

CENTERS FOR DISEASE CONTROL AND PREVENTION

# Information Technology Strategic Plan

FY 2012–2016

*Strengthening the Public Health Information Supply Chain  
to Better Protect the Health of People Everywhere*



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

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# 1 Executive Summary

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Since it was founded in 1946, the Centers for Disease Control and Prevention (CDC) has remained at the forefront of public health practice as its mission has expanded from the control of infectious diseases to include control and prevention of chronic diseases, injuries, workplace hazards, disabilities, and environmental health threats. CDC strives to improve the quality of people's health in the U.S. and worldwide through an integrated approach with a focus on public health priorities.

The purpose of the CDC Information Technology Strategic Plan (CITSP) is to guide the direction, focus, mission alignment, investments, initiatives, and accountability of CDC's Information Technology (IT) program supporting CDC's public health priorities and to maximize the IT value to CDC programs, partners, stakeholders, and customers.

For the purposes of this plan, information technology broadly means: (1) all information assets; (2) data and information collection, management, and sharing; (3) the information technology infrastructure including hardware, software, and communications; (4) information, computer, informatics sciences, and related disciplines; (5) all associated IT management and planning activities such as information security, capital planning/investment control, and architecture; and (6) applicable human resources. The plan development was informed by an environmental analysis of key drivers, enablers, and trends that relate to CDC's mission and by engaging a range of public, private, and academic sector participants.

The driving force for the CITSP is to promote improved health outcomes through the provisioning of high-quality, timely, relevant information to CDC, its partners, and customers.

The five broad goal areas contained in this plan cover:

- **CDC Public Health Mission** CDC's core mission is expressed through the public health priorities. This is the critical domain for IT because it provides strategic value to the agency in achievement of health impact and quality of health.
- **Business services** Achievement of CDC's mission requires predictable, effective, timely, high quality, and agile business services delivering a broad range of functions and services. These business services provide both direct and indirect service and support to the mission.
- **IT operations and infrastructure** Computing and communication assets and services form the foundation of CDC's information and informatics programs. These services enable CDC's public health mission and vision of promoting health and the quality of life by bringing the power and advantage of IT infrastructure to the challenges faced by CDC and its public health partners. This goal area addresses robust, reliable, and secure computing and communications.
- **Enterprise processes and shared resources** Common resources and processes required to effectively govern, manage and execute IT practice at the CDC and keep it aligned with the agency's strategic intent.
- **Collaboration and innovation** The complexity of CDC's mission compounded by increasing demands for better performance at lower cost and reduced risk provide strong impetus for aggressive collaboration and innovation.

The plan includes twenty-two objectives and forty-two performance measures. Primary and contributing organizations with responsibility for achieving the objectives have been identified in this plan. The Tactical (Operations) Phase described in the Strategic Planning Process is recognized as important for the Agency to operationalize this plan to achieve the Agency and IT strategic goals.

## 2 Strategic Planning Process

### 2.1 Process Approach

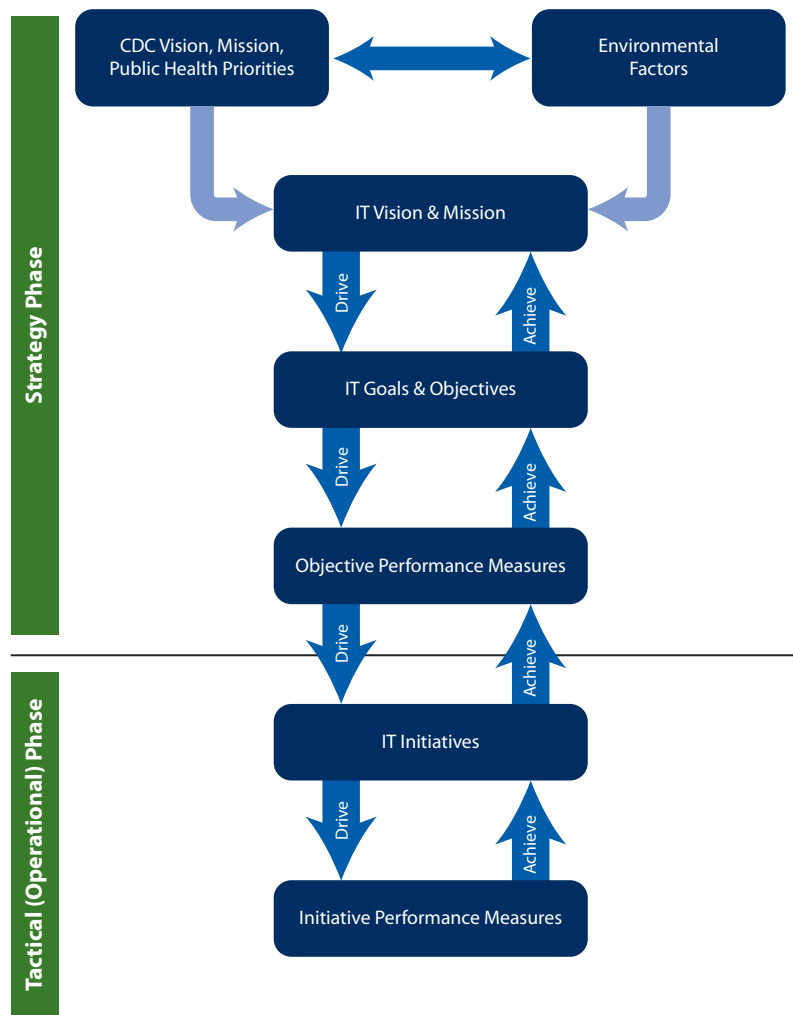
The CDC IT strategic planning process incorporated these key attributes:

- Collaboration and Inclusion
- Participation of Public, Private, and Academic Sectors
- Innovation and Leveraging of Related Activities to Stimulate Creativity
- Coordination and Synergy

### 2.2 Phases

The planning process consists of two phases, strategic and tactical, followed by plan implementation over the course of the five-year-plan period. The strategic phase of the planning process focuses on the IT strategic components—“the What.” The tactical phase of the planning process focuses on “the How” and the “Who” components. The tactical phase consists of the specific initiatives that are enumerated and mapped to goals and objectives in section 4.3. Both phases are depicted in the CDC IT Strategic Planning Process graphic.

#### CDC IT Strategic Planning Process



## Collaboration and Inclusion

CDC is quite diverse in its mission breadth, responsibilities, program approaches, functions and services, and disciplines needed to achieve its mission and goals. Hence, it is critical that the IT Strategic Plan be robust and diverse in scope to effectively support CDC's program breadth. As such, the planning efforts involved various levels of CDC professionals throughout the agency at various stages of the plan's development and refinement. Moreover, continuous evolution of the plan is expected as conditions change and new agency needs occur.

## Public, Private, and Academic Sector Involvement

Public, private, and academic sectors were engaged in aspects of the plan's formulation and review with the objective of obtaining broad and comprehensive perspectives on health and IT dynamics. Brainstorming sessions were held with intergovernmental and nonprofit partner organizations, IT industry companies, current CDC IT contractors, and academicians.

## Emphasis on Innovation and Leveraging of Related Activities

A key challenge for all strategic planning activities is the development of an effective process that supports plan evolution to assure maximum impact and to stimulate creativity among participants. To this end, Innovation Symposia have been designed to provide ongoing exposure to IT best practices as well as health and IT trends and breakthrough innovations with a primary focus on the strategic impact to CDC. The Innovation Symposia should assist CDC in the:

- Collaboration among information technology partners and in the broader public health arena
- Timely adoption of important technologies through early identification of new technologies and improved understanding of their implementation cycles
- Continuous evolution of a technology adoption roadmap that aligns with CDC's mission and business
- Development of a continuing education forum for the information technology community
- Sustained engagement of stakeholders in the CDC IT strategic planning process

## Coordination and Synergy

As IT planning continuously occurs across CDC organizations, this agency-wide IT strategic plan will serve as a common foundation for enhancing convergence of efforts, directions, and initiatives germane to individual organizational units and their program challenges. This should also promote synergies leading to more robust innovation.

## 2.3 Periodic Update

Technology evolves rapidly and that feature should be leveraged by the agency when addressing its mission, vision, and strategic goals. To ensure this occurs, periodic updates to the CDC IT Strategic Plan must occur on a frequency that brings the optimal value and relevance to the plan. This version of the CDC IT Strategic Plan is a mid-course update to the version published in 2009.

# 3 Environmental Analysis

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## 3.1 Overview

The purpose of an environmental analysis is to identify factors affecting the CDC IT Strategic Plan. Understanding the impact of environmental factors will help shape the strategic goals and objectives in the plan. For the purposes of this plan, three types of factors were considered: drivers, enablers, and trends.

Drivers are reasons for action and can be causal or motivational. Drivers impact the normal and customary operations of the agency. Drivers include Federal laws, policies, and regulations that affect CDC operations and thereby compel evaluation and potential adjustments to ongoing operations in order to respond to this type of environmental factor.

Enablers provide the organization with a capability to address needs, challenges, or risks. Enablers are inputs, or resources, to processes that address needs, challenges, or risks. Such opportunities might be emergent or persistent but which can be addressed when enablers made available.

Trends indicate where the agency, Federal government, technology, or broader environments are headed. Trends are detectable, or measurable, in terms of their “interest” or “activity,” which can be accelerating, in a steady state, or waning. Trends might influence drivers and enablers and therefore are important to identify, track, and analyze. Identification of trends may herald the importance of planning and development activities in anticipation of environmental changes that are likely to be in the mainstream within a few years of current operations.

Drivers, enablers, and trends form crosscutting types of environmental factors that can influence IT strategic planning. As shown in the Drivers, Enablers and Trends table below, this strategic plan suggests that a factor can serve one or more functions, depending on context. For example, the factor of budget can be discussed as a driver, compelling organizational practices to adjust to Congressional funding cuts or special allocations, such as stimulus funds or OMB directives to implement a new program. As an enabler, budget can represent an Enterprise Funding Strategy that isolates budgets for cross-agency initiatives, such as standardized methods for external partner collaboration. Finally, budget as Debt and Deficit, speaks to the trend of financial shortfalls and the impact shortfalls have on the size of an allocation (driver) and the corresponding choices that could be supported (enabled) to achieve a strategic goal.

This example illustrates how one factor can be contextualized as more than one type of environmental factor, as a driver, enabler, or trend. This strategic plan illustrates this structural understanding in the Drivers, Enablers and Trends table below. When a factor transcends more than one environmental factor, it is ordered on the same row with the same color (under a different column) as its corresponding factor. This plan identifies five crosscutting and 10 unique environmental factors. All of the drivers appeared to have a relationship with the other two factors; however all of the enablers and trends do not have this same type of cross-cutting relationship. Most of the trends are distinct.

## Drivers, Enablers, and Trends

Drivers	Enablers	Trends
Budgets	Enterprise Funding Strategy	Debt and Deficit Impact
Information Privacy and Security	Identity and Access Management	Security and Identity Risk
Collaboration	Public-Private Partnerships	Open Source and Collaborative Software Development
Enterprise Architecture	Enterprise Architecture	Service Oriented Architecture
	Mobile and Cloud Computing	Mobile and Cloud Computing
	Complete Laboratory Support	Health IT
	Common Data, Tools and Services	Telecommuting
	IR Workforce	Standards Consistency
	Business Intelligence Applications	Large Data Set Availability
		Transparency
		Electronic and Personal Health Record (EHR/PHR)

## 3.2 CDC Current State and Future Direction

CDC has grown dramatically over the past decade in number of employees and the expression of its mission, which has been established by Congress. Similarly, the agency's budget authority has grown to exceed \$11 billion to address the increasing scope of health challenges facing the nation and the world. This expanding role for addressing and responding to health protection priorities requires the use of information technology and is the primary driver for this information technology strategic plan.

CDC evolves its strategy to address the dynamic 21st century health challenges. The agency has shifted from a disease-by-disease focus to a concentration on specific, near term "winnable battles" that provide likely opportunities for public health success. "Winnable battles" also are the environmental factors that can drive IT strategic planning by establishing and ordering IT projects of most importance.

In recent years, the administration has emphasized through its open government initiatives the need for transparency, providing accountability for how government spends public health dollars. CDC has adopted activities to support transparency, such as contributing to the Federal IT Dashboard, working with Data.gov, and launching the Health Indicators Warehouse to improve access to publicly funded data sets. In addition, the Office of Surveillance, Epidemiology and Laboratory Services (OSELS), Office of State, Tribal, Local, and Territorial Support (OSTLTS) and the Center for Global Health were created to strengthen surveillance and epidemiology; increase support to state and local health departments; enhance CDC's activities in global health; and join the effort for establishing a global base of high quality labs at all levels of public health.

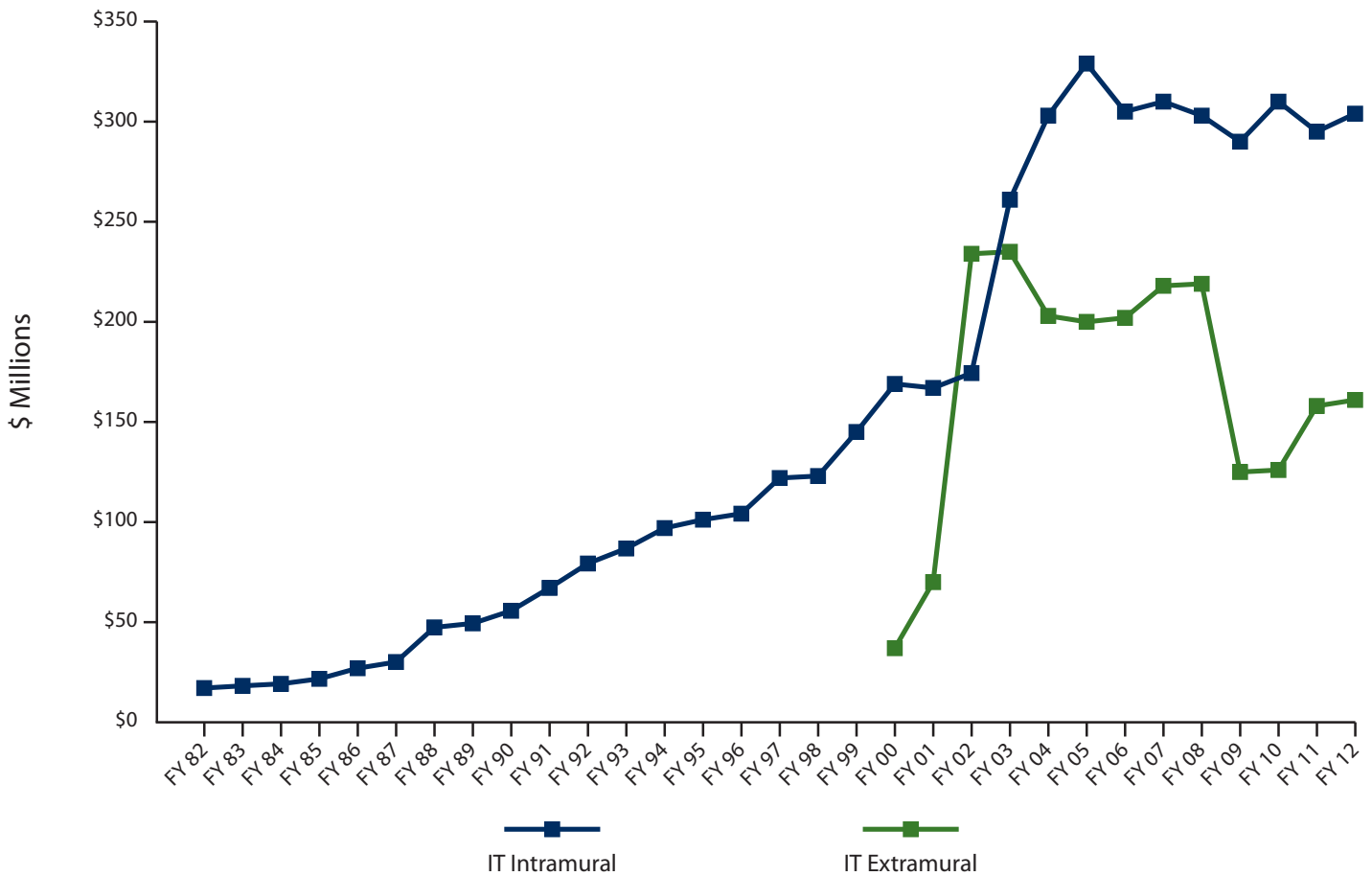
CDC has identified 74 major mission and business functions supported by IT. CDC's workforce consists of approximately 11,000 government employees and 5,000 service contractors. More than 72% of this workforce is located in Atlanta, 2% are assigned to overseas locations; the remaining employees are distributed among the other 11 agency domestic locations and employees embedded in state, territorial and local health departments. CDC fosters collaborative relationships to engage the national and international public health workforce and, increasingly, to interface more directly with the broad and diverse healthcare industry partners and other stakeholders across public, private, and academic sectors.

Similar to CDC's overall budgetary growth, CDC's IT program has grown dramatically from the early 1980s through the first decade of the 21st century, from annual IT spending of \$16 million to \$500 million, as well as a shift from intramural spending only to combination of intramural and extramural expenditures. During the past five years, Federal Health IT policy has directed agencies to adopt more aggressive strategies to increase efficiency in IT expenditures, including increased collaboration, improved project and contracts management, shared software and data services, and elimination of IT redundancies. CDC has positioned the agency and its external partners to be more adaptive to these and other new imperatives. Using extramural funds, CDC has issued grants to state and local health partners to assist intergovernmental public health partners in the modernization of IT capabilities required for more efficient collection and exchange of electronic health information among partners to improve public health. These grants represented approximately 40% of CDC's overall IT budget from 2004 through 2008. Since 2008, extramural funding has declined to about one-third of total IT expenditures. Funding of IT infrastructure budgets has been a challenge. Between 2004 and 2011, CDC experienced a steadily widening gap between costs for sustaining an adequate level of IT services and the actual budget to deliver the services. The current gap between the actual current budget and the projected level based on normal inflation since 2004 now stands at a 42% deficit.

CDC reports more than 600 information systems supporting functional areas throughout the agency. The FY 2012 value of the investment for these internal systems excluding the IT Infrastructure is projected at \$220 million, with an average investment cost of \$0.37 million.

The use of IT is now pervasive and critical to virtually all CDC activities, including the support of CDC's collaborative relationships with partners or vendors in healthcare, public health, life sciences, and information technology. However, since 2005, this rapid growth in spending has leveled off and has remained nearly constant as overall Federal IT spending has continued to increase.

## CDC IT Expenditures



Another set of contributing factors to CDC's IT landscape and future directions are strategic plans issued by the Federal CIO Council and HHS especially the Office of the National Coordinator for Health IT focusing on electronic health records for the nation. While CITSP goals are aligned with these strategic plans, they also are tailored to account for agency-level environmental factors and the agency mission. All the factors described in the environmental analysis contribute to the challenge of evolving CDC's IT strategic direction and program in a manner that delivers the greatest contributions to CDC's public health mission. There is no understating the importance for CDC's IT program to demonstrate high value by achieving quality, functional, predictable, and reliable outcomes for CDC programs and the public.



## 4 IT Strategic Direction

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### 4.1 Vision

Transforming public health through the innovative, collaborative and cost effective use of informatics and information technologies.

### 4.2 Mission

CDC's IT program provides information resources that foster CDC excellence, agility, and innovation in public health.

### 4.3 Guiding Principles

- Align IT and informatics with HHS and CDC mission and goals
- Ensure use of standards and IT and informatics best practices to support public health
- Engage all essential stakeholders
- Promote excellence in fiscal and other resource stewardship
- Build capacity, sustainability, and agility
- Focus on performance improvement
- Promote governance integrity and compliance of IT activities
- Promote innovation, collaboration, interoperability, and reusability across CDC and partners



## 4.4 Goals, Objectives, and Performance Measures

The following goals set the direction for IT priorities and investments at the Agency level. They are designed to provide a robust framework for addressing the critical IT requirements that exist throughout CDC programs and offices. Each of these goal areas has a series of objectives and performance measures that provide the framework not only for important progress in the CDC IT arena, but for the further definition of IT priorities by CDC program stakeholders and the diverse community of IT at CDC.

The CITSP addresses five key IT goal areas:

- **CDC Public Health Mission** CDC's core mission is expressed through the public health priorities. This is the critical domain for IT because it provides strategic value to the agency in achievement of health impact and quality of health.
- **Business services** Achievement of CDC's mission requires predictable, effective, timely, high quality, and agile business services delivering a broad range of functions and services. While all of these business services provide indirect service and support to the mission, many also provide direct mission-essential information.
- **IT operations and infrastructure** Computing and communication assets and services form the foundation of CDC's information and informatics programs. These services enable CDC's public health mission and vision of promoting health and the quality of life by bringing the power and advantage of IT infrastructure to the challenges faced by CDC and its public health partners. This goal area addresses robust, reliable, and secure computing and communications.
- **Enterprise processes and shared resources** Common resources and processes required to effectively govern, manage and execute IT practices at the CDC and keep them aligned with the agency's strategic intent.
- **Collaboration and innovation** The complexity of CDC's mission compounded by increasing demands for better performance at lower cost and reduced risk provide strong impetus for collaborative and innovative strategies. This goal area proposes an aggressive innovation and collaboration agenda.

### Responsibilities of Primary and Contributing Organizations

- **Primary** CITSP assigns primary organizational responsibility for each of the objectives, realizing that the goals and associated objectives may be cross-cutting and not reside wholly within a single (primary) organization. Organizations with primary or co-primary responsibility are accountable for driving, guiding, and monitoring the progress of each objective and its related performance measures, strategies, and initiatives. Primary organizations must partner with the contributing organizations for the initiatives.
- **Contributing and National Centers** Organizations with primary responsibility will partner with the contributing organizations and all National Centers to create strong, valuable initiatives that feed into the strategic performance measures and thereby support attainment of the strategic objectives and goals.

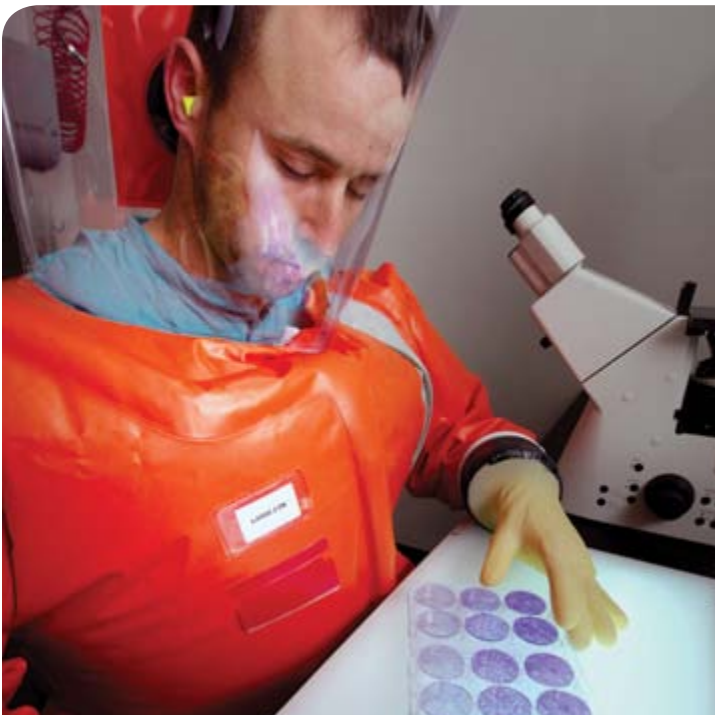
## 4.1.1 Goal Area: CDC Public Health Mission

<b>Goal 1 Secure, timely, reliable, and relevant public health information supporting the CDC mission.</b>			
		Responsible Organizations	
		Primary	Contributing
Objective	Contribute to advancing electronic health records in public health practice.	OID	OSELS
Performance Measures	<ul style="list-style-type: none"> <li>Achieve HITECH “meaningful use” standards-compliant receipt of electronic laboratory reporting from at least one eligible hospitals for each of 90% of CDC’s cooperative agreement jurisdictions.</li> <li>Achieve HITECH “meaningful use” standards-compliant receipt of immunization reporting from at least one hospital or eligible provider for each of 90% of CDC’s Immunization Program cooperative-agreement-funded projects.</li> </ul>		
Objective	Provide CDC scientists with the tools and capabilities to model, analyze, and graphically address complex scientific challenges.	OSELS	CIOs ITSO OADS
Performance Measure	<ul style="list-style-type: none"> <li>A prioritized set of initiatives will be derived from a survey of CDC scientists to address their needs for analytic tools and capabilities and subsequently be implemented.</li> </ul>		
Objective	Implement and integrate scientific systems with public health program execution to support a comprehensive approach to CDC program operations	CIOs OSELS	EITPO PGO ITSO
Performance Measures	<ul style="list-style-type: none"> <li>At least three scientific functions will be identified that contribute to successful public health program execution and leverage large IT-related resources such as LIMS, laboratory automation and networking, and biocomputing.</li> <li>Enterprise security approaches will enhance support of biomedical informatics.</li> <li>A robust private network for scientific computing to support biomedical informatics will be implemented.</li> </ul>		
Objective	Establish formal program resource units for IT- and Informatics-related scientific services and laboratory support.	CIOs	OSELS ITSO
Performance Measures	<ul style="list-style-type: none"> <li>Research requirements for and stand-up a laboratory support program to address on-going challenges such as LIMS and biocomputing/scientific computing.</li> <li>Research requirements for and stand-up a Biomedical Informatics Coordinating Unit or Biomedical Informatics Resources Office.</li> <li>Establish a Regional Biomedical Informatics Program in collaboration with Georgia Institute of Technology and Emory University.</li> </ul>		

*Continued on next page*

## 4.1.1 Goal Area: CDC Public Health Mission (continued)

<b>Goal 1      Secure, timely, reliable, and relevant public health information supporting the CDC mission.</b>			
		Responsible Organizations	
		Primary	Contributing
Objective	Provide IT tools to effectively support knowledge sharing, creation, communication, and delivery of health information and interventions.	MISO OPHPR	CIOs OADC EITPO ITSO
Performance Measures	<ul style="list-style-type: none"> <li>• An accessible on-line inventory of CDC IT projects is available and populated with all IT projects meeting the criteria of the Enterprise Systems Catalog.</li> <li>• CDC health alerts and other urgent health messages reach health officials within one day and millions of consumers within one week through various communication channels.</li> <li>• 80% of surveyed customers are satisfied with the usefulness of CDC's web information.</li> </ul>		
Objective	Facilitate implementation of Service Oriented Architecture (SOA) across the public health domain in order to provide interoperable and reusable services.	EITPO	ITSO OSELS
Performance Measures	<ul style="list-style-type: none"> <li>• Develop tools to support and promote the development, certification, publication, maintenance, and monitoring of 10 reusable services.</li> <li>• Leverage reusable services in at least 3 different systems per year.</li> </ul>		



## 4.1.2 Goal Area: Business services

Goal 2 Information resources for business services and management practices that advance effective program administration.			
		Responsible Organizations	
		Primary	Contributing
Objective	Implement and integrate business systems to support a comprehensive management approach to CDC program operations and resource administration for policy compliance and efficient internal controls.	MISO	CIOs MASO EITPO
Performance Measures	<ul style="list-style-type: none"> <li>Reduce by 10% the cost of existing business systems through modernization, integration, shared services, and consolidation.</li> <li>Provide IT tools to improve the effective preservation, management, searching, and production of information assets for records management, litigation, and FOIA purposes.</li> </ul>		
Objective	Expand the value of business systems through integration with public health program execution.	MISO	—
Performance Measure	<ul style="list-style-type: none"> <li>Two business functions per year will be leveraged to contribute to successful public health program effectiveness.</li> </ul>		
Objective	Maximize ROI through an architecture that emphasizes interoperability and shared/reusable services.	EITPO	PGO ITSO
Performance Measures	<ul style="list-style-type: none"> <li>Implement a private cloud offering adopting best commercial practices and achieving comparable hosting costs</li> <li>Reduce CDC existing software licensing costs by 20% through competition, conversion to software as a service, and open-source products.</li> </ul>		



### 4.1.3 Goal Area: IT operations and infrastructure

<b>Goal 3 Robust, reliable, secure computing and communications capabilities that enable CDC's public health mission and business services world-wide.</b>			
		Responsible Organizations	
		Primary	Contributing
Objective	Engineer a continually evolving robust and resilient state-of-the-art network.	ITSO	OCISO EITPO
Performance Measures	<ul style="list-style-type: none"> <li>CDC data network data transmission capacity will increase 20% annually to support CDC science and program.</li> <li>Network services are available at least 99.9% of the time on average.</li> </ul>		
Objective	Provide anytime-anyplace authorized access to CDC IT and IR assets.	ITSO	OCISO CIOs
Performance Measures	<ul style="list-style-type: none"> <li>Adopt several smart phone and tablet computing options to enhance portability and functionality.</li> <li>Achieve comprehensive CDC network access authentication through PIV smart cards.</li> <li>Enable all internal applications for PIV card compliance.</li> <li>Implement new e-authentication platform for external data trading partners' data exchanges with CDC and access to authorized CDC systems.</li> </ul>		
Objective	Provide customer-centric IT assets and services.	EITPO ITSO MISO	OCISO OSELs PGO
Performance Measures	<ul style="list-style-type: none"> <li>Ensure that 95% of all CDC information systems undergo an Annual Operational Analysis and implement the governance recommendations.</li> <li>Annual customer satisfaction surveys yield in best-in-class results for CDC's IT infrastructure and services.</li> </ul>		
Objective	Increase high performance computational capacity to enhance CDC Science.	HPC WG will determine	ITSO EITPO OSELs OADS
Performance Measures	<ul style="list-style-type: none"> <li>Establish at least two high performance computing options available to CDC scientists.</li> <li>Increase by 50% the usage of CDC's Internet 2 connection in support of HPC and scientific collaboration.</li> </ul>		
Objective	Provide a secure computing environment that ensures confidentiality, integrity, and availability of information resources to appropriately authorized and authenticated users.	OCISO	ITSO
Performance Measures	<ul style="list-style-type: none"> <li>100% of CDC-used software is tested for security vulnerabilities.</li> <li>No significant deficiencies or material weaknesses are found during CDC's security audits.</li> <li>CDC implements a continuous monitoring program able to detect and respond to serious security events within one hour.</li> </ul>		
Objective	Provide and maintain a secure scientific computing environment that ensures agile research and development resources including open source applications, while maintaining confidentiality, integrity, and availability of information resources to appropriately authorized and authenticated users.	CIOs	ITSO OCISO
Performance Measure	<ul style="list-style-type: none"> <li>Identify needs and enhance CDC's scientific computing environment.</li> </ul>		

#### 4.1.4 Goal Area: Enterprise practices and shared resources.

<b>Goal 4 Enterprise resources, processes, and human capital that foster CDC mission success through information technology.</b>			
		Responsible Organizations	
		Primary	Contributing
Objective	Advance CDC's IT and informatics workforce competencies.	HCMO	AHRC OSELS OSTLTS
Performance Measures	<ul style="list-style-type: none"> <li>Increase the proportion of IT professionals with advanced degrees, certifications, and job-related continuing education.</li> </ul>		
Objective	Foster enterprise best practice approaches and processes for governance, shared services, enterprise architecture, capital planning, and project management.	EITPO IRGC	ITSO OSELS
Performance Measures	<ul style="list-style-type: none"> <li>All projects follow HHS EPLC process, major investments have acceptably rated business cases, and all major and tactical investments operate within acceptable cost and schedule variances &gt;90% of the time as reported.</li> </ul>		
Objective	Adopt an enterprise funding model that supports enterprise-scale IT development projects.	FMO	EITPO
Performance Measures	<ul style="list-style-type: none"> <li>An enterprise funding model is defined and implemented that supports enterprise-scale IT projects.</li> </ul>		
Objective	Ensure the appropriate use of CDC information resources by all CDC employees by providing ongoing, relevant, and timely training and governance.	CIOs	EITPO HCMO
Performance Measures	<ul style="list-style-type: none"> <li>Online training opportunities will be increased by 10% annually.</li> <li>All CIOs will have and conduct an appropriate IR governance process to oversee IT investments and the EPLC process.</li> </ul>		



## 4.1.5 Goal Area: Collaboration and innovation

<b>Goal 5</b> An environment that encourages and facilitates collaborative innovation to accelerate and improve program results.			
		Responsible Organizations	
		Primary	Contributing
Objective	Advance innovation and collaboration in public health by leveraging informatics and information technology.	OSELS ITSO	CIOs
Performance Measures	<ul style="list-style-type: none"> <li>At least one recognized CDC innovation will result annually from use of IT and informatics solutions.</li> <li>Use of collaboration platforms will result in 20% growth in collaborations within CDC and between CDC and partners.</li> </ul>		
Objective	Promote and expand evaluation of new or alternative technologies for collecting, analyzing, and disseminating public health related data.	OSELS	PGO EITPO
Performance Measures	<ul style="list-style-type: none"> <li>Two informatics R&amp;D projects annually are translated into an operational outcome for collecting, analyzing, and disseminating data.</li> </ul>		
Objective	Promote and support CDC participation in the development and use of health ontologies and knowledge base repositories.	OSELS	EITPO
Performance Measures	<ul style="list-style-type: none"> <li>Implement a best-practices based collaborative development environment for service oriented component services use across organizational boundaries.</li> </ul>		





## Appendix—Acronyms

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<b>AHRC</b>	Atlanta Human Resources Center	<b>OMB</b>	Office of Management and Budget
<b>CDC</b>	Centers for Disease Control and Prevention	<b>OSELS</b>	Office of Surveillance, Epidemiology and Laboratory Services
<b>CIO</b>	Chief Information Officer	<b>OSTLTS</b>	Office of State, Tribal, Local, and Territorial Support
<b>CIOs</b>	Centers, Institutes, & Offices	<b>PGO</b>	Procurement and Grants Office
<b>CITSP</b>	CDC Information Technology Strategic Plan	<b>PHR</b>	Personal Health Record
<b>EHR</b>	Electronic Health Record	<b>PIV</b>	Personal Identity Verification
<b>EITPO</b>	Enterprise IT Portfolio Office	<b>R&amp;D</b>	Research & Development
<b>EPLC</b>	Enterprise Performance Life Cycle	<b>SOA</b>	Service Oriented Architecture
<b>FMO</b>	Financial Management Office		
<b>FOIA</b>	Freedom of Information Act		
<b>FY</b>	Fiscal Year		
<b>HCMO</b>	Human Capital Management Office		
<b>HHS</b>	Department of Health and Human Services		
<b>HITECH</b>	Health Information Technology for Economic and Clinical Health Act		
<b>HPC WG</b>	High Performance Computing Work Group		
<b>IR</b>	Information Resources		
<b>IRGC</b>	Information Resources Governance Council		
<b>IT</b>	Information Technology		
<b>ITSO</b>	Information Technology Services Office		
<b>LIMS</b>	Laboratory Information Management System		
<b>MASO</b>	Management Analysis and Services Office		
<b>MISO</b>	Management Information Services Office		
<b>OADC</b>	Office of the Associate Director for Communication		
<b>OADS</b>	Office of the Associate Director for Science		
<b>OCISO</b>	Office of Chief Information Security Officer		
<b>OID</b>	Office of Infectious Diseases		

