalities, 2007–2013
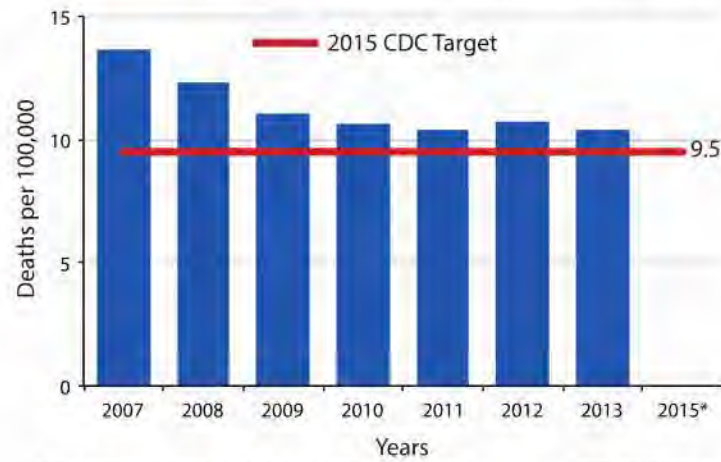
Source: National Highway Traffic Safety Administration (NHSTA), Fatality Analysis Reporting System (FARS)

*data anticipated June 2016

TEEN PREGNANCY

Reduce teen pregnancy and its contribution to the cycle of poverty for teens and their families

Key Strategies

- Monitor teen pregnancy/birth rates and prevention policies

- Promote the delay of sexual initiation through evidence-based programs and social norm changes

- Strengthen clinical services and improve the quality of care

- Promote the use of effective contraceptive methods, including long-acting reversible contraception, by sexually active teens

Key Highlights 2014

- *Recommendations for Providing Quality Family Planning (QFP) Services* gives all providers of reproductive health services access to national, evidence-based guidance on family planning service delivery, including specific recommendations for serving adolescent clients. The recommendations were released in April 2014.

- Working with partners, CDC developed and disseminated provider tools to support widespread understanding and use of the QFP Services, and the Medical Eligibility Criteria and Selected Practice Recommendations for Contraceptive Use. A training course for pediatricians to ensure they have the knowledge, skills and motivation to screen adolescents for sexual activity, and to counsel patients about contraception and other reproductive health matters, was developed and piloted with the America Academy of Pediatricians.

- CDC worked to disseminate information and provide learning opportunities to support removing barriers to the use of Long Acting Reversible Contraceptives (LARC) including efforts to clarify the safety and effectiveness of LARC use among adolescent females and Medicaid reimbursement for immediate postpartum insertion of LARC.

- CDC, in partnership with the Office of Adolescent Health (OAH), is providing funding to nine grantees to implement a community-wide initiative to reduce teen pregnancy and births in communities with the highest rates. Grantees have:

  - Reached over 19,000 youth with evidence-based interventions to prevent teen pregnancy, representing a four-fold increase from 2012. This exceeded the year three goal of 12,500.

  - Provided contraceptive and reproductive health services to over 50,000 individual adolescents through 63 partner clinics.

  - Increased LARC coverage by 80% from 2011 among adolescent clients served by health center partners, particularly among African American and White adolescents between 15 and 19 years of age.

- In January 2014, CDC initiated a systematic review to examine the body of evidence documenting observed health, economic, and social consequences of teenage pregnancy through systematic review and meta-analytic techniques. CDC met with economic experts and policy leaders (August 2014) to discuss and review the systematic review protocol. The review is expected to be completed in 2016.

TEEN PREGNANCY

Progress to Date

Trends in the rate of births among adolescent females ages 15–19, 2007–2013
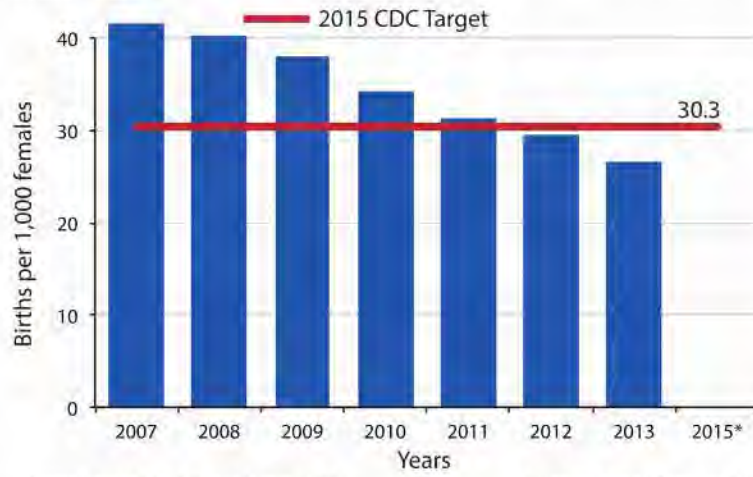
Source: National Vital Statistics System (NVSS)   *data anticipated December 2016

HIV INFECTION

Prevent new HIV infections and ensure quality health care for persons living with HIV

Key Strategies

- Intensify HIV prevention efforts in communities where HIV is most heavily concentrated

- Educate all Americans about the threat of HIV and how to prevent it

- Improve data monitoring, dissemination, and feedback

- Maximize the proportion of people with HIV who have suppressed viral load by improving diagnosis, linkage and retention in care, and antiretroviral provision and adherence

- Expand targeted efforts to prevent HIV infection using a combination of effective, evidence-based approaches for persons living with HIV and those at high risk of infection

Key Highlights 2014

- Released in 2014, the **State HIV Prevention Progress Report (SPR)** is the first annual report highlighting six HIV prevention and care indicators by providing state-level baseline information, baseline national average, and 2015 national goals. The SPR provides an important opportunity to reflect on states' individual progress. It shows that the nation's HIV goals are achievable, but closing gaps between states will be critical. The next SPR is due to be released in fall 2015.

- In April 2014, CDC released new resources to support the Data to Care strategy, which uses surveillance data to identify HIV–diagnosed people who are not engaged in care, to link or re-engage them with care and support the goal of viral suppression among all persons living with HIV. Included is a new Data to Care website which provides technical information to support state and local public health jurisdictions in their use of HIV surveillance data to support continuous, high-quality care for persons living with HIV.

- In May 2014, the US Public Health Service and CDC released the first comprehensive clinical practice guidelines for pre-exposure prophylaxis (PrEP), which is a way for people who do not have HIV but who are at substantial risk of getting it to prevent HIV infection by taking a pill every day.

- In June 2014, CDC and the Association of Public Health Laboratories (APHL) issued the *Laboratory Testing for the Diagnosis of HIV Infection or HIV Testing Algorithm*, which updates recommendations for HIV testing by laboratories in the United States and offers approaches for reporting test results to persons ordering HIV tests and to public health authorities.

- In December 2014, CDC, in collaboration with the HIV/AIDS Bureau at the Health Resources and Services Administration (HRSA), the National Institutes of Health (NIH), and five participating CDC partner organizations (American Academy of HIV Medicine, Association of Nurses in AIDS Care, International Association of Providers of AIDS Care, the National Minority AIDS Council, and Urban Coalition for HIV/AIDS Prevention Services), published *Recommendations for HIV Prevention with Adults and Adolescents with HIV in the United States, 2014* which update and expand recommendations from 2003. The updated recommendations address recent advances in biomedical, behavioral and structural interventions and are directed to a broad range of health professionals and organizations focused on optimizing health outcomes for people with HIV and reducing their risk of exposing others to HIV.

- Through its *Act Against AIDS (AAA)* initiative, CDC raises awareness among patients, providers, and the public about HIV. Collectively, AAA efforts have reached millions of people through extensive ad placement, social media engagement, provider information kits and meetings, conferences and trainings. The following campaigns were launched in 2014:

- **HIV Treatment Works** is the first national communication campaign focused exclusively on encouraging treatment and care for people living with HIV (PLWH).

- **One Conversation at a Time** is a national communication campaign that encourages Hispanics/Latinos to talk openly about HIV/AIDS with their families, friends, partners, and communities.

- **Start Talking. Stop HIV** seeks to reduce new HIV infections among gay, bisexual and other men who have sex with men (MSM) by encouraging open discussion about a range of HIV prevention strategies and related sexual health issues between sex partners.

HIV INFECTION
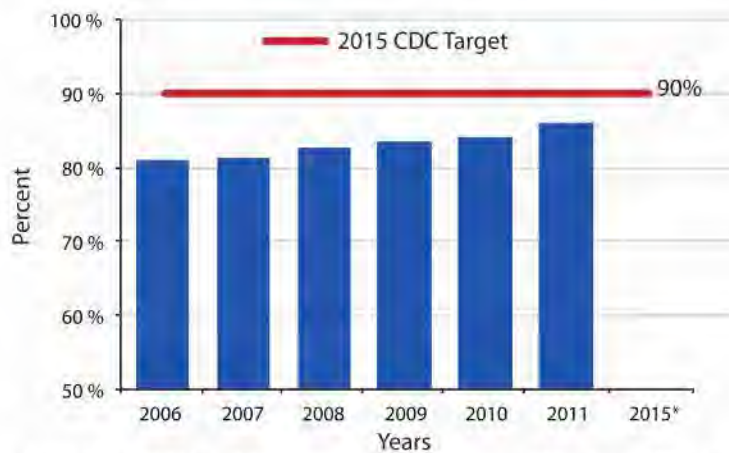
Progress to Date

Trends in the number of new HIV infections, 2006–2010
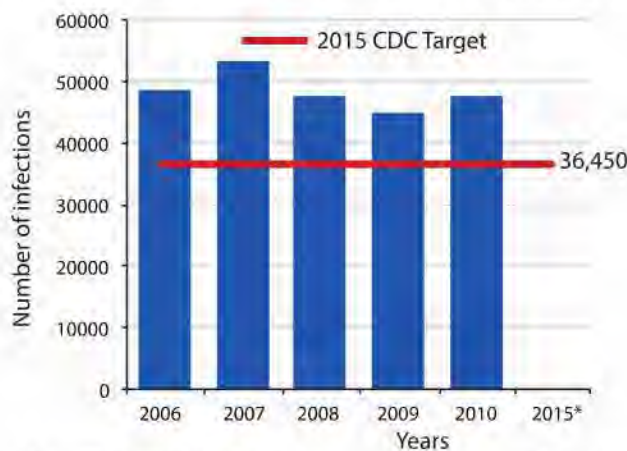
Source: CDC's HIV/AIDS Surveillance System   *data anticipated November 2017

Trends in the number of people living with HIV who know their status, 2006–2011

Source: CDC's HIV/AIDS Surveillance System   *data anticipated December 2017

RESOURCES UPDATE

- **Winnable Battles Web Site:** Updated presentations with national and state data as well as recommended approaches and initiatives. Subscribers to the Winnable Battles web site receive a periodic *"News You Can Use"* eNews Blast that shares innovative practices, tools and strategies to inform public health work.

- **CDC Vital Signs:** Each month, the CDC Vital Signs Program releases a call-to-action about an important public health topic, typically one of the Winnable Battles focus areas. Vital Signs uses the most recent CDC data on health behaviors and outcomes to create materials for key partners and the public and includes scientific papers, infographics, short videos, key messages and more. Vital Signs on Winnable Battles topics can be found at http://www.cdc.gov/vitalsigns/ or www.cdc.gov/winnablebattles. The resources are free and available for download or print.

- **Virtual Town Hall Meetings:** All public health professionals are invited to a town hall teleconference on the latest CDC Vital Signs report on the second Tuesday of each month at 2–3 pm (ET). Featuring informative subject matter experts and health department officials, the teleconferences are designed to provide a forum for health officials to broaden the conversation, build momentum, and carry out evidence-based, effective programs within the public health areas covered by *Vital Signs*.

- **Did You Know? (DYK):** These quick bullet points are emailed to about 30,000 subscribers weekly to inform public health professionals and move CDC data and recommendations into action. Readers use DYK to educate their constituents; start, change, evaluate, or support programs, policies, and practices; and share with staff, community organizations, boards of health, leaders and decision makers, and others. DYK is also CDC's most popular syndicated content.

- **National Health Report:** A dedicated web site at www.cdc.gov/healthreport offers a snapshot of our nation's health, highlighting recent successes and challenges in fighting critical health problems in the United States (U.S.). Up-to-date dashboards, resources, videos and printable fact sheets and infographics are available to assist in Winnable Battles work.

- **Prevention Status Report:** In 2013, CDC released the second set of Prevention Status Reports (PSR) for all 50 states and the District of Columbia, with information on key indicators of public health status, practice, and policy for each Winnable Battle area. Through the PSR, CDC is helping advance evidence-based policy and practice by sharing with health officials and other policy makers each state's status on key public health indicators and performance on key policy indicators. Public health leaders can use the PSRs to support public health planning, priority setting, and communications. Although the PSRs include data about public health problems, their primary focus is on policies and practices that can prevent or reduce health risk behaviors and lead to improved health outcomes. Posted at www.cdc.gov/psr, the free reports are available by topic or state. The next PSR is slated for release in 2015.

- **Sortable Stats:** Free and available online, Sortable Stats is an interactive data set comprised of behavioral risk factors and health indicators. The online tool is used as a resource in the promotion of policy, system, and environmental changes. Its data set compiles state-level data for the 50 states, DC, and U.S. territories from various published CDC and federal sources into a format that allows users to view, sort, and analyze data at state, regional, and national levels. Sortable Stats recently expanded to include data on youth marijuana use and cancer deaths. http://wwwn.cdc.gov/sortablestats/

- **Collaboration with partners:** To maximize the impact of the Winnable Battles initiative, CDC works with partners at the national, state, and local levels, including the National Conference of State Legislatures (NCSL), the Association of State and Territorial Health Officials (ASTHO), and the National Association of County and City Health Officials (NACCHO). For example:

  - CDC supports and works with NCSL and ASTHO to bring together state policy makers to learn about Winnable Battles and share evidence-based interventions to address them. CDC also collaborated with NCSL to develop a Winnable Battle "toolkit" for states that outlines each Winnable Battle and includes examples of proven or promising strategies, policy options, and programs that have been effective in addressing Winnable Battles in other jurisdictions.

  - CDC works with NACCHO in support of Winnable Battles through overall product dissemination, technical assistance, evaluation, and communications. Working with CDC, NACCHO has developed messages and materials that assist local health departments in understanding their role in choosing and promoting Winnable Battles and provides communication and dissemination strategies for Winnable Battles materials and products. NACCHO developed a Winnable Battles web portal on its site, naccho.org, which features progress on a Winnable Battle each month. NACCHO also provides Winnable Battles-related resources, programs, tools, and policy guidelines via short articles in Public Health Dispatch and publicizes Winnable Battles-related news, information, and resources via e-communications and social media outlets, including NACCHO's blog, NACCHO Voice.

For more information about Winnable Battles, visit **http://www.cdc.gov/winnablebattles/**.

CDC
National Health Report
Highlights

Table of Contents

> **This report offers practical dashboards that highlight America's recent progress in combatting the leading causes of death and key risk and protective factors impacting our nation's health. Progress for each indicator was assessed based on year-to-year (trend) data and the annualized percent change, though only baseline and the most current data are reported in the tables. Indicators with fewer than three data points were not assessed for progress.**

I. Progress in the Leading Causes of Death

Since 2005, the rate of death has declined for all leading causes of death, except suicide.

Trends in Age-Adjusted Death Rates (per 100,000 persons), 2005-2012

Cause of Death	Baseline 2005	Status 2012	Progress
1. Heart disease	216.8	170.5	🟢
2. Cancers	185.1	166.5	🟢
3. Chronic lower respiratory diseases	43.9	41.5	🔺
4. Stroke	48.0	36.9	🟢
5. Unintentional injuries	39.5	39.1	🔺
6. Alzheimer's disease	24.0	23.8	🔺
7. Diabetes	24.9	21.2	🟢
8. Pneumonia and influenza	21.0	14.4	🟢
9. Kidney disease	14.7	13.1	🟢
10. Suicide	10.9	12.6	🟥

🟥 Trend in wrong direction　　🔺 Insufficient Progress　　🟢 Progress

2.5 MILLION ANNUAL U.S. DEATHS AT LAST REPORT

7 in 10 leading causes of death resulting from chronic diseases

1 in 2 deaths in the U.S. caused by heart disease or cancer

Percentage of Deaths by Cause, 2012

- 23%
- 26%
- 23%
- 6%
- 5%
- 5%
- 3%
- 3%
- 2%
- 2%
- 2%
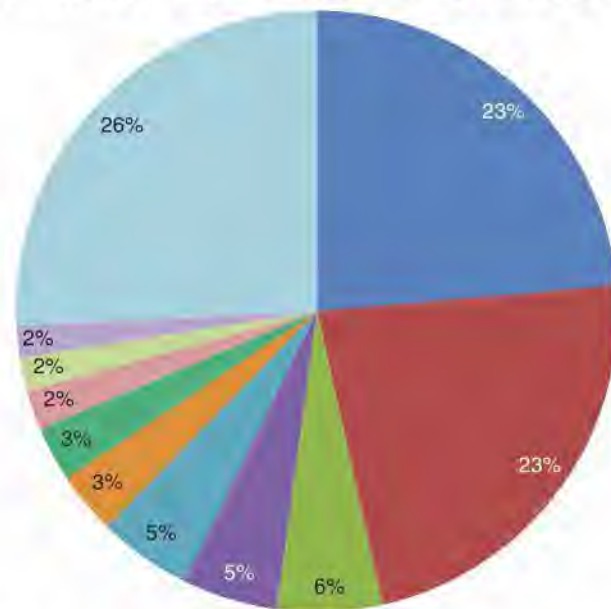
- ▪ Heart disease
- ▪ Cancer
- ▪ Chronic lower respiratory diseases
- ▪ Stroke
- ▪ Unintentional injuries
- ▪ Alzheimer's disease
- ▪ Diabetes
- ▪ Pneumonia and influenza
- ▪ Kidney disease
- ▪ Suicide
- ▪ Other diseases

The ten leading causes of death are responsible for three-quarters of all deaths in the U.S. Most of these deaths result from chronic conditions, which are the most common, costly and preventable.

Life Expectancy and Premature Death

We have reached an all-time-high life expectancy in the U.S., due in part to improvements in the prevention and control of key diseases. Americans are living longer, with declines in premature mortality across most of the leading causes of death.

Trends in Key Indicators of Life Expectancy and Premature Death, 2005-2012

Key Indicator	Baseline 2005	Status 2012	Progress
Life Expectancy			
Life expectancy at birth, in years	77.6	78.8	🟢
Premature Death			
Number of premature deaths (before age 80)	1,365,816	1,389,330	🔺
Years of Potential Life Lost[1]			
Total years of potential life lost before age 75 (rate per 100,000 persons under age 75 age adjusted)	7,315.7	6,588.0	🟢

■ Trend in wrong direction   🔺 Insufficient Progress   🟢 Progress

Trends in Life Expectancy and Years of Potential Life Lost (YPLL) in the United States, 2005–2012
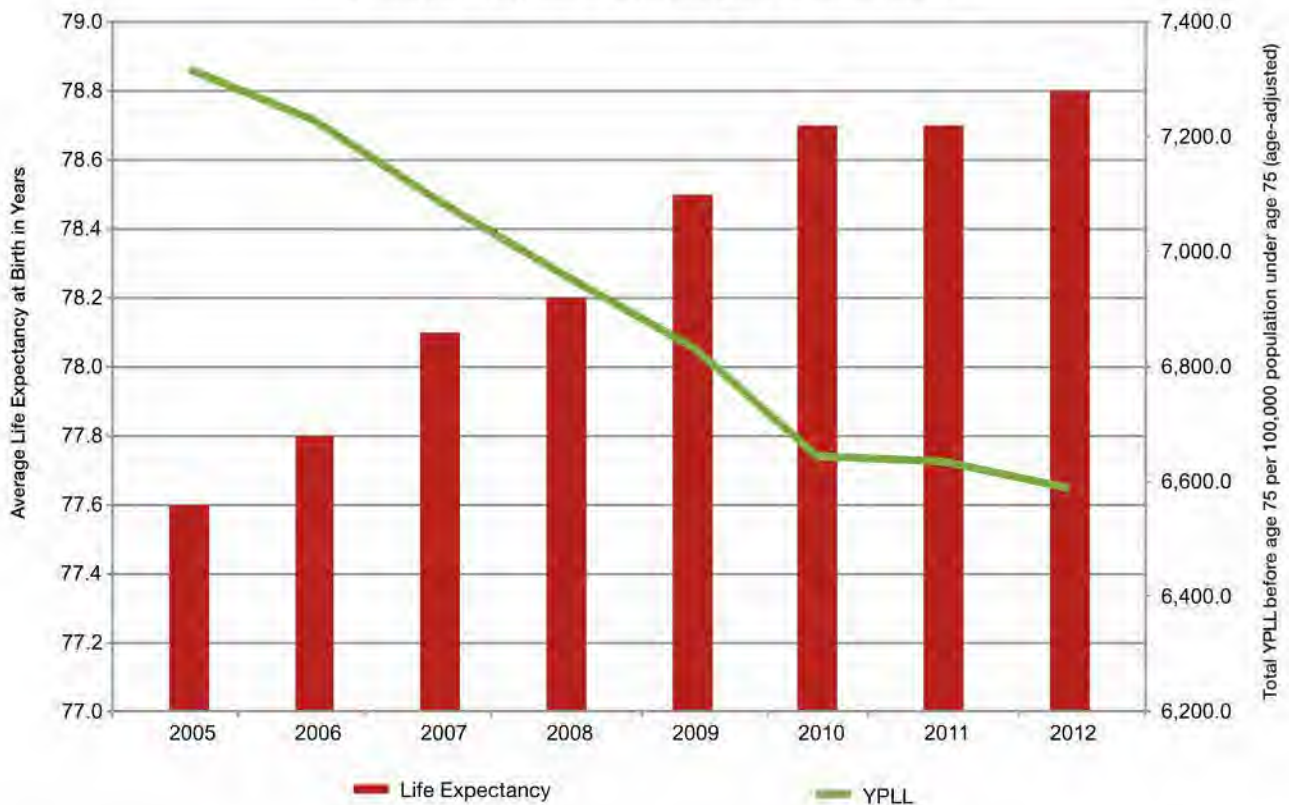
Years of potential life lost (YPLL) is a measure of the extent of premature mortality in a population. This estimate is based on the approximate age at death as well as the number of people who died in that age group in a given year.

II. Focus on the Top Five Leading Causes of Death

1. Heart Disease (#1) and Stroke (#4)

Every hour in the U.S., about 83 Americans die from heart disease and stroke. More than a quarter of these deaths could have been prevented or delayed with better control of key risk factors (below) and health-promoting behaviors, including physical activity, healthy diet and avoiding tobacco use (see Sections V.1 and V.2).

Trends in Heart Disease, Stroke and Key Risk and Protective Factors

Key Indicator	Baseline	Status	Progress
Heart Disease	**2005**	**2012**	
Age-adjusted death rate from heart disease	216.8	170.5	🟢
Stroke	**2005**	**2012**	
Age-adjusted death rate from stroke	48.0	36.9	🟢
Select Risk Factors	**2006**	**2012***	
Aspirin Use: Percent of high-risk adults (post event/diagnosis) who use aspirin	46.1%	53.8% (2010)	🟢
Blood Pressure Control: Percent of adults with high blood pressure who have it controlled (<140/90)	36.5%	46.3%	🔺
Cholesterol Control: Percent of adults with high LDL-Cholesterol who have it controlled	22.3%	29.5%	🔺
Sodium Intake: Daily amount of sodium (mg) consumed in food, per person (ages 2+)	3,436	3,463 (2010)	🟥

🟥 Trend in wrong direction   🔺 Insufficient Progress   🟢 Progress

* Unless otherwise noted.

29% of all deaths attributed to heart disease & stroke

730,000 deaths caused by heart disease and stroke each year

$312.6 BILLION annual cost associated with heart disease and stroke in health care expenditures and lost productivity
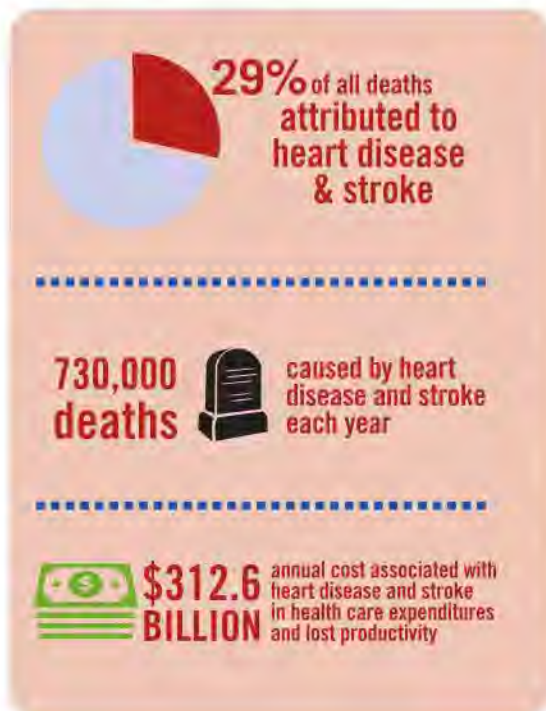
Percent of Deaths from Heart Disease and Stroke that Could Have Been Prevented or Delayed through Changes in Health Habits

HEART DISEASE

34%

STROKE

33%

2. Cancer

Recent years have brought advances in the prevention and control of cancers, including a first-ever vaccine against HPV-related cancers. Yet vaccine coverage levels fall well below that of other countries and other routine adolescent vaccines in the U.S., putting future generations at risk. At the same time, declining rates of recommended cancer screenings among women are cause for concern.

Trends in Cancer and Related Protective Factors

Key Indicator	Baseline	Status	Progress
Age-Adjusted Death rate (per 1000,000 deaths)	**2005**	**2012**	
All cancers	185.1	166.5	🟢
Breast cancer	24.2	21.3	🟢
Colorectal cancer	17.7	14.9	🟢
Lung cancer	52.7	44.9	🟢
Cancer Screening and Prevention			
Cancer Screening	*2006**	*2012*	
Percent of women (ages 50-74) receiving a mammogram, past 2 years (age-adjusted)	81.6%	78.8%	🟥
Percent of adults (ages 50-75) receiving recommended colorectal cancer screening (age-adjusted)	60.9% (2008)	65.1%	🟢
Percent of women (ages 21-65) receiving a Pap test, past 3 years (age-adjusted)	87.8%	83.8%	🟥
Cancer Vaccination	*2008*	*2013*	
Percent of adolescent girls (13-15years) receiving 3 doses of HPV vaccine	16.6%	32.7%	🔺

🟥 Trend in wrong direction   🔺 Insufficient Progress   🟢 Progress

* Unless otherwise noted.

23% of all deaths attributed to cancer

580,000 deaths caused by cancer each year

$263.8 BILLION annual cost associated with cancer in medical expenses and lost productivity

Missed Opportunities in Cancer Prevention

1 in 3 people at-risk for colon cancer are not getting recommended screening

1 in 5 women at-risk for breast cancer are not getting recommended screening

1 in 6 women at-risk for cervical cancer are not getting recommended screening

2 in 3 teen girls have not received full HPV vaccine series

If current trends continue, cancer will soon surpass heart disease as the leading cause of death in the U.S.

3. Chronic Lower Respiratory Diseases

Chronic lower respiratory diseases, primarily chronic obstructive pulmonary diseases (COPD) such as emphysema and chronic bronchitis, became the 3rd leading cause of death in 2008.

Trends in Chronic Lower Respiratory Diseases and Select Risk Factors

Key Indicator	Baseline 2005	Status 2012*	Progress
Age-adjusted death rate (per 100,000) from chronic lower respiratory diseases	43.9	41.5	▲
Select Risk Factors			
Number of hospitalizations for asthma	489,000	439,000 (2010)	▲
Percent of adults who are current smokers (cigarettes/cigars/pipes)	28.0%	25.2%	▲

■ Trend in wrong direction   ▲ Insufficient Progress   ● Progress

* Unless otherwise noted.

Despite slightly declining death rates, the number of deaths from these conditions is on the rise, as our nation's older population grows. It will remain a concern in the years to come.

6% of all deaths **attributed to chronic respiratory disease**

140,000 deaths caused by chronic respiratory disease each year

$32.1 BILLION annual cost associated with chronic respiratory disease annually

COPD by 2020: expected cost of medical care for adults with COPD **will be more than $90 BILLION**

4. Unintentional Injuries

While we have made great progress in reducing motor-vehicle fatalities in recent years, deaths from other types of injury have been on the rise. Drug overdoses, particularly from prescription painkillers, now kill as many as 46 people each day in the U.S. Deaths from falls among older persons have also increased, as our aging population grows. Together, drug poisonings (of any intent) and older-adult falls claimed more than 18,500 additional lives in 2012, compared to 2005.

Trends in Unintentional Injuries

Age-Adjusted Death rate (per 100,000 persons)	Baseline 2005	Status 2012	Progress
All unintentional injuries (motor-vehicle crashes, falls among older adults, and drug poisonings)	39.5	39.1	🔺
• Motor vehicle	15.2	11.4	🟢
• Drug poisonings (any intent)	10.1	13.1	🟥
• Older adult falls (age 65+)	42.3	55.3	🟥

🟥 Trend in wrong direction   🔺 Insufficient Progress   🟢 Progress

5% of all deaths **attributed to unintentional injuries**

130,000 deaths caused by unintentional injuries each year

$99.0 BILLION annual cost associated with motor vehicle injuries alone, from medical care, rehabilitation and lost wages

1 in 3 motor vehicle deaths caused by drinking and driving

III. Other Leading Causes of Death

Each of these five diseases or conditions accounts for 3% or less of all deaths, but together they claimed the lives of nearly 300,000 people in 2012 alone. We have effective prevention and control strategies for most of these conditions, but they must be adopted by populations most in need. We can do better in helping individuals control key risk factors for diabetes and kidney disease (see Sections III.1, V.1 and V.2), and get vaccinated against flu.

Trends in Other Leading Causes of Death and Related Risk and Protective Factors

Key Indicator	Baseline 2005*	Status 2012	Progress
6. Alzheimer's Disease			
Age-adjusted death rate (per 100,000 persons) from Alzheimer's Disease	24.0	23.8	🔺
7. Diabetes			
Age-adjusted death rate (per 100,000 persons) from diabetes	24.9	21.2	🟢
Diabetes Control			
Percent of adults with diabetes with an A1c value >9% (age-adjusted)	17.9% (2008)	21.0%	N/A
8. Pneumonia and Influenza			
Age-adjusted death rate (per 100,000 persons) from pneumonia and influenza	21.0	14.4	🟢
Influenza Vaccination			
Percent of children ages 6 months-17 years receiving ≥1 dose of influenza vaccine per influenza season	43.7% (2009)	56.6%	🟢
Percent of adults receiving influenza vaccination	40.4% (2009)	41.5%	🔺
Percent of pregnant women receiving influenza vaccination	49.0% (2010)	50.5%	🔺
Percent of health-care personnel receiving influenza vaccination	63.4% (2009)	72.0%	🟢
9. Kidney Disease			
Age-adjusted death rate (per 100,000 persons) from kidney disease	14.7	13.1	🔺
10. Suicide			
Age-adjusted death rate (per 100,000 persons) from suicide	10.9	12.6	🟥

🟥 Trend in wrong direction   🔺 Insufficient Progress   🟢 Progress

* Unless otherwise noted.

IV.   KEY CONTRIBUTORS TO THE NATION'S HEALTH

1.   Tobacco Use

Smoking is the leading preventable cause of disease and death in the U.S., responsible for about 1 in every 5 deaths. It puts smokers and those exposed to secondhand smoke at risk for serious health problems, including heart attack, stroke, lung cancer and many other cancers. Although fewer Americans are smoking and they are smoking less than in previous years, continued efforts are needed, when as many as one-quarter of adults and nearly 1 in 6 youth are still smoking.

Trends in Tobacco Use and Exposure

Key Indicator	Baseline 2005*	Status 2012*	Progress
Annual per capita cigarette consumption	1,716	1,196	▲
Percent of adults who are current cigarettes, cigars, or pipe smokers (age-adjusted)	28.0%	25.2%	▲
Percent of high school students who are current cigarette smokers	23.0%	15.7% (2013)	●
Percent of children (3-11 years) exposed to secondhand smoke[2]	50.8% (2006)	41.3%	●

■ Trend in wrong direction   ▲ Insufficient Progress   ● Progress

* Unless otherwise noted.

SMOKING causes more deaths each year than all of these combined:

}

Human immunodeficiency virus (HIV)
Illegal drug use
Alcohol use
Motor vehicle injuries
Microbial agents
Toxic agents

480,000 deaths   caused by cigarette smoking each year

2. Healthy Weight

Obesity puts individuals at risk for many of the leading causes of death, including heart disease, stroke, some types of cancer, respiratory diseases, diabetes and kidney disease. Despite progress in some areas, our nation falls far short of healthy physical-activity and dietary-consumption levels, leaving more than a third of adults obese. Obesity costs the U.S. about $147 billion in medical expenses each year.

Trends in Obesity and Key Risk and Protective Factors

Key Indicator	Baseline 2006	Status 2012	Progress
Percent of adults (ages 20+) who are obese	34.3%	34.9%	▲
Percent of youth (ages 2-19) who are obese	15.4%	16.9%	▲
Behavioral Risk or Protective Factors			
Physical Activity	**2005**	**2013**	
Percent of adults who met the federal physical activity guidelines	16.6%	20.7%	●
Percent of high school students who are physically active at least 1 hour a day, seven days a week	17.9%	27.1%	●
Nutrition	**2006**	**2010**	
Average daily fruit intake (per 1,000 calories consumed) per person (ages 2+)	0.5 cups	0.6 cups	▲
Average daily vegetable intake (per 1,000 calories consumed) per person (ages 2+)	0.8 cups	0.8 cups	▲

■ Trend in wrong direction   ▲ Insufficient Progress   ● Progress

Medical Complications of Obesity

- Sleep apneas and snoring
- Stroke
- Lung disease
  - Asthma
  - Pulmonary blood clots
- Heart disease
  - Diabetes
  - Abnormal lipid profile
  - High blood pressure
- Liver disease
  - Fatty liver
  - Cirrhosis
- Pancreatitis
- Female disorders
  - Abnormal periods
  - Infertility
- Gallstones
- Cancer
  - Breast
  - Uterus
  - Colon
  - Esophagus
  - Pancreas
  - Kidney
  - Prostate
- Arthritis
- Inflamed veins, often with blood clots
- Gout

3. Maternal and Child Health

We have reached historically low infant-mortality and teen-birth rates in the U.S. and made great strides in increasing infant vaccination and breastfeeding rates. Yet half of infants are still not breastfed and as many as 1 in 16 new mothers in the U.S. are teens, putting the health of future generations at risk.

Trends in Maternal and Child Health, Risk and Protective Factors

Key Indicator	Baseline 2005*	Status 2012*	Progress
Infant Mortality			
Infant Death Rate (< 1 year)	6.9	6.0	●
Number of Infant Deaths	28,440	23,629	●
Teen Births			
Rate of teen births among females ages 15 to 19 (per 1,000 female population)	39.7	26.6 (2013)	●
Breastfeeding			
Percent of infants breastfed at six months	42.9%	49.4% (2011)	●
Child Vaccination			
Percent of children (19-35 months) receiving universally recommended doses of vaccines (DTaP, polio, MMR, Hib, Hep B, varicella, PCV)	44.3% (2009)	70.4% (2013)	●
Lead Poisoning			
Number of children ages 1 to 5 with blood lead levels greater than 5 µg/dL	654,703 (2008)	535,699 (2010)	N/A

■ Trend in wrong direction   ▲ Insufficient Progress   ● Progress

* Unless otherwise noted.

275,000 babies born to teen mothers aged 15–19 each year

$9.4 BILLION annual cost associated with teen pregnancy

4. Infectious Diseases

a. Sexually Transmitted and Bloodborne Infections

Despite progress in curbing HIV transmission, nearly 50,000 people still acquire HIV each year, and 1 in 6 persons who have it are unaware of their infection. Chlamydia and Hepatitis C tend to be under-diagnosed, but increased screening efforts have identified more cases in recent years, leading to higher case rates. Despite this, deaths from hepatitis C are expected to rise in the coming decades, as many individuals (who remain undiagnosed and untreated) grow older and develop serious complications.

Trends in Select Sexually Transmitted and Bloodborne Infections

Key Indicator	Baseline	Status	Progress
HIV	**2006**	**2010**	
Number of new HIV infections in the U.S. (persons ages 13+)	48,600	47,500	🟥
Rate of HIV transmission among adolescents and adults (per 100 persons, age 13+, who have HIV)	4.6	4.2	🟢
Percent of people living with HIV who know their serostatus (persons ages 13+)	80.9%	84.2%	🟢
Chlamydia	**2005**	**2012**	
Rate of chlamydia in women ages 15-19 (per 100,000 population)	2733	3291.5	🟥
Rate of chlamydia in women ages 20-24 (per 100,000 population)	2667.9	3695.5	🟥
Hepatitis C	**2005**	**2011***	
Number of new cases of hepatitis C	694	1,778 (2012)	🟥
Number of hepatitis C deaths	11,849	17,721	🟥

🟥 Trend in wrong direction   🔺 Insufficient Progress   🟢 Progress

* Unless otherwise noted.

1.1 MILLION people in the U.S. are living with HIV

1 in 5 have their HIV under control

YET

1 in 6 do not know they are infected

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b. Healthcare-Associated Infections

Healthcare-associated infections affect about 1 in 25 hospital patients, resulting in roughly 75,000 deaths each year. Whereas improvements have been made in reducing many infections, most notably surgical-site and central line-associated bloodstream infections; catheter-associated urinary tract infections (CAUTIs) have reached historically high rates, signaling a need for more aggressive and focused CAUTI prevention measures.

Trends in Healthcare-Associated Infections

Key Indicator	Baseline 2008*	Status 2012	Progress
Central line-associated blood stream infection (CLABSI), standardized infection ratio (SIR)[1]	1.00	0.56	🟢
Catheter-associated urinary tract infections (CAUTI), SIR	1.00 (2009)	1.03	🟥
Hospital admission and readmission due to surgical-site infections (SSI), SIR	1.00	0.8	🟢
Hospital onset of *Clostridium difficile* (*C. difficile*), SIR	1.00 (2011)	0.98	N/A
Incidence of healthcare-associated invasive Methicillin-resistant *Staphylococcus aureus* (MRSA) infections (rate per 100,000 persons)	27.08	18.74	🟢

🟥 Trend in wrong direction   🔺 Insufficient Progress   🟢 Progress

* Unless otherwise noted.

[1] The Standardized Infection Ratio (SIR) is calculated by dividing the actual (observed) infections by the expected infections using data gathered through the CDC National Healthcare Safety Network (NHSN).

1 in 25 hospital patients develop healthcare-associated infections

HOSPITAL

$28-33 BILLION estimated annual cost of preventable health care expenditures from healthcare-associated infections

c. Foodborne Illnesses

Each year, there are about 1,000 foodborne illness outbreaks caused by foods contaminated with bacteria such as *Listeria*, *Salmonella* and *E. coli*. These illnesses sicken 1 out of 6 Americans and cause 3,000 deaths annually. Despite progress in reducing *Listeria* infections, there have been slight increases in *Salmonella* and *E. coli* infections – signaling the need for more work in these areas.

Trends in Food-Borne Illnesses

Key Indicator	2005	2013*	Progress
Rate of *Listeria* infection in the population (cases per 100,000 population)	0.29	0.26	🔺
Rate of *Salmonella* infection in the population (cases per 100,000 population)	14.53	15.19	🔺
Rate of *Salmonella* serotype Enteritidis (SE) infection in the population (cases per 100,000 population)	2.45	2.59 (2012)	🔺
Rate of Shiga toxin-producing *Escherichia coli* (STEC) O157 infection in the population (cases per 100,000 population)	1.06	1.15	🟥

🟥 Trend in wrong direction   🔺 Insufficient Progress   🟢 Progress

* 2013 data are preliminary and reflects the most currently available data, unless otherwise noted.

Antibiotic Resistance Threatens our Ability to Fight Infectious Diseases

Each year, antibiotic resistance causes more than

2 MILLION illnesses

and

23,000 deaths

Protecting the food supply

Antibiotic stewardship

Surveillance

Proven public health strategies can prevent these threats

Treatment

Screening

Immunization

Education

Infection control

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Attachment H: CDC personnel and non-personnel expenses by program

Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry
FY 2008-2018 Non-Pay Obligations by Program

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2018
Discretionary[1]	$5,097,113	$5,300,588	$5,366,376	$5,109,936	$5,909,339	$5,184,245	$5,362,779	$5,925,296	$6,139,496	(b)(6)
1. Immunization & Respiratory Diseases	N/A	N/A	N/A	N/A	$515,274	$500,778	$701,929	$722,398	$722,398	
21 - 21 - Travel & Transportation of Persons	N/A	N/A	N/A	N/A	$3,280	$2,600	$2,901	$2,859	$2,859	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$782	$818	$624	$794	$794	
23 - Rent, Telecommunication, Other Comm & Utilities	N/A	N/A	N/A	N/A	$6,962	$3,326	$3,006	$1,428	$1,428	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$156	$56	$60	$62	$62	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$115,022	$97,014	$228,727	$226,503	$226,503	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$95,535	$109,858	$97,410	$86,053	$86,053	
31 - Equipment	N/A	N/A	N/A	N/A	$2,022	$3,314	$3,914	$5,494	$5,494	
41 - Grants	N/A	N/A	N/A	N/A	$291,515	$283,792	$365,286	$399,205	$399,205	
42 - Insurance Claims	N/A	N/A	N/A	N/A	$ -	$ -	$20	$0	$0	
2. HIV/AIDS, Viral Hepatitis, Sexually Transmitted Diseases & TB Prevention	N/A	N/A	N/A	N/A	$937,203	$881,732	$950,631	$950,133	$950,133	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$4,304	$3,330	$3,481	$3,763	$3,763	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$592	$599	$582	$583	$583	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$1,483	$916	$793	$674	$674	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$503	$486	$418	$386	$386	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$147,655	$136,639	$191,977	$185,367	$185,367	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$5,036	$4,406	$5,629	$4,457	$4,457	
31 - Equipment	N/A	N/A	N/A	N/A	$1,988	$3,062	$7,087	$5,744	$5,744	
41 - Grants	N/A	N/A	N/A	N/A	$775,629	$732,258	$740,664	$749,059	$749,059	
42 - Insurance Claims	N/A	N/A	N/A	N/A	$14	$36	$ -	$100	$100	
3. Emerging & Zoonotic Infectious Diseases	N/A	N/A	N/A	N/A	$146,222	$141,390	$279,008	$300,225	$451,225	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$3,564	$3,386	$3,349	$3,859	$3,859	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$987	$880	$923	$960	$960	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$1,300	$928	$1,040	$1,029	$1,029	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$521	$305	$250	$412	$412	

Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry
FY 2008-2018 Non-Pay Obligations by Program

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2018
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$59,276	$53,220	$132,070	$137,969	$168,969	(b)(6)
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$11,070	$11,895	$12,271	$14,005	$14,005	
31 - Equipment	N/A	N/A	N/A	N/A	$3,312	$2,935	$11,917	$7,743	$7,743	
41 - Grants	N/A	N/A	N/A	N/A	$66,150	$67,841	$117,188	$134,139	$254,139	
42 - Insurance Claims	N/A	N/A	N/A	N/A	$43	$ -	$ -	$110	$110	
4. Chronic Disease Prevention & Health Promotion	N/A	N/A	N/A	N/A	$647,043	$626,369	$1,059,235	$1,066,253	$1,066,253	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$3,158	$2,412	$2,649	$2,914	$2,914	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$153	$180	$210	$101	$101	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$1,816	$349	$349	$364	$364	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$548	$427	$436	$318	$318	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$119,816	$119,575	$288,946	$301,095	$301,095	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$1,213	$975	$852	$901	$901	
31 - Equipment	N/A	N/A	N/A	N/A	$2,758	$1,159	$2,016	$2,472	$2,472	
41 - Grants	N/A	N/A	N/A	N/A	$517,579	$501,279	$763,771	$757,471	$757,471	
42 - Insurance Claims	N/A	N/A	N/A	N/A	$1	$12	$5	$615	$615	
5. Birth Defects, Developmental Disabilities, Disabilities & Health	N/A	N/A	N/A	N/A	$106,740	$98,551	$101,746	$103,236	$103,236	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$748	$626	$554	$543	$543	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$36	$29	$48	$48	$48	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$126	$77	$79	$88	$88	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$253	$207	$226	$482	$482	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$27,375	$24,607	$37,077	$35,753	$35,753	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$589	$426	$300	$602	$602	
31 - Equipment	N/A	N/A	N/A	N/A	$205	$336	$196	$242	$242	
41 - Grants	N/A	N/A	N/A	N/A	$77,408	$72,243	$63,268	$65,477	$65,477	
6. Environmental Health	N/A	N/A	N/A	N/A	$70,354	$65,046	$138,545	$136,180	$136,180	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$880	$675	$741	$1,065	$1,065	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$176	$168	$208	$230	$230	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$595	$85	$82	$99	$99	

Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry
FY 2008-2018 Non-Pay Obligations by Program

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2018
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$46	$37	$19	$16	$16	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$24,568	$23,162	$56,333	$57,122	$57,122	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$3,053	$3,801	$4,048	$4,169	$4,169	
31 - Equipment	N/A	N/A	N/A	N/A	$6,569	$4,401	$8,415	$5,510	$5,510	
32 - Land & Structure	N/A	N/A	N/A	N/A	$ -	$ -	$ -	$24	$24	
41 - Grants	N/A	N/A	N/A	N/A	$34,466	$32,712	$68,699	$67,875	$67,875	
42 - Insurance Claims	N/A	N/A	N/A	N/A	$ -	$4	$ -	$70	$70	
7. Injury Prevention & Control	N/A	N/A	N/A	N/A	$110,612	$102,633	$121,266	$138,722	$200,322	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$632	$497	$539	$600	$600	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$30	$18	$13	$17	$17	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$144	$91	$105	$92	$92	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$260	$176	$173	$97	$97	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$26,794	$22,996	$31,652	$38,726	$45,726	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$161	$101	$130	$143	$143	
31 - Equipment	N/A	N/A	N/A	N/A	$128	$142	$730	$644	$644	
41 - Grants	N/A	N/A	N/A	N/A	$82,463	$78,611	$87,916	$98,402	$153,002	
42 - Insurance Claims	N/A	N/A	N/A	N/A	$ -	$ -	$6	$ -		0
8. Public Health Scientific Services	N/A	N/A	N/A	N/A	$220,257	$218,495	$296,418	$296,198	$296,198	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$3,096	$2,697	$3,199	$3,770	$3,770	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$398	$404	$464	$619	$619	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$4,804	$6,374	$5,888	$5,293	$5,293	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$648	$557	$489	$418	$418	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$149,414	$147,637	$223,416	$226,243	$226,243	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$1,408	$951	$971	$1,127	$1,127	
31 - Equipment	N/A	N/A	N/A	N/A	$2,935	$7,530	$6,363	$5,362	$5,362	
41 - Grants	N/A	N/A	N/A	N/A	$57,541	$52,346	$55,609	$53,181	$53,181	
42 - Insurance Claims	N/A	N/A	N/A	N/A	$12	$ -	$20	$185	$185	
9. National Institute for Occupational Safety & Health	N/A	N/A	N/A	N/A	$166,303	$158,677	$204,870	$205,275	$205,275	

(b)(6)

Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry
FY 2008-2018 Non-Pay Obligations by Program

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2018
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$4,050	$3,626	$3,466	$3,902	$3,902	(b)(6)
22 - Transportation of Things	N/A	N/A	N/A	N/A	$800	$747	$713	$808	$808	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$4,369	$3,611	$3,723	$3,955	$3,955	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$239	$176	$71	$114	$114	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$45,661	$44,497	$86,985	$86,422	$86,422	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$5,131	$5,040	$4,617	$4,830	$4,830	
31 - Equipment	N/A	N/A	N/A	N/A	$8,296	$7,650	$7,247	$8,424	$8,424	
41 - Grants	N/A	N/A	N/A	N/A	$97,754	$93,331	$98,049	$96,819	$96,819	
42 - Insurance Claims	N/A	N/A	N/A	N/A	$2	$0	$0	$1	$1	
10. Global Health	N/A	N/A	N/A	N/A	$226,144	$210,464	$261,661	$313,804	$313,804	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$15,840	$13,051	$12,632	$21,443	$21,443	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$3,283	$2,255	$2,285	$3,152	$3,152	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$7,872	$7,989	$5,185	$6,298	$6,298	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$88	$75	$347	$108	$108	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$45,514	$38,299	$75,331	$101,032	$101,032	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$3,452	$2,858	$2,746	$3,175	$3,175	
31 - Equipment	N/A	N/A	N/A	N/A	$3,525	$1,912	$2,431	$4,478	$4,478	
32 - Land & Structure	N/A	N/A	N/A	N/A	$ -	$162	$10	$ -	$ -	
41 - Grants	N/A	N/A	N/A	N/A	$146,572	$143,854	$160,688	$174,109	$174,109	
42 - Insurance Claims	N/A	N/A	N/A	N/A	$ -	$11	$7	$9	$9	
11. Public Health Preparedness & Response	N/A	N/A	N/A	N/A	$1,171,885	$1,151,563	$1,297,036	$1,248,739	$1,248,739	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$3,886	$3,332	$3,549	$3,470	$3,470	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$5,386	$2,752	$8,915	$3,471	$3,471	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$2,006	$2,185	$2,245	$2,492	$2,492	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$221	$119	$168	$189	$189	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$128,422	$163,766	$272,118	$272,553	$272,553	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$387,213	$370,767	$377,417	$326,427	$326,427	
31 - Equipment	N/A	N/A	N/A	N/A	$6,523	$4,436	$5,778	$7,294	$7,294	

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2018
Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry FY 2008-2018 Non-Pay Obligations by Program										
41 - Grants	N/A	N/A	N/A	N/A	$638,230	$604,206	$626,810	$632,843	$632,843	(b)(6)
42 - Insurance Claims	N/A	N/A	N/A	N/A	$0	$2	$36	$ -	$ -	
12. CDC Wide Activities and Program Support	$5,092,113	$5,300,588	$5,366,336	$5,109,936	$1,430,825	$953,892	$390,717	$377,608	$377,608	
21 - Travel & Transp. of Persons	$44,151	$54,529	$54,750	$46,349	$10,827	$11,263	$12,211	$10,530	$10,530	
22 - Transportation of Things	$21,689	$13,849	$13,905	$13,864	$7,356	$4,715	$1,121	$1,778	$1,778	
23 - Rent, Comm & Utilities	$23,340	$68,676	$97,793	$55,310	$40,711	$41,588	$7,274	$6,764	$6,764	
24 - Printing & Reproduction	$9,418	$8,320	$8,768	$4,903	$464	$427	$426	$393	$393	
25 - Consulting & Other Services	$1,231,450	$1,188,126	$1,193,002	$1,361,443	$600,273	$406,326	$152,436	$160,959	$160,959	
26 - Supplies & Materials	$548,439	$493,357	$756,854	$475,815	$129,139	$82,579	$25,868	$23,769	$23,769	
31 - Equipment	$72,738	$57,254	$57,486	$55,836	$52,046	$30,788	$9,649	$6,816	$6,816	
32 - Land & Structure	$106,842	$8,620	$8,654	$7,701	$12,923	$10,935	$24	$ -	$ -	
41 - Grants	$3,033,943	$3,407,804	$3,175,071	$3,088,417	$577,069	$365,044	$181,691	$166,538	$166,538	
42 - Insurance Claims	$103	$53	$53	$298	$17	$227	$17	$62	$62	
13. Buildings and Facilities	N/A	N/A	N/A	N/A	$5,978	$35,375	$17,620	$22,219	$22,219	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$ -	$2	$0	$3	$3	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$91	$ -	$22	$26	$26	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$3,720	$26,799	$10,792	$18,922	$18,922	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$ -	$24	$55	$29	$29	
31 - Equipment	N/A	N/A	N/A	N/A	$6	$565	$2,256	$708	$708	
32 - Land & Structure	N/A	N/A	N/A	N/A	$2,161	$7,985	$4,495	$2,530	$2,530	
15. Toxic Substances & Disease Registry	N/A	N/A	N/A	N/A	$51,497	$39,279	$42,076	$44,905	$44,905	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$713	$394	$409	$522	$522	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$25	$52	$26	$37	$37	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$263	$4,568	$111	$126	$126	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$8	$12	$7	$7	$7	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$29,318	$16,506	$22,654	$25,124	$25,124	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$321	$361	$183	$104	$104	
31 - Equipment	N/A	N/A	N/A	N/A	$784	$1,025	$367	$317	$317	

Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry
FY 2008-2018 Non-Pay Obligations by Program

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2018
32 - Land & Structure	N/A	N/A	N/A	N/A	$ -	$ -	$ -	$24	$24	
41 - Grants	N/A	N/A	N/A	N/A	$20,057	$16,359	$18,320	$18,548	$18,548	
42 - Insurance Claims	N/A	N/A	N/A	N/A	$9	$1	$ -	$95	$95	
CDC/ATSDR Discretionary Total	**$5,092,113**	**$5,300,588**	**$5,366,336**	**$5,109,936**	**$5,806,339**	**$5,184,245**	**$5,862,779**	**$5,925,896**	**$6,138,496**	
21 - Travel & Transp. of Persons	$44,151	$54,529	$54,750	$46,349	$54,978	$47,889	$49,679	$59,240	$59,240	
22 - Transportation of Things	$21,689	$13,849	$13,905	$13,864	$20,004	$13,620	$16,133	$12,601	$12,601	
23 - Rent, Comm & Utilities	$23,340	$68,676	$97,793	$55,310	$72,540	$72,087	$29,901	$28,729	$28,729	
24 - Printing & Reproduction	$9,418	$8,320	$8,768	$4,903	$3,955	$3,058	$3,088	$3,003	$3,003	
25 - Consulting & Other Services	$1,231,450	$1,188,126	$1,193,002	$1,361,443	$1,522,828	$1,321,043	$1,810,513	$1,873,789	$1,911,789	
26 - Supplies & Materials	$548,439	$493,357	$756,854	$475,815	$643,322	$594,041	$532,499	$469,794	$469,794	
31 - Equipment	$72,738	$57,254	$57,486	$55,836	$91,096	$69,256	$68,367	$61,250	$61,250	
32 - Land & Structure	$106,842	$8,620	$8,654	$7,701	$15,084	$19,082	$4,529	$2,578	$2,578	
41 - Grants	$3,033,943	$3,407,804	$3,175,071	$3,088,417	$3,382,434	$3,043,876	$3,347,959	$3,413,668	$3,588,268	
42 - Insurance Claims	$103	$53	$53	$298	$98	$294	$111	$1,246	$1,246	
Mandatory	N/A	N/A	N/A	N/A	$4,238,266	$3,889,836	$3,845,530	$4,159,417	$4,159,417	
16. VACCINES FOR CHILDREN (VFC) PROGRAM	N/A	N/A	N/A	N/A	$3,984,701	$3,590,899	$3,539,659	$3,828,163	$3,828,163	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$99	$277	$293	$229	$229	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$163	$36	$17	$22	$22	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$25,275	$9,908	$24	$114	$114	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$19	$65	$61	$56	$56	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$84,782	$72,274	$96,089	$100,879	$100,879	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$3,791,324	$3,421,661	$3,356,793	$3,636,186	$3,636,186	
31 - Equipment	N/A	N/A	N/A	N/A	$2	$1,411	$981	$9	$9	
32 - Land & Structure	N/A	N/A	N/A	N/A	$ -	$265	$ -	$ -	$ -	
41 - Grants	N/A	N/A	N/A	N/A	$83,038	$85,002	$85,400	$90,669	$90,669	
17. Energy Employees Occupational Illness Compensation Program	N/A	N/A	N/A	N/A	$47,652	$44,641	$47,584	$44,569	$44,569	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$406	$247	$263	$298	$298	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$9	$4	$4	$5	$5	

(b)(6)

Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry
FY 2008-2018 Non-Pay Obligations by Program

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2018
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$4,357	$262	$30	$49	$49	(b)(6)
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$3	$2	$3	$4	$4	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$42,809	$44,082	$47,194	$44,114	$44,114	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$39	$29	$29	$37	$37	
31 - Equipment	N/A	N/A	N/A	N/A	$28	$16	$61	$63	$63	
18. WORLD TRADE CENTER HEALTH PROGRAM FUND	N/A	N/A	N/A	N/A	$205,913	$253,356	$258,278	$286,685	$286,685	
21 - Travel & Transp. of Persons	N/A	N/A	N/A	N/A	$222	$112	$142	$133	$133	
22 - Transportation of Things	N/A	N/A	N/A	N/A	$1	$1	$2	$19	$19	
23 - Rent, Comm & Utilities	N/A	N/A	N/A	N/A	$7	$42	$22	$23	$23	
24 - Printing & Reproduction	N/A	N/A	N/A	N/A	$12	$9	$9	$44	$44	
25 - Consulting & Other Services	N/A	N/A	N/A	N/A	$186,323	$233,528	$101,864	$103,765	$103,765	
26 - Supplies & Materials	N/A	N/A	N/A	N/A	$3	$8	$14	$15	$15	
31 - Equipment	N/A	N/A	N/A	N/A	$8	$3	$5	$5	$5	
41 - Grants	N/A	N/A	N/A	N/A	$19,337	$19,654	$22,719	$23,141	$23,141	
42 - Insurance Claims	N/A	N/A	N/A	N/A	$ -	$ -	$133,501	$159,540	$159,540	
CDC/ATSDR Discretionary and Mandatory Level					**$10,044,604**	**$9,073,141**	**$9,708,299**	**$10,085,314**	**$10,297,914**	

[1] Prior to FY 2012, CDC Discretionary funding was appropriated in a single account (annual 0943). For FY2008-2011, all discretionary obligations by object class are grouped in the "CDC Wide Activities and Program Support" account.

[2] Prior to FY 2012, CDC Mandatory funding data is not readily available. For FY 2016-2018, obligations are assume to remain level.

Attachment I: List of testimony since 2009

CDC Congressional Testimony

Date	Testimony Title	Witness	Committee
7/13/2016	Zika in the Western Hemisphere: Risks and Response	Thomas Frieden, MD, MPH	Senate Foreign Relations Subcommittee on Western Hemisphere, Transnational Crime, Civilian Security, Democracy, Human Rights, and Global Women's Issues
6/14/2016	Combatting Superbugs: U.S. Public Health Responses to Antibiotic Resistance	Beth Bell, MD, MPH	House Energy and Commerce Subcommittee on Oversight and Investigations
4/14/2016	The Federal Perspective on the State of Our Nation's Biodefense	Stephen C. Redd, MD (RADM, USPHS)	Senate Homeland Security and Governmental Affairs
3/23/2016	CDC 24/7: On the Front Lines of America's Health Defense	Thomas Frieden, MD, MPH	House Appropriations Subcommittee on Labor, Health and Human Services, Education and Related Agencies
3/2/2016	Examining the U.S. Public Health Response to the Zika Virus	Thomas Frieden, MD, MPH	House Energy and Commerce Committee, Subcommittee on Oversight and Investigations
2/24/2016	The Zika Virus: Coordination of a Multi-Agency Response	Anne Schuchat, MD (RADM, USPHS)	House Oversight and Government Reform Subcommittee on Transportation and Public Assets
2/24/2016	Zika Virus: Addressing the Growing Public Health Threat	Anne Schuchat, MD (RADM, USPHS)	Senate Health, Education, Labor and Pensions Committee
2/11/2016	Emerging health threats and the Zika supplemental request	Thomas Frieden, MD, MPH	Senate Committee on Appropriations, Subcommittee on Labor, Health and Human Services, Education and Related Agencies
2/10/2016	The Global Zika Epidemic	Thomas Frieden, MD, MPH	House Foreign Affairs Joint Hearing of the Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations, and the Subcommittee on the Western Hemisphere

12/8/2015	Drug Resistant Tuberculosis: The Next Global Health Crisis?	Thomas Frieden, MD, MPH	House Foreign Affairs Committee, Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations
11/19/2015	U.S. Public Health Preparedness for Seasonal Influenza: Has the Response Improved?	Anne Schuchat, MD (RADM, USPHS)	House Energy and Commerce Committee, Subcommittee on Oversight and Investigations
5/1/2015	CDC's Role in the Federal Approach to Opioid Overdose Prevention	Debra Houry, MD, MPH	House Energy and Commerce Committee, Subcommittee on Oversight and Investigations
4/15/2015	Update on the U.S. Public Health Response to the Ebola Outbreak	Thomas Frieden, MD, MPH	House Committee on Appropriations, Subcommittee on Labor, Health and Human Services, Education and Related Agencies
3/25/2015	CDC 24/7: Keeping Americans Healthy, Safe, and Competitive	Thomas Frieden, MD, MPH	House Committee on Appropriations, Subcommittee on Labor, Health and Human Services, Education and Related Agencies
2/26/2015	Medical and Public Health Preparedness and Response: Are We Ready for Future Threats?	Stephen C. Redd, MD (RADM, USPHS)	Senate Health, Education, Labor and Pensions Committee
2/10/2015	The Reemergence of Vaccine-Preventable Diseases: Exploring the Public Health Successes and Challenges	Anne Schuchat, MD (RADM, USPHS)	Senate Health, Education, Labor and Pensions Committee
2/3/2015	Examining the U.S. Public Health Response to Seasonal Influenza	Anne Schuchat, MD (RADM, USPHS)	House Energy and Commerce Committee, Subcommittee on Oversight and Investigations
11/19/2014	Examining Medical Product Development in the Wake of the Ebola Epidemic	Stephen C. Redd, MD (RADM, USPHS)	House Energy and Commerce Subcommittee on Health
11/19/2014	Preparedness and Response to Public Health Threats: How Ready Are We?	Thomas Frieden, MD, MPH	Senate Committee on Homeland Security and Governmental Affairs

11/18/2014	Update on the U.S. Public Health Response to the Ebola Outbreak	Thomas Frieden, MD, MPH	House Energy and Commerce Committee, Subcommittee on Oversight and Investigations
10/16/2014	Public Health Response to Ebola	Thomas Frieden, MD, MPH	House Energy and Commerce Committee Subcommittee on Oversight and Investigations
9/17/2014	Global Efforts to Fight Ebola	Beth Bell, MD, MPH	House Committee on Foreign Affairs, Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations
9/16/2014	Ebola in West Africa: A Global Challenge and Public Health Threat	Beth Bell, MD, MPH	Senate Committees on Appropriations and Health, Education, Labor and Pensions
8/7/2014	Combating the Ebola Threat	Thomas Frieden, MD, MPH	House Committee on Foreign Affairs, Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations
7/22/2014	Coal Miners' Struggle for Justice: How Unethical Legal and Medical Practices Stack the Deck Against Black Lung Claimants	John Howard, MD, MPH, JD, LLM	Subcommittee on Employment, Workplace Safety - Committee on Health, Education, Labor and Pensions – United States Senate
7/16/2014	Review of CDC Anthrax Lab Incident	Thomas R. Frieden, MD, MPH	House Energy and Commerce Subcommittee on Oversight and Investigations
5/15/2014	Ending Tobacco Use in the United States - Our Past, Present and Future	Tim McAfree, MD, MPH	Senate Health, Education, Labor and Pensions Committee
5/7/2014	The President's Fiscal Year 2015 Budget	Dr. Tom Frieden	Senate LHHS Appropriations Subcommttee
4/29/2014	Examining the Growing Problems of Prescription Drug and Heroin Abuse	Daniel Sosin, MD, MPH., FACP	House Energy and Commerce Subcommittee on Oversight and Investigations
11/6/2013	Aging, Transportation and Health	Grant Baldwin, PhD, MPH	Special Committee on Aging U.S. Senate

9/24/2013	CDC's Portfolio to Detect Healthcare-associated Infections and Protect Patients and Communities	Beth Bell, MD, MPH	Health, Education, Labor and Pensions Committee - United States Senate
5/22/2013	Food and Drug Safety, Public Health, and the Environment in China	Anne Schuchat, MD (RADM, USPHS)	Congressional-Executive Commission on China
4/26/2013	Review of Federal Hydraulic Fracturing Research Activities	Robin M. Ikeda, MD, MPH (RADM, USPHS)	Subcommittees on Energy and Environment Committee on Science, Space and Technology U.S. House of Representatives
4/23/2013	Meeting the Challenge of Drug-Resistant Diseases in Developing Countries	Thomas R. Frieden, MD, MPH	Committee on Foreign Affairs Subcommittee on Africa, Global Health, Human Rights, & International Organizations United States House of Representatives
3/5/2013	CDC 24/7: Keeping Americans Healthy, Safe and Secure, and Competitive	Thomas R. Frieden, MD, MPH	Committee on Appropriations Subcommittee on Labor, Health and Human Services, Education and Related Agencies
2/13/2013	Influenza: Perspective on Current Season and Update on Preparedness	Thomas R. Frieden, MD, MPH	Committee on Energy and Commerce Subcommittee on Oversight and Investigations, United States House of Representatives
2/5/2013	The CDC investigation of Legionnaires' disease among patients at the VA Pittsburgh Healthcare System	Lauri Hicks, DO	House Committee on Veterans' Affairs Subcommittee on Oversight and Investigations, United States House of Representatives
11/30/2012	Autism Spectrum Disorder	Coleen A. Boyle, PhD	Committee on Oversight and Government Reform, United States House of Representatives
11/15/2012	The CDC and Public Health Response to the 2012 Fungal Meningitis and Other Infections Outbreak	Beth Bell, MD, MPH	Health, Education, Labor, and Pensions Committee, United States Senate
3/27/2012	Learning From the Upper Big Branch Tragedy	Jeffery L. Kohler, PhD	Committee on Education and the Workforce United States House of Representatives

12/6/2011	Health Issues Associated with Contaminated Drywall	Christopher J. Portier, PhD	Subcommittee on Consumer Protection, Product Safety, and Insurance Committee on Commerce, Science, and Transportation United States Senate
10/12/2011	Food Marketing: Can "Voluntary" Government Restrictions Improve Children's Health?	William H. Dietz, MD, PhD	Subcommittee on Health and Subcommittee on Commerce, Manufacturing, and Trade Committee on Energy & Commerce U.S. House of Representatives
5/12/2011	Strengthening our Nation's Public Health Security through Medical Countermeasures and the Strategic National Stockpile	Ali S. Khan, MD, MPH	Subcommittee on Emergency Preparedness, Response and Communications Committee on Homeland Security U.S. House of Representatives
5/3/2011	Sacred Obligation: Restoring Veteran Trust and Patient Safety	Michael Bell, MD	Committee on Veterans Affairs U.S. House of Representatives
9/29/2010	PEPFAR: From Emergency to Sustainability and Advances Against HIV/AIDS	Thomas Frieden, MD, MPH	Committee on Foreign Affairs, U.S. House of Representatives
9/16/2010	Camp Lejeune: Contamination and Compensation, Looking Back, Moving Forward	Christopher Portier, PhD	Subcommittee on Investigations and Oversight; Committee on Science and Technology United States House of Representatives
9/14/2010	Pending Public Health Legislation	Ileana Arias, PhD	Subcommittee on Health; Committee on Energy and Commerce United States House of Representatives
9/8/2010	Protecting School–age Athletes From Sports-Related Concussion Injury	Vikas Kapil, DO, MPH, FACOEM	Subcommittee on Health; Committee on Energy & Commerce U.S. House of Representatives
7/21/2010	Are Agencies Playing It Safe and Secure: An Examination of Worker Protections Pre- and Post-Injury	John Howard, MD, MPH, JD, LLM	Subcommittee on Federal Workforce, Postal Service, and the District of Columbia Committee on Oversight and Government Reform – US House of Representatives

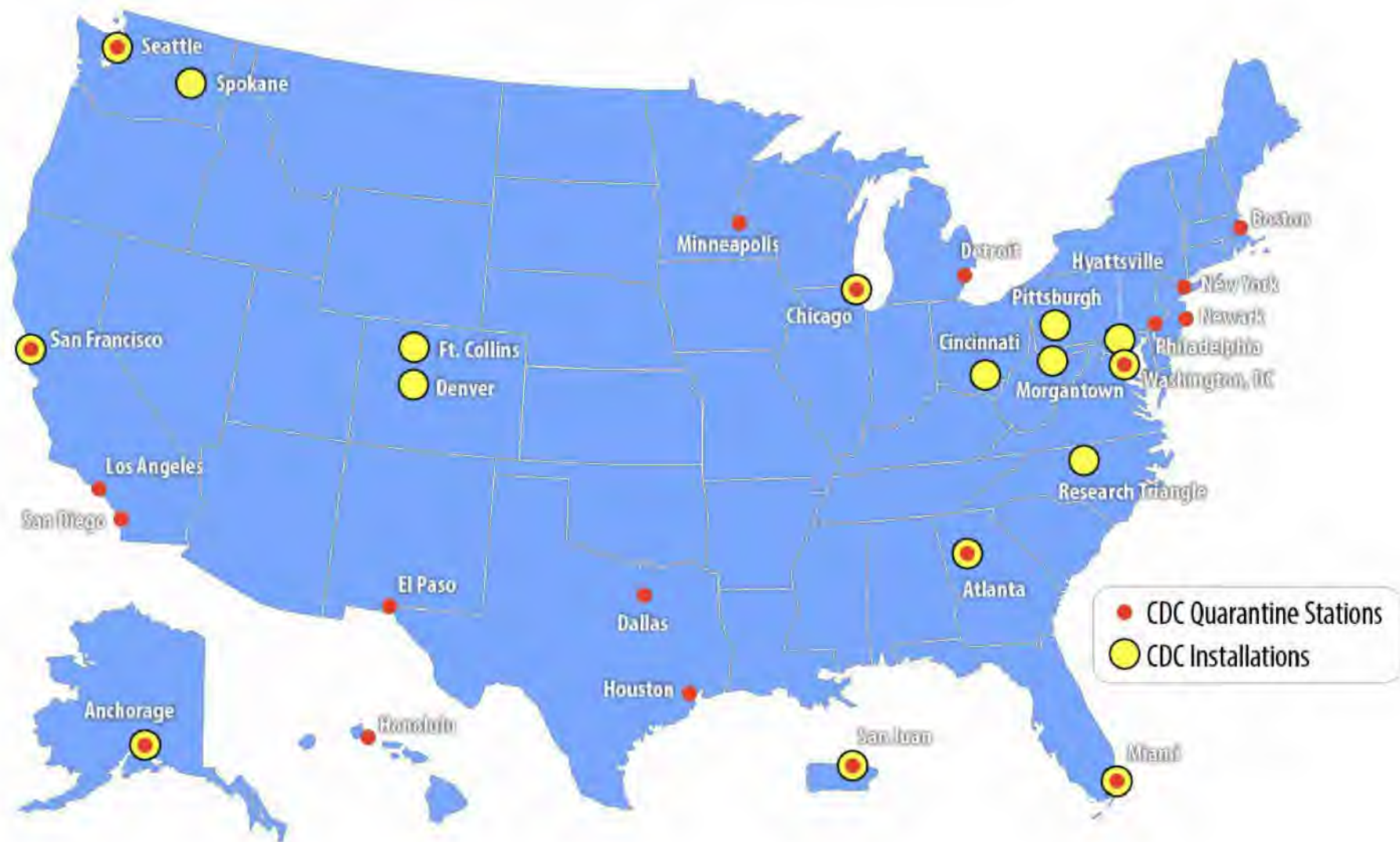| 7/14/2010	Antibiotic Resistance and the Use of Antibiotics in Animal Agriculture	Ali Khan, MD, MPH	Subcommittee on Health; Committee on Energy & Commerce U.S. House of Representatives
7/1/2010	The Battle Against Diabetes: Progress Made, Challenges Unmet	Ann Albright, PhD, RD	Subcommittee on Health; Committee on Energy and Commerce United States House of Representatives
6/29/2010	Examining the Continuing Needs of Communities Affected by 9/11	John Howard, MD, MPH, JD, LLM	Committee on Health, Education, Labor and Pensions – United States Senate
6/23/2010	Worker Health and Safety from the Oil Rig to the Shoreline	John Howard, MD, MPH, JD, LLM	Committee on Education and Labor U.S. House of Representatives
6/16/2010	HHS Actions to Identify and Address Health Effects of the BP Oil Spill	John Howard, MD, MPH, JD, LLM	Subcommittee on Health; Committee on Energy and Commerce U.S. House of Representatives
6/15/2010	Evaluating the Health Impacts of the Gulf of Mexico Oil Spill	John Howard, MD, MPH, JD, LLM	Subcommittee on Health; Committee on Health, Education, Labor and Pensions United States Senate
6/15/2010	Lead Exposure in D.C.: Prevention, Protection, and Potential Prescriptions	Ileana Arias, PhD	Subcommittee on Federal Workforce, Postal Service, and the District of Columbia Committee on Oversight and Government Reform U.S. House of Representatives
5/20/2010	Preventing Harm—Protecting Health: Reforming CDC's Environmental Public Health Practices	Robin M. Ikeda, MD, MPH	Subcommittee on Investigations and Oversight; Committee on Science and Technology United States House of Representatives
5/20/2010	Investing in Mine Safety: Preventing Another Disaster	John Howard, MD, MPH, JD, LLM	Appropriations Committee; Subcommittee on Labor, Health and Human Services, Education, and Related Agencies U.S. Senate
5/12/2010	Prematurity and Infant Mortality: What Happens When Babies Are Born Too Early?	William M. Callaghan, MD, MPH	Subcommittee on Health Committee on Energy and Commerce United States House of Representatives

5/11/2010	Safe Patient Handling & Lifting Standards for a Safer American Workforce	James W. Collins, PhD, MSME (CAPT, USPHS)	Subcommittee on Employment and Workplace Safety Committee on Health, Education, Labor and Pensions United States Senate
4/28/2010	Antibiotic Resistance and the Threat to Public Health	Thomas Frieden, MD, MPH	Committee on Energy and Commerce Subcommittee on Health United States House of Representatives
4/22/2010	The Environment and Human Health: The Role of HHS	Henry Falk, MD, MPH	Subcommittee on Investigations and Oversight; Committee on Science and Technology United States House of Representatives
4/14/2010	Smokeless Tobacco: Impact on the Health of our Nation's Youth and Use in Major League Baseball	Terry F. Pechacek, PhD	Subcommittee on Health, Committee on Energy and Commerce United States House of Representatives
2/25/2010	Biosurveillance: Smart Investments for Early Warning	Daniel M. Sosin, MD, MPH, FACP	Subcommittees on Homeland Security Committee on Appropriations United States House of Representatives
12/16/2009	Innovative Childhood Obesity Practices	William H. Dietz, MD, PhD	Subcommittee on Health Committee on Energy and Commerce U.S. House of Representatives
11/18/2009	H1N1 Preparedness: An Overview of Vaccine Production and Distribution	Anne Schuchat, MD (RADM, USPHS)	Subcommittees on Health, and Oversight and Investigations; Committee on Energy and Commerce, United States House of Representatives
11/17/2009	H1N1 Flu: Getting the Vaccine to Where It Is Most Needed	Anne Schuchat, MD (RADM, USPHS)	Committee on Homeland Security and Governmental Affairs, United States Senate
11/17/2009	Protecting Employees, Employers and the Public: H1N1 and Sick Leave Policies	Anne Schuchat, MD (RADM, USPHS)	Committee on Education and Labor, U.S. House of Representatives
11/17/2009	Prioritizing Chemicals for Safety Determination	Eric Sampson, PhD	Subcommittee on Commerce, Trade and Consumer Protection; Committee on Energy and Commerce, United States House of Representatives

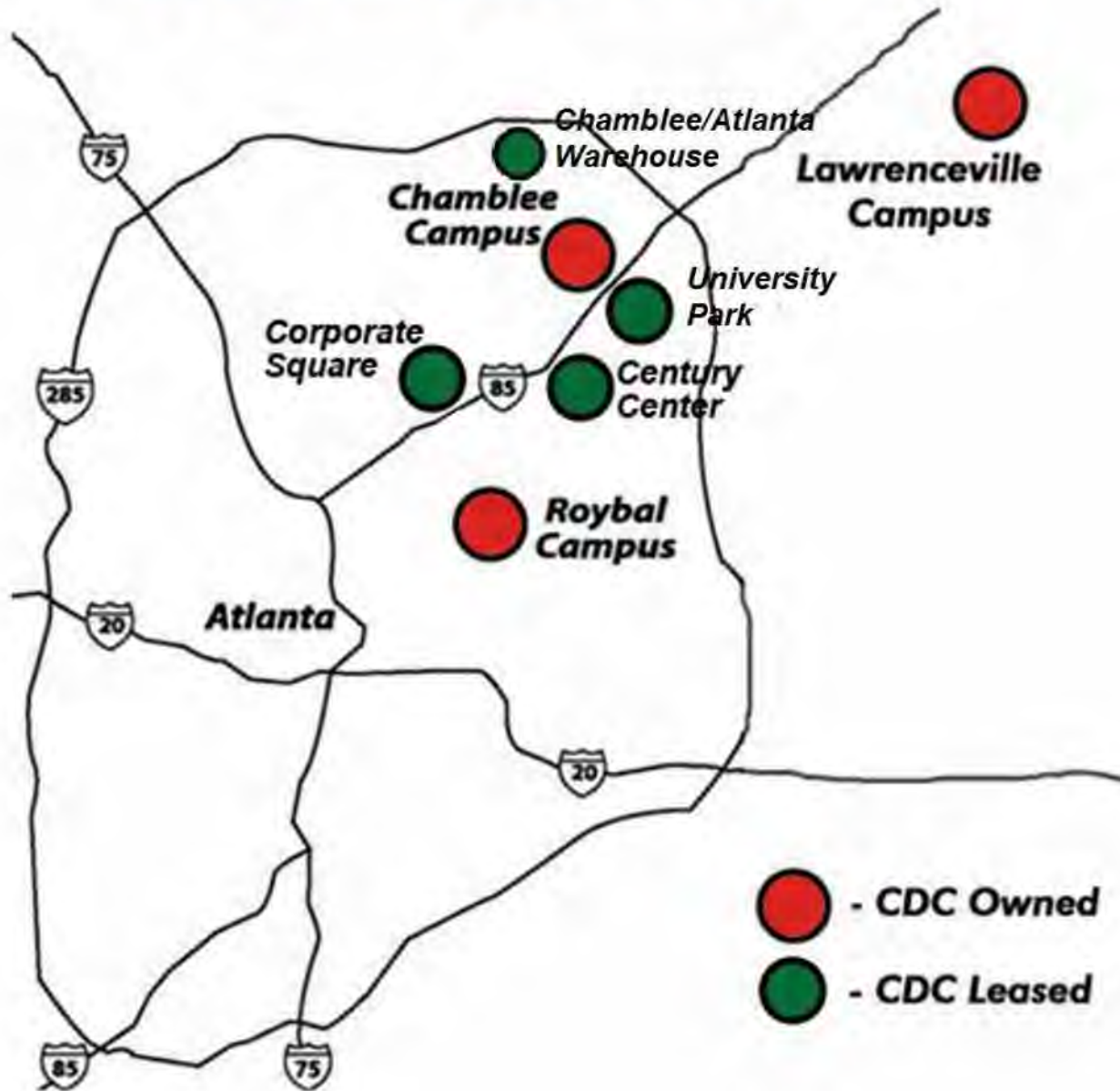|			
11/10/2009	The Cost of Being Sick: H1N1 and Paid Sick Days	Anne Schuchat, MD (RADM, USPHS)	Subcommittee on Children and Families; Committee on Health, Education, Labor and Pensions, United States Senate
11/5/2009	Preventing Child Abuse and Improving Responses to Families in Crisis	Rodney Hammond, PhD	Subcommittee on Healthy Families &Communities; Committee on Education & Labor U.S. House of Representatives
9/29/2009	Responding to the 2009-2010 Influenza Season	Thomas Frieden, MD, MPH	Oversight and Government Reform United States House of Representatives
9/9/2009	Preparing Small Businesses for the Challenges of 2009-H1N1 Influenza	Anne Schuchat, MD (RADM, USPHS)	Committee on Small Business, United States House of Representatives
6/24/2009	Protecting Older Adults During Public Health Emergencies	Richard Besser, MD	Committee on Aging, United States Senate
5/20/2009	State and Local Pandemic Preparedness	Daniel Sosin, MD, MPH, FACP	House Committee on Oversight and Government Reform
5/15/2009	Benefits of Farm-to-School Projects, Healthy Eating and Physical Activity for School Children	William H. Dietz, MD, PhD	Senate Committee on Agriculture, Nutrition & Forestry
5/14/2009	Protecting the Protectors: An Assessment of Front-line Federal Workers in Response to the 2009-H1N1 Influenza Outbreak	David N. Weissman, MD	Subcommittee on the Federal Workforce, Postal Service and the District of Columbia
5/7/2009	CDCs Response to a Novel 2009-H1N1 Influenza Virus	Anne Schuchat, MD (RADM, USPHS)	House Committee on Education and Labor
5/6/2009	U.S. Global Health Response to a Novel 2009-H1N1 Influenza Virus	Anne Schuchat, MD (RADM, USPHS)	Subcommittee on Africa and Global Health, House Committee on Foreign Affairs

4/30/2009	U.S. Health Response to a Novel 2009 H1N1 Influenza Virus	Anne Schuchat, MD (RADM, USPHS)	Subcommittee on Health, House Committee on Energy & Commerce
4/29/2009	U.S. Health Response to a Novel 2009 H1N1 Influenza Virus	Richard Besser, MD	Senate Committee on Health, Education, Labor & Pensions
4/29/2009	U.S. Health Response to a Novel 2009 H1N1 Influenza Virus	Anne Schuchat, MD (RADM, USPHS)	Senate Committee on Homeland Security & Governmental Affairs
3/31/2009	Making Health Care Work for American Families: The Role of Public Health	Richard Besser, MD	Testimony Before the Subcommittee on Health Committee on Energy & Commerce United States House of Representatives
3/26/2009	Current Status and Activities to Decrease the Prevalence of Obesity Among U.S. Children and Adolescents	William H. Dietz, MD, PhD	Testimony before the Committee on Agriculture Subcommittee on Department Operations, Oversight, Nutrition and Forestry United States House of Representatives
3/12/2009	Scientific Oversight and Management of the Agency for Toxic Substances and Disease Registry	Howard Frumkin, MD, DrPH	Testimony before the Senate Committee on Science and Technology Subcommittee on Investigations and Oversight
2/25/2009	Update on the Latest Global Warming Science	Howard Frumkin, MD, DrPH	Testimony before the Senate Committee on Energy and Public Works United States Senate
2/5/2009	CDC Response to the Multistate Outbreak of Salmonella Typhimurium	Ali Khan, MD, MPH	Testimony before the Senate Committee on Agriculture, Nutrition, and Forestry

Attachment J: Maps of CDC Campuses

CDC HAS RESEARCH, DETECTION, AND RESPONSE UNITS AROUND THE COUNTRY

CDC CAMPUSES IN ATLANTA

CDC HAS RESEARCH, DETECTION, AND RESPONSE UNITS AROUND THE WORLD

Legend:
- CDC's global presence
- Global Disease Detection Center
- Global Immunizations – Measles/Polio
- Influenza experts deployed
- Malaria experts deployed
- Global HIV/AIDS Program
- Field Epidemiology Training Program
- CDC epidemiologist in country
- GHSA phase one country
- Ebola-affected country