



# **DEPARTMENT of HEALTH and HUMAN SERVICES**

**Centers for Disease Control  
and Prevention**

***FY 2012 Online Performance Appendix***

## INTRODUCTION

The FY 2012 Online Performance Appendix is one of several documents that fulfill the Department of Health and Human Services' (HHS) performance planning and reporting requirements. HHS achieves full compliance with the Government Performance and Results Act of 1993 and Office of Management and Budget Circulars A-11 and A-136 through the HHS agencies' FY 2012 Congressional Justifications and Online Performance Appendices, the Agency Financial Report, and the HHS Summary of Performance and Financial Information (SPFI). These documents are available at <http://www.hhs.gov/budget/>.

The FY 2012 Congressional Justifications and accompanying Online Performance Appendices contain the updated FY 2010 Annual Performance Report and FY 2012 Annual Performance Plan. The Agency Financial Report provides fiscal and high-level performance results. The HHS SPFI summarizes key past and planned performance and financial information.

## LETTER FROM THE DIRECTOR

I am pleased to present the FY 2012 Online Performance Appendix for the Centers for Disease Control and Prevention (CDC). This report identifies agency performance measures that describe performance trends and progress toward targets through FY 2012. It explains progress or lack thereof and what the agency is doing to address performance challenges.

The following agency-wide strategic priorities underscore the work of CDC. The priorities are grounded in scientific excellence and require well-trained public health practitioners and leaders dedicated to high standards of quality and ethical practice:

- promote excellence in surveillance, epidemiology, laboratory services
- strengthen support for state, tribal, local, and territorial public health
- increase global health impact
- use scientific and program expertise to advance policy change that promotes health
- better prevent the leading causes of death and disability

CDC's mission is to create the expertise, information, and tools that people and communities need to protect their health – through health promotion; prevention of disease, injury, and disability; and preparedness for new health threats. CDC seeks to accomplish its mission by working with partners throughout the nation and the world to:

- monitor health
- detect and investigate health problems
- conduct research to enhance prevention
- develop sound public health policies
- implement prevention strategies
- promote healthy behaviors
- foster safe and healthful environments
- provide public health leadership and training

The performance data reported by CDC for inclusion in the FY 2012 Online Performance Appendix are accurate, complete, and reliable. However, the following data challenges have been identified:

- Measures 3.3.3 and 3.3.4 - Common data entry errors produced unreliable values for making estimates; variability in case finding and reporting were identified by users and group users. CDC will be releasing an update to the National HealthCare Safety Network (NHSN) in spring 2011 that will require checks for common errors. CDC is also providing resources to state health departments to initiate data validation efforts.
- Measure 4.2.2 – The source of the data, the United States Department of Agriculture (USDA), no longer reports this information. CDC conducted a feasibility study to replace the per capita consumption data source. A new data source has not yet been identified; therefore, CDC is working with HHS, USDA, and the Treasury to reinstate the previous source. In the interim, CDC is using measure 4.2.3, Reduce the proportion of adults (aged 18 and over) who are current cigarette smokers.

- Measure 13.1.2 – The data does not adequately reflect the intent of the measure as written. CDC will revise or replace the performance measure during the next budget cycle. The new measure will reflect the current and future direction of BioSense in light of redesign efforts.

Sincerely,

Thomas R. Frieden  
Director, Centers for Disease Control and Prevention

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## SUMMARY OF TARGETS AND RESULTS

The table below provides a summary of CDC targets and results<sup>1</sup>

<b>Fiscal Year</b>	<b>Total Targets</b>	<b>Target with Results Reported</b>	<b>Percent of Targets with Results Reported</b>	<b>Total Targets Met</b>	<b>% of Targets Met</b>
2007	112	111	99%	64	57%
2008	140	128	91%	85	66%
2009	149	113	76%	76	68%
2010	158	72	46%	48	68%
2011	159	N/A	N/A	N/A	N/A
2012	171	N/A	N/A	N/A	N/A

<sup>1</sup>Table does not reflect discontinued measures.

**HIGH PRIORITY PERFORMANCE GOALS**

**TOBACCO – SUPPORTIVE POLICY AND ENVIRONMENTS**

**Resources and Performance**

*(dollars in millions)*

	<b>FY 2010</b>	<b>FY 2011 CR</b>	<b>FY 2012</b>
Tobacco (Office on Smoking and Health)*	\$111	\$107	\$107*

\* This goal is linked to the Recovery Act funds that CDC obligated by the end of FY 2010. CDC will be monitoring outlays and performance of the initiative through FY 2012. PPHF dollars are not included.

<b>Performance Measure</b>	<b>FY 2009 Result</b>	<b>FY 2012 Target</b>
By the end of 2011, increase to 75 percent the percentage of communities funded under the Communities Putting Prevention to Work (CPPW) program that have enacted new smoke-free policies and improved the comprehensiveness of existing policies.	N/A	85%

**Narrative**

Communities funded by the Communities Putting Prevention to Work (CPPW) initiative will work to educate the population, as well as community leaders and decision makers, about the dangers of tobacco use and exposure to secondhand smoke, the social and economic costs of tobacco use and exposure to secondhand smoke, and the evidence-based strategies, including smoking bans and restrictions, that can be effectively implemented to prevent and reduce tobacco use. Communities will work with key leaders, community organizations, and local partners that have the resources, capacity and mandate to advance legislative and policy initiatives. The role of funded communities is to provide science-based information to educate the public and other interested parties on the issue.

In addition, these communities are working in conjunction with three other components of the CPPW, which will support and reinforce the community work:

- States and Territories component
- National Prevention Media component
- National Organizations Initiative component
- Coordinate policy, partnerships, and other strategic initiatives to support tobacco control priorities
- Foster global tobacco control through surveillance, capacity building, and information exchange



**PREPAREDNESS – STAFF ASSEMBLY**

**Resources and Performance**  
*(dollars in millions)*

	<b>FY 2010 Enacted</b>	<b>FY 2011 CR</b>	<b>FY 2012 Request</b>
Public Health Emergency Preparedness Cooperative Agreement	\$715	\$715	\$643*

\* FY 2012 funding total for the Public Health Emergency Preparedness Cooperative Agreement does not include PPHF dollars

<b>Performance Measure</b>	<b>FY 2009 Result</b>	<b>FY 2012 Target</b>
Percentage of public health agencies that directly receive CDC PHEP funding that can convene within 60 minutes of notification a team of trained staff that can make decisions about appropriate response and interaction with partners.	70% (Baseline)	95%

**Narrative**

The Public Health Emergency Preparedness Cooperative Agreement provides funding for a range of preparedness activities and requires states to report progress on priority capabilities, including the ability to assemble trained and qualified staff within 60 minutes notification of an event. This high priority performance goal reflects a more stringent standard compared to previous years' requirements, as it mandates all reported examples of staff assembly to be unannounced. Given that many emergencies provide little to no notice but require a rapid response nonetheless, this requirement was added to ensure that all states are able to convene staff without having provided advance notice. CDC is monitoring progress and targeting those states which are in need of greater assistance to reach identified standards.

A High Priority Goal status check for budget period 10 was conducted in June. All 50 state awardees responded to the request for an update. Approximately 56 percent of the state awardees (n=28) had met the target of 60 minutes. The remaining 22 state awardees reported they would be testing the Priority Goal measure before the August 9, 2010 deadline.

Since the June status check, DSLR has followed up with the 22 awardees to offer technical assistance, clarify the requirements of the measure, and promote use of the on-line Priority Goal training module. In addition, DSLR staff included the Priority Goal as part of the site visit protocol when conducting visits to low performing states. This targeted technical assistance included a discussion of the state-specific plans to notify and assemble staff in accordance with the measure. As a result, state plans were revised to accurately reflect the start and stop times for measurement, as well as a more comprehensive understanding of the performance target. Documentation of revised procedures and actual call-in and assembly logs have been provided to CDC to verify and validate awardees' performance associated with the Priority Goal.

**PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY**

**INFECTIOUS DISEASES**

**IMMUNIZATION AND RESPIRATORY DISEASES**

Immunization programs have contributed greatly to the elimination of many vaccine-preventable diseases (VPDs) while significantly reducing the incidence of others. National immunization recommendations currently provide guidance for the prevention of 17 VPDs. In the United States, VPDs are at or are approaching record lows; with a majority showing a 90 percent or greater decline in reported cases when compared with the pre-vaccine era. However, communities with pockets of unvaccinated and under-vaccinated populations remain at greater risk. New or replacement strains of a VPD, which are continually evolving, also present additional challenges for vaccination programs.

Acute respiratory and related infections are a critical public health, humanitarian, and security concern. CDC provides technical expertise in implementing domestic immunization programs through Vaccine for Children and Section 317 Immunization Grants, global immunization programs, preparedness planning for pandemic influenza and other emerging infections, as well as epidemiology and laboratory capacity to detect, prevent, and respond to respiratory and related infectious disease threats. CDC’s evidence-based strategies include:

- Supporting state-based immunization programs to improve vaccination rates across the lifespan
- Providing professional training and education
- Implementing national awareness campaigns
- Assessing immunization coverage rates

Conducting vaccine-preventable disease surveillance and research to assess the effectiveness, impact, and safety of national vaccine policies and programs

**Trends in Vaccine Preventable Diseases**

Childhood vaccination coverage rates are reaching near record high levels in the United States. Four of the seven routinely recommended childhood vaccines: hepatitis B, MMR, polio, and varicella, have met or exceeded the target 90 percent coverage rate as of 2009 (National Immunization Survey). As demonstrated in the table below – current data illustrates a reduction of 95 percent or greater in number of reported cases of vaccine-preventable diseases when compared to the pre-vaccine era. Maintaining and enhancing these successes in vaccination remain critical to the prevention of VPD related-illness, disability, and death.

<b>Comparison of 20<sup>th</sup> Century Annual Morbidity and Current Morbidity: Vaccine-Preventable Diseases</b>			
<b>Disease</b>	<b>20<sup>th</sup> Century Annual Morbidity*</b>	<b>2009 Reported Cases**</b>	<b>Percent Decrease</b>
Smallpox	29,005	0	100%
Diphtheria	21,053	0	100%
Measles	530,217	71	>99%
Mumps	162,344	1,991	99%
Pertussis	200,752	8295	95%
Polio (Paralytic)	16,316	1	100%

PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY  
 INFECTIOUS DISEASES  
 IMMUNIZATION AND RESPIRATORY DISEASES

Rubella	47,745	3	>99%
Congenital Rubella Syndrome	152	2	99%
Tetanus	580	18	98%
<i>Haemophilus influenzae</i>	20,000	236***	99%

\*Source: JAMA. 2007; 298(18): 2155-2163

\*\*Source: CDC. MMWR July 30, 2010; 59(29): 916 (29th week NNDS data)

\*\*\*35 type b and 178 unknown (<5 years of age)

Despite these significant advances, there are factors that may contribute to increased risk of VPD-related morbidity and mortality:

Under-vaccinated populations are at risk for outbreaks of diseases that are vaccine-preventable.

- **Measles:** Since the declaration of the elimination of measles in 2000, sporadic importations of the disease have occurred in the United States. Measles remains common in many regions throughout the world including Europe. During 2000--2007,<sup>1</sup> a total of 29--116 measles cases (mean: 62, median: 56) were reported annually. However, in 2008, imported cases of measles resulted in an outbreak in the United States that resulted in 140 reported cases – a nearly threefold increase over the previous year (42 reported cases in 2007).<sup>2</sup> Although the number of reported cases in the United States decreased to 71 in 2009 – a nearly 50 percent decrease from 2008 – maintaining high vaccination rates is critical to preventing measles outbreaks. While the current national measles, mumps, rubella (MMR) vaccine coverage rate is adequate to prevent the sustained spread of measles, pockets of unvaccinated persons pose risks of sizeable measles outbreaks at the local level.
- **Pertussis:** Through July 2010, several states have reported an increase in cases and/or localized outbreaks of pertussis, including a state-wide epidemic in California<sup>3</sup>. Localized outbreaks are not uncommon and occur throughout the year. Over the last 5 years, 8,000-25,000 cases of pertussis were reported per year in the United States. Many cases occur among infants who are exposed to pertussis before they have received the complete vaccination series, and advances in disease surveillance and detection have also dramatically increased the number of reported cases. Introduction in 2006 of adolescent and adult acellular pertussis-containing vaccines provides opportunities to reduce serve pertussis and its complications among all age groups.

Outbreaks in highly vaccinated populations

- **Mumps:** Studies conducted during the 2006 U.S. mumps resurgence suggested that outbreaks could occur among highly-vaccinated populations, where frequent close contact occurs.<sup>4</sup> Beginning in July 2009, the largest U.S. mumps outbreak since 2006 has occurred in New York and New Jersey. As in the 2006 outbreak, many individuals who contracted mumps had received two doses of MMR vaccine. Though the effectiveness of two doses of MMR vaccine appears to prevent most cases in exposed vaccinated persons during an outbreak, this does not appear to be sufficiently high to prevent mumps outbreaks altogether, especially in settings with high rates of contact and force of

1 Based on MMWR surveillance summaries (2000--2006) and CDC unpublished provisional data as of December 31, 2007.

2 CDC. MMWR August 22, 2008 / 57(33): 893-896.

3 [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5926a5.htm?s\\_cid=mm5926a5\\_e%0d%0a](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5926a5.htm?s_cid=mm5926a5_e%0d%0a)

4 Marin M, Quinlisk P, Shimabukuro T, Sawhney C, Brown C, LeBaron CW. Mumps vaccination coverage and vaccine effectiveness in a large outbreak among college students—Iowa, 2006. Vaccine 2008;26:3601-7.

infection. An evaluation of a 3rd MMR vaccine dose for outbreak control, conducted during the 2009-1010 outbreak in the Northeast US, may help inform future mumps outbreak response efforts.

The emergence of new or replacement strains of vaccine-preventable diseases can result in increased disability and death.

- 2009 H1N1 Influenza: The emergence of the 2009 H1N1 influenza caused a pandemic, resulting in an estimated 195,000 and 403,000 hospitalizations and 8,870 and 18,300 deaths in the United States between April 2009 and April 2010.<sup>5</sup>
- Invasive pneumococcal disease: Cases of invasive pneumococcal disease caused by non-vaccine strains have increased since the introduction of the 7-valent pneumococcal conjugate vaccine. A 13-valent vaccine was licensed and incorporated into the childhood program in 2010 that will provide protection against two-thirds of the replacement strains that cause IPD in young children.<sup>6</sup>

Further information about vaccine preventable diseases can be found at [www.cdc.gov/ncird](http://www.cdc.gov/ncird) and [www.cdc.gov/mmwr/index.html](http://www.cdc.gov/mmwr/index.html)

More detailed information about CDC's National Center for Immunization and Respiratory Diseases and key partners can be found at [www.cdc.gov/ncird](http://www.cdc.gov/ncird). Information about CDC's immunization and influenza programs and key partners can be found at [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines) and [www.cdc.gov/flu](http://www.cdc.gov/flu). More information about the current budget and accomplishments can be found at [http://intra-apps.cdc.gov/fmo/appropriations\\_budget\\_formulation/default.asp](http://intra-apps.cdc.gov/fmo/appropriations_budget_formulation/default.asp).

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<sup>5</sup> [http://www.cdc.gov/h1n1flu/estimates\\_2009\\_h1n1.htm](http://www.cdc.gov/h1n1flu/estimates_2009_h1n1.htm)

<sup>6</sup> Nuorti, P. 13-valent pneumococcal conjugate vaccine (PCV13)—disease burden estimates & options for catch-up immunization. Presented to ACIP, June 26, 2009. [www.cdc.gov/vaccines/recs/acip/downloads/mtg-slides-jun09/17-3-pneu.pdf](http://www.cdc.gov/vaccines/recs/acip/downloads/mtg-slides-jun09/17-3-pneu.pdf)

**IMMUNIZATION PERFORMANCE**

Measure	FY	Target	Result
1.E.1: Make vaccine distribution more efficient and improve availability of vaccine inventory by reducing the number of vaccine inventory depots in the U.S. (Outcome)	2012	Maintain 98% reduction in inventory depots	Jan 31, 2013
	2011	Maintain 98% reduction in inventory depots	Jan 31, 2012
	2010	Maintain 98% reduction in inventory depots	98% reduction (Target Met)
	2009	Reduce inventory depots by 98%	98% reduction (Target Met)
	2008	Reduce inventory depots by 50%	98% reduction (Target Exceeded)
	2007	Reduce inventory depots by approximately 17%	36% reduction (Target Exceeded)
	2006	Award contract to centralize distribution, validate existing baseline	Yes (Target Met)

Unique Identifier	Data Source	Data Validation
1.E.1	Grantee annual report (VFC Management Survey), grantee interviews, and site visits were used to gather the baseline information, and the VFC Management Survey provides annual updates to CDC. The number of depots reported is based on those depots for which CDC is providing distribution funding (only Alaska and the Pacific Islands).	As of July 2008, all grantees have been transitioned to the centralized distributor and the number of depots reported is based only on those depots for which CDC is providing distribution funding (only Alaska and the Pacific Islands). CDC cannot prevent grantees from maintaining depots at their own cost, but has a written policy to ensure grantees understand that federally purchased vaccine is not being stored at such depots.

**Efficiency Measure 1.E.1:**

CDC initiated the vaccine management business improvement project (VMBIP) in 2003 to revamp the entire vaccine distribution and ordering process and enhance the efficiency and accountability of vaccine management systems. The reduction of vaccine inventory depots has been achieved ahead of schedule. The program will develop a new efficiency measure for FY 2013 to address continued program improvements.

Efficiencies anticipated from consolidation of vaccine depots include improved management of vaccine inventory through use of distribution best practices and increased visibility of the location of vaccines throughout the public vaccine supply chain. These efficiencies will enhance CDC's ability to address public health emergencies such as vaccine shortages, supplying emergency vaccine needs due to outbreaks, and natural disasters. Full implementation of this new vaccine purchase and distribution operating model is anticipated to gain additional efficiencies by reducing vaccine wastage and reducing inventory holding costs.

This efficiency measure will be reported through FY 2011, but no targets will be set post FY 2012 beyond maintaining achievement of 98 percent reduction of inventory depots. Costs to achieve and maintain greater efficiencies will be more than the benefits derived. CDC is evaluating alternative efficiency measures to replace the current one. Additionally, CDC is

considering a limited number of agency-wide measures to replace programmatic efficiency measures.

**LONG-TERM OBJECTIVE 1.2: ENSURE CHILDREN AND ADOLESCENTS ARE APPROPRIATELY VACCINATED.\***

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
<b><u>1.2.1c:</u></b> Sustain immunization coverage in children 19 to 35 months of age for one dose of MMR vaccine. <i>(Intermediate Outcome)</i>	2012	At least 90% coverage	Sep 30, 2013
	2011	At least 90% coverage	Sep 30, 2012
	2010	At least 90% coverage	Sep 30, 2011
	2009	At least 90% coverage	90% (Target Met)
	2008	At least 90% coverage	92%
	2007	At least 90% coverage	92%
	2006	At least 90% coverage	92%
<b><u>1.2.1h:</u></b> Achieve immunization coverage of at least 90% in children 19-35 months of age for at least 4 doses pneumococcal conjugate vaccine <i>(Intermediate Outcome)</i>	2012	At least 90% coverage	Sep 30, 2013
	2011	At least 87% coverage	Sep 30, 2012
	2010	At least 84% coverage	Sep 30, 2011
	2009	At least 82% coverage	80% (Target Not Met)
	2008	Baseline	80%
<b><u>1.2.1i:</u></b> Achieve immunization coverage of at least 60% in children 19- to 35-months of age for 2-3 doses of rotavirus <i>(Intermediate Outcome)</i>	2012	At least 60% coverage	Sep 30, 2013
	2011	At least 52% coverage	Sep 30, 2012
	2010	At least 44% coverage	Sep 30, 2011
	2009	Baseline <sup>7</sup>	44%
<b><u>1.2.2a:</u></b> Achieve or sustain immunization coverage of at least 70% in adolescents 13 to 15 years of age for 1 dose Tdap (tetanus and diphtheria toxoids and acellular pertussis) <i>(Intermediate Outcome)</i>	2012	At least 70% coverage	Sep 30, 2013
	2011	At least 67% coverage	Sep 30, 2012
	2010	At least 64% coverage	Sep 30, 2011
	2009	At least 60% coverage	62% (Target Exceeded)
	2008	Baseline	47%
<b><u>1.2.2b:</u></b> Achieve or sustain immunization coverage of at least 70% in adolescents 13 to 15 years of age for 1 dose meningococcal conjugate vaccine	2012	At least 70% coverage	Sep 30, 2013
	2011	At least 66% coverage	Sep 30, 2012
	2010	At least 61% coverage	Sep 30, 2011
	2009	At least 54% coverage	55% (Target Exceeded)
	2008	Baseline	44%

<sup>7</sup> Rotavirus vaccine includes  $\geq 2$  or  $\geq 3$  doses, depending on product type received ( $\geq 2$  doses for Rotarix and  $\geq 3$  doses for RotaTeq). Estimates of rotavirus vaccine coverage were not available before 2009.

Measure	FY	Target	Result
(MCV4) (Intermediate Outcome).			

\* Targets reflect impact of funding from ACA/PPHF but do not reflect impact of ARRA

Unique Identifier	Data Source	Data Validation
1.2.1 1.2.2	National Immunization Survey (NIS) National Immunization Survey--Teen	The NIS data provide current, population-based, State and local area estimates of vaccination coverage produced by a standard methodology. Each year, estimates of vaccination coverage levels are calculated and valid comparisons of State efforts to deliver vaccination services are made. NIS and NIS Teen collects information about children aged 19-35 months and adolescents aged 13-17 years, respectively, by interviewing households in all 50 States, the District of Columbia and five other urban areas that receive Section 317 immunization grant funding, and other selected sub-state areas. The interviews are conducted by telephone with households selected at random. To assure the accuracy and precision of the vaccination coverage estimates, vaccination data for surveyed children are also collected through a mail survey of their pediatricians, family physicians, and other health care providers. Types of vaccinations, dates of administration, and additional data about facility characteristics are requested from immunization providers that are identified during the telephone survey of households. The NIS and NIS-Teen estimates of vaccination coverage reflect a comparison of information provided by both surveyed households and immunization providers, and vaccination coverage estimates are based on provider-reported vaccination histories among surveyed adolescents with provider data deemed adequate.

**Long Term Objective 1.2, Performance Measure 1**

CDC has made significant progress in reaching its targets for most of the childhood immunization measures and will continue to monitor coverage of routinely recommended vaccines and report trends in the annual performance plan as data becomes available. To achieve annual performance targets, CDC will provide funding, guidance, and technical assistance to state and local immunization programs to conduct provider assessments, develop and utilize immunization information systems, utilize coverage assessment information from the National Immunization Survey, and provide education and training to both public and private immunization providers.

CDC will also promote public awareness of vaccines, especially more recently licensed vaccines such as PCV and rotavirus.

The Advisory Committee on Immunization Practices (ACIP) recommends nine vaccines for children. As childhood immunization coverage rates increase, cases of vaccine-preventable diseases decline significantly. Because immunization coverage has reached 90 percent or greater for the majority of vaccines recommended for 19-35 month olds, CDC limits this measure of accountability to measles-mumps-rubella (MMR), pneumococcal conjugate (PCV) and rotavirus vaccines.

#### 1.2.1c (MMR)

The MMR vaccine serves as a proxy for sustaining appropriate coverage levels for routinely recommended childhood vaccines to prevent the spread of disease. As a sentinel vaccine, it represents a vaccine combination that has been given for decades, but issues remain with measles and mumps outbreaks. From 2006-2008, MMR coverage among children 19-35 months of age was 92 percent. In 2009, coverage was 90 percent, which meets the CDC target and the national health objective for MMR coverage.

#### 1.2.1h (PCV)

*Streptococcus pneumoniae* (pneumococcus) remains a leading cause of serious illness among young children worldwide and is the most frequent cause of pneumonia, bacteremia, sinusitis, and acute otitis media (AOM).

Routine use of the 7-valent pneumococcal conjugate vaccine (PCV7) in the United States since 2000 has dramatically reduced the incidence of pneumococcal disease in both children and adults. Because the vaccine interrupts transmission of vaccine-type pneumococci, rates of pneumococcal disease in unvaccinated older children and adults have also decreased.

In February 2010, a 13-valent pneumococcal conjugate vaccine (PCV13) succeeded the 7-valent (PCV7) vaccine. The new version of the vaccine protects against 6 more serotypes of *S pneumoniae* than the original version, including serotype 19A, which is the most common serotype causing invasive pneumococcal infections in children.

PCV coverage among children 19-35 months remained stable at 80 percent from 2008 to 2009. While the reported actual was below the 2009 target, the difference between the actual and the target is within the margin of error. Specifically, the actual coverage estimate is 80.4 ( $\pm 1.2$ ), which means the target is met when rounded. In addition, the data represented here reflects coverage prior to the switch from PCV7 to PCV13.

#### 1.2.1i (Rotavirus)

Vaccination of infants is the primary public health measure for prevention of severe rotavirus disease in the United States. Rotavirus is the most common cause of severe gastroenteritis in infants and young children worldwide. In developing countries, rotavirus gastroenteritis is a major cause of childhood death and is responsible for approximately half a million deaths per year among children aged less than 5 years.

Rotavirus gastroenteritis results in relatively few childhood deaths in the United States (approximately 20-60 deaths per year among children aged less than 5 years). However, nearly every child in the United States is infected with rotavirus by age 5 years, and the majority will have gastroenteritis, resulting in approximately 410,000 physician visits, 205,000-272,000 emergency department (ED) visits, and 55,000--70,000 hospitalizations each year and direct and indirect costs of approximately \$1 billion. In the United States, among children aged <5 years, rotaviruses are responsible for five to 10 percent of all gastroenteritis episodes, 30 to 50 percent



of all hospitalizations and approximately 70 percent of hospitalizations during the seasonal peaks. However, among the various pathogens causing gastroenteritis, rotaviruses lead to the most severe disease and account for a higher proportion of severe episodes leading to clinic or hospital visits.

Rotavirus vaccine was licensed in February 2006. Because rotavirus is a new vaccine, coverage estimates appeared for the first time in the 2009 NIS (44 percent). Because this is a new vaccine and no catch-up is possible (doses of rotavirus cannot be given after 8 months of age), 60 percent by 2012 is ambitious and achievable.

### **Long Term Objective 1.2, Performance Measure 2**

This measure monitors program progress for implementing two of the most recent, routinely recommended vaccines for adolescents: Tdap and MenACWY. The vaccine recommendations warrant the addition of an adolescent component to the longstanding childhood immunization goal because fully vaccinating a child now extends to the adolescent years.

High coverage rates for adolescents are important, but many adolescent vaccines are relatively new additions to the ACIP recommendations. Additionally, it is more challenging to vaccinate adolescents than young children for a variety of reasons, including:

- Lack of routinely scheduled adolescent visits. By contrast, recommended vaccines for young children often coincide with routinely scheduled well-child visits. Adolescents make fewer medical visits, especially preventive care visits.
- Adolescents are more likely to visit non-traditional medical settings.

To achieve future targets for these measures, CDC will:

- Provide funding, guidance, and technical assistance to state and local immunization programs to conduct provider assessments, develop and utilize immunization information systems, utilize coverage assessment information from the National Immunization Survey-Teen module, and provide education and training to both public and private immunization providers.
- Work with partners to support the infrastructure required for adolescent immunization.
- Promote public awareness of the vaccines recommended for adolescents and the importance of the adolescent health care visit for children at age 11-12 years.
- Evaluate the effectiveness of school-located vaccination strategies in the delivery of adolescent vaccines.

#### 1.2.2a (Tdap)

Tdap vaccine is recommended to reduce pertussis morbidity in adolescents and maintain the standard of care for tetanus and diphtheria protection. The Advisory Committee on Immunization Practices (ACIP) recommends that adolescents aged 11 to 18 years receive Tdap instead of tetanus and diphtheria toxoids vaccine (Td) for booster immunization against tetanus, diphtheria, and pertussis. Vaccination against tetanus and diphtheria has markedly reduced the number of cases and deaths from tetanus and diphtheria in the United States in all age groups. However, pertussis, an acute, infectious cough illness, remains endemic in the United States despite routine childhood pertussis vaccination for more than half a century and high coverage levels in children for more than a decade. The primary reason for the continued circulation of *Bordetella pertussis* is that immunity to pertussis wanes approximately 5 to 10 years after completion of childhood pertussis vaccination, leaving adolescents and adults susceptible to pertussis.

Among the diseases for which universal childhood vaccination has been recommended, pertussis is the least well-controlled reportable bacterial vaccine-preventable disease in the United States. Since the 1980s, the number of reported pertussis cases has been steadily increasing, especially among adolescents and adults. Adolescents and adults are critical age groups as they are thought to be a source of transmission of pertussis to young infants who are too young to be completely vaccinated. Pertussis is highly infectious, with attack rates among exposed, non-immune household contacts as high as 80 to 90 percent.

Tdap was licensed and recommended by the ACIP as a replacement vaccine for adolescents in 2005. Since 2006, CDC has conducted the National Immunization Survey-Teen (NIS-Teen) to estimate vaccination coverage from a national sample of adolescents aged 13 to 17 years. For Tdap, coverage with one or more doses for 13 to 15 year olds has steadily increased: 13 percent in 2006, 36 percent in 2007, 47 percent in 2008, and 62 percent in 2009<sup>8</sup>, exceeding the 2009 target of 60%.

#### 1.2.2b (MCV4)

Meningococcal disease is a leading cause of bacterial meningitis in children 2 through 18 years old in the United States. About 2,600 people get meningococcal disease each year in the U.S. Five to 10 percent of these people die, in spite of treatment with antibiotics. Of those who live, another 11 to 19 percent lose their arms or legs, become deaf, have problems with their nervous systems, become mentally retarded, or suffer seizures or strokes. Though anyone can get meningococcal disease, it is most common in infants less than one year of age and people with certain medical conditions, such as lack of a spleen. College freshmen who live in dormitories have an increased risk of getting meningococcal disease. Meningococcal infections can be treated with drugs. However, about one out of every 10 people who get the disease dies from it, and many others are affected for life. This is why preventing the disease through use of meningococcal vaccine is important.

MCV4 was licensed and recommended by the ACIP for adolescents in 2005. Since 2006, CDC has conducted the National Immunization Survey-Teen (NIS-Teen) to estimate vaccination coverage from a national sample of adolescents aged 13 to 17 years. For MCV4, coverage with one dose for 13 to 15 year olds has steadily increased: 13 percent in 2006, 33 percent in 2007, 44 percent in 2008, and 55 percent in 2009<sup>9</sup>, exceeding the 2009 target of 54%.

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<sup>8</sup> Based on unpublished CDC analysis of NIS data.

<sup>9</sup> Based on unpublished CDC analysis of NIS data.

**RESPIRATORY DISEASE - SEASONAL INFLUENZA**

**LONG-TERM OBJECTIVE 1.3: INCREASE THE PROPORTION OF ADULTS WHO ARE VACCINATED ANNUALLY AGAINST INFLUENZA AND EVER VACCINATED AGAINST PNEUMOCOCCAL DISEASE.\***

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
1.3.1a: Increase the rate of influenza and pneumococcal vaccination in persons 65 years of age and older to 90% by 2010. influenza (Output)	2012	90%	Jan 31, 2014
	2011	90%	Jan 31, 2013
	2010	90%	Jan 31, 2012
	2009	85%	Jan 31, 2011
	2008	85%	67% (Target Not Met)
	2007	74%	67% (Target Not Met but Improved)
	2006	74%	64% (Target Not Met but Improved)
1.3.1b: Increase the rate of influenza and pneumococcal vaccination in persons 65 years of age and older to 90% by 2010. pneumococcal (Output)	2012	90%	Jan 31, 2014
	2011	90%	Jan 31, 2013
	2010	90%	Jan 31, 2012
	2009	80%	Jan 31, 2011
	2008	80%	60% (Target Not Met but Improved)
	2007	69%	58% (Target Not Met but Improved)
	2006	69%	57% (Target Not Met but Improved)
1.3.2a: Increase the rate of vaccination among non-institutionalized high-risk adults aged 18 to 64 years to 60% by 2010 for: influenza (Output)	2012	60%	Jan 31, 2014
	2011	60%	Jan 31, 2013
	2010	60%	Jan 31, 2012
	2009	40%	Jan 31, 2011
	2008	40%	39% (Target Not Met but Improved)
	2007	32%	36% (Target Exceeded)
	2006	32%	34% (Target Exceeded)
1.3.2b: Increase the rate of vaccination among non-institutionalized high-risk adults aged 18 to 64 years to 60% by 2010 for: pneumococcal (Output)	2012	60%	Jan 31, 2014
	2011	60%	Jan 31, 2013
	2010	60%	Jan 31, 2012
	2009	35%	Jan 31, 2011
	2008	35%	25% (Target Not Met but Improved)
	2007	22%	24% (Target Exceeded)
	2006	22%	23% (Target Exceeded)

\* Targets reflect impact of funding from ACA/PPHF but do not reflect impact of ARRA

Unique Identifier	Data Source	Data Validation
1.3.1; 1.3.2	National Health Interview Survey (NHIS)	NHIS is a cross-sectional household interview survey. Households chosen for interviews are a probability sample representative of the target population. The annual response rate is more than 90 percent of eligible households in the sample. NHIS has three modules: 1) The basic module remains largely unchanged from year to year and allows for trend analysis. Data from more than one year can also be pooled to increase the sample size for analytic purposes. The basic module contains a family core, a sample adult core, and a child core through which data are collected on the family unit and from one randomly selected adult and child. 2) Periodic modules collect more detailed information on some of the topics included in the basic module. 3) Topical modules respond to new data needs as they arise. Data are collected through a personal household interview conducted by staff employed and trained by the U.S. Census according to procedures delineated by CDC. Data are reviewed and analyzed extensively to ensure their validity and reliability. The survey sample is designed to yield estimates that are representative and that have acceptably small variations. Before the actual survey, cognitive testing is performed by CDCs Questionnaire Design Research laboratory, and pretests are conducted in the field. Once collected, data are carefully edited, checked, and compared to data from earlier surveys and/or independent sources. Staff members calculate descriptive statistics and perform in-depth analyses, which result in feedback on the analytic usefulness of the data.

CDC monitors and reports coverage rates among all populations recommended for annual influenza vaccination (all persons 6 months of age and older), with its primary investment in improving coverage rates among adults is currently in education and communication efforts. CDC also works with partners, such as CMS, to complement their investments and leverage resources to improve vaccination rates among adult populations.

**Long Term Objective 1.3.1, Performance Measure 1**

During the past decade, vaccination coverage levels among older adults increased slightly as CDC implemented national strategies and promoted adult immunization among healthcare providers and state and local governments. Influenza vaccination coverage levels among the elderly have increased from 64 percent in 1998 to 67 percent in the 2007-2008 influenza season.

Despite recent vaccine availability issues, the increase in vaccination coverage began to slow before 2000. The plateau is not fully understood. Because large gaps remain between existing coverage levels and some of the targets for subsequent years, CDC will be reviewing and potentially revising out-year targets as part of the Healthy People 2020 process.

The percentage of adults aged 65 years and over who had ever received a pneumococcal vaccination increased from 50 percent in 1999 to 60 percent in 2008. CDC has worked with the Centers for Medicaid and Medicare Services to raise the reimbursement rate for influenza and pneumococcal vaccines. Similar challenges apply to pneumococcal vaccination in adults as for influenza vaccination. Because large gaps remain between existing coverage levels and some of the targets for subsequent years, CDC will be reviewing and potentially revising out-year targets as part of the Healthy People 2020 process.

### **Long Term Objective 1.3.2, Performance Measure 2**

The Advisory Committee on Immunization Practices (ACIP) Recommended Adult Immunization Schedule advises vaccination for influenza for adults at high risk of complications each year and pneumococcal vaccination for those persons at high risk. Current levels of coverage among adults vary widely among different age, risk, and racial and ethnic groups. High-risk adults aged 18 to 64 years may not have insurance coverage for influenza and pneumococcal vaccines, may make fewer visits for preventive care, and may not be aware of influenza and pneumococcal vaccination recommendations. Persons with high-risk conditions, such as heart disease and diabetes, remain at increased risk from these diseases.

CDC has been working with partner groups to increase awareness of influenza and pneumococcal vaccination recommendations among healthcare providers and the public. The estimated influenza vaccination coverage for non-institutionalized persons 18-64 years with high risk conditions increased from 36 percent in 2007 to 39 percent in 2008, and the estimated pneumococcal vaccinations coverage increased from 24 percent in 2007 to 25 percent in 2008.

**RESPIRATORY DISEASE - PANDEMIC INFLUENZA**

**LONG-TERM OBJECTIVE 1.6: ENHANCE PREPAREDNESS, DETECTION AND RESPONSE CAPACITY FOR PANDEMIC INFLUENZA.\***

Measure	FY	Target	Result
1.6.1: Increase the number of public health laboratories monitoring influenza virus resistance to antiviral drugs	2012	12	Dec 31, 2012
	2011	9	Dec 31, 2011
	2010	5	3 (Target Not Met)
	2009	(Baseline)	3
1.6.2: Increase the percentage of Public Health Emergency Preparedness (PHEP) Cooperative Agreement grantees (SLTTs) that meet the standard for surveillance and laboratory capability criteria. (Output)	2012	90%	Dec 31, 2012
	2011	75% *	Dec 31, 2011
	2010	80%	97% (Target Exceeded)
	2009	70%	NA
	2008	50%	67% (Target Exceeded)
	2007	Baseline	32%
1.6.3: Percentage of countries achieving an increase of five percent over last year's indicator score on CDC's National Inventory of Core Capacities for Pandemic Influenza Preparedness and Response.	2020 (out-year)	95%	Dec 31, 2020
	2014	90%	Dec 31, 2014
	2012	75%	Dec 31, 2012
	2010	50%	94% (Target Exceeded)

\* Targets reflect impact of funding from ACA/PPHF but do not reflect impact of ARRA

Unique Identifier	Data Source	Validation
1.6.1	State Lab Reports	Comparison of State Laboratory Reports to epidemiological and/or virologic data collected by CDC
1.6.2	Federal Guidance to Assist States in Improving State-Level Pandemic Influenza Operating Plans. Distributed by U.S. Government to American States, Territories, and District of Columbia on March 11, 2008 (To be revised).	Quantitative scores from federal review of public health portions of Pandemic Influenza Operating Plans submitted annually by grantees, as required by the Pandemic and All-Hazards Preparedness Act (PAHPA).
1.6.3	National Inventory of Capabilities for Pandemic Influenza Preparedness and Response database, Influenza Division, National Center for Immunization and Respiratory Diseases, Office of Infectious Diseases, CDC	Country scores are validated by CDC staff, then are reviewed by the country representative(s). Scores are then finalized in a report.

### **Long Term Objective 1.6, Performance Measure 1 (Public Health Labs)**

The purpose of this measure is to increase the number of public health state laboratories that are capable of monitoring resistance to adamantanes and neuraminidase inhibitors. It will provide important data for monitoring viruses' resistance to antiviral drugs and informing prescription and other non-pharmaceutical and pharmaceutical intervention guidance. It will also allow CDC to gauge success in building capacity throughout the nation to monitor particular changes in influenza viruses. In addition, increases in this type of capacity might well signal an overall change in capacity in other areas of influenza detection, and could indicate overall improvement in the “detect and report” objective for pandemic influenza.

CDC is the only public health laboratory in the United States conducting comprehensive monitoring of influenza A and B virus susceptibilities to four licensed anti-influenza drugs. As of December 2010, three public health state laboratories (NY, WI, and CA) have been approved to perform surveillance for antiviral resistance to adamantanes (amantadine and rimantadine), and neuraminidase inhibitors (oseltamivir and zanamivir). In the last year, at least 12 state public health laboratories have acquired the appropriate sequencing devices needed to perform antiviral resistance testing. In addition, many of these laboratories have begun antiviral testing by acquiring the test reagents from approved vendors. In order to be qualified at the same level as the three initial laboratories, new sites must receive training and demonstrate proficiency in analyzing specimens. The 2010 target of five laboratories was not met because two laboratories had not achieved full validation for susceptibility testing through the completion of the proficiency testing process at the time of reporting for this performance measure. We anticipate that these laboratories will complete full validation within the next measurement period.

In order to continue to increase the number of laboratories monitoring antiviral resistance, CDC will:

- Continue to provide technical assistance and financial resources, when available, to allow public health laboratories to purchase equipment and reagents to perform antiviral resistance testing.
- Emphasize the importance of having critical information regarding antiviral resistance and the use of that information.

### **Long Term Objective 1.6, Performance Measure 2 (Domestic Capacity)**

The measure demonstrates integrated state and local improvements in preparedness and response planning for an influenza pandemic by identifying the extent to which Public Health Emergency Preparedness (PHEP) Cooperative Agreement grantees meet high priority standards in surveillance and laboratory capability planning. For FY 2010, all grantees submitted corrective actions developed from lessons learned through the 2009 H1N1 influenza pandemic. This therefore becomes the baseline for measurements in FY 2011 and FY 2012. For FY 2011 and FY 2012, the targets identify the percentages of corrective actions completed by grantees as identified in their FY 2010 plan submissions. These percentages are contingent in part on adequate resources for cooperative agreement grantees to sustain and continue initiatives they have developed, including regular exercising of plans.

The target for FY 2008 (50 percent) used an improvement of 18 percent from the FY 2007 baseline of 32 percent as a foundation. The actual percentage of 67 percent is based on final concluding assessments for state pandemic operating plans submitted in calendar year 2008. The performance target for FY 2008 was set at an approximate target level, and the deviation from that level is slight. There was no effect on overall program or activity performance. For FY 2010,

the 100% compliance as compared to the target of 80% is based on the requirement that all grantees must submit a short report by 11/30/2010 for further analysis and reporting in FY 2011 by CDC. The submission of the report was the only requirement for this calendar year, which explains the high percentage.

CDC considers the targets ambitious for multiple reasons:

- Each grantee has different levels of resources available to meet the federal review requirements.
- Meeting the target will require considerable cooperative actions among grantees as well as allocation of CDC resources for technical assistance.
- Achieving targets for future years depends on the capability of the United States public health system as a whole to sustain both financial and human resources in the areas of surveillance and laboratory capacity.

CDC is working extensively with grantees to provide and encourage technical assistance and other strategies to help them strengthen preparedness and response to influenza pandemics. Influenza pandemics pose a sustained threat of serious illness and death that can spread rapidly and simultaneously throughout the United States. CDC is responsible for monitoring and assessing public health components of grantee operation plans that help protect communities and minimize the impact of infection as much as possible. The performance measure will directly assess states and local communities in regard to ongoing improvement of their surveillance and laboratory planning capability.

#### **Long Term Objective 1.6, Performance Measure 3 (International Core Capacity)**

This measure will be used for CDC's international Pan Flu efforts to 1) inform strategic and program planning, including CDC as well as international stakeholders such as WHO and various Ministries of Health; 2) guide ongoing investment in pandemic preparedness and response, and 3) demonstrate accountability for use of resources to stakeholders.

The twelve core capabilities focused on in this tool were researched and identified as key components on the human health side that should be addressed in preparation for a pandemic response. The twelve capabilities are country planning, research and use of findings for pandemic influenza preparedness, communications, epidemiologic capability, laboratory capability, routine influenza surveillance, national respiratory disease surveillance and reporting, outbreak response, resources for containment, community-based interventions to prevent the spread of influenza, infection control, and health sector pandemic response. There are four to five indicators for preparedness under each capability that assist in determining the level of preparedness. Progress made from one level to the next demonstrates a meaningful improvement in that particular indicator and capability.

The baseline was established in 2008. The first data point for this measure was reported in 2008. The periodicity is every two years. A comparison of the 2008 and 2010 scores for 36 countries shows that all but two, or 94%, improved their aggregate scores by greater than 5%. The range was from -1.53% to 494.74% with an average improvement of almost 90% increase in score. Based on the reported 2010 scores, the FY 2010 target was exceeded. Analysis is underway to determine overall drivers for the positive movement, but early indications are that the laboratory, rapid response and epidemiologic training and overall program support implemented in the countries is improving capacity. The program will continue to monitor progress and adjust targets as appropriate to ensure the measure remains relevant. As part of its ongoing work with countries, CDC uses the current M&E data point as a planning tool for implementing and sustaining influenza programs, which then are formally reviewed during formal M&E scoring.



In order to achieve future targets, CDC will: 1) to assist countries with priority setting for the capabilities that require improvement; 2) provide technical assistance/training on the priority capabilities identified by the country; 3) collaborate with partners to provide the requested assistance; 4) and maintain regular communication with countries focusing on these efforts. In addition, a review of the tool will be undertaken to determine whether revision may be necessary to ensure the tool is still relevant and addresses experiences and lessons learned from the 2009 H1N1 pandemic.

As countries improve their capabilities, it will be harder for them to show progress because their score may not change greatly, such as transitioning from a level 2 to a level 3 response.

## DOMESTIC HIV PREVENTION<sup>10,11</sup>

In July 2010, the Obama Administration released the first comprehensive *National HIV/AIDS Strategy for the United States*. It is focused on three overarching goals: reducing the number of new HIV infections, increasing access to care for people living with HIV, and reducing HIV-related health disparities. The NHAS set three specific metrics for measuring our nation's collective success at reducing new infections. Over the next five years, from 2010-2015, the United States aims to: 1) lower the annual number of new infections by 25 percent; 2) reduce the HIV transmission rate; and, 3) increase the percentage of people living with HIV who know their serostatus.

In keeping with the priorities set by the National HIV/AIDS Strategy, CDC is revising its HIV performance plan. A new structure for the performance plan, with measures aligned to the three major goals of the National HIV/AIDS Strategy--reduce new HIV infections, increase access to care and improve health outcomes for people living with HIV, and reduce HIV-related health disparities--is under development and is expected to be completed during the next performance plan cycle. CDC is working to develop better methods to monitor other priorities identified in the Strategy, such as early diagnosis (percentage of newly diagnosed persons with CD4 counts of 200 cells/ $\mu$ l or higher), linkage and access to care (percentage of persons diagnosed with HIV who have a CD4 or viral load result reported within three months of diagnosis), and, disparities in community viral load (percentage of HIV diagnosed MSM, Blacks and Hispanics with undetectable viral load). The revised plan will also reflect the transition of the CDC HIV school health program to be more closely aligned with CDC's HIV programs.

For this submission, some slight revisions have been made to objective and measure language in order to be consistent with the National HIV/AIDS Strategy. For long-term objectives: reduce HIV incidence, reduce HIV transmission, and to increase knowledge of serostatus among those infected, long term targets have been established at levels that are consistent with the National Strategy. Some measures have been slightly revised to reflect changes that better align them with NHAS (e.g., focus on HIV cases rather than AIDS cases, expanding effective interventions beyond behavioral interventions) and to incorporate lessons learned from measuring these indicators to better focus them on CDC priorities. Additionally, the narratives include indications of where changes to measures will be proposed for FY 2013 HIV Performance Plan.

Measure	FY	Target	Result
2.E.1: Increase the efficiency of core HIV surveillance as measured by the cost per estimated case of HIV diagnosed each year. ( <i>Efficiency</i> )	2012	\$650	Feb 28, 2014
	2011	\$650	Feb 28, 2013
	2010	\$650	Feb 23, 2012
	2009	\$775	Feb 23, 2011
	2008	\$840	\$772 (Target Exceeded)
	2007	\$870	\$699 (Target Exceeded)
	2006	\$940	\$882 (Target Exceeded)

<sup>10</sup> The long term measures in this plan reflect targets for HIV incidence, transmission and knowledge of serostatus, consistent with the National HIV/AIDS Strategy. Revisions to other HIV measures have been incorporated to reflect the Strategy and improvements in systems and methods. CDC is working to develop and refine long-term measures of access to care and health disparities and will include such measures in a revised and reformatted performance plan in its next performance report. Targets do not reflect impact of funding from PPACA/PPHF.

<sup>11</sup> Targets do not reflect impact of funding from PPACA/PPHF.

Unique Identifier	Data Source	Data Validation
2.E.1	HIV/AIDS Surveillance System is used to collect state HIV and AIDS data, financial assistance information is drawn from administrative records.	CDC conducts validation and evaluation studies of data systems which track AIDS deaths and HIV diagnosis to determine the quality of data generated by them. CDC requires a minimum of 12 months after the end of a calendar year to provide accurate trend data.

**Efficiency Measure 2.E.1:**

CDC provides financial and technical support to all state health departments, which have the legal authority for mandating and defining processes for reporting of medical conditions, to produce HIV and AIDS surveillance data. These data are used by states to guide their prevention programs. At the national level these data are used to guide allocations of funding for HRSA-funded care and treatment programs and the Housing Opportunities for People with AIDS program supported by HUD. CDC uses HIV surveillance data to identify populations most at risk and to guide prevention efforts. However, while national data are available for AIDS cases, national data are not yet available on HIV infections. This is because states have historically used several different methods for collecting data on HIV infection: name-based, code-based, or name-to-code. In 2005, CDC recommended that all states and territories adopt confidential, name-based surveillance systems to report HIV infections. By April 2008, all states had implemented confidential, name-based HIV surveillance. However, not all of these state systems are mature; some states that recently adopted confidential name-based reporting have backlogs of cases. CDC does not report data from states until their HIV reporting systems have matured. HIV data from 37 states were included in the 2008 HIV Surveillance report (published in 2010) and data from 39 will be included in the 2009 report. CDC expects to have data from all 50 states reflected in the HIV surveillance report for calendar year 2012.

To monitor trends in the epidemic at a national level, CDC analyzes data from states with mature, confidential, name-based HIV surveillance systems. The number of states included in this analysis has risen over the years, as additional states have adopted confidential, name-based HIV surveillance methods, and as those systems are implemented and stabilize.

This measure reflects efficiencies that are being achieved in HIV surveillance nationally. Because CDC historically provided technical and financial support to HIV and AIDS surveillance systems regardless of the type of reporting used, funds allocated to states to conduct core case surveillance are not anticipated to rise dramatically even while more states report data in a format CDC can utilize. Additional efficiencies might also be achieved as surveillance systems work to accommodate increased reports of HIV resulting from widespread implementation of HIV screening. In 2003, 32 states had sufficiently mature and stable HIV data to include in CDC's analysis of trends. Approximately 32,000 cases of HIV were estimated to have been diagnosed in those states in 2003. The cost per estimated diagnosed case (adjusted to 2005 dollars) was \$1,357 that year. In its 2008 HIV surveillance report, CDC reported HIV case surveillance data from 37 states and the cost per estimated case reported (adjusted to 2005 dollars), was \$772. In the coming years, CDC anticipates efficiency gains, as data will be included from those few states that do not yet have sufficiently mature systems. Additional funding was provided to jurisdictions to sustain core surveillance in FY 2008, which accounts for the slight decrease in efficiency from 2007.

**LONG-TERM OBJECTIVE 2.1: DECREASE THE ANNUAL HIV INCIDENCE RATE.**

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
<b>2.1.1:</b> Reduce the annual number of new HIV infections. <i>(Outcome)</i> <sup>12</sup>	<i>Out-Year Target (2015)</i>	42,225 (2015)	Nov 30, 2017
	2012	53,485	March, 31, 2014
	2011	N/A	March, 31, 2013
	2007	Baseline	March 31, 2011
	2006	Baseline	56,300
<b>2.1.5:</b> Increase the number of states with mature, name-based HIV surveillance systems. <i>(Output)</i>	2012	50	Nov 30, 2013
	2011	48	Nov 30, 2012
	2010	46	Nov 30, 2011
	2009	37	39 (Target Exceeded)
	2008	35	37 (Target Exceeded)
	2007	34	34 (Target Met)
	2006	33	33 (Target Met)
<b>2.1.3:</b> Reduce the black:white rate ratio of HIV diagnoses. <i>(Outcome)</i> <sup>13</sup>	2012	8.2:1	Nov 30, 2013
	2011	8.2:1	Nov 30, 2012
	2010	8.2:1	Nov 30, 2011
	2009	8.2:1	March 31, 2011
	2008	8.4:1	9.22:1 (Target Not Met)
	2007	8.4:1	8.51:1 (Target Not Met but Improved)
	2006	8.7:1	8.88:1 (Target Not Met)
<b>2.1.4:</b> Reduce the Hispanic: white rate ratio of HIV diagnoses. <i>(Outcome)</i> <sup>13</sup>	2012	3.3:1	Nov 30, 2013
	2011	3.3:1	Nov 30, 2012
	2010	3.3:1	Nov 30, 2011
	2009	3.3:1	March 31, 2011
	2008	3.4:1	3.49:1 (Target Unmet)
	2007	3.4:1	3.46:1 (Target Not Met but Improved)
	2006	3.5:1	3.49:1 (Target Exceeded)
<b>2.1.2:</b> Decrease the number of pediatric AIDS cases. <i>(Outcome)</i> <sup>13, 14</sup>	2012	<75	Nov 30, 2013
	2011	<75	Nov 30, 2012
	2010	<75	Nov 30, 2011
	2009	<75	March 31, 2011
	2008	<75	41 (Target Exceeded)
	2007	<100	28 (Target Exceeded)

<sup>12</sup> Language has been revised to reflect the goals of the National HIV/AIDS Strategy and targets for this measure are consistent with targets included in the Strategy.

<sup>13</sup> CDC will propose new or revised measure based on restructuring of HIV Performance Plan to align with CDC and National HIV/AIDS Strategy Priorities.

<sup>14</sup> Original baseline for measure 2.1.2 is 241 cases in 1998.

PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY  
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Measure	FY	Target	Result
	2006	<100	38 (Target Exceeded)
2.1.8: Increase the number of agencies trained each year to implement effective biomedical, behavioral, and structural interventions and public health strategies. (Output) <sup>12</sup>	2012	1,000	Feb 28, 2013
	2011	1,100	Feb 29, 2012
	2010	1,500	Feb 28, 2011
	2009	1,100	935 (Target Not Met)
	2008	1,100	980 (Target Not Met)
	2007	1,100	1,147 (Target Exceeded)
	2006	N/A	987
2.1.6: Increase the percentage of HIV prevention program grantees using Program Evaluation and Monitoring System (PEMS) to monitor program implementation. (Output) <sup>13</sup>	Out-Year Target	100% (2015)	Nov 30, 2016
	2012	100%	Nov 30, 2013
	2011	100%	Nov 30, 2012
	2010	100%	Nov 30, 2011
	2009	65%	97% (Target Exceeded)
	2008	45%	95% (Target Exceeded)
	2007	20%	67% (Target Exceeded)
	2006	Baseline	0
2.1.7: Increase the number of evidence-based prevention interventions that are packaged and available for use in the field by prevention program grantees. (Output)	2012	21	Jan 31, 2013
	2011	21	Jan 31, 2012
	2010	20	Jan 31, 2011
	2009	20	21 (Target Exceeded)
	2008	18	17 (Target Not Met but Improved)
	2007	15	16 (Target Exceeded)
	2006	N/A	14

Unique Identifier	Data Source	Data Validation
2.1.1, 2.1.3, 2.1.4	HIV Incidence Surveillance in 25 states.	CDC conducts validation and evaluation studies of the data systems which monitor HIV incidence to determine the quality of data generated by them. Data for 2006 are from 25 areas: Alabama, Arizona, California (3 sites), Colorado, Connecticut, DC, Florida, Illinois, Indiana, Louisiana, Massachusetts, Michigan, Mississippi, New Jersey, New York City, New York State, North Carolina, Pennsylvania, South Carolina, Texas (2 sites), Virginia and Washington. Additional states will be included as their data collection systems become fully operational.
2.1.2 - 2.1.5	HIV/AIDS Surveillance System	CDC conducts validation and evaluation studies of the data systems which monitor HIV to determine the quality of data generated by them. Data

Unique Identifier	Data Source	Data Validation
		on AIDS cases come from 50 states. The period of time between a diagnosis of HIV or AIDS and the arrival of a case report at CDC is called the "reporting delay". In order to provide the best estimates of recent trends, HIV and AIDS surveillance data are analyzed by date of diagnosis and are statistically adjusted for reporting delays and incomplete information on some cases. CDC requires a minimum of 12 months after the end of a calendar year to provide accurate trend data.
2.1.6	National HIV Monitoring and Evaluation System (NHM&E)	CDC evaluates the data systems used to report prevention program activity and develops guidelines for implementation, data entry and program monitoring to determine the quality of data generated by them.
2.1.7	www.EffectiveInterventions.org	Internal program data are routinely monitored and cross-checked to ensure rapid translation of newly identified evidence-based prevention interventions for use in the field.
2.1.8	Effective Prevention Interventions Tracking Database	Internal program data are routinely monitored and cross-checked to ensure rapid deployment of trainings.

**Long-term Objective 2.1, Performance Measure 1**

The target population for this measure is adults and adolescents (more than 13 years of age). The ability to monitor trends in new HIV infections (i.e., HIV incidence) is a fundamental indicator of the impact of HIV prevention activities in the U.S.

CDC provides funding and technical assistance to selected state and local health departments to conduct HIV incidence surveillance. This complex surveillance system uses the Serologic Testing Algorithm for Recent HIV Seroconversion (STARHS) methodology, a testing algorithm developed by CDC staff to assess HIV incidence. Using residual serum specimens from standard HIV antibody testing, STARHS uses a less sensitive Enzyme-Linked Immunoassay (EIA) to determine whether the person has been infected with HIV for less than six months (recent infection) or longer than six months (long-standing infection). Ongoing population-based data from the funded areas are adjusted to impute annual national HIV incidence estimates. CDC's first estimates from this system indicate that approximately 56,300 new HIV infections occurred in the United States in 2006. These initial estimates were used to set targets for the National HIV/AIDS Strategy (NHAS); Targets established for 2012 and 2015 are consistent with the NHAS. Trend data will be reported for 2011.

**Long-term Objective 2.1, Performance Measure 2**

*CDC is proposing to revise this measure in FY 2013, to align with recent data available from most states to estimate rates of perinatally acquired HIV. The revised measure assesses declines in rates of perinatally transmitted HIV cases among children. There were 1.5 cases per 100,000 infants in 2006. CDC has set a target to reduce this rate by half--to 0.7 per 100,000--in 2012. Interim targets have not been established, but trends will be reported.. Declines are contingent upon screening pregnant women and treating those who are infected to prevent vertical transmission to their infants. CDC has recommended opt-out screening of all pregnant women.*

Proposed Measure	FY	Target	Result
2.1.2: Reduce the rate of perinatally acquired pediatric HIV cases per 100,000 infants. (Outcome)	2012	0.7	Feb 28, 2014
	2011	N/A	March 31, 2013
	2010	N/A	March 31, 2012
	2009	N/A	March 31, 2011
	2008	N/A	0.9
	2007	N/A	1.5
	2006	Baseline	1.5

This measure addresses children less than 13 years of age who have developed AIDS. Among this population, AIDS has declined from nearly 1,000 cases per year in the early 1990s to 41 in 2008. This decline was strongly associated with increased HIV testing and treatment of infected pregnant women. Effective treatments for pregnant women have been shown to greatly reduce, but not eliminate, perinatal transmission (transmission can be reduced from an estimated 25 percent to less than two percent among HIV-infected women in the U.S.). More recently, some decline is likely associated with improved treatments which delay the onset of AIDS for HIV-infected children.

Although CDC exceeded the 2008 target, the estimated number of new pediatric AIDS cases was slightly higher than in 2007. CDC expects that these numbers may fluctuate somewhat over time due to statistical limitations of estimating new AIDS cases as such a low baseline. For this reason, the CDC target is <75 cases per year. CDC provides funding and technical assistance to 65 state and local health departments to conduct HIV prevention programs, including perinatal transmission prevention. CDC also provides guidelines, technical assistance, and provider education to reduce perinatal HIV.

### Long-term Objective 2.1, Performance Measure 3

African Americans are disproportionately affected by the HIV epidemic. The NHAS specifically calls for efforts to reduce this disparity in health. *CDC is proposing to revise this measure in FY 2013 in order to reflect changes in incidence of HIV instead of reported cases based on testing patterns.*

Proposed Measure	FY	Target	Result
2.1.3: Reduce the disparity in HIV incidence for Blacks versus Whites (Black:white ratio of new infections). (Outcome)	2012	6.9:1	Mar 31, 2014
	2011	N/A	Mar 31, 2013
	2006	Baseline	7.3: 1

This measure compares the HIV rates per 100,000 population between African Americans and whites in 33 states with mature, confidential, name-based HIV surveillance. The rate ratio between African Americans and whites has declined from 10.3:1 in 2002 to 9.22:1 in 2008. While the target for FY 2008 was not met, CDC has made consistent progress on this measure and is undertaking a number of initiatives to further reduce the black:white ratio of HIV diagnoses. The 2008 rate ratio was higher than for 2007. This increase in HIV the rate ratio may be due to targeted HIV testing programs in African American communities or to subtle changes in HIV incidence patterns. CDC provides funding and technical assistance to 65 state and local health departments to conduct HIV prevention programs, including evidence-based prevention interventions for African American communities. At the national level, CDC has initiated community mobilization efforts to engage leaders in the African American community in the fight against AIDS. CDC also provides guidelines, technical assistance, and provider education to

reduce racial and ethnic disparities in HIV rates. With this continued emphasis, CDC expects to continue to make steady progress in reducing this disparity.

**Long-term Objective 2.1, Performance Measure 4**

Hispanics are disproportionately affected by the HIV epidemic. The NHAS specifically calls for efforts to reduce this disparity in health. *CDC is proposing to revise this measure in FY 2013 in order to reflect changes in incidence of HIV instead of reported cases based on testing patterns.*

Proposed Measure	FY	Target	Result
2.1.4: Reduce the disparity in HIV incidence for Hispanics versus Whites (Hispanic:white ratio of new infections). (Outcome)	2012	6.9:1	Mar 31, 2014
	2011	N/A	Mar 31, 2013
	2006	Baseline	7.3: 1

This measure compares the HIV rates per 100,000 population between Hispanics and whites. The rate ratio between Hispanics and whites has declined from 4.1:1 in FY 2002 to 3.49:1 in FY 2008. While the target for FY 2008 was not met, CDC has made consistent progress on this measure and is undertaking a number of initiatives to further reduce the Hispanic: white ratio of HIV diagnoses. The 2008 rate ratio was slightly higher than for 2007. This slight increase in HIV diagnoses may be due to targeted HIV testing programs in Hispanic communities or to subtle changes in HIV incidence patterns. CDC has sponsored research to adopt evidence-based interventions in order to meet the needs of the Hispanic community. CDC also provides funding and technical assistance to 65 state and local health departments to conduct HIV prevention programs, including evidence-based prevention interventions for Hispanic communities. Finally, CDC also produces guidelines and provides technical assistance and provider education to reduce racial and ethnic disparities in HIV rates.

**Long-term Objective 2.1, Performance Measure 5**

This measure addresses the HIV surveillance systems in the 50 United States. Since 1985, all states and territories have conducted AIDS surveillance using the same standardized name-based methods as that used for other infectious diseases. Implementation of HIV surveillance has been less consistently implemented, and some states have used code-based methods of HIV surveillance.

By April 2008, all states had adopted confidential, name-based HIV reporting. However, after a state implements name-based HIV surveillance, it takes a number of years for the system to "mature" (establish statewide surveillance standards, train reporting entities, eliminate backlogs of prevalent cases, eliminate interstate and intrastate duplicates, etc.). For purposes of conducting statistical analyses of trends CDC does not include data from states until the HIV surveillance system is identified as being "mature." In CY 2009, 39 states had mature, confidential, name-based HIV reporting and will be included in the 2009 surveillance report (to be published in spring of 2011). CDC exceeded the 2009 target. All 50 states are expected to have mature systems by the end of CY 2012; as such CDC will propose that this measure be retired in FY2013.

**Long-term Objective 2.1, Performance Measure 6**

*CDC is proposing to replace this measure in FY 2013. A new measure to reflect the performance of CDC's HIV surveillance grantees will assess the number of states that have laws or policies that support the reporting of all CD4 and HIV viral load test values (including undetectable viral*



*load) to CDC through the HIV/AIDS case surveillance system. Reporting of viral load and CD4 counts is a critical first step in calculating community viral load -- a key action step called for in the National HIV/AIDS Strategy. To this end, CDC has provided both financial and technical assistance to its HIV surveillance grantees to help them establish policies and procedures necessary to collect all CD4 and viral load test values.*

<b>Proposed Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
2.1.6: Increase the number of states that report all CD4 and HIV viral load values for surveillance purposes. (Outcome)	2012	25	Mar 31, 2013
	2011	N/A	Mar 31, 2012
	2010	Baseline	19

This measure addresses all CDC-funded prevention program grantees. CDC developed a Program Evaluation and Monitoring System (PEMS) to strengthen monitoring and evaluation of HIV prevention programs nationwide. PEMS is a secure Internet browser-based software program for data entry and reporting. PEMS is to be used by health departments and Community Based Organizations (CBOs) funded through CDC HIV prevention cooperative agreements. Currently, more than 1,250 agencies, including health departments and (CBOs) across the country have access to PEMS. In FY 2009, 97% of grantees used PEMS, exceeding the CDC target of 65%. More health departments and CBOs began using PEMS because of increased training of personnel and improvement of information systems and data collection tools.

**Long-term Objective 2.1, Performance Measure 7**

CDC will propose that this measure be retired in FY2013. This measure addresses the number of evidence-based prevention interventions that are packaged and available for use in the field by CDC-funded prevention program grantees. CDC conducts systematic reviews to identify efficacious HIV prevention behavioral interventions based on rigorous efficacy criteria. After an intervention has been identified as effective, CDC "packages" the intervention through the Replicating Effective Programs (REP) Project. CDC then provides technical assistance and training to move effective HIV interventions into program practice. CDC exceeded its target for number of available interventions in 2009.

**Long-term Objective 2.1, Performance Measure 8**

This measure addresses the number of Agencies funded by CDC that are trained each year to implement effective biomedical, behavioral and structural interventions and public health strategies. The language of this measure has been revised to reflect the changes in program plans to implement the National HIV/AIDS Strategy. These are reflected in the 2012 budget request and include (1) placing greater emphasis on effective interventions for people living with HIV, including linkage and maintenance to medical care, adherence to antiretroviral treatment, and interventions that reduce transmission risk; (2) placing greater emphasis on effective community-level, structural, and single session interventions and public health strategies; and (3) deemphasizing intensive individual and small group interventions for at-risk populations that are difficult to take to scale.

The goal is to enhance the capacity to implement effective interventions at the state and local levels, to reduce the spread of HIV and STDs. CDC supports training for agencies staff nationwide to help implement effective prevention interventions for their local populations.

In FY 2007, CDC exceeded its target by training 1147 agencies in effective behavioral interventions. CDC did not meet the FY 2008 and 2009 targets because of the increasing cost of

high quality training products. CDC is now focused on training replacement staff, newly funded CBOs, and on focusing future training on interventions for people living with HIV and community, structural and single session interventions and public health strategies. Targets for 2011 and 2012 have been revised to reflect past performance and planned resources for this activity.

**LONG-TERM OBJECTIVE 2.2: DECREASE THE RATE OF HIV TRANSMISSION BY HIV-INFECTED PERSONS.**

Measure	FY	Target	Result
2.2.1: Reduce the HIV transmission rate per 100 persons living with HIV. (Outcome) <sup>12</sup>	<i>Out-Year Target</i>	3.5% (2015)	Nov 30, 2016
	2012	4.7%	March 31, 2014
	2011	N/A	March 31, 2013
	2007	Baseline	Apr 30, 2011
	2006	Baseline	5.0%
2.2.2: Decrease risky sexual and drug using behaviors among persons at risk for transmitting HIV. (Outcome) <sup>13</sup>	2012	TBD	Nov 30, 2014
	2011	N/A	Nov 30, 2013
	2010	N/A	Nov 30, 2012
	2009	Baseline	March 31, 2011
2.3.1a: Decrease risky sexual and drug-using behaviors among persons at risk for acquiring HIV. MSM (Outcome) <sup>13</sup>	2011	47%	Jun 30, 2012
	2008	47%	54% (Target Unmet)
	2004	Baseline	47%
2.3.1b: Decrease risky sexual and drug-using behaviors among persons at risk for acquiring HIV. HRH (Outcome)	2010	N/A	Dec 31, 2012
	2007	Baseline	86%
2.3.1c: Reduce the proportion of IDU who reported risky sexual and drug-using behaviors. (Outcome) <sup>12</sup>	2012	69.4%	Jun 30, 2014
	2009	N/A	Jun 30, 2011
	2005	Baseline	72%
2.3.2a: Increase the proportion of persons at risk for HIV who received HIV prevention interventions. MSM (Outcome)	2011	20%	Nov 30, 2012
	2008	20%	17.6% (Target Unmet)
	2004	Baseline	18.9%
2.3.2b: Increase the proportion of persons at risk for HIV who received HIV prevention interventions. HRH (Outcome)	2010	N/A	Nov 30, 2011
	2007	Baseline	12.5%
2.3.2c: Increase the proportion of persons at risk for HIV who received HIV prevention interventions. IDU (Outcome)	2012	28.8%	Jun 30, 2014
	2009	N/A	Jun 30, 2011
	2005	Baseline	29.7%

Unique Identifier	Data Source	Data Validation
2.2.1	Calculations of HIV incidence and prevalence, utilizing the HIV Incidence Surveillance System and National prevalence studies	CDC will conduct validation and evaluation studies of the methodology and data systems used to calculate HIV transmission rates. Population data come from the Bureau of Census and will be updated annually.
2.2.2	Medical Monitoring Project (MMP) is being conducted in 19 states, one U.S. territory, and six cities. MMP uses a three-stage sampling design which will result in annual cross-sectional probability samples of adults in medical care for HIV infection in the United States. During the first stage of sampling (state sampling), 20 geographic primary sampling units (PSUs) were selected from the 50 U.S. states and Puerto Rico using probability proportional to size (PPS) sampling based on AIDS prevalence at the end of 2002. During the second stage (provider sampling), a sample of facilities providing HIV care in each of the project areas was selected. The measure of size for PPS sampling of facilities was the number of HIV-infected patients who received care at the facility during the most recent reporting year for which measure of size data were complete. During the third stage of sampling (patient sampling), participants will be randomly selected from among all eligible patients. The sample size will be greater than 10,000 persons per year.	CDC will conduct validation and evaluation studies of the implementation of data systems that monitor medical care among persons diagnosed with HIV.
2.3.1- 2.3.2	National HIV Behavior Surveillance (NHBS) System. This system collects risk behavior data from three populations at risk for acquiring HIV: men who have sex with men (MSM), injection drug users (IDU), and high risk heterosexuals in areas where HIV is prevalent (HRH). It utilizes survey sampling techniques developed in the past few years to reach representative samples of at-risk populations. NHBS was initiated in 2004, is conducted on an annual basis, and is limited during each cycle to one of these three study groups.	NHBS is a new surveillance system for monitoring HIV risk behaviors among persons at risk for HIV infection. NHBS surveillance methodology is being evaluated and fine-tuned throughout each three-year cycle.

**Long-term Objective 2.2, Performance Measure 1**

The measure language has been revised slightly to be consistent with the National HIV/AIDS Strategy. The ability to monitor the national HIV transmission rate is a fundamental indicator of the impact of HIV prevention activities in the U.S. and is a major indicator for the National

HIV/AIDS Strategy. Until recently, CDC was not able to monitor transmission rates because HIV incidence estimates were not available. However, new laboratory methods now enable CDC to conduct HIV incidence surveillance. Today, CDC provides funding and technical assistance to selected state and local health departments to conduct HIV incidence surveillance. This surveillance system uses the STARHS methodology, (Serologic Testing Algorithm for Recent HIV Seroconversion), which was developed by CDC staff to measure HIV incidence. Using residual serum specimens from standard HIV antibody testing, STARHS uses a less sensitive EIA to determine whether the person has been infected with HIV for less than six months (recent infection) or longer than six months (long-standing infection). Ongoing population-based data from funded areas are adjusted to impute annual national HIV incidence estimates. The first estimates from this surveillance system were generated in 2008 for CY 2006. These estimates were used to inform the targets in the NHAS which informs the target included for 2015. Targets established for 2012 and 2015 are consistent with the NHAS. Trend data will be reported for 2011.

In the era of more effective therapies for HIV, Americans with HIV are living longer and the total number of Americans living with HIV is increasing. CDC estimates that more than 1.1 million people were living with HIV infection in the United States at the end of 2006. This measure takes into account the increasing number of persons who are living with HIV, and who are at risk of transmitting the virus as a result of the new, life-prolonging treatments. The target population for this measure is adults and adolescents (over 13 years of age). CDC is working to decrease transmission rates by increasing the number of people who know they are infected, and by providing prevention services to those living with HIV.

#### **Long-term Objective 2.2, Performance Measure 2**

*CDC is proposing to revise the language of this measure in FY 2013 to reflect that this measure assesses changes in behaviors that pose the highest risk for HIV transmission.*

CDC provides a variety of evidence-based prevention services for persons who are HIV-infected to help reduce their risk of transmitting the virus to their partners. CDC will be able to monitor changes in risk behaviors among persons living with HIV through the Medical Monitoring Project (MMP), a second generation surveillance system which was implemented in the field in FY 2007. MMP is a nationally representative, population-based surveillance system assessing clinical outcomes, behaviors, and quality of care among HIV-infected persons who are in medical care. HIV-infected persons are interviewed about sexual and drug-using behaviors that may put them at risk for transmitting HIV.

Data analyses for this new surveillance system were delayed due to the challenges of developing and implementing a new system and concerns about the representativeness of early data. For this reason, it is unclear whether the 2007 and 2008 data provide useful trend data.

#### **Long-term Objective 2.3, Performance Measure 1**

*CDC will propose that this measure be retired in FY2013. CDC is proposing to replace this measure in FY 2013, to be more specific about the behaviors that pose the greatest risk of transmission to uninfected persons. Specifically, the proposed new measure would address risk behaviors of MSM that lead to increased transmission.*

*In 2012 CDC will expand prevention programming for MSM in several jurisdictions with high burdens of AIDS among MSM. CDC will also redirect grantee activities by (1) placing greater emphasis on effective interventions for people living with HIV, including linkage and maintenance to medical care, adherence to antiretroviral treatment, and interventions that reduce transmission risk; (2) placing greater emphasis on effective community-level, structural,*

*and single session interventions and public health strategies; and (3) deemphasizing intensive individual and small group interventions for at-risk populations that are difficult to take to scale.*

Proposed Measure	FY	Target	Result
2.3.1a: Reduce the proportion of MSM who reported unprotected anal intercourse during their most recent sexual encounter with a partner of discordant or unknown HIV status. <i>(Outcome)</i>	2011	10%	Jun 30, 2012
	2008	Baseline	11%

This measure addresses persons who are at increased risk of acquiring HIV due to risky sexual or drug-using behaviors via MSM, HRH, and IDU. CDC supports prevention activities for persons who are uninfected and at behavioral risk of infection. New, effective treatments for HIV may have resulted in a sense of complacency surrounding HIV and led to increased risk-taking behavior among MSM. This result is reflected in increased self-reported risk behavior, STD infections, and increased HIV diagnoses. Other factors have also combined to increase risk among MSM, such as methamphetamine use, use of the Internet to meet new sexual partners, and beliefs regarding the severity of HIV disease.

The baseline for MSM was established at 47 percent for FY 2004, a target of 47 percent was set for FY 2008. For 2008 the reported risky behavior for MSM increased to 54 percent and CDC did not meet the FY 2008 target. These data suggest that HIV risk behaviors among MSM are increasing. The baseline for IDU has been revised to reflect updated analyses. The established baseline for IDU is 72 percent for FY 2005 and the target for 2012 has been set at 69.4 percent. The baseline for HRH was established at 86 percent for FY 2007.

**Long-term Objective 2.3, Performance Measure 2**

*CDC will propose that this measure be retired in FY2013. In 2012 CDC will expand prevention programming for MSM in several jurisdictions with high burdens of AIDS among MSM. CDC will also redirect grantee activities by (1) placing greater emphasis on effective interventions for people living with HIV, including linkage and maintenance to medical care, adherence to antiretroviral treatment, and interventions that reduce transmission risk; (2) placing greater emphasis on effective community-level, structural, and single session interventions and public health strategies; and (3) deemphasizing intensive individual and small group interventions for at-risk populations that are difficult to take to scale.*

This measure addresses the extent to which at-risk individuals have received HIV prevention interventions (participation in an individual or small group prevention intervention). A number of interventions, conducted at both the individual and group levels, have been shown to be effective in reducing risk behaviors. CDC supports such interventions for persons who are at risk of infection. This measure addresses persons who had recently (within the past 12 months) received an intervention and does not measure the cumulative effect of evidence-based HIV prevention efforts. The baseline for MSM was established at 18.9 percent for FY 2004. In FY 2008, CDC did not meet the target of 20 percent. Only 17.6 percent of MSM persons at risk for HIV received HIV prevention interventions. The baseline for IDU has been revised to reflect updated analyses of the data. The baseline for IDU has been established at 29.7percent for FY 2005, but targets have not yet been set. The baseline for HRH was established at 12.5 percent for FY 2007.

**LONG-TERM OBJECTIVE 2.4: INCREASE THE PERCENTAGE OF PEOPLE WITH HIV WHO KNOW THEIR SEROSTATUS.**

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
<b>2.4.1:</b> Increase the percentage of people living with HIV who know their serostatus. <i>(Outcome)</i> <sup>12</sup>	<i>Out-Year Target</i>	90% (2015)	Nov 30, 2016
	2012	81%	March 31, 2014
	2011	N/A	March 31, 2013
	2006	74.5%	79% (Target Exceeded)
<b>2.4.2:</b> Increase the proportion of persons with HIV-positive test results from CDC-funded counseling and testing sites who receive their test results. <i>(Outcome)</i>	2012	90%	Oct 31, 2014
	2011	90%	Oct 31, 2013
	2010	90%	Oct 31, 2012
	2009	90%	Oct 31, 2011
	2008	88%	92% (Target Exceeded)
	2007	87%	88% (Target Exceeded)
	2006	86%	86% (Target Met)
<b>2.4.3:</b> Increase the proportion of people with HIV diagnosed before progression to AIDS. <i>(Outcome)</i>	2012	82%	Nov 30, 2013
	2011	81%	Nov 30, 2012
	2010	80%	Nov 30, 2011
	2009	80%	Feb 28, 2011
	2008	79%	82.1% (Target Exceeded)
	2007	79%	82.2% (Target Exceeded)
	2006	78%	79.7% (Target Exceeded)
<b>2.5.1:</b> Increase the percentage of HIV-infected persons in CDC-funded counseling and testing sites who were referred to Partner Services. <i>(Outcome)</i> <sup>12</sup>	<i>Out-Year Target</i>	TBD (2015)	Nov 30, 2016
	2012	TBD	Nov 30, 2013
	2011	N/A	Nov 30, 2012
	2008	Baseline	Feb 28, 2011
<b>2.5.2:</b> Increase the percentage of HIV-infected persons in CDC-funded counseling and testing sites who were referred to medical care and attended their first appointment. <i>(Outcome)</i>	2012	TBD	Nov 30, 2013
	2011	TBD	Nov 30, 2012
	2010	TBD	Nov 30, 2011
	2009	TBD	Feb 28, 2011
	2008	Baseline	Feb 28, 2011
<b>2.5.3:</b> Increase the percentage of HIV-infected persons in CDC-funded counseling and testing sites who were referred to HIV prevention services. <i>(Outcome)</i>	2012	TBD	Nov 30, 2013
	2011	TBD	Nov 30, 2012
	2010	TBD	Nov 30, 2011
	2009	TBD	Feb 28, 2011
	2008	Baseline	Feb 28, 2011
<b>2.5.4:</b> Increase the percentage of HIV-infected persons in	2012	TBD	Nov 30, 2014
	2011	TBD	Nov 30, 2013
	2010	TBD	Nov 30, 2012

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Measure	FY	Target	Result
medical care who initiated medical care within three months of diagnosis. <i>(Outcome)</i>	2009	Baseline	Feb 28, 2011

Unique Identifier	Data Source	Data Validation
2.4.1	Special studies using HIV Surveillance System and national prevalence estimates	CDC conducts validation and evaluation studies of the data systems which monitor HIV to determine the quality of data generated by them.
2.4.2	National HIV Monitoring & Evaluation System	CDC evaluates the data systems used to report prevention program activity and develops guidelines for implementation, data entry, and program monitoring to determine the quality of data generated by the systems.
2.4.3	HIV Surveillance System	CDC conducts validation and evaluation studies of the data systems which monitor HIV to determine the quality of data generated by them. Data for 2007 are from 37 states with mature, confidential name-based HIV surveillance systems. These states are: Alabama, Alaska, Arizona, Arkansas, Colorado, Connecticut, Florida, Georgia, Idaho, Iowa, Indiana, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, and Wyoming. The period of time between a diagnosis of HIV or AIDS and the arrival of a case report at CDC is called the "reporting delay". In order to provide the best estimates of recent trends, HIV and AIDS surveillance data are analyzed by date of diagnosis and are statistically adjusted for reporting delays and incomplete information on some cases. CDC requires a minimum of 12 months after the end of a calendar year to provide accurate trend data.
2.5.1 – 2.5.3	National HIV Monitoring & Evaluation System	CDC evaluates the data systems used to report prevention program activity and develops guidelines for implementation, data entry and program monitoring to determine the quality of data generated by them.
2.5.4	Medical Monitoring Project (MMP) is being conducted in 19 states, 1 U.S. territory and 6 cities.	CDC will conduct validation and evaluation studies of the implementation of data systems that

Unique Identifier	Data Source	Data Validation
		monitor medical care among persons diagnosed with HIV.

**Long-term Objective 2.4, Performance Measure 1**

Decreasing the prevalence of undiagnosed HIV infection has been a key prevention priority for CDC. CDC has facilitated HIV testing through publicly funded HIV counseling and testing, targeted distribution of rapid HIV tests, social marketing campaigns, and revised recommendations promoting routine HIV screening in healthcare settings. CDC estimates that approximately 79 percent of the approximately 1.1 million persons living with HIV are aware that they are infected. This is an increase from CDC's previous estimate of 75 percent in 2003. However, increasing the proportion of people who know their HIV status is an ongoing prevention challenge. Some persons with undiagnosed HIV infection (particularly those with recent infection) may not seek testing because they do not believe that they are at risk for HIV infection. Others are aware that they may be at risk but avoid testing (or being re-tested) because of fear of learning that they are HIV-infected. HIV-infected persons who are unaware of their HIV status are more likely to transmit HIV and are estimated to account for more than half of HIV transmissions in the United States. In September 2006, CDC issued Revised Recommendations for HIV Screening of Adults, Adolescents, and Pregnant Women in Health-Care Settings. CDC is addressing challenges to implementation of HIV screening in health-care settings through a multidisciplinary approach that includes: policy diffusion strategies; partnerships with organizations of healthcare professionals; coordination with other federal agencies; implementation guidance; professional education materials; monitoring and evaluation strategies; social marketing; and strategies to ensure follow-up care for HIV-infected persons.

To help increase the adoption of the recommendations, CDC has developed implementation guidance for use in specific settings. Since 2007, CDC has funded a special initiative to increase HIV testing among those most affected by the disease, particularly African Americans. In the first two complete years of that initiative, CDC supported the testing of more than 1.4 million Americans. CDC contributed to the testing of many more through efforts with providers, private insurers and other government agencies to promote the CDC recommendations for routine HIV testing in healthcare settings. In 2010, CDC expanded the focus of this initiative to also reach Hispanics and MSM and IDU of all races. Data for this measure are derived from special analyses of HIV case surveillance data. Targets have been adjusted to be consistent with those adopted in the NHAS. Trend data will be reported for 2011.

**Long-term Objective 2.4, Performance Measure 2**

This measure addresses persons tested for HIV in CDC-funded HIV testing and counseling sites. Historically, a large proportion (up to 50 percent in some settings) of persons tested for HIV did not return to the clinic to receive their test results. This represented considerable lost opportunities for HIV prevention. Consequently, emphasis is placed on providing test results to those persons with HIV positive test results. These data are reported through the National HIV Monitoring & Evaluation System. The proportion of HIV-infected persons who received their HIV positive test results increased from 81 percent in 2001 to 92 percent in 2008, exceeding the 2008 target. CDC expects to maintain approximately this level of performance in 2011 and 2012.

**Long-term Objective 2.4, Performance Measure 3**

*CDC is proposing to revise this measure in FY 2013 to better reflect the priorities of the National HIV/AIDS Strategy and CDC priorities, which includes the continued focus on increasing knowledge of serostatus and improving access to care.*



Since the mid-1990s, effective medical therapies for HIV infection and associated opportunistic infections have dramatically reduced death rates associated with HIV infection. Age-adjusted mortality due to HIV disease has declined from 17.0 per 100,000 population in 1995 to 3.3 per 100,000 population in 2008. In order to take advantage of more effective therapies and prevent transmission to others, individuals should be aware of their infection early in the course of the disease before progression to AIDS. The proportion of persons with HIV infection diagnosed before progression to AIDS has increased from 77.9 percent in 2002 to 82.1 percent in 2008, slightly exceeding the 2008 target of 79%. CDC aims to increase early diagnosis by promoting HIV testing, including special efforts to reach those at highest risk, e.g., partners of those who are HIV infected, African Americans, Hispanics, and MSM and IDU of all races.

CDC provides funding and technical assistance to 65 state and local health departments to conduct HIV prevention programs aimed at increasing HIV testing and early diagnosis; CDC also works with the private sector and public providers to support routine HIV testing in those settings. Data are from a system which includes both the HIV diagnosis and AIDS diagnosis dates. Data for 2008 are from 37 states with mature, confidential name-based HIV surveillance systems. FY 2012 targets have been established to reflect continued focus on increasing knowledge of serostatus and improving access to care -- priorities established in the National HIV/AIDS Strategy.

#### **Long-term Objective 2.5, Performance Measure 1**

This long-term measure addresses persons tested for HIV in CDC-funded HIV testing and counseling sites. Partner services (PS), formerly known as prevention counseling and referral services, are a key component of CDC's HIV prevention activities. Through PS, infected persons are counseled about the importance of notifying their partners and are either provided with the skills to do so themselves, or given the opportunity to have a public health professional (usually a Disease Intervention Specialist) make the notification for them. Notified partners can choose whether to be tested, and receive relevant counseling and prevention services.

Baseline data for 2008 are not yet available, as the report from publicly funded counseling and testing sites has not yet been finalized. This report is expected to be finalized by February 2011. Targets will be set after baseline data are available.

#### **Long-term Objective 2.5, Performance Measure 2**

*CDC will propose that this measure be retired in FY2013, as CDC is working to identify a way to capture and measure this data in the future.*

This measure addresses persons tested for HIV in CDC-funded HIV testing and counseling sites and found to be HIV-infected. Referral to appropriate medical care is a key HIV prevention activity. Early medical intervention can reduce the likelihood of developing AIDS and offers an important opportunity for HIV prevention. Data for 2008 are not yet available, as the report from publicly funded counseling and testing sites has not yet been finalized.

#### **Long-term Objective 2.5, Performance Measure 3**

This measure addresses persons tested for HIV in CDC-funded HIV testing and counseling sites and who were found to be HIV-infected. CDC supports prevention services among HIV-infected individuals to reduce risk of transmission. These services are not necessarily offered at the testing and counseling facility. Therefore, HIV-infected individuals may need referral to another organization or facility.

Baseline data for 2008 are not yet available, as the report from publicly funded counseling and testing sites has not yet been finalized. This report is expected to be finalized by February 2011. Targets will be set after baseline data are available.

#### **Long-term Objective 2.5, Performance Measure 4**

CDC will propose that this measure be retired in FY2013, as CDC is identifying a way to capture and measure this data in the future. This measure addresses initiation of medical care for those recently diagnosed with HIV. CDC will be able to monitor changes in risk behaviors and provision of care among persons living with HIV through the Medical Monitoring Project (MMP), a second generation surveillance system which was implemented in the field in 2007.

When fully implemented, MMP will be a population-based surveillance system assessing clinical outcomes, behaviors, and quality of care among HIV-infected persons who are in medical care.

HIV-infected persons are interviewed about sexual and drug-using behaviors that may put them at risk for transmitting HIV. It is vitally important that HIV-infected persons initiate medical care in a timely fashion.

Data analyses for this new surveillance system were delayed due to the challenges of developing and implementing a new system and concerns about the representativeness of early data. New quality control measures have been implemented, and 2009 will be considered the baseline year.

**VIRAL HEPATITIS**

**LONG-TERM OBJECTIVE 2.6: REDUCE THE RATES OF VIRAL HEPATITIS IN THE UNITED STATES.**

Measure	FY	Target	Result
<u>2.6.1:</u> Reduce the rate of new cases of hepatitis A (per 100,000 population). (Outcome)	<i>Out-Year Target</i>	<0.3/100,000 (2015)	May 31, 2017
	2012	0.9/100,000	May 31, 2014
	2011	0.9/100,000	May 31, 2013
	2010	0.9/100,000	May 31, 2012
	2009	2.4/100,000	May 31, 2011
	2008	2.4/100,000	0.9 (Target Exceeded)
	2007	2.5/100,000	1.0/100,000 (Target Exceeded)
	2006	2.6/100,000	1.2/100,000 (Target Exceeded)
<u>2.6.2:</u> Reduce the rate of new cases of hepatitis B (per 100,000 population). (Outcome)	<i>Out-Year Target</i>	<1.2/100,000 (2015)	May 31, 2017
	2012	1.5/100,000	May 31, 2014
	2011	1.7/100,000	May 31, 2013
	2010	1.7/1000,000	May 31, 2012
	2009	1.8/100,000	May 31, 2011
	2008	1.8/100,000	1.3/100,000 (Target Exceeded)
	2007	1.9/100,000	1.5/100,000 (Target Exceeded)
	2006	N/A	1.6/100,000
<u>2.6.3:</u> Increase the proportion of individuals knowing their hepatitis C virus infection status. (Outcome)	<i>Out-Year Target</i>	65% (2015)	Dec 31, 2016
	2007	Baseline	49% (2002-2007)
<u>2.6.4:</u> Increase the number of state and local health departments reporting acute viral hepatitis data of sufficient quality to be included in national surveillance reports. (Outcome)	<i>Out-Year Target</i>	10 (2015)	Oct 31, 2016
	2012	10	Oct 31, 2013
	2011	9	Oct 31, 2012
	2010	9	Oct 31, 2011
	2009	Baseline	9
	2008	N/A	7
	2007	N/A	7
<u>2.6.5:</u> Among minority communities experiencing health disparities, increase the portion of persons who have been tested for hepatitis B virus. (Outcome)	<i>Out-Year Target</i>	50% (2015)	May31, 2016
	2012	46%	May 31, 2013
	2011	40%	May 31, 2012
	2010	40%	May 31, 2011
	2009	Baseline	38%

Unique Identifier	Data Source	Data Validation
2.6.1 - 2.6.2, 2.6.4	The National Notifiable Diseases	NNDSS data are received from

Unique Identifier	Data Source	Data Validation
	Surveillance System (NNDSS)	state health departments weekly and are reviewed. Reports are checked and any pre-specified data are verified by contacting the appropriate state health department. All data are once again checked and verified with state health departments at the end of the year.
2.6.3	The National Health and Nutrition Examination Survey (NHANES)	NHANES relies on both passive and active monitoring systems for operational and content-related quality control. Passive quality control uses automated computer procedures for detecting data anomalies. After careful analysis, appropriate activities can be undertaken to resolve any data collection issues. Active quality control relies on examiner feedback to identify and evaluate problems and select remedies. NHANES primarily relies on physical measurements from well-established biomedical procedures.
2.6.5	Racial and Ethnic Approaches to Community Health (REACH)	REACH Risk Factor Survey gathers health-related information annually from over 20,000 racial/ethnic minority persons in selected communities across the United States where REACH U.S. community health interventions have been launched. Data for 2009 are from 28 communities: Arizona, California, Georgia, Hawaii, Illinois, Massachusetts, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Virginia, Washington and West Virginia.

**Long-term Objective 2.6, Performance Measure 1**

HAV is spread by close contact with infected persons or ingestion of contaminated food. Vaccination, outbreak response, and food safety programs are the primary interventions used to prevent HAV.

HAV incidence has decreased by approximately 88 percent nationwide since the mid-1990s, when HAV vaccine became available and the first vaccination recommendations were released. From a baseline of 11.3 cases per 100,000 population, incidence has declined to 0.9 case per 100,000 in 2008. Targets for 2010 and future years were adjusted to reflect this performance.

HAV incidence has declined by 99 percent among Alaska Natives and American Indians, populations with the highest disease rates in the pre-vaccine era. This reduction has effectively eliminated this racial disparity in health. The rate of new cases suggests the long-term targets will be met, as the 2008 rate is the lowest rate ever recorded. The Advisory Committee for

Immunization Practices (ACIP) recommendations for use of hepatitis A vaccine were updated in 2006 to include all children aged 13-23 months, creating the foundation for eliminating indigenous transmission of HAV in the U.S.

In addition, a new strategy for treating individuals once they are exposed to HAV, approved by the ACIP in 2007, involves using hepatitis A vaccine rather than immune globulin in post exposure situations. Post exposure use of hepatitis A vaccine offers several advantages over immune globulin, including long-term protection, ease of administration, and widespread availability. With the number of hepatitis A cases now at a record low, a greater proportion of cases arise from food borne outbreaks. Sometimes these outbreaks involve hundreds or thousands of persons who require post exposure prophylaxis which until recently consisted of administering immune globulin.

The overall rate of HAV is determined based on reports of acute disease received by state health departments and reported to CDC. Because it incorporates data from all 50 states and the District of Columbia, this measure, which is also proposed for the Healthy People 2020 initiative, provides a representative method to assess national trends in this disease. Surveillance data are published approximately 17 months after data collection ends for the calendar year. This measure serves as both a long-term and annual measure. This out-year target set is consistent with the Hepatitis Strategic Plan.

### **Long-term Objective 2.6, Performance Measure 2**

In 2008 CDC exceed its target, the rate of new cases of hepatitis B has declined to 1.3 per 100,000. As a result of the national HBV elimination strategy, the 2008 rate surpasses the Healthy People 2010 goal of 4.5 cases per 100,000 people, and is the lowest rate of new cases recorded to date. HBV is spread by exposure to infectious blood or body fluids or through sexual contact. HBV infection can become chronic in some persons and lead to death from cirrhosis or liver cancer. Approximately 1.0 to 1.25 million Americans have chronic HBV infection, and 3,000 to 5,000 die each year. Key components of CDC efforts to prevent HBV-related morbidity and mortality are 1) vaccination of newborns, infants, and children and of adults at increased risk of infection; and 2) identification and referral of HBV-infected persons for public health management and treatment, with a focus on persons from HBV-endemic countries and others with high prevalence of chronic HBV infection.

Rates of HBV infection have declined consistently over the past decade and are linked to the successful implementation of vaccination strategies as well as progress in screening and awareness. More than 95 percent of pregnant U.S. women are now screened for HBV infection during pregnancy, reducing the risk for perinatal transmission. The overall rate of hepatitis B is determined based on reports of acute disease received by state health departments and reported to CDC. Because it incorporates data from all 50 states and the District of Columbia, this measure provides a representative method to assess national trends in this disease and track the progress toward elimination of HBV transmission in the U.S. Surveillance data are published approximately 17 months after data collection ends for the calendar year. This measure serves as both a long-term and annual measure.

Hepatitis B is vaccine preventable and routine childhood vaccination is recommended. The Immunization and Respiratory Disease performance narrative reports on annual rates of childhood immunization coverage.

### **Long-term Objective 2.6, Performance Measure 3**

HCV is the most common bloodborne viral infection in the U.S. and is a leading cause of death from liver cancer. Approximately three million persons in the U.S. have chronic HCV, many of

whom were infected in the past. Most HCV-infected persons are unaware of their infection, increasing the risk that they will transmit the virus to others and suffer poor health outcomes themselves. In the absence of an HCV vaccine, the goals of HCV prevention are early identification of infection, behavior modification to avoid HCV exposure and transmission, and referral for treatment. Prevention also requires the identification and implementation of strategies that prevent transmission in healthcare settings. Knowledge of chronic HCV infection status is a critical determinant of whether patients receive treatment and adopt preventative health behaviors. Data collected from The National Health and Nutrition Examination Survey (NHANES) can be used to estimate the proportion of HCV-infected persons in the U.S. who know their HCV status. Due to the ongoing nature of NHANES, CDC can assess trends in this knowledge over time.

A 2007 baseline has been established at 49 percent. This is the result for all specimens collected over the six-year period from 2002 to 2007. Because of small annual sample sizes, this time period was necessary to establish a valid datum.

#### **Long-term Objective 2.6, Performance Measure 4**

It is estimated that 4.5 million individuals are chronically infected with viral hepatitis B and C in the United States and an additional 88,000 of acute cases of hepatitis A, B and C are estimated to occur annually. Surveillance for chronic HCV infection is critical for planning public health prevention activities, determining unmet healthcare needs and evaluating ongoing prevention programs. In 2007, 33 jurisdictions were reporting cases of chronic HCV infection, which shows an increase in reporting over time. However, approximately 72 percent of states did not report sufficient information to identify behaviors and/or exposures factors that increased risk for acquiring acute viral hepatitis.

Beginning in 2004, CDC supported a small number of states to identify best practices for collecting more complete risk information. It is anticipated that in 2011, these best practices will be documented and disseminated to all state and local programs. This measure will track the number of funded states that provide sufficient quality data, which includes risk information for at least 85 percent of reported cases. Five states met this standard in 2009. The goal of including risk data in 85 percent of reported cases is considered a reasonable marker of robust surveillance hepatitis surveillance to inform program planning and evaluation. These targets are reasonable as they are based on existing resources. Hence, CDC will work with states that are currently funded to improve data reporting quality which will enhance CDC's ability to plan, monitor/track and evaluate program efficiency and effectiveness and states' ability to conduct, monitor, and evaluate prevention efforts.

#### **Long-term Objective 2.6, Performance Measure 5**

It is estimated that over 1.4 million Americans are chronically infected with hepatitis B virus and only one-third are aware of their status. By identifying hepatitis infected persons and referring them to medical care services 140,000 cases of end stage liver disease can be averted. Racial and ethnic minority populations are at increased risk for viral hepatitis infections-many are unaware of their status and may not receive medical care for their infection. Reducing HBV through both primary and secondary prevention is achieved by increasing the number of people with hepatitis B infection who are aware of their infection and receive appropriate medical care. Long-term, awareness of HBV infections, reduces unwitting transmission sexually and mother-to-infant transmission.

Previous HBV data on infected persons who knew their status was deduced from a very few and small studies in localized settings. The REACH U.S. Risk Factor Survey gathers health-related

information annually from selected communities where REACH U.S. community health interventions have been launched. Participants for interviews are identified through random sampling within the 28 REACH communities. In 2009, 13 questions about hepatitis B and C were added to the survey. This data will provide important insights into how many racial and ethnic minorities were tested and knew their test result for hepatitis virus allowing the division to target prevention and intervention planning for these communities. The targets are very ambitious in that the very limited funding for viral hepatitis screening and prevention efforts may not translate into immediately perceptible improvements in the numbers of people tested and who know their viral hepatitis infection status. CDC is considering ways to leverage existing resources to increase hepatitis screening.

**SEXUALLY TRANSMITTED DISEASES**

**LONG-TERM OBJECTIVE 2.7: REDUCE THE RATES OF NON-HIV SEXUALLY TRANSMITTED DISEASES (STDS) IN THE UNITED STATES.**

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
<u>2.7.1:</u> Reduce pelvic inflammatory disease in the U.S. <i>(Outcome)</i>	<i>Out-Year Target</i>	73,000 (2015)	Oct 31, 2016
	2012	84,709	Oct 31, 2013
	2011	89,000	Oct 31, 2012
	2010	94,000	Oct 31, 2011
	2009	N/A	100,000
	2008	N/A	104,000
	2007	N/A	146,000
	2006	N/A	106,000
<u>2.7.2:</u> Reduce the prevalence of Chlamydia among high-risk women under age 25. <i>(Outcome)</i>	<i>Out-Year Target</i>	10.3% (2015)	Oct 31, 2016
	2012	11.3%	Oct 31, 2013
	2011	11.7%	Oct 31, 2012
	2010	12.0%	Oct 31, 2011
	2009	14.1%	11.3% (Target Exceeded)
	2008	9.0%	12.8% (Target Not Met but Improved)
	2007	9.3%	13.2% (Target Not Met)
	2006	9.3%	13.1% (Target Not Met)
<u>2.7.4:</u> Reduce the incidence of gonorrhea in women aged 15 to 44 (per 100,000 population). <i>(Outcome)</i>	<i>Out-Year Target</i>	248/100,000 (2015)	Oct 31, 2016
	2012	263/100,000	Oct 31, 2013
	2011	288/100,000	Oct 31, 2012
	2010	288/100,000	Oct 31, 2011
	2009	293/100,000	255/100,000 (Target Exceeded)
	2008	276/100,000	285/100,000 (Target Not Met but Improved)
	2007	278/100,000	290/100,000 (Target Not Met)
	2006	278/100,000	290/100,000 (Target Not Met)
<u>2.7.5:</u> Eliminate syphilis in the U.S. <i>(Outcome)</i>	<i>Out-Year Target</i>	7.6/100,000 (2015)	Oct 31, 2016
	2012	6.4/100,000	Oct 31, 2013
	2011	6.0 /100,000	Oct 31, 2012
	2010	5.5 /100,000	Oct 31, 2011
	2009	N/A	4.6/100,000
	2008	N/A	4.5/100,000
	2007	N/A	3.8/100,000
	2006	N/A	3.3/100,000
<u>2.7.6a:</u> Reduce the incidence of P&S syphilis: in men (per	2012	10.7/100,000	Oct 31, 2013
	2011	10.2 /100,000	Oct 31, 2012
	2010	9.4/100,000	Oct 31, 2011



PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY  
INFECTIOUS DISEASES  
SEXUALLY TRANSMITTED DISEASES

Measure	FY	Target	Result
100,000 population). (Outcome) <sup>1</sup>	2009	6.4/100,000	7.8/100,000 (Target Not Met)
	2008	5.5/100,000	7.6/100,000 (Target Not Met)
	2007	4.5/100,000	6.6/100,000 (Target Not Met)
	2006	New baseline	5.6/100,000
2.7.6b: Reduce the incidence of P&S syphilis: in women (per 100,000 population). (Outcome)	2012	2.1/100,000	Oct 31, 2013
	2011	2.1/100,000	Oct 31, 2012
	2010	2.0/100,000	Oct 31, 2011
	2009	1.1/100,000	1.4/100,000 (Target Not Met)
	2008	0.9/100,000	1.5/100,000 (Target Not Met)
	2007	0.8/100,000	1.1/100,000 (Target Not Met)
	2006	0.58/100,000	1.0/100,000 (Target Not Met)
2.7.7: Reduce the incidence of congenital syphilis per 100,000 live births. (Outcome)	Out-Year Target	19.1/100,000 (2015)	Oct 31, 2016
	2012	18.5/100,000	Oct 31, 2013
	2011	17.7/100,000	Oct 31, 2012
	2010	16.2/100,000	Oct 31, 2011
	2009	8.9/100,000	10.0/100,000 (Target Not Met)
	2008	8.5/100,000	10.1/100,000 (Target Not Met but Improved)
	2007	8.8/100,000	10.5/100,000 (Target Not Met)
	2006	8.8/100,000	9.3/100,000 (Target Not Met)
2.7.8: Reduce the racial disparity of P&S syphilis (reported ratio is black: white). (Outcome)	Out-Year Target	11.5:1 (2015)	Oct 31, 2016
	2012	10:1	Oct 31, 2013
	2011	9.5:1	Oct 31, 2012
	2010	9.0:1	Oct 31, 2011
	2009	6.3:1	9.0:1 (Target Not Met)
	2008	5.5:1	8.1:1 (Target Not Met)
	2007	5.6:1	7.1:1 (Target Not Met)
	2006	5.6:1	5.9:1 (Target Not Met)

<sup>1</sup> In FY 2002, the incidence of P&S syphilis in men was 3.8 per 100,000 (initial 2002 baseline). However, because after 2002, an outbreak of syphilis among men who have sex with men drove up the male syphilis rates, CDC reported a new baseline for 2006. The goal for 2015 for P&S syphilis takes into account the outbreak, and expectations for controlling and reversing the trend. The annual targets for 2008 through 2010 also take these increases into account.

Unique Identifier	Data Source	Data Validation
2.7.1	The National Disease and Therapeutic Index (NDTI) (IMS Health)	The National Disease and Therapeutic Index (NDTI), an information product of IMS Health, is a continuing compilation of

PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY  
 INFECTIOUS DISEASES  
 SEXUALLY TRANSMITTED DISEASES

Unique Identifier	Data Source	Data Validation
		<p>statistical information about the patterns and treatment of disease encountered by office-based physicians in the continental United States. Data reported via the web have numerous validations and edits applied as they are being entered. At each of the patient, diagnosis, and product levels, key data elements have been identified that will not permit the physician to exit the page without completing the data element. All data go thru a pre-edit process prior to coding. Any outliers are identified and the physician is contacted for clarification. During the coding cycle, edits and validation routines are visible. Approximately 8% of the data coded is sampled for correct application of coding business rules.</p>
2.7.2	<p>The U.S. Department of Labor, National Job Training Program; CDC, IPP Chlamydia Prevalence Monitoring Project</p>	<p>Data submitted annually by the contracting laboratory providing testing services for the National Job Training Program undergo verification and validation procedures including edit checks, review of the data for outliers by state, and regular communications with the testing laboratory are conducted to verify potential data irregularities. Corrected data may be resubmitted by the laboratory following their correction.</p> <p>Data submitted quarterly by Regional Infertility Prevention Programs undergo verification and validation procedures including edit checks, review of the data for outliers by screening site and jurisdiction, and regular communications with the Regional Programs are conducted to verify potential data irregularities. Corrected data may be resubmitted by the Regional Programs following their correction.</p>
2.7.4	<p>STD Morbidity Surveillance System, CDC</p>	<p>Data from STD Morbidity Surveillance System undergo verification and validation procedures including reports back to project areas concerning quarterly and yearly data, trend information, and percentage unknowns for demographic and</p>

Unique Identifier	Data Source	Data Validation
		clinical fields, edit checks and updates, as well as regular communications via fax, phone and e-mail with project staff.
2.7.5 – 2.7.8	STD Morbidity Surveillance System, CDC	Data from STD Morbidity Surveillance System undergo verification and validation procedures including reports back to project areas concerning quarterly and yearly data, trend information, and percentage unknowns for demographic and clinical fields, edit checks and updates, as well as regular communications via fax, phone and e-mail with project staff.

**Long-term Objective 2.7, Performance Measure 1**

More than 50 percent of all preventable infertility among women is a result of STDs, primarily chlamydia and gonorrhea. Because most infected women and at least one half of infected men have no symptoms or have such mild symptoms that they do not seek medical care, many infections go undetected and are not reported or counted. Untreated chlamydia and gonorrhea infections can cause severe and costly reproductive and other adverse health consequences, including pelvic inflammatory disease (PID), which can lead to infertility. An estimated 10 to 40 percent of women with untreated chlamydia or gonorrhea will develop PID which can result in ectopic pregnancy, chronic pelvic pain, and infertility.

This is a long-term measure. The actual performance for this measure in 2009 was 100,000 visits to the physician for PID by women 15-44 years of age compared to the 2002 baseline of 197,000 visits.

It is challenging to monitor trends in the incidence of PID for several reasons. First, diagnosis is based on clinical criteria that are often vague (symptoms of lower abdominal pain and pelvic tenderness), so making a diagnosis is imprecise, with both under- and over-diagnosis possible. Second, given this imprecision, it is not a nationally notifiable condition. Thus, measuring national PID trends has been based on the use of National Disease and Therapeutic Index (NDTI), proprietary data obtained by survey among samples of providers that contains information on the number of initial visits to physicians for PID by women 15 to 44 years of age. These data have limitations, including small sample sizes and limited representation; clinical facilities included only serve part of the U.S. population. From a 2002 baseline of 197,000 visits, the number has fluctuated significantly on a yearly basis. Because national estimates of the prevalence and incidence of gonorrhea and chlamydia have been stable, these significant fluctuations in PID seem unlikely. CDC researchers are investigating potential use of additional national medical care survey data for PID trends to develop more robust and stable indicators. While the large fluctuations are problematic, the general trend downward from the baseline has been evaluated by CDC, and targets have been set accordingly.

**Long-term Objective 2.7, Performance Measure 2**

CDC monitors trends in prevalence among women enrolled in the U.S. Department of Labor National Job Training Program (NJTP) for economically disadvantaged women aged 16 to 24. This measure reflects the prevalence of chlamydia infection in a population of high-risk young

women who are not seeking health care. They are routinely screened as part of their enrollment in the program.

The actual performance in 2009 was 11.3 percent of women entering the National Job Training Program who tested positive for Chlamydia compared to the target of 14.1 percent. The performance target for this measure was set in 2008 at an approximate target level; performance has exceeded expectations. It was anticipated that increased use of more sensitive tests would result in a higher prevalence in 2009; however, the prevalence actually declined slightly from 2008. Chlamydia prevalence among women entering the program decreased steadily from 2003 (9.9 percent) to 2005 (9.2 percent) until the introduction of a more sensitive test in 2006, at which point Chlamydia prevalence sharply increased to 13.1 percent. Among men entering the program in 2006, chlamydia prevalence was 7.9 percent, which is little changed from the chlamydia prevalence of 8.1 percent in 2005. There was no change in the test types used among men. CDC analyzed prevalence data from 2006, 2007, and 2008 and determined that prevalence is again moving in a downward direction now that use of the more sensitive test is completely integrated in the program. Target rates for future years and the long-term target were adjusted to reflect a continued decrease in prevalence.

#### **Long-term Objective 2.7, Performance Measure 4**

It is estimated that more than 50 percent of all preventable infertility among women is a result of STDs, primarily chlamydial infection and gonorrhea. Because most infected women, and at least one half of infected men, have no symptoms or have such mild symptoms that they do not seek medical care, many infections go undetected and are not reported or counted. In fact, it is estimated that 2.8 million new chlamydial infections and 700,000 gonorrheal infections occur each year in the United States. In women, untreated gonorrhea can cause severe and costly reproductive and other adverse health consequences, including pelvic inflammatory disease (PID), which can lead to infertility, ectopic pregnancy, and chronic pelvic pain.

Gonorrhea rates among women aged 15 to 44 have decreased from 279 per 100,000 women in 2002. The actual performance for this measure in 2009 was 255 cases of gonorrhea per 100,000 women aged 15 to 44 compared to the target of 293 per 100,000 women aged 15 to 44. While the reasons for this decline are not clear, they are substantial and may be related to the effect of increased screening and treatment for chlamydia and gonorrhea over time. This measure provides the best national data on gonorrhea incidence among women of reproductive age.

#### **Long-term Objective 2.7, Performance Measure 5**

Persistence of syphilis is a sentinel public health event with important social and historical significance. Syphilis is preventable and curable. Syphilis increases efficiency of HIV transmission two to five-fold and is associated with serious morbidity on its own (e.g., strokes, other neurologic disease, and serious illness in babies). These data provide the best national data on the incidence of the early, symptomatic stages of syphilis (i.e., primary and secondary syphilis). CDC will work to achieve interim indicators progressing toward the long-term goal of elimination.

Primary and secondary syphilis cases increased from 2.5 cases per 100,000 in 2003 to 4.6 cases per 100,000 in 2009. Increases in syphilis among men who have sex with men (MSM) contributed to the rise in male syphilis rates. The estimated proportion of primary and secondary syphilis cases attributable to MSM increased from 7% in 2000 to 62% in 2009. Increases in syphilis cases among MSM have been characterized by high rates of HIV co-infection and high-risk sexual behaviors. We expect to see continued increases in syphilis among MSM. CDC has identified MSM as a priority population and is taking steps to improve surveillance and prevention strategies to address this health disparity.

CDC aims to slow the rate of the increases by strengthening prevention for MSM while supporting effective interventions to sustain prevention and control among heterosexual men and women. To better ensure that syphilis prevention and control interventions are evidence-based and targeted to populations with greatest needs, CDC, in October 2008, instituted the Syphilis Elimination Evidence-based Action Planning process for all project areas receiving Syphilis Elimination funds. This monitoring process is designed to improve program monitoring by promoting better analysis of local surveillance data and program performance indicators. CDC carefully reviews each of the submitted action plans and provides guidance and technical assistance as warranted to ensure the appropriateness and effectiveness of intervention activities.

### **Long-term Objective 2.7, Performance Measure 6**

#### **Measure 6a:**

Beginning in 2001, syphilis rates among men began to rise, after declining since 1991. Between 2005 through 2008, the national P&S syphilis rate increased from 3.0 to 4.5 cases per 100,000 population. The overall increase in syphilis rates from 2005 to 2008 was driven primarily by increases among males, but the rate among females increased for the fourth year in a row, following a decade of declines.

Primary and secondary syphilis cases in men increased from 4.2 cases per 100,000 in 2003 to 7.8 cases per 100,000 in 2009. In FY 2002, the incidence of P&S syphilis in men was 3.8 per 100,000 (initial 2002 baseline). Because increases in syphilis among men who have sex with men (MSM) the male syphilis rates have increased and CDC reported a new baseline for 2006. The annual targets for P&S syphilis in men for take these increases into account. The goal for 2015 for P&S syphilis takes into account these increases, and expectations for controlling and reversing the trend.

Data suggested, and additional studies confirmed, that the great majority of cases in men were attributable to transmission among MSM, many of whom are at high-risk for transmitting or acquiring HIV infection. Traditional approaches to syphilis prevention are less effective in this population, and reducing syphilis among MSM requires different approaches from those used with women. CDC is also ensuring the increased application of evidence-based approaches to this target group through the use of the Syphilis Elimination Evidence-based Action Planning process and by facilitating peer-to-peer technology transfer through organized monthly web-based seminars during which lessons learned and emerging best practices are shared and discussed.

#### **Measure 6b:**

The actual performance for this measure in 2009 was 1.4 cases of P&S syphilis per 100,000 women. Although the target was not met in 2009, there was a slight decrease in P&S syphilis rates for women for the first time since 2003, suggesting that progress is being made among women. As mentioned above, the prevention approaches used with women are different from those used with MSM and the complications of infection are also different (risk of transmission to babies). With this measure, CDC monitors its progress in addressing syphilis among women and continues to substantively support syphilis and STD prevention services to women aimed at reducing adverse outcomes of pregnancy. The targets for P&S syphilis take into account recent trends and the expectations for controlling and reversing these trends.

### **Long-term Objective 2.7, Performance Measure 7**

When a woman has a syphilis infection during pregnancy, she may transmit the infection to the fetus in utero. This transmission often results in fetal death or an infant born with physical and

mental developmental disabilities. Most cases of congenital syphilis are easily preventable if women are screened for syphilis and treated early during prenatal care, as recommended by CDC and other professional health organizations and required in all 50 states. CDC is an actively engaged partner in the WHO initiative to eliminate congenital syphilis.

Increases in congenital syphilis follow increases in syphilis rates in women. Like syphilis rates in women, congenital syphilis has risen each year since 2005 and saw the first slight decline in 2009. Although the actual performance for this measure in 2009 was 10 cases of congenital syphilis per 100,000 live births compared to the target of 8.9 cases per 100,000 live births, the slight decline suggest that progress is being made. Overall, rates of congenital syphilis are expected to increase at same rate as that for syphilis in women. The targets established for this measure reflects the appropriate increases expected in cases of syphilis among women.

### **Long-term Objective 2.7, Performance Measure 8**

Syphilis remains an example of racial disparity in health, with historical and sociological significance. In 1997, prior to initiation of the National Plan to Eliminate Syphilis from the United States, the Black: White rate ratio was 43:1; the 2009 rate ratio is 9:1. With this measure, CDC monitors its progress in reducing this important historic disparity while addressing the new epidemic in syphilis among MSM.

The actual performance for this measure in FY 2008 was the Black: White ratio of P&S syphilis of 9.1:1 compared to the target of 6.3:1. There was no effect on overall programs or activity performance. After achieving significant decreases through 2005, the Black: White ratio has increased each year. CDC reset its targets on this measure to reflect the expected continued increases in disparities. To address this racial disparity, CDC is working on the following activities:

- Assisting health departments with conducting internet-based partner services in response to growing popularity of the internet as a place for MSM to meet sex partners.
- Developing health communication/social marketing interventions to address disparities
- Incorporating STD information in curricula of HBCU medical schools.
- Working with non-traditional partners such as National Action Network to provide STD education to African American communities.
- Analyzing population data to gather a deeper and more nuanced understanding of the social determinants of increased STD risk to better tailor interventions to subpopulations of African Americans.

**TUBERCULOSIS**

**LONG-TERM OBJECTIVE 2.8: DECREASE THE RATE OF CASES OF TB AMONG U.S.-BORN PERSONS IN THE UNITED STATES.**

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
2.8.1: Decrease the rate of cases of TB among U.S.-born persons (per 100,000 population). <i>(Outcome)</i>	<i>Out-Year Target</i>	0.7 (2015)	Sep 30, 2016
	2012	1.7	Sep 30, 2013
	2011	1.9	Sep 30, 2012
	2010	1.9	Sep 30, 2011
	2009	1.8	1.7 (Target Exceeded)
	2008	1.9	2.0 (Target Not Met but Improved)
	2007	2.1	2.1 (Target Met)
	2006	N/A	2.2
2.8.2: Increase the proportion of newly diagnosed TB patients who complete treatment within 12 months (where <12 months of treatment is indicated). <i>(Outcome)</i>	<i>Out-Year Target</i>	93.0% (2015)	Sep 30, 2016
	2012	88.0%	Sep 30, 2015
	2011	>87.5%	Sep 30, 2014
	2010	>87.5%	Sep 30, 2013
	2009	>88.0%	Sep 30, 2012
	2008	>87.5%	Sep 30, 2011
	2007	87.3%	84.3% (Target Not Met but Improved)
	2006	86.2%	83.8% (Target Not Met but Improved)
2.8.3: Increase the percentage of culture-positive TB cases with initial drug susceptibility results reported. <i>(Outcome)</i>	<i>Out-Year Target</i>	>95% (2015)	Sep 30, 2016
	2012	>95%	Sep 30, 2013
	2011	>95%	Sep 30, 2012
	2010	>95%	Sep 30, 2011
	2009	>95%	95.7% (Target Met)
	2008	95%	93.4% (Target Not Met)
	2007	95%	94.6% (Target Not Met but Improved)
	2006	N/A	92.2%
2.8.4: For contacts to sputum acid-fast bacillus smear-positive TB cases who have started treatment for newly diagnosed latent TB infection, increase the proportion of TB patients who complete treatment. <i>(Outcome)</i>	<i>Out-Year Target</i>	79% (2015)	Dec 31, 2018
	2012	75%	Dec 31, 2015
	2011	70%	Dec 31, 2014
	2010	70%	Dec 31, 2013
	2009	68%	Dec 31, 2012
	2008	66%	Dec 31, 2011
	2007	N/A	64.3%
	2006	N/A	65.6%

<b>Unique Identifier</b>	<b>Data Source</b>	<b>Data Validation</b>
2.8.1 - 2.8.3	The National TB Surveillance System	TB morbidity data and related information submitted via the national TB Surveillance

Unique Identifier	Data Source	Data Validation
		System are entered locally or at the state level into CDC-developed software which contains numerous data validation checks. Data received at CDC are reviewed to confirm their integrity and evaluate completeness. Routine data quality reports are generated to assess data completeness and identify inconsistencies. Problems are resolved by CDC staff working with state and local TB program staff. During regular visits to state, local, and territorial health departments, CDC staff review TB registers and other records and data systems and compare records for verification and accuracy. At the end of each year, data are again reviewed before data and counts are finalized and published.
2.8.4	Aggregate Reports for Program Evaluation	Data submitted via the national Aggregate Reports for Program Information for contact investigations are checked for accuracy and inconsistencies. Problems are resolved by CDC staff working with state and local TB program staff. During regular visits to state, local, and territorial health departments, CDC staff review TB registers and other records and data systems and compare records for verification and accuracy. At the end of each year, data are again reviewed before data and counts are finalized and published.

**Long-term Objective 2.8, Performance Measure 1**

Despite the global epidemic, rates of TB have been declining for 15 years in the U.S. due to successful control measures begun in the early 1990s and conducted in cooperation with state partners. Most of this decline is attributable to declines among U.S.-born persons. An estimated nine to 14 million U.S. citizens have latent TB infection, and about 10 percent of these individuals will develop TB at some point in their lives. Those who are infected with HIV have a greater chance of developing TB. Rates declined more than expected in 2009, dropping to 1.7 per 100,000. This was exceeded the target of 1.8 per 100,000. The decline in reported TB may be associated with improvements in TB control as well as immigration patterns and health-care seeking behavior.

Persons born outside the U.S. account for 59 percent of all U.S. TB cases, constituting a majority of cases for the ninth year in a row. Ensuring future declines in TB in the U.S. is dependent upon reducing TB among foreign-born persons who enter the U.S. This measure serves as both a long-term and annual measure.

**Long-term Objective 2.8, Performance Measure 2**

Because completion of TB treatment is the most effective way to reduce the spread of TB and prevent its complications, this objective is the highest priority for CDC's TB program. Its achievement is vital to reduce TB cases and eventually to eliminate TB. TB patients who are expected to complete treatment within 12 months and fail to do so often require additional attention. CDC is helping TB programs to overcome these challenges. For example, CDC supports outreach workers with appropriate training in TB control to address barriers to completion, such as homelessness, substance use, or cultural differences.



Outreach workers help patients' complete treatment through directly observed therapy (DOT), provision of incentives and other adherence strategies. CDC and the CDC-funded Regional Training and Medical Consultation Centers also design and implement training and educational aids for health department and healthcare providers to improve the skills needed to help achieve this objective. Over the past 14 years, substantial progress has been made in achieving completion of therapy and in 2007, 84.3 percent of patients received a curative course of treatment, a substantial increase over the 1994 baseline of 67.6 percent, and continued improvement over 2006. The performance target for the following measures was set at an approximate target level, and the deviation from that level is slight. There was no effect on overall program or activity performance. CDC will continue to work with its partners to increase performance annually in this area.

### **Long-term Objective 2.8, Performance Measure 3**

Healthcare providers must know if a newly diagnosed patient is infected with drug-sensitive or drug-resistant organisms so that appropriate drug therapy can be prescribed. If this information is unknown, patients may receive inadequate treatment leading to the spread of drug-resistant organisms, resulting in increased morbidity, and mortality. In FY 2009, drug susceptibility results were documented for over 95.7 percent of TB patients with positive cultures, thus meeting the 2009 target and exhibiting continued progress over 2008. Progress toward this measure is attributable to increased efforts of state and local health departments and hospital infection-control practitioners to address the resurgence of TB, as well as increased funding for health department laboratories to purchase state-of-the-art equipment needed to perform more accurate and rapid laboratory testing and confirmation for TB and multi drug-resistant TB. CDC will continue to work with state partners to improve performance on this important factor in TB control.

### **Long-term Objective 2.8, Performance Measure 4**

Despite the global epidemic, rates of TB have been declining for 15 years in the U.S. due to successful control measures begun in the early 1990s. Most of this decline is attributable to declines among U.S.-born persons. An estimated nine to 14 million U.S. citizens have latent TB infection, and about 10 percent of these individuals will develop TB at some point in their lives. Because completion of TB treatment is the most effective way to reduce the spread of TB and prevent its complications, CDC supports identifying and evaluating contacts to persons with TB disease, as well as completing treatment for contacts that have latent TB infection, through cooperative agreements with state and local health departments.

Contacts of smear-positive TB patients are at high risk of developing TB and therefore must be screened for infection. If infected, these contacts should be offered complete treatment for latent infection. This measure addresses TB programs' efforts to identify contacts of smear positive (the most infectious) TB cases. Contacts of smear-positive TB patients are at high risk of being infected and developing TB and therefore should be screened and treated. Investigations of these contacts are resource intensive; this work is hard to quantify and often undocumented.

Indicators show progress over the 2002 baseline; however progress has been limited by the availability of resources for this activity and by limitations in available treatments and diagnostics. Development of new, shorter, less toxic regimens for latent TB, as well as better methods of identifying persons who will develop active disease are necessary. Improvement of data collection and reporting allows for increased consistency in reporting and monitoring that better equips the program to plan and evaluate efforts and resource needs.

**EMERGING AND ZOO NOTIC INFECTIOUS DISEASES**

Measure	FY	Target	Result
3.E.1: Enhance detection and control of foodborne outbreaks by increasing the number of foodborne isolates identified, fingerprinted, and electronically submitted to CDC's computerized national database networks with annual level funding. (Efficiency)	2012	40,000 isolates	Dec31, 2012
	2011	40,000 isolates	Dec31, 2011
	2010	35,276 isolates	42,162 (Target exceeded)
	2009	35,276 isolates	38,844 (Target Exceeded)
	2008	32,069 isolates	39,888 (Target Exceeded)
	2007	28,633 isolates	32,665 (Target Exceeded)
	2006	24,866 isolates	27,618 (Target Exceeded)

Unique Identifier	Data Source	Data Validation
3.E.1	PulseNet USA national databases established and maintained at CDC	Pattern submissions to PulseNet national databases are assessed and reviewed on a daily basis at CDC. Submitters to PulseNet databases are certified for competency before they are given access to the national databases. They are required to complete proficiency testing on an annual basis. Pattern and serotype statistics for all of the PulseNet databases are compiled, verified and reported on a quarterly and annual basis.

**Efficiency Measure 3.E.1:**

PulseNet, an early warning system for outbreaks of foodborne disease, is a national network of public health laboratories that performs DNA fingerprinting on bacteria that may be foodborne. In FY 2010, PulseNet exceeded its target of 35,276 isolates identified, fingerprinted and electronically submitted to CDC's computerized national databases with annual level funding, by submitting 42162 isolates total. The submissions enable PulseNet to detect more and smaller clusters of foodborne infections than ever before. Exceeding this target is related to ongoing CDC support for capacity building activities in state and local public health laboratories and increased coordination, education, and submissions from state and local partner laboratories as well as a very busy year with increased submissions from large multi-state outbreaks of *E. coli* O157 from ground beef, *E. coli* O145 from shredded lettuce; *salmonella* infections from among others Pepper corn/salami, frozen rodents and raw eggs. In FY 2004 to FY 2010, CDC exceeded its target for this measure by five to fifteen percent, indicating the enthusiasm and commitment of the participants in the network. The target was exceeded in FY 2010 by more than 19 percent due to increased participation as well as an increased general volume of submissions. CDC will continue to increase the number of individuals at the participating laboratories who are certified to electronically submit pulsed-field gel electrophoresis (PFGE) patterns directly to the database. However, CDC funding to state and local laboratories has been decreasing the past years as have the states own funding of PulseNet activities. This will likely lead to fewer submissions next year.

**LONG-TERM OBJECTIVE 3.1: PROTECT AMERICANS FROM INFECTIOUS DISEASES –  
 FOODBORNE ILLNESSES.**

Measure	FY	Target	Result
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PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY  
 INFECTIOUS DISEASES  
 EMERGING AND ZOO NOTIC INFECTIOUS DISEASES

Measure	FY	Target	Result
3.1.1a: By 2020, reduce the incidence of infection with four key foodborne pathogens: Campylobacter ( <i>Outcome</i> )*	2012	12.06	May 31, 2013
	2011	12.18	May 31, 2012
	2010	12.30	May 31, 2011
	2009	13.25	12.93 (Target Exceeded)
	2008	14.20	12.68 (Target Exceeded)
	2007	15.14	12.79 (Target Exceeded)
	2006	16.10	12.71 (Target Exceeded)
3.1.1b: By 2020, reduce the incidence of infection with four key foodborne pathogens: Escherichia coli O157:H7 ( <i>Outcome</i> )*	2012	1.00	May 31, 2013
	2011	1.00	May 31, 2012
	2010	1.00	May 31, 2011
	2009	1.08	98 (Target Exceeded)
	2008	1.15	1.12 (Target Exceeded)
	2007	1.22	1.20 (Target Exceeded)
	2006	1.30	1.31 (Target Not Met)
3.1.1c: By 2020, reduce the incidence of infection with four key foodborne pathogens: Listeria monocytogenes ( <i>Outcome</i> )*	2012	0.23	May 31, 2013
	2011	0.23	May 31, 2012
	2010	0.23	May 31, 2011
	2009	0.27	.34 no change (Target not met)
	2008	0.29	0.29 (Target Met)
	2007	0.31	0.27 (Target Exceeded)
	2006	0.33	0.31 (Target Exceeded)
3.1.1d: By 2020, reduce the incidence of infection with four key foodborne pathogens: Salmonella species ( <i>Outcome</i> )*	2012	6.80	May 31, 2013
	2011	6.80	May 31, 2012
	2010	6.80	May 31, 2011
	2009	7.31	14.99 (Target not met but improved)
	2008	7.84	16.20 (Target Not Met)
	2007	8.39	14.92 (Target Not Met)
	2006	8.90	14.81 (Target Not Met)

Unique Identifier	Data Source	Data Validation
3.1.1	FoodNet (The Foodborne Diseases Active Surveillance Network) Data	FoodNet data are transmitted, updated, and reviewed monthly. Incomplete data are reviewed with sites on a monthly basis, as are cross checks comparing local data with

Unique Identifier	Data Source	Data Validation
		national data for data validity. Data are closed out and summarized on an annual cycle to produce preliminary reports, published in MMWR in spring of the following year, and a final report, later that year, once the updated population denominator data are available from the US Bureau of Census.

**Long-term Objective 3.1, Performance Measure 1**

Foodborne illness is recognized as a significant public health problem in the U.S. It is estimated that foodborne pathogens cause millions of illnesses, over 300,000 hospitalizations, and 5,000 deaths annually.

This measure supports tracking new and total cases of seven common bacterial foodborne diseases and was established as part of the Healthy People 2020 (HP2020) process. HP2020 focuses on the most significant preventable threats to health and monitors progress toward national objectives aimed at reducing these threats. The objective of the HP 2020 food safety focus area is to reduce foodborne illness.

The Food and Drug Administration (FDA) and the United States Department of Agriculture’s Food Safety and Inspections Service (USDA/FSIS) are co-leads for the HP 2020 food safety focus area; however, CDC monitors and investigates human illness resulting from contaminated food and provides independent information on foodborne illnesses and outbreaks to the regulatory agencies so they can develop and implement effective control measures.

Campylobacter

From FY 2005 - FY 2009, the target for Campylobacter has been exceeded. Targets were set based upon historical baselines as part of the HP 2010 process. Preventive measures implemented by the FDA, FSIS, and others have achieved significant public health outcomes since the baseline measure, however progress has plateaued in the last four years. FSIS completed a baseline study of levels of contamination of poultry. The results of this study were posted on the FSIS Website at [http://www.fsis.usda.gov/PDF/Baseline\\_Data\\_Young\\_Chicken\\_2007-2008.pdf](http://www.fsis.usda.gov/PDF/Baseline_Data_Young_Chicken_2007-2008.pdf) and will be the basis for development of new risk management strategies. FDA is actively promoting the consumption of pasteurized milk. The renewed interest among some members of the public for raw milk consumption and the increased number of states legalizing the sale of raw milk poses a challenge. CDC is reviewing and summarizing raw milk outbreak data to highlight the hazards of raw milk consumption.

E. coli

The target for infections with E.coli O157:H7 was exceeded for FY 2007 – FY 2009. After the incidence of E.coli O157 infections declined to a low in 2004, exceeding the 2010 target, incidence increased again in the next two years returning to previous levels, declined slightly in 2007, increased slightly in 2008, then met the HP 2010 target in 2009. The recent decrease in STEC O157 infection might reflect, in part, control efforts in ground beef processing and produce growing practices. Interagency dialogue is underway with our regulatory partners and with industry to increase the development and application of effective prevention strategies for E. coli O157 in meats, produce, and other foods to decrease these rates in the future.

Listeria

The target for Listeria was exceeded from FY 2005 through FY 2007, met in FY 2008, but not met in 2009. The progress that has been made thus far has been the result of major efforts in the processed meat/hot dog industry to reduce contamination. In collaboration with FDA and FSIS, CDC continues

broad implementation of a national Listeria Action Plan to further reduce Listeria cases through efficient risk management, empowering consumers, and improving consumer safety to achieve future targets.

Salmonella

The targets for Salmonella have not been met FY 2005 through FY 2009. Rates of infection with Salmonella have decreased only moderately since 1996. This may reflect continuing Salmonella contamination of poultry, meat, and the environment in which produce is grown and processed and yet to be defined infections caused by non-food sources. New and continuing interagency efforts in research and interventions to improve the effectiveness of food safety measures for Salmonella are now underway. In addition, FSIS announced a major Salmonella initiative in February 2006 that included several components including focusing testing on the establishments with the most difficulty in controlling Salmonella.

CDC and FDA jointly developed an HHS High Priority Goal for Salmonella serotype Enteritidis (SE) focused on decreasing the rate of sporadic SE illnesses, the number of SE outbreaks, and the number of SE cases associated with outbreaks. FDA is the lead for the goal. In 2009, FDA published a final rule, “Prevention of Salmonella Enteritidis in Shell Eggs During Production, Transportation, and Storage,” that is expected to reduce SE-associated illnesses and deaths by reducing the risk that shell eggs are contaminated with SE. For the High Priority Goal, CDC will provide the data essential for determining the impact of the new FDA regulation. More information about HHS High Priority Goals can be found at [www.performance.gov](http://www.performance.gov).

**LONG-TERM OBJECTIVE 3.2.1: REDUCE THE SPREAD OF ANTIMICROBIAL RESISTANCE.**

Measure	FY	Target	Result
3.2.1: Decrease the number of antibiotic courses prescribed for ear infections in children under 5 years of age per 100 children. (Outcome)	2012	48 courses	Dec 31, 2014
	2011	49 courses	Dec 31, 2013
	2010	50 courses	Dec 31, 2012
	2009	55 courses	Dec 31, 2011
	2008	57 courses	58.5 (Target Not Met)
	2007	60 courses	47.5 (Exceeded)
	2006	60 courses	51 (Exceeded)

Unique Identifier	Data Source	Data Validation
3.2.1	National Ambulatory Medical Care Survey (NAMCS), CDC, NCHS; and National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS	A 10% quality control sample of survey records was independently keyed and coded.

**Long-term Objective 3.2, Performance Measure 1**

This target was not met in 2008, with 1.5 reported more courses of antibiotics prescribed than the target of 57 courses per 100 children. Slight annual variations in reported data are not uncommon; however, CDC will continue to monitor this measure to determine whether this is an anomaly specific to the reporting period or an ongoing trend.

CDC’s public health campaign “Get Smart: Know When Antibiotics Work” is the focus of this measure. The campaign involves an alliance of partners working to reduce inappropriate antibiotic use and reduce the spread of resistance to antibiotics. To date, more than 100 campaign partners have contributed to the success of the campaign. Twelve funded state-based programs currently collaborate with the Get Smart

campaign on projects, such as developing educational curricula for medical students, multicultural outreach, developing guidelines for appropriate antibiotic use, widely disseminating educational materials and media campaign resources and implementing innovative community initiatives. The Get Smart program also provides funding to states to develop, implement, and evaluate local campaigns.

In addition to Get Smart’s efforts, introduction of an expanded-valent pneumococcal conjugate vaccine in 2010 for children will likely contribute to additional reductions in antimicrobial prescribing. The 2012 target is based on Healthy People (HP 2020) goals. These targets were based on a rate of 51 antibiotic courses for otitis media per 100 children less than 5 years prescribed during 2006 and a target of 38 prescribed courses for otitis media by 2020. The benefit of antibiotics for acute otitis media (ear infection) is small and there are potential adverse events associated with antibiotic therapy. About 15 percent of children who take antibiotics suffer from diarrhea or vomiting and up to five percent have allergic reactions, which can be serious or life threatening. In addition, each unnecessary course of antibiotics can make future infections more difficult to treat. Greater resistance among many of the pathogens that cause ear infections has fueled an increase in the use of broader-spectrum and generally more expensive antibacterial agents. Reducing the number of courses of antibiotics for ear infections for children less than five years of age will reduce unnecessary antibiotic use and lead to improved healthcare quality, cost savings and reduction in the development of antibiotic resistance.

The Get Smart program has formed new partnerships to address changing trends in healthcare (such as retail clinics, free and low-cost antibiotic program at chain pharmacies, employer-based health clinics). Each year since 2008, CDC and its partners (including programs funded through the Epidemiology and Laboratory Capacity for Infectious Diseases Cooperative Agreement) host an annual Get Smart about Antibiotics week health observance to raise awareness about antibiotic resistance and appropriate antibiotics use in the community.

**LONG-TERM OBJECTIVE 3.3: PROTECT AMERICANS FROM DEATH AND SERIOUS HARM CAUSED BY MEDICAL ERRORS AND PREVENTABLE COMPLICATIONS OF HEALTHCARE.\***

Measure	FY	Target	Result
3.3.2: Reduce the estimated number of cases of invasive MRSA infection. (Outcome)	2012	74,740	Sep 30, 2014
		83,045	Sep 30, 2013
	2011		
	2010	92,272	Sep 30, 2012
	2009	95,126	Sep 30, 2011
	2008	98,068	89,785 cases (Target Exceeded)
	2007	101,101	94,897 cases (Target Exceeded)
3.3.3: Reduce the CLABSI standardized infection ratio (SIR) (Outcome)	2012	.6	Aug 31, 2013
	2011	.7	Aug 31, 2012
	2010	N/A	.8
	2009	Baseline	SIR 1.0
3.3.4: Increase the number of hospitals and other selected health care settings that report into the National Healthcare Safety Network (NHSN).	2012	6,500	June 30, 2013
	2011	5,000	June 30, 2012
	2010	Baseline	2,619

\* Targets do not reflect impact of funding from ACA/PPHF or ARRA

Unique Identifier	Data Source	Data Validation
3.3.3, 3.3.4	National Healthcare Safety Network (NHSN)	Extensive cross-field edit checks are used for validation and incomplete records cannot be reported. Detailed instructions for completion of report forms ensure consistency across sites. Process and quality improvements occur through email updates and annual meetings.
3.3.2	Emerging Infections Program / Active Bacterial Core Surveillance/Emerging Infections Program Surveillance for Invasive MRSA Infections	Surveillance Site personnel trained in methodology, updates annually; laboratory audits performed by Site staff

**Long-term Objective 3.3, Performance Measure 2**

Methicillin-resistant Staphylococcus aureus (MRSA) is an antibiotic resistant bacterium that causes emerging infections of national and international importance. Staph infections, including MRSA, occur most frequently among persons in hospitals and healthcare facilities (such as nursing homes and dialysis centers) and are known as healthcare-associated MRSA. MRSA infections that are acquired by persons who have not been recently hospitalized (within the past year) or have had a medical procedure not requiring hospitalization (such as dialysis, surgery, catheter insertion or removal) are known as community-associated MRSA infections. Staph or MRSA infections in the community are usually manifested as skin infections, such as pimples and boils, and occur in otherwise healthy people.

The estimated number of people developing their first serious MRSA infection (i.e., invasive) in 2008 was approximately 89,785 persons, exceeding the FY 2008 target. Approximately 15,249 of those persons died during the hospital stay for these serious MRSA infections.

Active Bacterial Core surveillance (ABCs) is a core component of CDCs Emerging Infections Programs Network (EIP), and is a collaborative program involving CDC, state health departments, and universities. ABCs is an active laboratory- and population-based surveillance system for invasive bacterial pathogens of public health importance. For each case of invasive disease in the surveillance population, a case report with basic demographic information is completed and bacterial isolates are sent to CDC and other reference laboratories for additional laboratory evaluation. ABCs also provides an infrastructure for further public health research, including special studies aiming at identifying risk factors for disease, post-licensure evaluation of vaccine efficacy and monitoring effectiveness of prevention policies.

ABCs surveillance for MRSA was initially established in nine states in 2005 representing a population of over almost 15 million persons. This program operates out of DHQP, in conjunction with CDCs national Center for Immunizations and Respiratory Diseases, Division of Bacterial Diseases, the Division responsible for operations of ABCs overall.

Both hospital and community data for invasive MRSA infections are included in the ABC data set. The ABC's data has been collected by health departments for over a decade for a variety of infectious pathogens, most recently including MRSA. CDC believes it is very reliable for the most serious invasive MRSA infections, in both healthcare and community settings. Additional measures to capture community MRSA infections more broadly are being developed. For now, measures that combine information from both hospital and community data will be used, and will be useful for determining overall progress in MRSA prevention, while targeted interventions will be applied.

In December 2008, a multidrug-resistant organism module was added to the National Healthcare Safety Network (NHSN). This module provides surveillance data from participating facilities on multidrug-resistant organisms, including MRSA and simplified measures to assess the impact of MRSA prevention in healthcare settings. Data from this source is used for estimating invasive MRSA cases.

CDC provides direct support and assistance to external partners involved in MRSA prevention initiatives including: Department of Veterans Health Affairs, State and Regional initiatives, Institute for Healthcare Improvement, and other multi-center prevention collaborative efforts. CDC works in collaboration with the Healthcare Infection Control Practices Advisory Committee (HICPAC) to develop and promote evidence-based infection control strategies to reduce transmission of MRSA and other pathogens in healthcare facilities. Through the Prevention Epicenter Program, CDC provides funding and works directly with academic partners to address important scientific questions regarding the prevention of MRSA and other resistant organisms. CDC launched a national evidence-based educational Campaign to Prevent Antimicrobial Resistance in Healthcare Settings that targets healthcare providers. The Campaign focuses on preventing antimicrobial resistance in healthcare settings by promoting four strategies targeting various patient populations including: hospitalized adults, dialysis patients, surgical patients, hospitalized children, and long-term care residents. CDC has developed and published guidance for the management and prevention of MRSA in the community based on review of available information and input from clinical and public health experts (CA-MRSA Clinical Management). In the fall of 2008, CDC launched a National MRSA Education Initiative to improve knowledge about MRSA in community settings, including recognition of the signs and symptoms, diagnosis and treatment, and prevention and control measures among both the general public and clinical audiences, particularly among at-risk or high-risk groups identified through recent surveillance and research studies.

CDC collaborates with state and local health departments to develop physician and patient guidance and education materials for MRSA (MRSA education materials). CDC performs needs and knowledge assessments with public health partners, at-risk groups, and the general public to target the development of guidance and education.

The targets are ambitious because they:

- require identification of effective prevention strategies for the community settings and outpatient settings that can be incorporated into the prevention programs outlined above.
- include both community and healthcare onset MRSA. While prevention measures for healthcare onset MRSA are well established, measures for community onset MRSA are still being developed.
- are dependent on application of prevention recommendations that require behavior change interventions (e.g. hand hygiene compliance).
- focus on MRSA which is a dynamic pathogen both in terms of biological characteristics and response to antibiotic treatment.

FY2011 and FY 2012 targets are more ambitious than previous years. Recent research demonstrates 10 percent decreases per year over a 10-year period. Therefore, targets have been adjusted accordingly. The key strategies to achieve future targets, as articulated in the CDC's Division of Healthcare Quality Promotion (DHQP) strategic plan, are to: expand capacity to detect and monitor antimicrobial resistance, maintain and improve capacity to respond and assess new and emerging problems associated with antimicrobial resistance, improve strategies for prevention of antimicrobial-resistant infections, improve antimicrobial use in healthcare settings, and increase involvement of the public and private sectors and healthcare researchers.

Regarding data integrity, the accuracy of "Pneumonia" reports was adversely affected due to insufficient documentation and database defects. The program has provided additional clarification on variables and plans to migrate to a new database system in 2010.

### **Long-term Objective 3.3, Performance Measure 3**



This measure replaces measure 3.3.1 The HHS Action Plan to Prevent Healthcare Associated Infections identified central line associated blood stream infections (CLABSIs) as a priority for prevention with national 5-year prevention targets and metrics proposed. Likewise, new Healthy People 2020 objectives have been proposed to address the substantial human suffering and financial burden attributable to healthcare associated infections, one of which is to reduce CLABSIs. These changes are due in part to improved science, which has allowed DHQP to revise the existing measures for CLABSIs and incorporate them in to both the HHS Action Plan and Healthy People 2020. In addition to aligning with the HHS Action Plan and Healthy People 2020, the proposed changes would also provide a better indication of DHQP activities to reduce CLABSIs. CLABSI prevention efforts are expanding, and CDC is working to reduce CLABSI not only in hospital intensive care units, but across the spectrum of healthcare.

CDC's efforts to reduce and eliminate healthcare-associated infections are the focus of this measure. CDC has provided leadership in preventing central-line bloodstream infections by developing guidelines for the prevention of these infections, through technical assistance to organizations and state health agencies to implement these guidelines, and in working with CMS to implement the Value Based Purchasing program under related to bloodstream infections. CDC oversees the National Healthcare Safety Network (NHSN), the source of the data provided and a surveillance system currently being collecting data from approximately 2,500 hospitals and other healthcare facilities across 50 states.

Of those 50 states, 21 states are using or are planning to use NHSN for the mandatory reporting of healthcare-associated infections (HAIs) from hospitals. Through this network, CDC is monitoring infections (including central-line associated bloodstream infections), antimicrobial resistance, and other adverse events in hospitals around the country.

There have been significant investments in NHSN and HAIs through FY 2009 base appropriations and American Reinvestment and Recovery Act HAI funding for state health departments. These investments will continue to reduce HAIs due to CLABSIs in FY 2011 and FY 2012 and, as a result, CDC's targets for FY 2011 and FY 2012 are 0.6 and 0.7, respectively.

#### **Long-term Objective 3.3, Performance Measure 4**

Healthcare-associated infections occur in all settings of care. It has been estimated that in 2002, 1.7 million infections and 99,000 associated deaths occurred in hospitals alone. The financial burden attributable to these infections is staggering with an estimated \$33 billion in added healthcare costs (200915,16). Recent research efforts supported by the CDC and the Agency for Healthcare Research Quality (AHRQ) have shown that implementation of CDC HAI prevention recommendations can reduce some healthcare-associated infections by as much as 70 percent. Broad implementation of HAI prevention guidelines can result in dramatic reductions in HAIs, which will not only save lives and reduce suffering, but will result in healthcare cost savings.

CDC oversees the National Healthcare Safety Network (NHSN) to monitor infections, antimicrobial resistance, and other adverse events in hospitals around the country. NHSN has been identified as the tool for fulfilling HAI public reporting mandates in 21 states and is used in hospitals in all 50 states. Between April 2007 and June 2010, NHSN participation has expanded from 491 to 2,650 hospitals and other selected sites.

This measure tracks progress in standardizing data tracking and reporting of HAIs in hospital and other select settings. The data source is the National Healthcare Safety Network, administered by CDC.

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15 Scott, R. Douglas. The Direct Medical Costs of Healthcare-Associated Infections in U.S. Hospitals and the Benefits of Prevention. March 2009.

[http://www.cdc.gov/ncidod/dhqp/pdf/Scott\\_CostPaper.pdf](http://www.cdc.gov/ncidod/dhqp/pdf/Scott_CostPaper.pdf)

16 Klevens RM, Edwards JR, Richards CL, Horan T, Gaynes R, Pollock D, Cardo D. Estimating Health Care-Associated Infections and Deaths in U.S. Hospitals, 2002. Public Health Rep 2007;122:160-166.

NHSN has been identified as the tool for fulfilling HAI public reporting mandates in 21 states and is used in hospitals in all 50 states. Between April 2007 and June 2010, NHSN participation has expanded from 491 to 2,650 hospitals and other selected sites.

Targets for FY 2011 represent close to a 100 percent increase from 2010 baseline and are limited to hospital settings. Targets for FY 2012 include significant increases from baseline and expand the number of facilities reporting via NHSN to include non hospital settings.

Extending successes in acute care settings to other non-acute care settings is difficult. Complex procedures are increasingly performed in non-hospital settings including ambulatory surgical centers (ASCs), dialysis centers, and long-term care facilities, and staff may have limited training in HAIs. Each setting also contributes to different aspects of the HAI burden, requiring unique prevention solutions tailored to use in those settings. For example, ASCs have been at the center of many outbreaks of HAIs in recent years, including hepatitis, due to unsafe infection practices and other ‘never events’. There is a need for tailored methods and definitions for facilities in outpatient settings such as long-term care and ASCs, including use of electronic laboratory data for public health surveillance.

22 states do not mandate public reporting of HAIs. These states face challenges in surveillance of HAIs.

States need increased capacity to build and sustain programs to implement surveillance to provide data for action; to implement effective prevention strategies for healthcare settings, including cost effective, evidence-based practice bundles; to increase participation in prevention initiatives; and to identify and implement policy changes that are needed for prevention.

States with HAI reporting mandates have different public reporting laws, regulations and legislation. State reporting mandates need to be reconciled with reporting requirements to implement the Healthcare Reform Sec. 3001.

CDC distributed \$40 million in American Recovery Act and Reinvestment (ARRA) funds to states in efforts that support state-based HAI programs to prevent healthcare-associated infections in accordance with HHS goals and to increase NHSN enrollment nationally. ARRA funds will also support the development and implementation of data validation methods using NHSN and expand and improve electronic data collection and data analysis for local use of the data to assess regional and national trends.

CDC is working with CMS to implement the Inpatient Prospective Payment System (IPPS) rule, which will enable the use of NHSN data to address the reporting of quality measure data and to measure impact as part of CMS’s pay-for-reporting program, including posting of facility-level data at the “Hospital Compare” website. This will increase enrollment in NHSN and facilitate implementation of section 3001, Hospital Value-Based Purchasing Program, of the healthcare reform act.

CDC is also making improvements to NHSN that will enhance usability and performance. CDC is accelerating migration to electronic reporting to NHSN from healthcare facilities, clinical laboratories, and health information exchanges which will reduce the reporting burden and increase timeliness, efficiency, comprehensiveness, and reliability of data; and providing and maintaining system upgrades to enhance usability and performance, which will improve surveillance.

**LONG-TERM OBJECTIVE 3.4: PREVENT THE IMPORTATION OF INFECTIOUS DISEASES TO THE U.S. IN MOBILE HUMAN, ANIMAL AND CARGO POPULATIONS**

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
3.4.1: Prevent the importation and spread of infectious diseases to the	Out-Year Target	4 of 4 (2015)	Aug 31, 2016

PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY  
 INFECTIOUS DISEASES  
 EMERGING AND ZOO NOTIC INFECTIOUS DISEASES

Measure	FY	Target	Result
U.S. in mobile populations and non-human-primates, as measured by meeting 4 of 4 targets for the following measures (Outcome)	2007	Baseline	1 of 4
3.4.2: Increase the proportion of applicants for U.S. immigration screened for tuberculosis by implementing revised tuberculosis technical instruction (TB TI). (Outcome)	2012	60%	Jul 31, 2013
	2011	55%	Jul 31, 2012
	2010	50%	Jul 31, 2011
	2009	35%	49.5% (Target Exceeded)
	2008	30%	32% (Target Exceeded)
	2007	Trend data	22%
	2006	Baseline	0%
3.4.3: Increase the likelihood of travelers seeking pre-travel medical advice for travel to Africa and Asia (Outcome)	2012	10.0	01/2014
	2011	9.5	01/2013
	2010	9.0	01/2012
	2009	8.5	03/2011
	2008	Trend Data	8.1
	2007	Trend Data	7.5
	2006	Trend data	5.6
3.4.4: Increase of the percentage of immigrants and refugees with a "Class A or B medical notification for tuberculosis" who undergo medical follow-up after arrival in U.S (Outcome)	2012	74%	Dec 31, 2012
	2011	72%	Dec 31, 2012
	2010	70%	Dec 31, 2011
	2009	68%	69.5% (Target Exceeded)
	2008	65%	63% (Target Not Met)
	2007	Trend data	65%
	2006	Baseline	60%
3.4.5: Maintain low mortality in nonhuman primates (NHP) imported to the U.S. for science, exhibition, and education. (Outcome)	2012	<1%	Dec 31, 2012
	2011	<1%	Dec 31, 2011
	2010	<1%	<1% (Target Met)
	2009	<1%	<1% (Target Met)
	2008	<1%	<1% (Target Met)
	2007	Trend data	<1%
	2006	Trend data	<1%
3.4.6: Increase the number of hospitals with MOAs in priority 1 cities. (Outcome)	2012	190	Jan 31, 2013
	2011	185	Jan 31, 2012
	2010	180	175 (Target Not Met)
	2009	175	175 (Target Met)
	2008	170	175 (Target Exceeded)
	2007	Trend data	163
	2006	Trend data	149
3.4.7: Increase the number of illnesses in persons arriving in the United States that are reported to CDC DGMQ by conveyance operators, CBP, and others. (Outcome)	2012	3,100	Dec 31, 2012
	2011	2,800	Dec 31, 2011
	2010	2,500	2,960 (Target Exceeded)
	2009	1,692	3,156 (Target Exceeded)
	2008	1,651	1,677 (Target Exceeded)
	2007	Trend data	1,543
	2006	Trend data	1,464

PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY  
 INFECTIOUS DISEASES  
 EMERGING AND ZOO NOTIC INFECTIOUS DISEASES

Measure	FY	Target	Result
3.4.E.1: Decrease the cost of notifying state health departments of disease conditions in incoming refugees and immigrants by implementing the electronic disease notification system. (Outcome)	2012	\$490,000	Dec 31, 2012
	2011	\$760,000	Dec 31, 2011
	2010	\$511,000	\$490,000 (Target Exceeded)
	2009	\$534,500	\$404,404 (Target Exceeded)
	2008	\$884,000	\$838,426 (Target Exceeded)
	2007	Trend data	\$1,393,663
	2006	Trend data	\$1,461,172

Unique Identifier	Data Source	Data Validation
3.4.1	Data sources for annual measures 3.4.2 and 3.4.5 below.	DSNS maintains internal tracking systems to monitor its ability to deliver critical medical assets in a national emergency. A Stockpile Resource Planning (SRP) database and inventory system is used to track and validate stockpiled material.
3.4.2	Office of Immigration Statistics for yearly number of immigrant and refugee arrivals. The number of immigrants screened under the 2007 TB TI is equivalent to the number of immigrants from countries that have adopted the 2007 TB TI; hence the same data source applies.	The Department of Homeland Security maintains the official U.S. government statistics of foreign-born persons entering the U.S.
3.4.3	Numerator: # GeoSentinel patients who are US residents who visited Asia and Africa and sought pre travel advice (Data Source: GeoSentinel Surveillance System) Denominator: # US travelers in International Trade Association Annual Survey of International Air Travelers who visited Asia and Africa (Data Source: International Trade Association Annual Survey of International Air Travelers).	Data are validated through site visits and record review Calculations will be compare to a reference group where there s a low likelihood of seeking pretravel advice (Europe and Oceania = “developed regions”) to compare the relative likelihood of a traveler to Asia and Africa seeking pretravel health advice. Result will be read as: “Compared to travelers to developed regions, travelers to Asia and Africa were X times more likely to have sought pretravel advice”.
3.4.4	Information on Migrant Populations (IMP); Electronic Disease Notification (EDN) system	Immigrants and refugees with a TB class condition undergo a medical evaluation after entry into U.S. Results of medical evaluation are transmitted to CDC from state health departments and recorded in one of two databases: IMP or EDN. IMP is a paper-based reporting system. EDN is an electronic database that will replace IMP.
3.4.5	CDC nonhuman primate importation program records - annual NHP mortality data	Data are validated by CDC staff site visits to importers.
3.4.6	Signed CDC documents; Memorandum of Agreement Tracking System (MOATS)	Validity of legal documents is clear, and MOATS supports DGMQ personnel in the management and maintenance of established Memorandum of Agreements (MOAs) and information related to the MOA Program. MOATS standardizes and automates existing business processes for

		managing MOAs and notifying emergency contacts during a quarantine measure implementation. MOATS key functional categories include Station (Q-Station information), Port (various combinations), Memorandum (Hospital under MOA), Contact (Hosp., State and local HD and any other POC) and Workflow Management (user authentication/authorization). MOATS is on the SQL server and web based and defines and validates user authentication and authorization within the system.
3.4.7	Quarantine stations enter these reports into the quarantine activity reporting system (QARS)	Data are reviewed by the DGMQ QARS team.
3.4.E.1	Man hours, equipment, and FedEx costs for IMP (2005-2006 paper-based system) versus EDN (2006-09 electronic system) including centralized EDN IMP	Man hours are actual and projected personnel costs for FTEs and contractors performing data entry; equipment costs include one time set up and annual costs and are based on actual 2007 costs; FedEx costs are costs by the Quarantine stations to send paperwork to DGMQ headquarters and to state health departments.  *the baseline is based on only 8 versus 20 quarantine stations and from an exclusively decentralized paper based system to an exclusively centralized electronic system.

**Long-term Objective 3.4, Performance Measure 1**

The public health burden for each of the four annual measures is described in greater detail for each measure. As a composite long-term measure, it measures the overall trend towards preventing the importation and spread of infectious diseases to the U.S. through four different approaches for a key disease (i.e., tuberculosis), in key populations (i.e., in immigrants, refugees, and travelers), and in key regulated animals (non-human primates).

In addition to benefiting the populations targeted in the measures, U.S. citizens, public health programs, and the research community at large benefit from preventing, regulating, controlling, and providing guidance for the measured diseases and populations.

The long-term measure with its four annual measures is in direct alignment with the Division of Global Migration and Quarantine's (DGMQ) regulatory authority and mission of preventing the importation and spread of infectious diseases in the U.S. and covers the range of legal requirements towards achieving the mission to appropriate public health interventions, guidance, and communication necessary to achieve its mission. They also are representative of DGMQ's mandate to provide scientific and programmatic leadership in achieving DGMQ's mission.

Measurements are described for each annual measure of which this composite long-term measure is comprised. In order achieve the long-term measure each annual measure has to have reached its final target. Hence, while each annual measure shows a positive trend for past performance, only one of the annual measures has reached its target and is being measured by maintaining the target.

Achieving the targets in all four annual measures is ambitious because of competing priorities and because each measure is ambitious. Given that all four annual measures directly align with DGMQs mission, DGMQ staff is dedicated to continue working towards their progress and focus their energy towards achieving the targets for all measures simultaneously.

### **Long-term Objective 3.4, Performance Measure 2**

The majority (57 percent) of TB cases diagnosed in the U.S. are diagnosed in persons born outside the U.S. Medical screening for TB is legally required of applicants of U.S. immigration in order to receive a visa and enter the U.S. The overseas TB screening algorithms were last released in 1991 and had become inadequate to meet the challenges of modern TB control. For example, studies demonstrated that the 1991 instructions were insensitive in detecting all cases of TB disease, preventing importation of TB into the U.S., or detecting cases of drug resistant TB, including multidrug resistant TB (MDR TB). For these reasons, the algorithms were updated in 2007. Assessments of the performance of this measure therefore begin with implementation of the 2007 TB TI. The updated algorithm is being implemented in countries prioritized on factors including immigration volume and burden of TB. Improving TB screening of this population is an opportunity to appropriately diagnose and treat persons with TB disease before they arrive in the U.S. and identify persons at risk for having TB disease for prompt stateside follow-up. Improving the TB screening should contribute to decreasing the burden of TB in the U.S. among foreign-born populations overall.

The outcome being measured is the proportion of overseas applicants for U.S. immigration screened according to modernized tuberculosis (TB) screening protocols. Because all immigrants coming from a country which has implemented the revised TB TI will be screened accordingly, the number of arriving immigrants from that country and those screened for TB under the revised TB TI is identical.

During FY 2009, CDC made significant progress towards this measure by rolling out implementation of the 2007 revised tuberculosis technical instructions (TB TI) to all immigration applicants in the Dominican Republic, Uganda, Ethiopia, Taiwan, Jordan, Kenya, Japan, China, and Haiti. Based on FY 2009 immigration data, CDC exceeded its goal in 2009 with 49.5% of US-bound immigrants being screened according to the 2007 TB TI.

### **Long-term Objective 3.4, Performance Measure 3**

The data set required to evaluate this performance measure is currently unavailable; hence, the FY 2009 annual reporting date for this measure has been adjusted to March 2011 to allow for sufficient time to gather and analyze the required data.

With globalization of the world's economy the risk of translocation of infectious disease via travel and transportation is increasing. In 2006, there were 35 million individual travelers departing the United States (U.S.) to go overseas; these travelers took more than 63 million trips of at least one night abroad. Our ability to protect the U.S. from the introduction of infectious diseases depends at least in part on CDC's ability to educate U.S. travelers and healthcare providers about immunizations, medications, and other precautions to ensure safe and healthy travel while abroad and upon returning to the U.S. Because the highest disease risk is for travel to Africa and Asia, CDC currently focuses its outreach and educational activities on travelers to those two continents.

This measure is designed to ensure that travelers leave the U.S. and return to the U.S. healthy, both to protect their own health and that of others. The indicator for this measure is relative likelihood. The above ratios for Africa and Asia will be compared to travel to an area where there is a low(er) likelihood of seeking pre travel advice (Eastern Europe) to compare the relative likelihood of a traveler seeking pre travel health advice for a particular region. The result should be read as: In (year), compared to travelers to Eastern Europe, travelers to (Asia or Africa) were X times more likely to have sought pre travel advice.

Our efforts to increase the proportion of U.S. travelers to Asia and Africa seeking pre travel advice will be challenging because of annual increases in the number of international travelers going abroad from the U.S.; Reports of introduction and spread of infectious diseases via travel and transportation due to globalization; Increase in proportion of Visiting Friends and Relatives travelers: within U.S. travelers there is a subset of travelers we term travelers visiting friends and relatives (VFR travelers). VFRs are people born in an underdeveloped or developing country, who now reside in the U.S. and are returning to their country of origin to visit friends and relatives. Our data show that VFRs do not heed pre travel advice for vaccinations and antimalarial prophylaxis at the same rate as business or tourist travelers do. With the changing demographics of the U.S. population the number of VFR travelers will be increasing every year.

In order to overcome these challenges and meet the ambitious targets developed, DGMQ will increase efforts to reach and educate travelers and healthcare providers through continued enhancements to CDC's travel health website and publication of the Yellow Book. In addition, DGMQ will expand outreach to State Health Departments, health insurance companies, travel industry, student travel associations, and missionary associations.

Because the data set from the International Trade Administration was not available until that time and the significant time required to analyze data. CDC therefore adjusted the annual reporting date for this measure December 2009 and all subsequent years.

The methodology for this measure has been changed to create a more concrete reference group that better describes and represents US travelers with low likelihood of seeking pretravel advice and to combine the group of interest to be both Asia and Africa together, in order to have adequate data to provide yearly comparisons between the group of interest and reference group. Previously the methodology used GeoSentinel Surveillance and the International Trade Administration's Survey of International Air Travelers as the data sources. Current year data of US travelers to Asia and Africa who sought pretravel advice were compared to a reference of cumulative data of US travelers to Eastern Europe who sought pretravel advice.

The new methodology will utilize the same data sources; however the reference group will now include travelers to Western Europe, Eastern Europe, Australia, and New Zealand. Current year data of US travelers to both Asia and Africa who sought pretravel advice will be compared to a reference of current year data of all US travelers to Western Europe, Eastern Europe, Australia, and New Zealand who sought pretravel advice. This methodology is preferred because Europe and Oceania are developed areas where there is low risk for infectious disease as a whole, the likelihood of a US traveler seeking pretravel advice before visiting these countries is likely to be relatively constant and low, providing an adequate group to determine trends in pretravel advice seeking behavior in those visiting both Asia and Africa. Since CDC would like to increase pretravel advice seeking behavior in travelers to both Asia and Africa, it is beneficial to have a measure that summarizes the trend.

#### **Long-term Objective 3.4, Performance Measure 4**

The majority (57 percent) of tuberculosis cases diagnosed in the U.S. are diagnosed in persons born outside the U.S. Tuberculosis (TB) represents the largest burden of infectious disease in immigrant and refugee populations. The overseas medical examination identifies persons with TB and those at risk of having TB and in need of prompt follow-up after arrival in the U.S. Improving TB follow-up evaluation of this population is an opportunity to appropriately diagnose and treat persons with TB disease soon after they arrive in the U.S. and minimize secondary transmission to others. Improving the TB follow-up evaluation should contribute to decreasing the burden of TB in the U.S. among foreign-born populations.

The team devoted to increasing the proportion of arriving immigrants and refugees receiving a domestic evaluation will build relationships with collaborators to enhance follow up reporting, contact tracing, and agreement for screening and treatment guidelines. Collaborators include: CDC Division of Tuberculosis Elimination, the Advisory Council for the Elimination of Tuberculosis, National Tuberculosis Controllers Association, STOP TB USA, and state and local health departments performing the domestic evaluations. In FY 2009, CDC met its target of 68 percent of immigrants and refugees with a "Class A or B medical notification for tuberculosis" who underwent medical follow-up after arrival in U.S. by reporting 69.5% TB follow-up. We attribute achievement of this increase in follow-up to: improving reliability of the EDN system by establishing a web-based TB follow-up reporting system; allocating resources to establish a stable workforce in the EDN Data Entry Center; providing timely notifications to health departments; improving functionality of the system made by informatics staff; and conducting one-on-one correspondence with TB coordinators to complete follow-up.

To continue to improve TB follow-up reporting, the Division of Global Migration and Quarantine is collaborating with the Division of Tuberculosis Elimination to evaluate follow-up reporting to EDN and providing specific guidance to health departments.

### **Long-term Objective 3.4, Performance Measure 5**

Maintaining low mortality in imported nonhuman primates (NHPs) means they are healthier when they arrive in the U.S., thus decreasing the likelihood that people will be exposed to/become infected with zoonotic pathogens carried by NHPs. Generally, NHPs are imported for scientific research, education or exhibition. Outbreaks of serious illness can result in the euthanasia of the entire shipment, resulting in an economic loss to the importer and a potential shortage of available animals for research. For example, a shipment of 100 NHPs could be lost to research if mortality were not kept low, resulting in a substantial economic loss to the importer at approximately, \$6,000 per NHP. Additionally, if a researcher purchases 20 animals to add to his 80 that are already on a long-term study and the animals became ill with an infectious disease, he would lose all 100 animals. Importing healthier animals results in less illness and death during the quarantine period and decreases the potential zoonotic disease exposure to people. NHPs can carry diseases of public health concern such as Ebola, shigella, salmonella and tuberculosis.

This measure gauges annual mortality of NHPs in quarantine in U.S. importer facilities by reviewing importer records and conducting site visits to importers. In the late 1980's mortality among imported NHP was around 20 percent and importers were not provided with clear and strict guidance as to the proper shipment and keep of the animals. When DGMQ put out guidance, which continues to be refined, and implemented regular site visits to importers, mortality in imported NHP was reduced to less than one percent. The developed targets are ambitious because to maintain this low mortality rate, registered importers must be in good compliance with CDC regulations. Sites must be visited by CDC staff at least once per year, with all protocols reviewed and violation letters sent, with follow up and monitoring to ensure violators are in compliance with CDC's requirements. A mortality rate of zero is not realistic as animals will die for a variety of reasons that are outside regulatory control. An example of this would be a NHP that died as a result of trauma, stress due to shipment, or environmental factors such as getting overheated or cold.

A programmatic challenge is CDC staffing for regular inspections of each registered importer to assure compliance with our regulations. Inspections are necessary as issues are usually identified that need correction or clarification from the importer to assure that the risk to public health is low. In FY 2010, CDC maintained a rate of less than one percent mortality in imported NHP. To continue to meet future targets, DGMQ will cross-train CDC employees for facilities inspections; review and approve importer protocols on a regular basis; and update CDC nonhuman primate importation regulations to clarify requirements and to address problems that were not addressed in previous guidelines issued by CDC; and



update CDC nonhuman primate importation regulations to clarify requirements and to address problems that were not addressed in previous guidelines issued by CDC.

#### **Long-term Objective 3.4, Performance Measure 6**

Priority one cities have the largest number of passenger volume via commercial aircraft or border crossings and are therefore at increased risk for introduction and spread of infectious diseases. Having a Memorandum of Agreement (MOA) in place allows rapid selection of a referral hospital if and when a passenger with a potentially communicable disease arrives. The MOA process ensures that the hospital has adequate facilities to care for such passengers without endangering the health of other patients or the wider community. CDC has worked with state health departments to identify and enlist appropriate hospitals in high priority cities.

This measure shows how CDC has prepared to provide clinical care for passengers, who enter the U.S. with a potentially quarantinable disease or a disease of public health significance. Specifically, it describes the availability of a hospital in a port city that is capable of providing care to such passengers in a safe manner (e.g., including demonstration of isolation capabilities).

Quarantine system expansion has allowed for growth in partnerships with state and local health departments and hospitals resulting in significant progress to 175 hospital MOAs in priority 1 cities. As a result, MOA coverage for the 20 Quarantine Station locations is 100 percent. In FY 2009, CDC was able to maintain a steady state of 175 hospital MOAs in priority 1 cities while staff spent significant time responding to the 2009-2010 H1N1 pandemic flu. Since 2009, several factors have challenged progress, and the FY 2010 target of 180 hospital MOAs was not met. The economic recession has led to reluctance on the part of hospitals to negotiate new agreements with potentially large financial implications, a high-profile legal payment dispute with a state where a patient with MDR TB was remanded to treatment under CDC authority initially has become widely known, and DGMQ has not aggressively pursued new agreements during this time as policy and payment issues are being addressed.

To work towards meeting future targets, DGMQ has currently completed an analysis of existing MOAs and identified locations where gaps exist and opportunities may be found for targeted expansion. Although DGMQ will resume targeted recruitment of hospitals for MOAs, significant challenges exist to reaching the full FY 2012 goal. Economic uncertainty still exists. The payment dispute with the state has not been resolved. Key regions of the US have been unwilling to participate in the process, and pediatric hospitals are more reluctant to agree than adult care hospitals.

#### **Long-term Objective 3.4, Performance Measure 7**

Each year about 600 million persons cross into the U.S. temporarily or permanently. Each of these entries poses some risk of introduction of communicable disease. CDC's Division of Global Migration and Quarantine (DGMQ) operates quarantine stations at 20 strategically selected ports of entry that cover approximately 85 percent of U.S. bound international travelers. However, DGMQ staff is not present at hundreds of ports and cannot visualize each and every person for signs of illness. DGMQ relies on conveyance operators or medical staff, the U.S. Coast Guard, and especially U.S. Customs and Border Protection (CBP) to be DGMQ's eyes and ears at all U.S. entry points. CBP, for example, conducts passive public health surveillance on every person entering the U.S. based on DGMQ guidance and training, and plays an important role in reporting ill travelers to CDC for public health response. The number of reports received by DGMQ is an indication of DGMQ's success at forming public health partnerships with these other entities. The partnerships reflected in these reports offer the reporting entities better access to DGMQ's expertise on issues that are of direct importance to their staff in the field. The general public benefits by the potential of limiting further disease spread from the affected

individual(s) to others, by being made aware of their potential exposure risk, and by potentially receiving prophylaxis prior to disease onset after being exposed.

This is a direct measurement of the number of illnesses reported to DGMQ. The change in the number of reports is an indirect measure of the intensity of efforts to work directly with partners, whether through training, exercises, the formation of relationships between CDC staff and individuals in the field, or formal written reminders of reporting requirements. Targets developed are ambitious because reaching them will require intense training and educational efforts to reach partners. The targets are ambitious because of the challenge of limited staff to enhance interactions and trainings in ports far from quarantine stations, while at the same time performing routine work at the stations. Additional challenges include competing priorities of partners, high staff turnover at some ports, and a potential disincentive of conveyance operators to report illness on a conveyance.

The primary strategy towards achieving these targets include leveraging state and local public health agencies to train staff of CBP, U.S. Coast Guard, etc. at sites distant from quarantine stations; placing a DGMQ trainer at the CBP Academy at the Federal Law Enforcement Training Center; and developing and providing web-based training modules to be distributed to CBP Officers in the field for refresher training.

In FY 2010 the number of reports dropped from that in FY 2009 because of the reduced influenza activity following the peak of the H1N1 pandemic. However, CDC exceeded its target of 2,500 illnesses reported which took into account estimated increases in reporting due to the H1N1 pandemic. To continue to meet future targets CDC will maintain and enhance close collaboration with partners such as CBP and the maritime industry, but also continue work with the aviation industry through activities such as the Cooperative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel (CAPSCA), a project of the International Civil Aviation Organization.

#### **Long-term Objective 3.4, Efficiency Measure 1**

An overseas medical examination, performed by more than 650 panel physicians worldwide, is required for immigrant visa and refugee status applicants, before migrating to the U.S. New immigrants and refugees arrive in the U.S. each year with this medical examination documentation. For immigrants and refugees arriving with a Class A/B medical condition, such as tuberculosis (TB), DGMQ notifies the local/state health department of their arrival to ensure medical follow up and electronically submit their medical information. This information is stored in the Electronic Disease Notification (EDN) system. The EDN system is replacing an untimely hard-copy mailing system prone to loss of information that used the U.S. postal service. Complete information from the thorough medical screening is entered for all refugees arriving in the U.S. each year, and for immigrants only those records indicating Class A/B conditions are being entered.

The EDN system is reliable, timely and secured to enable health officials to quickly receive information that requires follow up of immigrants and refugees with suspect TB and prevent the spread of infectious diseases. The EDN system has demonstrated improvement in processing time and data quality compared to the old notification method. Prior to EDN, it often took one-two weeks to notify the states from the moment the alien arrived to the U.S. and, at times, even several weeks. Timelier information allows health departments to reach more patients in total and before they may have moved or have become infectious and in turn exposed others. The efficiency measurement model illustrates the anticipated cost savings despite the significant increase of time spent on data entry, scanning and medical review to ensure quality.

In FY 2010, CDC met its goal of goal of decreasing the cost of notifying state health departments of disease conditions in incoming refugees and immigrants by implementing the electronic disease notification (EDN) system, spending approximately \$490,000 to operate the system. However it is not clear if this trend will continue into FY 2011. Cost decreases were projected based on implementation of a paperless visa system by the Department of State which is now delayed into FY 2012. Consequently EDN operation in FY 2011 is projected to be approximately \$760,000.

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**CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION**


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Measure	FY	Target	Result
4.E.1: Number of financial actions (such as project carryover funds requests from grantees and grantee project re-budgeting) that delay the implementation of grantee and partners' activities. ( <i>Efficiency</i> )	2012	371	June 30, 2013
	2011	382	Jun 30, 2012
	2010	394	Jun 30, 2011
	2009	406	550 (Target Not Met)
	2008	419	424 (Target Not Met)
	2007	443	393 (Target Exceeded)

Unique Identifier	Data Source	Data Validation
4.E.1	The Extramural Programs Management Information System (EPMIS), which is an internal system for tracking and managing all types of budget actions.	EPMIS report is run periodically and results authenticated by Division budget leads at monthly meetings with Center budget execution staff.

**Efficiency Measure 4.E.1:**

In FY 2009, 550 financial actions delayed the implementation of grantee and partners activities. This did not meet the target due to a number of factors.

In FY 2009, an increase in these types of financial actions was due to publication of the Collaborative FOA DP09-901. In FY 2009, NCCDPHP published a FOA that incorporated four divisions and awards were made to all 50 states and six territories. This collaborative announcement is generating a significant number of post-award actions because each program request is treated as an individual request. Also, NCCDPHP received 83 Congressional project applications that were processed and require additional post-award actions to be revised before programs can operate. Because these post-award actions take place over an extended period of time, the program established a cutoff date of June 30 of the following year to account for them.

In FY 2010, a significant increase in these types of financial actions was experienced due to the processing of American Reinstatement Recovery Act (ARRA) funding. There were two FOA's published to support these funds (State Supplemental DP09-901ARRA and Communities DP09-912ARRA). State Supplemental DP09-901ARRA incorporated two divisions that allow funding for three components to all 50 states and six territories. Communities DP09-912ARRA awarded 44 applicants that responded to the ARRA FOA. All post award actions for these FOA's are being treated as separate before the programs can begin. Also, NCCDPHP processed supplemental funding to the ARRA awarded grantees which also generated post award actions. In addition to receiving funding for ARRA, NCCDPHP processed 19 new FOA's and 42 earmarks, which will require post-award actions. Also, NCCDPHP received additional funding to support the Affordable Care Act, which generated additional funding requirements to be met. These dollars were used to supplement existing FOA's that had been funded and required additional post-award actions.

Based on continued operation of a Project Officer training course, increased use of Management Information Systems to track these actions, and increased emphasis on technical assistance, the program will continue to take efforts to decrease these budget actions each year.

Approximately 85 percent of CDC's National Center for Chronic Disease Prevention and Health Promotions (NCCDPHP) budget is spent on extramural funding of grantees and cooperative agreement partners, especially state health departments. These grantees and partners utilize funding to conduct interventions that directly impact the health of the nation. Any delay in receipt

of funding results in reduction of the number or duration of the interventions, which, in turn, affects the health impact of our grantees activities. Therefore, improving this measure positively impacts the implementation of public health interventions which lead to positive health outcomes.

**CHRONIC DISEASE PREVENTION**

*Final measures and targets for the new Chronic Disease Prevention and Health Promotion Grant Program will be completed in the FY 2013 President’s Budget request.*

*This program will be created by consolidating the existing budget lines for Nutrition, Physical Activity and Obesity; Health Promotion; Heart Disease and Stroke; School Health, Diabetes; Cancer Prevention and Control; Prevention Centers; and Arthritis and Other Chronic Diseases. The program integrates these former dedicated funding lines because these programs share the common goals of addressing similar risk factors and health behaviors related to chronic disease prevention and health promotion. Consequently, the new Chronic Disease program provides CDC the flexibility to support the development and implementation of coordinated strategies in funded entities to achieve a greater public health impact in addressing the leading causes of death and associated risk factors.*

**LONG-TERM OBJECTIVE 4.1: REDUCE AGE-ADJUSTED MORTALITY DUE TO CHRONIC DISEASE: CANCER, HEART DISEASE AND STROKE**

Measure	FY	Target	Result
4.1.1: Reduce the age-adjusted annual rate of breast cancer mortality per 100,000 female population. <i>(Outcome)</i>	<i>Out-Year Target</i>	21.3 (2015)	Apr 30, 2018
	2007	Trend Data	22.9
	2006	Trend Data	23.5
	2005	Trend Data	24.1
	2004	Trend Data	24.4
	2003	Trend Data	25.3
	1999	Baseline	26.6
4.1.2a: Reduce the age-adjusted annual rate per 100,000 population of: coronary heart disease deaths <i>(Outcome)</i>	<i>Out-Year Target</i>	166 (2015)	Dec 31, 2017
	2012	TBD	TBD
	2007	Trend Data	126
	2006	Trend Data	135
	2000	Baseline	187
4.1.2b: Reduce the age-adjusted annual rate per 100,000 population of: stroke-related deaths <i>(Outcome)</i>	<i>Out-Year Target</i>	50 (2015)	Dec 31, 2017
	2012	TBD	TBD
	2007	Trend Data	42
	2006	Trend Data	44
	2000	Baseline	61

Unique Identifier	Data Source	Data Validation
4.1.1	National Vital Statistics System, NCHS	Data from the NCHS, a nationally recognized public health information source, undergo statistical computation by the Data Analysis Support Team within CDCs Division of Cancer Prevention and Control to prepare measures based on definitions used within the cancer community.
4.1.2a	National Vital Statistics System, NCHS	Data are validated by NCHS.
4.1.2b	National Vital Statistics System, NCHS	Data are validated by NCHS.

**Long-term Objective 4.1, Performance Measure 1**

This is a long-term measure for CDC. Data from 2007 shows an age-adjusted rate of 22.8 breast cancer deaths per 100,000 female population, an improvement from the 2006 rate of 23.4 per 100,000, and a 141 percent relative improvement from the 1999 baseline rate of 26.6 breast cancer deaths per 100,000 women.

CDC’s National Breast and Cervical Cancer Early Detection Program (NBCCEDP) works to reduce breast and cervical cancer deaths by providing access to screening services, increasing breast and cervical cancer awareness and education, and inherently changing health-seeking behaviors in women for whom screening services are not otherwise available or accessible.

The NBCCEDP works with national organizations, state health agencies, and other key groups to develop, implement, and promote effective cancer prevention and control practices. Currently, the NBCCEDP provides support to all 50 states, the District of Columbia, five US territories, and 12 American Indian/Alaska Native tribes or tribal organizations to help low-income, uninsured and underinsured women gain access to breast and cervical cancer screening and diagnostic services. Timely mammography screening among women aged 40 years or older is the best available method to detect breast cancer in its earliest, most treatable stage, and could reduce breast cancer mortality by approximately 16 percent to 30 percent compared to women who are not screened.

**Long-term Objective 4.1, Performance Measure 2a and 2b**

These are long-term measures for CDC. Coronary heart disease (CHD) and stroke death rates have been decreasing steadily since the 1970s and 1900, respectively. Age-adjusted rates for 2007 were 126 per 100,000 population for heart disease deaths, and 42 per 100,000 population for stroke-related deaths. These are improvements from the 2000 baselines of 187 and 61, with the 2007 rates already exceeding the out-year targets for both CHD and stroke-related death rates. These decreases in mortality are driven by the reduced prevalence of risk factors such as smoking, increased control of risk factors such as hypertension, and wider use of effective treatments. Many CDC chronic disease prevention programs have contributed to these mortality declines. In 2011-2012, CDC's priorities for continued mortality reduction include targeting the "ABCS" of heart disease and stroke prevention and control: promoting health provider counseling for appropriate low-dose Aspirin therapy for eligible groups; high Blood pressure prevention and control; high Cholesterol prevention and control, and supporting Smoking cessation. The FY 2012 target will be established during the FY 2013 budget process.

**LONG TERM OBJECTIVE 4.2: REDUCE PREVALENCE OF DISABLING CHRONIC DISEASES: ARTHRITIS and OBESITY**

Measure	FY	Target	Result
4.2.1: Reduce the age-adjusted percentage of adults 18+ with doctor-diagnosed arthritis who engage in no leisure time physical activity.	<i>Out Year Target</i>	27.1% (2020)	January 31, 2021
	2012	TBD	TBD
	2009	Trend Data	30.1%
	2007	Baseline	28.7%
4.2.2a: Reduce the age-adjusted proportion of adults who are obese	<i>Out Year Target</i>	30.6%(2020)	January 31, 2021
	2012	TBD	TBD
	2005-2008	Baseline	34.0%

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
4.2.2b: Reduce the proportion of children and adolescents who are considered obese	<i>Out Year Target</i>	14.6% (2020)	January 31, 2021
	2012	TBD	TBD
	2005-2008	Baseline	16.2%

<b>Unique Identifier</b>	<b>Data Source</b>	<b>Data Validation</b>
4.2.1	Behavioral Risk Factor Surveillance Survey (BRFSS)	BRFSS is a state-based health survey system. This data item is collected every other year in even years as part of the core survey. CDC conducts rigorous quality checks, and verifies performance through periodic site visits.
4.2.2a	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS	Data are validated by NCHS.
4.2.2b	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS	Data are validated by NCHS.

**Long-term Objective 4.2, Performance Measure 1**



This is a new measure for CDC. Prior to the baseline result of 30.1% in 2009, this measure hovered between 28.1% and 29.8% with no consistent trend since 2003. However, at each data point, the percentage of people with arthritis who engage in no physical activity was always about six to eight percentage points higher than for those without arthritis.

The CDC Arthritis Program is working with 12 state arthritis programs and national partners (e.g., Arthritis Foundation) to improve knowledge of appropriate physical activity thru health communication messages and increase participation in proven physical activity programs for people with arthritis. The FY 2012 target will be established during the FY 2013 budget process.

#### **Long-term Objective 4.2, Performance Measure 2a**

This measure assesses efforts to reduce obesity among adults 18 years and older, and corresponds to Healthy People 2020 Nutrition and Weight Status Objective 9. Results for this measure over the past decade have shown increasing rates, from 30.5 percent in 2000 to 34 percent in 2008,

In 2009 CDC released its *Recommended Community Strategies and Measurements to Prevent Obesity in the United States* to provide local governments with possible actionable options, and a means to assess their impact and effect, to address obesity at the local level. CDC monitors obesity trends at the state and local levels, and conducts and supports research on obesity prevention and control strategies (i.e., Prevention Research Centers, National Collaboration on Childhood Obesity Research, Early Assessment Project, and the Healthy Eating Active Living Convergence Partnership). As workplaces offer an important opportunity to improve the health behaviors of adults CDC has developed recommendations, tools and resources such as the LEAN Works! website to support employer efforts to invest in workplace health promotion. The FY 2012 target will be established during the FY 2013 budget process.

#### **Long-term Objective 4.2, Performance Measure 2b**

This measure assesses efforts to reduce the national prevalence of childhood obesity, and corresponds to Healthy People 2020 Nutrition and Weight Status Objective 10. Results for this measure were increasing from 2000 through 2004 to a high of 17.1%, but showed improvement in 2008 with a result of 16.2%.

CDC is making progress in halting the child obesity epidemic through innovative partnerships such as supporting First Lady Michelle Obama's "Let's Move" Campaign in focus areas such as child care and school settings. CDC also established The National Collaborative on Childhood Obesity Research (NCCOR) to improve the efficiency, effectiveness, and application of childhood obesity research and to halt and reverse the current childhood obesity trend. CDC's Early Assessment of Programs and Policies to Prevent Childhood Obesity is identifying promising local programs and policies and determining which ones merit rigorous evaluation. The Communities Putting Prevention to Work and State-based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases support state and local efforts to reduce childhood obesity through policy, system and environmental approaches. Further, CDC has released the Childhood Obesity Research Demonstration funding announcement to support community partners who are working to improve diet quality, increase physical activity and reduce childhood obesity through the development of a multi-level and multi-sectoral intervention that links primary care with public health approaches and promotes behavioral change in conjunction with policy and environmental changes. The FY 2012 target will be established during the FY 2013 budget process.

**HEALTH PROMOTION**

**LONG TERM OBJECTIVE 4.3: IMPROVE QUALITY OF LIFE OUTCOMES BY PROMOTING ENVIRONMENTAL AND POLICY CHANGES RELATED TO NUTRITION, PHYSICAL ACTIVITY AND SURVEILLANCE**

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
4.3.1a: Increase the number of states with policies to improve nutritional quality of competitive foods in schools.*	2012	45	Jan 31, 2013
	2011	42	Jan 31, 2012
	2010	N/A	35
	2009	Baseline	31
4.3.1b: Increase the number of States with nutrition standards for foods and beverages provided to preschool-aged children in child care	<i>Out Year Target</i>	34(2020)	January 31, 2021
	2012	TBD	TBD
	2006	Baseline	24
4.3.1c: Increase the number of states that require children to engage in vigorous- or moderate-intensity physical activity in child care	<i>Out Year Target</i>	13 (2020)	January 31, 2021
	2012	TBD	TBD
	2006	Baseline	3
4.3.2: Increase the proportion of the Nation's public and private elementary/middle/high schools that require daily physical education for all students a: Elementary Schools	<i>Out Year Target</i>	4.2% (2020)	January 31, 2021
	2012	TBD	TBD
	2006	Baseline	3.8%
4.3.2b: Middle and junior high schools	<i>Out Year Target</i>	8.6% (2020)	January 31, 2021
	2012	TBD	TBD
	2006	Baseline	7.9%
4.3.2c: Senior high schools	<i>Out Year Target</i>	2.3% (2020)	January 31, 2021
	2012	TBD	TBD
	2006	Baseline	2.1%
4.3.3: Increase the number of CDC-funded central, population-based registries that capture case information on at least 95 percent of the expected number of reportable cancers	<i>Out Year Target</i>	46 (2020)	July 31, 2021
	2012	41	July 31, 2013
	2006	Baseline	34

Measure	FY	Target	Result
4.3.4 Increase the proportion of infants who are breastfed at six months.	<i>Out Year Target</i>	60.6% (2020)	January 31, 2021
	2006	Baseline	43.5%

\*Also included in HHS 2010-2015 Strategic Plan

Unique Identifier	Data Source	Data Validation
4.3.1a	National Association of State Boards of Education's School Health Policies Database	CDC Division of Adolescent and School Health will work with NASBE to verify the data.
4.3.1b-c	National Resource Center for Health and Safety in Child Care and Early Education (NRCKIDS), and child care licensing websites from each State government and the District of Columbia	CDC's Division of Nutrition, Physical Activity and Obesity, and Division of Adolescent and School Health work with the NRCKIDS to verify the data.
4.3.2	School Health Policies and Programs Study (SHPPS), CDC, NCCDPHP	CDC's Division of Adolescent and School Health works with State departments of education, school districts, and individual schools to validate the data.
4.3.3	National Program of Cancer Registries (NPCR), CDC	CDC's central cancer registries submit data annually. These data undergo rigorous evaluation for completeness, timeliness and quality.
4.3.4a	National Immunization Survey, CDC/NCIRD and NCHS	Data are validated by NCHS

### Long-term Objective 4.3, Performance Measure 1a

In 2010, 35 states had policies to improve nutritional quality of competitive foods in schools. This is an improvement over the 2009 baseline of 31 states. The 2009 baseline has been adjusted after further analysis revealed four additional states had policies that exceeded the minimum federal regulation for Foods of Minimal Nutritional Value (a subcategory of competitive foods). FY 2011 and 2012 targets have been adjusted, accordingly

Healthy eating plays a powerful role in preventing chronic diseases. Poor diet among young people can lead to an increased risk for some chronic health conditions, including high blood pressure, type 2 diabetes, and obesity. In 2007-2008, 19.6 percent of 6 to 11 year olds and 18.1 percent of 12-19 year olds were obese, percentages that have tripled in the last 30 years. The school environment is a key setting for influencing children and adolescent's food and beverage choices as well as eating habits. Research shows that students who attend schools that sell competitive foods have lower intake of fruits, and vegetables, and milk at lunch, lower daily intake of fruits and vegetables, and higher daily percent of calories from total fat and saturated fat.

CDC strategies for this performance measure focus on school health programs, which play a unique and important role in the lives of young people by improving their health knowledge, attitude and skills, health behaviors and outcomes, educational outcomes, and social outcomes. CDC emphasizes a coordinated approach to school health, which focuses on strengthening the health infrastructure of state education agencies to address physical activity, nutrition, obesity, asthma, HIV/AIDS, STDs, and teen pregnancy prevention by building the capacity of funded partners to support science-based, cost-effective health programming. In the long-term, strategies

for increasing the number of states that have policies to improve nutritional quality of competitive foods in schools include:

- Funding 22 state education and health agencies that don't currently meet nutritional standards to help school districts implement Coordinated School Health, which includes a major focus on policies, programs, and practices to improve the school nutrition environment and youth dietary behaviors.
- Collecting data on activities implemented by 22 funded CSHP states to promote healthy school nutrition environments.
- Providing targeted multi-state professional development events on policy and environmental change strategies related to healthy school nutrition environments.
- Organizing coalition of federal agencies and NGOs to collaborate on promotion of strong state school nutrition policies.
- Developing and disseminating additional tools to help schools remove junk foods and sugar sweetened beverages.

#### **Long-term Objective 4.3, Performance Measure 1b**

This measure assesses efforts to improve the dietary quality of preschool aged children as one strategy to prevent childhood obesity, and corresponds to Healthy People 2020 Nutrition and Weight Status Objective 1. This is a new measure for both the Chronic Disease program as well as for Healthy People 2020; there is no previous trend data prior to the 2006 baseline of 24. The FY 2012 target will be established during the FY 2013 budget process.

Through the CDC State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases, and the Communities Putting Prevention to Work State and Territorial Initiative, thirty-four states are targeting nutrition, physical activity, screen time and/or breastfeeding in child care settings. Through this program, states are implementing initiatives to establish policies and practices that improve food and beverage offerings in licensed child care centers. In the past year, CDC has intensified its technical assistance and training efforts around child care initiatives, including initiating a child care focused monthly TA and peer sharing call for states and communities. CDC also collaboratively works with USDA to assist states in adopting CACFP standards in their applicable regulations.

#### **Long-term Objective 4.3. Performance Measure 1c**

This measure assesses efforts to increase opportunities for physical activity for preschool aged children as one strategy to prevent childhood obesity, and corresponds to Healthy People 2020 Physical Activity Objective 9. This is a new measure for both the Chronic Disease program as well as for Healthy People 2020; there is no previous trend data prior to the 2006 baseline of three. The FY 2012 target will be established during the FY 2013 budget process.

CDC considers childcare an important setting to focus efforts to prevent childhood obesity. Through the CDC State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases, and the Communities Putting Prevention to Work State and Territorial Initiative, thirty-four states are targeting nutrition, physical activity, screen time and/or breastfeeding in child care settings. The CDC State Action Guide Project comprehensively considers the full spectrum of opportunities that states have at their disposal to make a difference in children's health outcomes through the child care setting.

In the past year CDC has intensified its technical assistance and training efforts around child care initiatives, including initiating a child care focused monthly TA and peer sharing call for states and communities.

### **Long-term Objective 4.3, Performance Measure 2a-c**

In 2006, only 3.8% of elementary schools, 7.9% of middle schools, and 2.1% of high schools provided daily physical education. For elementary and high schools, this is a great decrease from 2000 results (8.0% and 5.8% respectively). For middle schools, this is a slight increase from the 2000 level of 6.4% of schools. FY 2012 targets will be established during the FY 2013 budget process.

CDC strategies for this performance measure focuses on school health programs, which play a unique and important role in the lives of young people by improving their health knowledge, attitude and skills, health behaviors and outcomes, educational outcomes, and social outcomes. CDC emphasizes a coordinated approach to school health, which focuses on strengthening the health infrastructure of state education agencies to address physical activity, nutrition, obesity, asthma, HIV/AIDS, STDs, and teen pregnancy prevention by building the capacity of funded partners to support science-based, cost-effective health programming. In the long-term, strategies for increasing the number of schools that require daily physical education for all students include:

- Funding 22 state education and health agencies to help school districts implement Coordinated School Health, which includes a major focus on policies, programs, and practices to promote the prevention of health-risk behaviors, including daily physical education and physical activity before, during and after school and to establish health-promoting environments that support physical activity.
- Collecting data on activities implemented by 22 funded CSHP states to promote daily physical education and physical activity.
- Providing targeted multi-state professional development events on policy and environmental change strategies.
- Applying research findings to develop guidelines for addressing priority health risk behaviors among students and developing tools such as the School Health Index: A Self-Assessment and Planning Guide; Fit, Healthy and Ready to Learn: A School Health Policy Guide; and the Physical Education Curriculum Analysis Tool to help schools implement these guidelines.

### **Long-term Objective 4.3, Performance Measure 3**

This is an annual measure that reflects the most recent year of data reported to the National Program of Cancer Registries (NPCR). In FY 2006, the baseline year, evaluation of the data showed 34 of the 46 CDC funded registries met or exceeded CDC's program standard of 95% completeness of cancer case ascertainment. Of the 12 registries not meeting the 95% completeness standard, 11 did meet the 90% completeness standard which is required for inclusion in the *United States Cancer Statistics* (USCS), the *official publication of federal government cancer statistics*. The FY target is 41.

Through CDC's cancer surveillance program, data on approximately 1.2 million new invasive cancer cases are submitted annually. The longitudinal cancer surveillance data set includes approximately 18.2 million invasive cancer cases. These data are used at the local and national

level to identify populations at increased risk for cancer diagnosis, late-stage diagnosis, or less-than-optimal care by race/ethnicity, age, geographic location, and access to care factors. This information is used by comprehensive control programs and other public health organizations to target interventions, as well as to evaluate ongoing activities. In addition, data gained from cancer registries guide the efforts of clinicians, legislatures, and researchers to increase primary and secondary prevention activities, to implement successful interventions, to improve treatment protocols, or to adopt changes in public policy.

The importance of high-quality, complete, and timely population-based central cancer registry surveillance data are essential to making correct conclusions about the cancer burden in the population and the effectiveness of prevention and screening interventions.

Programmatic challenges faced by funded partners in meeting the completeness standard include limited funding, shortages of qualified cancer registry staff, the expanded scope of medical information necessary to be collected, and the increasing pattern of patients moving between states for diagnosis and treatment for their cancers. All of these factors impact the registry's ability to perform complete case ascertainment.

**Long-term Objective 4.3, Performance Measure 4**

This is a long term measure for CDC. It assesses efforts to improve the health of mothers and their children through approaches that protect, promote, and support breastfeeding through the first six months of life. It corresponds to Healthy People 2020 Maternal, Infant and Child Health Objective 21.2. Results for this measure have been steadily increasing since 2002 (37.6%) to 2006 (43.5%).

Increased breastfeeding is a major program area of the CDC's State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases. CDC has made numerous resources available to help programs address breastfeeding, including the CDC Guide to Breastfeeding Interventions, the annual Breastfeeding State Report Card, and the CDC Maternity Practices in Infant Care (mPINC) survey and benchmark reports.

**LONG TERM OBJECTIVE 4.4: IMPROVE QUALITY OF LIFE OUTCOMES BY PROMOTING ENVIRONMENTAL AND POLICY CHANGES FOR CLINICAL PREVENTIVE SERVICES RELATED TO CHRONIC DISEASE PREVENTION, EARLY DETECTION AND MANAGEMENT**

Measure	FY	Target	Result
4.4.1a: Increase the age-appropriate screening prevalence of women who receive a breast cancer screening based on the most recent guidelines	<i>Out Year Target</i>	85% (2020)	February 28, 2022
	2012	82%	February 28, 2014
	2008	Trend Data	81.1%
	2006	Baseline	81.5%
4.4.1b: Increase the age-appropriate screening prevalence of women who receive a cervical cancer screening based on the most recent guidelines	<i>Out Year Target</i>	91%(2020)	January 31, 2021
	2012	TBD	TBD
	2008	Trend Data	87.5%
	2006	Baseline	88.0%

Measure	FY	Target	Result
4.4.1c: Increase the age-appropriate screening prevalence of adults who receive a colorectal cancer screening based on the most recent guidelines	<i>Out Year Target</i>	83% (2020)	January 31, 2021
	2012	66%	January 31, 2013
	2008	Trend Data	62.9%
	2006	Baseline	59.3%
4.4.2: Increase the proportion of adults with diabetes who have a glycosylated hemoglobin measurement at least twice a year	2012	75%	Dec 31, 2013
	2011	75%	Dec 31, 2012
	2010	75%	Dec 31, 2011
	2009	74%	69.2% (Target Not Met but Improved)
	2008	73%	68.5% (Target Not Met)
	2007	72%	69.6% (Target Not Met but Improved)
	2006	N/A	68.0%
4.4.3a: Increase the proportion of adults who have had their blood pressure measured within the preceding 2 years and can state whether their blood pressure was normal or high	<i>Out Year Target</i>	94.9% (2020)	January 31, 2021
	2012	TBD	TBD
	2008	Baseline	92.9%
4.4.3b: Increase the proportion of adults who have had their blood cholesterol checked within the preceding 5 years	<i>Out Year Target</i>	82.1% (2020)	January 31, 2021
	2012	TBD	TBD
	2008	Baseline	74.6%

Unique Identifier	Data Source	Data Validation
4.4.1a	Behavioral Risk Factor Surveillance System (BRFSS)	BRFSS is a state-based health survey system. This data item is collected every other year in even years as part of the core survey. CDC conducts rigorous quality checks, and verifies performance through periodic site visits.
4.4.1b	Behavioral Risk Factor Surveillance System (BRFSS)	BRFSS is a state-based health survey system. This data item is collected every other year in even years as part of the core survey. CDC conducts rigorous quality checks, and verifies performance through periodic site visits.
4.4.1c	Behavioral Risk Factor Surveillance System (BRFSS)	BRFSS is a state-based health survey system. This data item is collected every other year in even years as part of the core survey. CDC conducts rigorous quality checks, and verifies performance through periodic site visits.
4.4.2	Behavioral Risk Factor Surveillance System (BRFSS)	BRFSS is a state-based health survey system. Data are submitted to CDC on a monthly basis, where the data undergo rigorous quality checks. CDC also

Unique Identifier	Data Source	Data Validation
		verifies performance through quarterly state reports and periodic site visits.
4.4.3a	National Health Interview Survey (NHIS), CDC, NCHS	NHIS is a nationally-representative survey developed by CDC's National Center for Health Statistics, with data collected by the Bureau of the Census. Data are validated by NCHS.
4.4.3b	National Health Interview Survey (NHIS), CDC, NCHS	NHIS is a nationally-representative survey developed by CDC's National Center for Health Statistics, with data collected by the Bureau of the Census. Data are validated by NCHS.

**Long-term Objective 4.4, Performance Measure 1a**

In FY 2008, the age appropriate breast cancer screening prevalence among women aged 50-74 was 81.1%. The 2008 rate is essentially level with the 2006 prevalence rate of 81.5% (this is not considered a statistically significant difference). The FY 2012 target is 82%.

CDC's National Breast and Cervical Cancer Early Detection Program (NBCCEDP) focuses its efforts on reaching those women who are most likely to need assistance with gaining access to, and affording screening services. In FY 2009, the most recent year for which data is reported, the NBCCEDP screened 324,912 women for breast cancer with mammography, and detected 4,635 breast cancers. The national screening program has contributed to the notable decline, in recent years, in breast and cervical cancer deaths by providing access to screening services, increasing breast and cervical cancer awareness and education, and inherently changing health-seeking behaviors in women for whom screening services are not otherwise available or accessible.

There are two factors that particularly impact the NBCCEDP currently and into the foreseeable future. First, the economic recession in the US has resulted in the loss of many jobs and employer-provided health insurance. Additionally, in some states that are suffering from serious budget deficits, state appropriated funding to support breast cancer screening has been reduced or eliminated. This has resulted in an increased demand for cancer screening through the NBCCEDP at a time when resources are shrinking. Second, planning for full implementation of the Affordable Care Act (ACA) has been dynamic and much remains to be defined. Of note, the ACA requires coverage for USPSTF recommended cancer screening (for breast, cervical, and colorectal cancer) in new private health plans and insurance offered in state exchanges beginning in 2014; however, only a financial incentive is offered to the State Medicaid Expansion Programs to cover these preventive services without cost sharing. Expanded Medicaid Programs will be a future source of health care for many who are currently uninsured; thus, access to cancer screening in some states is uncertain. The CDC is examining the roles and opportunities offered by the ACA for the NBCCEDP to maximize high quality cancer screening in the US population, especially among the newly insured.

Timely mammography screening among women aged 40 years or older is the best available method to detect breast cancer in its earliest, most treatable stage, and could reduce breast cancer mortality by approximately 16 percent to 30 percent compared with women who are not screened

**Long-term Objective 4.4, Performance Measure 1b**

In FY 2008, the age appropriate cervical cancer screening prevalence among women aged 21-65 was 87.5%. The 2008 rate is essentially level with the 2006 prevalence rate of 87.9 % (this is not



considered a statistically significant difference). The FY 2012 target will be established during the FY 2013 budget process.

Cervical cancer is highly preventable if precancerous changes are identified and it is highly treatable if cancer is detected early. One way to prevent cervical cancer is screening to find precancers before they turn into invasive cancer. The Pap test is the most common way to do this. Regular Pap tests decreases a woman's risk of cervical cancer by detecting precancerous cervical lesions, which can be treated effectively. Most invasive cervical cancers are found in women who have not had regular Pap tests.

CDC's National Breast and Cervical Cancer Early Detection Program (NBCCEDP) focuses its efforts on reaching those women who are most likely to need assistance with gaining access to, and affording screening services. In FY 2009, the most recent year of data reported, the NBCCEDP screened 320,627 women for cervical cancer using the Pap test, and found 4,694 cervical cancers and high-grade precancerous cervical lesions. According to the Annual Report to the Nation on the State of Cancer in the US, incidence rates of invasive cervical cancer have declined since 1975, with an average 3.7 percent decline each year since 1996. This decline has occurred in all racial and ethnic groups, including white, black, Asian and Pacific Islander, and Hispanic women.

#### **Long-term Objective 4.4, Performance Measure 1c**

In FY 2008, the age appropriate colorectal cancer screening prevalence among adults aged 50 - 75 was 62.9%, which is an increase above the 2006 prevalence of 59.3%.

Colorectal cancer is the second leading cause of cancer death in the U.S. Colorectal cancer screening tests can detect early stage cancers which can be treated more effectively and at a lesser cost. Some screening tests also enable primary prevention by identifying and removing precancerous polyps. If all precancerous polyps were identified and removed before becoming cancerous, estimates show the number of new colorectal cancer cases could be reduced by 76 - 90 percent and deaths could be reduced by 70 - 90 percent.

In FY 2010, CDC's Colorectal Cancer Screening Program (CRCCP) funded 25 states and four tribal organizations to implement cancer screening programs using a population-based public health approach. Funded sites are able use up to one-third of funds to provide no-cost screening services to eligible men and women between 50 and 64 years of age who are low income, underinsured, or uninsured. Grantees are using two-thirds of funding to focus on promising and evidence-based policy, media and systems strategies to achieve population screening in all persons 50 and older. The FY 2012 target is 66%. The long-term goal of the program is to increase screening rates 83% by 2020.

#### **Long-term Objective 4.4, Performance Measure 2**

The baseline for this measure is 68.0 percent in 2006. The trend data from the Behavioral Risk Factor Surveillance System estimates a 0.7 percent increase from 2008 (68.5%) to 2009 (69.2%). During the FY 2013 budget process, CDC would like to adjust targets for this measure 4.4.2 to be consistent with Healthy People 2020 interagency decisions about achievable public health objectives. When the interagency expert workgroup was convened during the developmental phase of HP2020, it decided that improving performance a full percentage point per year was not an attainable goal. Improvement at this rate is unattainable because the population with diabetes is aging, the number of people with diabetes continues to increase, and persons with diabetes are living longer. Therefore, even if the overall number of persons getting these tests increases, the proportion of the population needing them is also increasing.

CDC's Division of Diabetes Translation (DDT) works to eliminate the preventable burden of diabetes through leadership, research, programs, and policies that translate science into practice. DDT's activities are based on the prevailing science for diabetes prevention and control which demonstrates that many of the serious diabetes-related complications, including ESRD, may be prevented. Based on this science, a top priority for the state diabetes prevention and control programs is to strive to improve A1c, blood pressure, and lipid control through their various programmatic efforts with partners. In addition, the objective of increasing the percentage of people with diabetes receiving two or more A1c tests in one year has been retained for Healthy People 2020. As these efforts have an impact in increasing the rate of A1c measurement, the targets for this performance measure may be revisited and modified.

#### **Long-term Objective 4.4, Performance Measure 3a**

The relationship between blood pressure and the risk of cardiovascular disease events is consistent and independent of other factors. The higher the blood pressure, the greater are the chances of heart attack, heart failure, stroke, and kidney disease. Controlling high blood pressure is very important, as a 12 to 13 point drop in high blood pressure can reduce cardiovascular disease deaths by 25 percent. The first step toward achieving broad blood pressure control is comprehensively screening for hypertension (high blood pressure) across the population. Measuring blood pressure is fairly easy to do, and the latest (2007-2008) data indicate that almost 93% of adult Americans had their blood pressure checked within the previous two years. However, there is still room for improvement, and hypertension screening is frequently not well integrated into systems of care. The FY 2012 target will be established during the FY 2013 budget process.

CDC continues to fund states and communities to provide incentives for better hypertension screening and follow-up. In 2011-2012, CDC will be working to institute the recommendations of the Institute of Medicine report on reducing hypertension in the population; these recommendations include opportunities for improving screening.

#### **Long-term Objective 4.4, Performance Measure 3b**

Lowering blood cholesterol can reduce the risk for developing heart disease, including heart attacks, and, among those with heart disease, reduce the need for heart bypass surgery or angioplasty. But many in the U.S. have never had their cholesterol checked, so they don't know if they are at risk. Screening for high cholesterol has steadily improved over the years, and roughly 75% of all adults in 2007-2008 had had their blood cholesterol levels checked in the previous five years. However, this still means that a full one in four adults did not have their cholesterol checked, and this inconsistent screening across the population has contributed to poor cholesterol control. It is estimated that only in three adults with high cholesterol have it under control it. The FY 2012 target will be established during the FY 2013 budget process.

In 2011-2012, CDC will continue to fund state and partner organizations to prevent and control high cholesterol. The February 2011 release of a CDC "Vital Signs" publication highlighting the high burden of cholesterol in this country will increase clinical and community focus on cholesterol screening and control, as will continued CDC promotion of the "ABCS" of clinical prevention (aspirin therapy, blood pressure control, cholesterol control, and smoking cessation).

**LONG TERM OBJECTIVE 4.5: PROMOTE EDUCATION AND MANAGEMENT SKILLS FOR THOSE DIAGNOSED WITH OR AT RISK FOR CHRONIC DISEASES**

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
4.5.1a: Increase the contribution of fruits to the diets of the population aged 2 years and older (cup equivalents per 1,000 calories)	<i>Out Year Target</i>	0.9(2020)	January 31, 2021
	2012	TBD	TBD
	2001-2004	Baseline	0.5
4.5.1b: Increase the variety and contribution of vegetables to the diets of the population aged 2 years and older (cup equivalents per 1,000 calories)	<i>Out Year Target</i>	1.1(2020)	January 31, 2021
	2012	TBD	TBD
	2001-2004	Baseline	0.8
4.5.1c: Reduce the age-adjusted percentage of adults age 18+ who engage in no leisure-time physical activity. (Outcome)	<i>Out-Year Target</i>	21.5% (2014)	Jun 30, 2016
	2007	Trend data	24.1%
	2004	Baseline	24.4%
4.5.2a: Increase the proportion of persons with diagnosed diabetes who receive formal diabetes education	2012	62.5% (2020)	June 30, 2022
	2012	TBD	June 30, 2014
	2009	Trend Data	55.7%
	2008	Trend Data	56.3%
	2007	Baseline	57.7%
4.5.2b.i Increase the proportion of persons at high risk for diabetes with pre-diabetes who report increasing their levels of physical activity	<i>Out-Year Target</i>	49.1% (2020)	January 31, 2021
	2012	TBD	TBD
	2005-2008	Baseline	44.6%
4.5.2b.ii Increase the proportion of persons at high risk for diabetes with pre-diabetes who report trying to lose weight	<i>Out-Year Target</i>	55.0% (2020)	January 31, 2021
	2012	TBD	TBD
	2005-2008	Baseline	50.0%
4.5.2b.iii Increase the proportion of persons at high risk for diabetes with pre-diabetes who report reducing the amount of fat or calories in their diet	<i>Out-Year Target</i>	53.4% (2020)	January 31, 2021
	2012	TBD	TBD
	2005-2008	Baseline	48.5%
4.5.3a: Increase the age-adjusted proportion of persons age 18+ with high blood pressure who have it controlled (<140/90). (Outcome)	2012	59%	Dec 31, 2014
	2010	59%	Dec 31, 2012
	2008	50%	48.4% (Target Not Met)
	2006	41%	44% (Target Exceeded)
4.5.3b: Maintain the age-	2012	17%	Dec 31, 2014

Measure	FY	Target	Result
adjusted proportion of persons age 20+ with high total cholesterol (>=240mg/dL) at no higher than its current rate. <i>(Outcome)</i>	2010	17%	Dec 31, 2012
	2008	17%	15% (Target Exceeded)
	2006	17%	16% (Target Exceeded)
4.5.3c: Reduce consumption of sodium in the population aged 2 years and older (milligrams per day)	Out-Year Target	2,300 (2020)	January 31, 2021
	2012	TBD	TBD
	2003-2006	Baseline	3,641
4.5.4a: Decrease the proportion of adults 18 and over with diagnosed diabetes and high blood pressure.	Out Year Target	48 % (2015)	June 30, 2016
	2012	50	June 30, 2014
	2007	Baseline	56%
4.5.4b: Reduce the proportion of the diabetic population with an A1c value greater than 9 percent.	Out Year Target	14.6% (2020)	June 30, 2022
	2012	TBD	June 30, 2014
	2008	Baseline	16.2 %

Unique Identifier	Data Source	Data Validation
4.5.1a	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS and USDA, ARS	Data are validated by NCHS.
4.5.1b	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS and USDA, ARS	Data are validated by NCHS.
4.5.1c	Behavioral Risk Factor Surveillance System (BRFSS)	BRFSS is a state-based health survey system. Data are submitted to CDC on a monthly basis, where the data undergo rigorous data quality checks. CDC also verifies performance through quarterly state reports and periodic site visits.
4.5.2a	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP	BRFSS is a state-based health survey system. Data are submitted to CDC on a monthly basis, where the data undergo rigorous quality checks. CDC also verifies performance through quarterly state reports and periodic site visits.
4.5.2b	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS	Data are validated by NCHS.
4.5.3a-b	National Health and Nutrition Examination Survey (NHANES) - biennial	Data are validated by NCHS.
4.5.3c	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS and USDA, ARS	Data are validated by NCHS
4.5.4a	Behavioral Risk Factor Surveillance System	BRFSS is a state-based health survey system. Data are submitted to CDC on a monthly basis, where the data undergo rigorous quality checks. CDC also verifies performance through quarterly

Unique Identifier	Data Source	Data Validation
		state reports and periodic site visits.
4.5.4b	National Health and Nutrition and Examination Survey	Data are validated by NCHS.

**Long-term Objective 4.5, Performance Measure 1a**

This measure focuses on improving dietary quality for all Americans. It corresponds to Healthy People 2020 Nutrition and Weight Status Objective 14. This is a new measure for CDC as well as for Healthy People 2020; there is no trend data prior to the 2004 baseline of .5. The FY 2012 target will be established during the FY 2013 budget process.

CDC promotes increased fruit consumption through a variety of nutrition-related campaigns and programs such as serving as the scientific advisor to the Fruits and Veggies – More Matters campaign; engaging in efforts to effect the First Lady’s Salad Bar in Every School initiative; investing in efforts to improve access to retail venues that sell a wide variety of fruits and vegetables.

CDC also assesses data and provides technical assistance to states and communities on how to increase the availability and affordability of healthier food options through its funded state programs (e.g., CDC’s State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases, Communities Putting Prevention to Work State and Territorial Initiative), the State Indicator Report on Fruits and Vegetables, and the CDC Recommended Community Strategies and Measurements to Prevent and Control Obesity in the United States.

**Long-term Objective 4.5, Performance Measure 1b**

This measure focuses on improving dietary quality for all Americans, and corresponds to Healthy People 2020 Nutrition and Weight Status Objective 15.1. This is a new measure for CDC as well as for Healthy People 2020; there is no trend data prior to the 2004 baseline of .8. The FY 2012 target will be established during the FY 2013 budget process.

CDC promotes increased vegetable consumption through a variety of nutrition-related campaigns and programs such as serving as the scientific advisor to the Fruits and Veggies – More Matters campaign, engaging in efforts to implement the First Lady’s Salad Bar in Every School initiative, and investing in efforts to improve access to retail venues that sell a wide variety of fruits and vegetables.

CDC also analyzes data and provides technical assistance to states and communities on how to increase the availability and affordability of healthier food options through its funded state programs (e.g., CDC’s State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases, Communities Putting Prevention to Work State and Territorial Initiative), the State Indicator Report on Fruits and Vegetables (2009), and the CDC Recommended Community Strategies and Measurements to Prevent and Control Obesity in the United States.

**Long-term Objective 4.5, Performance Measure 1c**

This is a long-term measure for CDC. In FY 2004, the baseline year, CDC reported that 24.36 percent of adults age 18+ engage in no leisure-time physical activity. In the ten years prior to the

baseline, there was an absolute decline from 29 to 24 percent. The rate of decrease is expected to lessen over the next ten years. In FY 2007, the rate declined only slightly, to 24.06 percent.

There are challenges in accomplishing this goal, such as the complexity of issues related to physical activity practices at the individual level without substantial policy, system, or environmental supports. Furthermore, CDC's ability to influence the desired changes is in competition with factors from other sectors of society.

The national Nutrition, Physical Activity and Obesity Program (NPAO) supports state efforts to work with communities to develop, implement, and evaluate strategies that address behaviors related to the following six principal target areas:

- Increase physical activity
- Increase consumption of fruits and vegetables
- Decrease the consumption of sugar-sweetened beverages
- Reduce the consumption of high-energy-dense foods
- Increase breastfeeding initiation and duration
- Decrease television viewing

The program objectives will be accomplished by promoting and assisting states with the following strategies to address the target area of increased physical activity:

- Community-wide campaigns
- Point-of-decision prompts for stairwells
- Individually adapted health behavior change programs
- Enhanced physical education in schools
- Social support in community settings
- Create or enhance access to places for physical activity combined with information outreach activities
- Street-scale urban design and land-use policies and practices
- Community-scale urban design and land-use policies and practices
- Safe routes to school

The program will accomplish its impact objectives through increases in the number of strategies implemented and evaluated in funded states. Policy promotion and environmental changes are of strategic importance because of the power that these approaches have in creating healthy environments and norms so individuals can adopt healthy behaviors.

Major causes of morbidity and mortality in the U.S. are related to physical inactivity and poor diet. In particular, CVD, type two diabetes, hypertension, and certain cancers are linked to poor diet and a sedentary lifestyle.

#### **Long-term Objective 4.5, Performance Measure 2a**

In FY 2009, CDC reported 55.7 percent of adults aged 18 years and older with diagnosed diabetes reported they ever received formal diabetes education. The age-adjusted percentage of adults aged 18 years or older with diagnosed diabetes ever attending a diabetes self-management class

has not had a consistent trend in the last decade; the low was 51.4% in 2000 and the rate was as high as 57.7% in 2007. The FY 2012 target will be established during the FY 2013 budget process.

CDC funded activities focus on increasing the proportion of persons with diagnosed diabetes who receive formal diabetes education and will be accomplished by continuing to fund 6 organizations under the National Program to Eliminate Diabetes-Related Disparities in Vulnerable Populations. Funded in FY 2010, this 5-year cooperative agreement will mobilize communities and assist them to effectively plan, develop, implement and evaluate community-based interventions to reduce risk factors that influence the disproportionate burden of diabetes in vulnerable populations borne by many communities in regions across the country.

CDC will also continue to fund 17 tribes and tribal organizations through the Native Diabetes Wellness Program and work with community and national partners to eliminate the gaps in health equity for disparately affected populations.

**Long-term Objective 4.5, Performance Measure 2b. i-iii**

Between 2005-2008, less than fifty percent of persons at high risk for diabetes on average were engaged in prevention behaviors such as weight loss (50%), physical activity (44.6%) and eating a healthy diet (48.5%). This measure is a new measure for both the Chronic Disease program as well as for Healthy People 2020; there is no previous trend data prior to the 2008 baselines. FY 2012 targets will be established during the FY 2013 budget process.

CDC is applying lessons learned from prevention studies, and working with partners to establish and assure quality of a community-based lifestyle program aimed at people at high risk for this disease.

**Long-term Objective 4.5, Performance Measure 3a**

In 2008, 48.4 percent of adults age 18+ with high blood pressure had it controlled. This was an improvement over 2006, but did not meet the target for that year. Data for this measure have been collected since 1960-62. Since this became a performance measure for CDC, rates increased from the baseline of 32 percent in 2002 to 48.4 percent in 2008. However, this indicates that the majority of persons with high blood pressure still did not have it under control by 2008.

The relationship between blood pressure and the risk of cardiovascular disease (CVD) events is consistent and independent of other factors. The higher the blood pressure, the greater are the chances of heart attack, heart failure, stroke, and kidney disease. Controlling high blood pressure is very important, as a 12 to 13 point drop in high blood pressure can reduce cardiovascular disease deaths by 25 percent. Factors contributing to improved hypertension control include broader public health efforts, lifestyle modifications, and improved diagnosis and care. More directed public health activities should improve control even further. CDC continues to fund states and communities for hypertension control activities such as working with employers, insurers, and healthcare providers to provide incentives for better hypertension screening and follow-up. In 2011-2012, CDC will be working to institute the recommendations of the Institute of Medicine report on reducing hypertension in the population. The FY 2012 target is 59%.

Sodium (salt) content of the American diet far exceeds recommended limits and contributes very substantially to the national burden, disparities, and costs of high blood pressure. High sodium

dietary intake also makes hypertension control more difficult. For this reason, CDC is also engaging in a range of sodium reduction activities. In 2011 – 2012, CDC will continue to fund communities to promote and sustain policy and environmental change efforts to reduce sodium. CDC will also continue working to implement the recommendations of the recently-released, CDC-sponsored Institute of Medicine report on reducing sodium intake, as well as improve the monitoring of sodium intake across the U.S. population.

#### **Long-term Objective 4.5, Performance Measure 3b**

Since the baseline for this measure, the proportion of adults with serum total cholesterol levels of 240 mg/dL or greater was established at 17 percent (actually 17.3 percent) for the period 1999-2002, the rate for 2003-2004 rose slightly to 17.6 percent, (which rounds to 18 percent) and then dropped to 15 percent in 2007-2008.

While encouraged by the recent slight decline, which exceeds the target of 17 percent, over the next several years the prevalence of high cholesterol is in danger of increasing because of the obesity epidemic. Approximately 38 million American adults have total blood cholesterol levels of 240 mg/dL or higher, which is considered high risk. Lowering cholesterol can reduce the risk for developing heart disease, including heart attacks, and, among those with heart disease, reduce the need for heart bypass surgery or angioplasty. Recent studies show that high levels of LDL (low-density lipoprotein) cholesterol and triglycerides increase the risk of stroke in people with previous coronary heart disease, ischemic stroke or transient ischemic attacks. Low levels of HDL (high-density lipoprotein) cholesterol may also raise stroke risk.

In 2011-2012, CDC will continue to fund state and partner organizations to prevent and control high cholesterol to achieve the FY 2012 target of 17% (or better). There will be an increased focus on using policy and systems change to better integrate cholesterol prevention and control into wellness programs and primary care.

#### **Long-term Objective 4.5, Performance Measure 3c**

The average daily dietary sodium intake for Americans age 2 years and older was 3,641 mg per day in 2003-2006 (excluding some sources of sodium such as supplements), a level of intake which does not appear to have changed much over the years. This average sodium (salt) content of the American diet far exceeds recommended limits and contributes very substantially to the national burden, disparities, and costs of high blood pressure. Recent data show that reducing average population sodium intake to 2300 mg per day (the current recommended maximum) may reduce cases of hypertension by 11 million, save \$18 billion in health care dollars, and gain 312,000 Quality Adjusted Life Years (QALYs). Reducing average population sodium intake even lower to 1500 mg per day (the recommended maximum level for “specific populations” described in the Dietary Guidelines for Americans and estimated to be about 50% of the total U.S. population) may reduce cases of hypertension by 16 million, save \$26 billion in health care dollars, and gain 459,000 QALYs.

Congress has directed CDC to address this problem, work with food manufacturers and chain restaurants to reduce the sodium content of their products, and report to Congress annually on progress made. In 2011 – 2012, CDC will continue to fund communities to promote and sustain policy and environmental change efforts to reduce sodium. CDC will also continue working to implement the recommendations of the recently-released, CDC-sponsored Institute of Medicine



report on reducing sodium intake, as well as improve the monitoring of sodium intake across the U.S. population.

**Long-term Objective 4.5, Performance Measures 4a and b**

In 2007, 56% of adults aged 18 years and older with diagnosed diabetes had their blood pressure under control. This equates to a rise of almost 10 percentage points from 46.2% in 1995. Since 1995 the rate has steadily increased. The A1C measure is a new measure for both the Chronic Disease program as well as for Healthy People 2020; there is no previous trend data prior to the 2008 baseline of 16.2%. The FY 2012 target for 4.5.4a is 50; the FY 2012 target for 4.5.4b will be established during the FY 2013 budget process.

CDC and its partners strive to improve outcomes for people with diabetes through its Diabetes Prevention and Control Program. CDC funds fifty-nine Diabetes Prevention and Control Programs (DPCP's) in all 50 States, the District of Columbia, and eight territories to coordinate system-wide strategies that work together to reduce burden and prevent complications of diabetes. Many of the health care quality and preventive care improvements grantees are coordinating lead to improved A1c values and better blood pressure control.

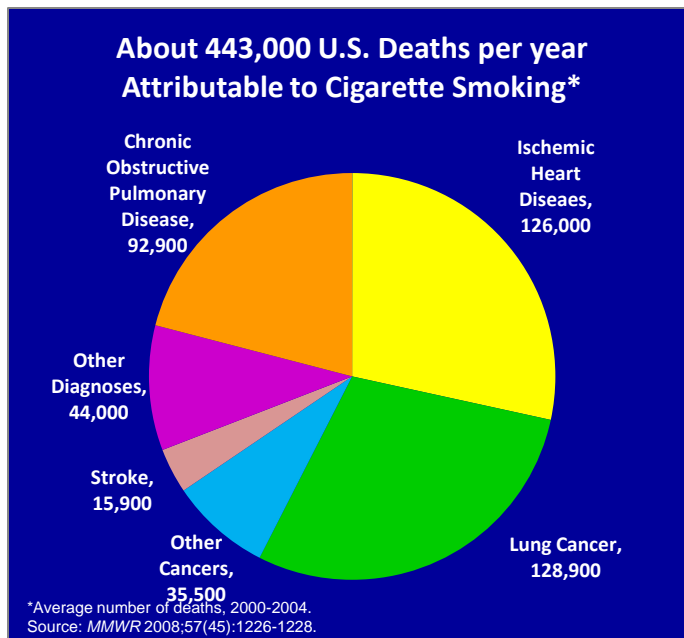
## TOBACCO

Tobacco use is the leading preventable cause of death and disease in the United States. Tobacco use and exposure to secondhand smoke are responsible for approximately 443,000 deaths each year, and is an important public health priority.<sup>17</sup> Despite the risks, approximately 46 million U.S. adults smoke cigarettes. In addition to its harmful effects on health, tobacco use has also had a significant impact and burden on the economy costing more than \$96 billion per year in medical expenditures and another \$97 billion per year resulting from lost productivity.<sup>18</sup>

The CDC Tobacco program has four major goals: 1) prevention of tobacco use among youths and young adults 2) elimination of secondhand exposures 3) promotion of tobacco use cessation and 4) identification and elimination of tobacco-related health disparities. Through its tobacco control programs and key partnerships, progress towards these goals is accomplished through the following interventions:

- Funding tobacco control at CDC-recommended levels;
- Enacting strong smoke-free policies;
- Implementing media and counter-marketing campaigns;
- Making cessation services fully accessible to all populations; and
- Fostering global tobacco control through surveillance, capacity building, and information exchange

### Trends in Tobacco-Related Diseases



Below is a summary of the most recent data and trends for Tobacco-related mortality and morbidity.

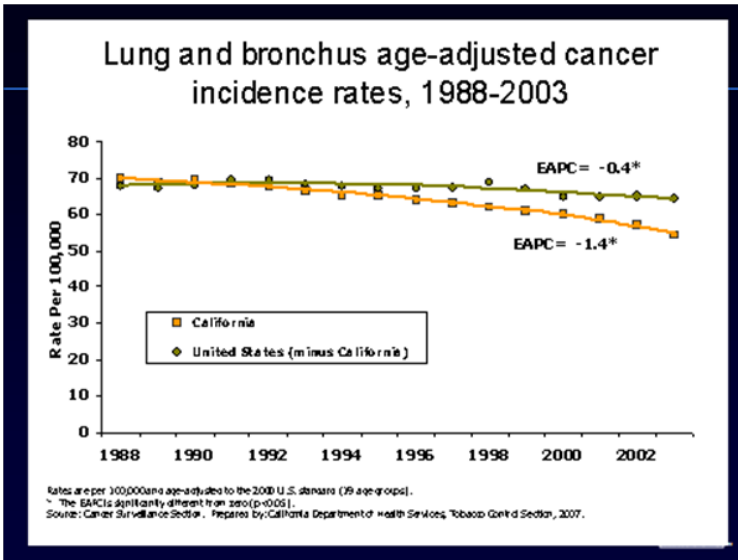
The pie chart shows estimated annual number of deaths attributed to tobacco-related diseases in the U.S. during 2000-2004: from Lung cancer (128,900 deaths), Ischemic Heart Disease (126,000 deaths), Chronic Obstructive Pulmonary Disease (92,900 deaths), other diagnoses (44,000 deaths), other cancers (35,300 deaths), and strokes (15,900 deaths).

The smoking-related death rate per 100,000 people among adults (35 years and older) dropped from 289.5 in 1999 to 248.5 in 2004.

<sup>17</sup> CDC SAMMEC, *MMWR* 2008; 57(45):1226-1228.

<sup>18</sup> [www.healthypeople.gov/data/2010prog/focus27/default.htm](http://www.healthypeople.gov/data/2010prog/focus27/default.htm)

**Tobacco-related Trachea, Bronchus, and Lung Cancer**



In the United States, more people die from lung cancer than from any other form of cancer. The incidence of lung has decreased significantly by 1.8 percent per year from 1991 to 2005 among men and increased significantly by 0.5 percent per year from 1991 to 2005 among women. Lung cancer death rates for U.S. women are among the highest in the world.<sup>19</sup> Comprehensive tobacco prevention and control programs have been shown to accelerate the decline in lung cancer incidence rates. Lung cancer rates in California, home to the longest running

comprehensive tobacco control program, are declining more than three times faster than the rest of the nation.<sup>20</sup>

Lung, trachea, and bronchus cancers account for 13 percent of all cancer diagnoses and 29 percent of all cancer deaths. The age-adjusted trachea, bronchus, and lung cancer mortality rate per 100,000 people dropped from 54.1 in 2003 to 53.2 in 2004, 52.6 in 2005, and 51.5 in 2006. Prior to the baseline year of FY 2003, mortality rates from lung cancer were decreasing steadily.

More detailed information about CDC’s Tobacco program and its key partners can be found at <http://www.cdc.gov/tobacco/index.htm>. More information about CDC’s Tobacco program budget and accomplishments can be found at [http://intra-apps.cdc.gov/fmo/appropriations\\_budget\\_formulation/default.asp](http://intra-apps.cdc.gov/fmo/appropriations_budget_formulation/default.asp).

<sup>19</sup> Cancer Statistics Working Group. United States Cancer Statistics: 1999–2005 Incidence and Mortality Web-based Report. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention; Washington, DC: National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs)

<sup>20</sup> Centers for Disease Control and Prevention. Best Practices for Comprehensive Tobacco Control Programs—2007. Atlanta, GA. October 2007. Available at [www.cdc.gov/tobacco](http://www.cdc.gov/tobacco)

**TOBACCO PREVENTION AND CONTROL PERFORMANCE**

**LONG-TERM OBJECTIVE 4.6: REDUCE DEATH AND DISABILITY DUE TO TOBACCO USE.**

Measure	FY	Target	Result
4.6.2: Reduce per capita cigarette consumption in the U.S. per adult age 18+) (Intermediate Outcome)	2012	NA	No data source – see data validation below “
	2011	NA	
	2010	1,511	
	2009	1,558	
	2008	1,606	
	2007	1,656	
	2006	1,691*	
	2005	1,716	
4.6.3: Reduce the proportion of adults (aged 18 and over) who are current cigarette smokers. (Intermediate Outcome)	2012	20%	June 30, 2013
	2011	20.5%	June 30, 2012
	2010	N/A	June 30, 2011
	2009	N/A	20.6%
	2008	N/A	20.6%
	2007	N/A	19.7%
	2006	N/A	20.8%
	2005	N/A	20.8%
	2004	N/A	20.8%
	2003	N/A	21.5%
	2002	N/A	22.3%
	2001	N/A	22.6%
2000	Baseline	23.1%	
4.6.4: Increase proportion of the U.S. population that is covered by comprehensive state and/or local laws making workplaces, restaurants, and bars 100% smoke-free (no smoking allowed, no exceptions) (Intermediate Outcome)	2012	56.9%	March 31, 2013
	2011	53.0%	March 31, 2012
	2010	N/A	March 31, 2011
	2009	N/A	41.0%
	2008	N/A	38.2%
	2007	N/A	27.1%
	2006	N/A	21.6%
	2005	Baseline	13.5%
4.6.5: Reduce the proportion of adolescents (grade 9 through 12) who are current cigarette smokers. (Intermediate Outcome)*	2012	18.6%	June 30, 2014
	2011	18.9%	June 30, 2012
	2009	N/A	19.5%
	2007	N/A	20.0%
	2005	N/A	23.0%
	2003	N/A	21.9%
	2001	N/A	28.5%

\*Also included as a measure in the HHS 2010-2015 Strategic Plan

Unique Identifier	Data Source	Data Validation
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PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY  
 CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION  
 TOBACCO PREVENTION AND CONTROL PERFORMANCE

4.6.2	USDA, Economic Research Service, Tobacco Outlook Reports (TBS-263Oct 2007, Table 2)	The USDA Economic Research Service discontinued its twice annual data updates as of October 2007. The last USDA data are preliminary 2006.
4.6.3	National Health Interview Survey, NCHS	NCHS validates the data.
4.6.4	U.S. Tobacco Control Laws Database, American Nonsmokers' Rights Foundation (ANRF)	CDC Office on Smoking and Health will work with ANRF to verify and enhance its data, using CDC's State Tobacco Activities Tracking and Evaluation (STATE) System.
4.6.5	Youth Risk Behavior Surveillance System; National Youth Tobacco Survey	Validity and reliability studies of YRBSS and NYTS attest to the quality of the data. CDC conducts quality control and logical edit checks on each record.

**Long Term Objective 4.6, Performance Measure 2**

This is a key measure which has historically been used to drive internal program action, as well as that of external partners. USDA discontinued its Tobacco Report in 2007, which served as the sole source for consumption data compiled by an institution independent of the tobacco industry. With the loss of this data source, 2006 is the last year for which data is available. CDC leadership has engaged USDA and the Department of Agriculture to reinstate this report and negotiations are ongoing.

See measure 4.6.3 as the interim measure until USDA data are restored.

Per capita cigarette consumption for adults age 18+ has fallen from the baseline 1,814 in 2004 to 1,716 in 2005 (the last year in which data are available). The original baseline for this measure was 1,770. In a subsequent Tobacco Outlook Report, the U.S. Department of Agriculture revised the data for 2004 because of Census adjustments. Therefore, CDC's tobacco program revised its baseline and targets accordingly.

CDC supports the National Tobacco Prevention and Control (NTCP) program in 50 states and the District of Columbia, 8 territories/jurisdictions, 8 tribal support centers and six national networks. NTCP grants support state, tribal and territorial health department efforts to prevent initiation of tobacco use among youth and young adults, promote tobacco use cessation among adults and youth, eliminate exposure to secondhand smoke, and identify and eliminate tobacco-related disparities.

CDC supports the National Network of Tobacco Use Cessation Quitlines, a collaborative effort between CDC, the National Cancer Institute's (NCI) Cancer Information Service (CIS), the North American Quitline Consortium (NAQC), and state tobacco control programs through 1-800-QUIT-NOW.

CDC provides technical assistance and training to help states and territories plan, establish, and evaluate their own tobacco control programs. CDC responds to approximately 50,000 scientific, technical and public inquiries on tobacco use each year. The program also provides advertising materials to states through the Media Campaign Resource Center.

Since 1964, the U.S. Surgeon General's reports on smoking and health have concluded that smoking is a primary cause of lung cancer. Achieving the targets of this measure therefore supports the goal of reducing death and disability due to lung cancer.

**Long Term Objective 4.6, Performance Measure 3**

Until data once again becomes available for performance measures 4.6.2, this measure will serve as an interim measure and will track progress towards the ultimate objective of reducing adult smoking.

Adult cigarette use has remained largely static in recent years. Between 2003 and 2007, the percentage of current smokers decreased from 23 percent to 20 percent. In 2009, the percentage of current smokers reported increased to 20.6 percent. Reducing adult smoking prevalence is a Healthy People (HP) 2010 and 2020 objective targeted at 12%. This target is consistent with the HP 2020 measure. The data source is the National Health Interview Survey, which is conducted every year. Preliminary data are available on a quarterly basis for review.

There is a significant evidence base regarding the health consequences of smoking. Since 1964, the U.S. Surgeon General's reports on smoking and health have concluded that smoking is a primary cause of lung cancer. Achieving the targets of this measure therefore supports the goal of reducing death and disability due to lung cancer.

CDC supports the National Tobacco Prevention and Control (NTCP) program in 50 states and the District of Columbia, 8 territories/jurisdictions, 8 tribal support centers and six national networks. NTCP grants support evidence-based efforts by state, tribal and territorial health department to prevent initiation of tobacco use among young adults, promote tobacco use cessation, eliminate exposure to secondhand smoke, and identify and eliminate tobacco-related disparities.

CDC supports the National Network of Tobacco Use Cessation Quitlines, a collaborative effort between CDC, the National Cancer Institute's (NCI) Cancer Information Service (CIS), the North American Quitline Consortium (NAQC), and state tobacco control programs through 1-800-QUIT-NOW.

Additionally, the American Recovery and Reinvestment Act has funded all states and 21 communities/tribes through the Communities Putting Prevention to Work (CPPW) initiative to promote state and local evidence-based policy and environmental changes that effectively reduce adult smoking prevalence, reduce exposure to secondhand smoke and expand access and availability of cessation services.

#### **Long Term Objective 4.6, Performance Measure 4**

This measure replaces the youth smoking measure to reduce the proportion of children aged 3 to 11 who are exposed to second-hand smoke. Measure 4.6.4 tracks progress towards the ultimate objective of reducing death and disability due to tobacco use in the United States. The measure uses the Americans Nonsmokers Rights Foundation's U.S. Tobacco Control Laws Database, which collects local and state laws related to smoke-free policies and calculates the proportion of the U.S. population (not only children) covered by comprehensive smoke-free laws.

This new measure is similar to the Healthy People 2020 TU-13 objective to establish laws in States, District of Columbia, Territories, and Tribes on smoke-free indoor air that prohibit smoking in public places and worksites. The targets for FY 2011 and 2012 are based on the target of the related HP 2020 measure.

Additionally, the American Recovery and Reinvestment Act (ARRA) has funded all states and 21 communities/tribes through the Communities Putting Prevention to Work (CPPW) initiative to promote state and local evidence-based policy and environmental changes that effectively reduce adult smoking prevalence, eliminate involuntary exposure to secondhand smoke, and expand access and availability of cessation services. Also, increasing the proportion of the U.S. population covered by comprehensive smoke-free workplaces, restaurants, and bars policies is an HHS High Priority Performance Goal (HPPG), but the scope of the HPPG is limited to those

ARRA funded communities that do not have comprehensive smoke-free policies. More details about CDC's tobacco-related efforts for ARRA can be found at [www.recovery.gov](http://www.recovery.gov). More details about HHS' HPPG for tobacco can be found at [www.performance.gov](http://www.performance.gov).

There is a significant evidence base regarding the health consequences of secondhand smoke exposure. Secondhand smoke causes approximately 46,000 heart disease and 3,400 lung cancer deaths among nonsmokers each year. In 2006, the Surgeon General concluded that there is no risk-free level of exposure to secondhand smoke and that eliminating smoking from all indoor areas is the only way to fully protect people from secondhand smoke exposure. Separating smokers from nonsmokers, cleaning the air and ventilating buildings are not effective ways to protect the public from secondhand smoke exposure. Smoke-free policies improve indoor air quality, reduce negative health outcomes among nonsmokers, decrease cigarette consumption, encourage smokers to quit, and change social norms regarding the acceptability of smoking.

CDC supports the National Tobacco Prevention and Control (NTCP) program in 50 states and the District of Columbia, 8 territories/jurisdictions, 8 tribal support centers and six national networks. NTCP grants support state, tribal and territorial health department efforts to eliminate exposure to secondhand smoke. Additionally, ARRA's CPPW initiative has funded all states and 21 communities/tribes to promote state and local evidence-based policy and environmental changes that effectively reduce secondhand smoke exposure.

To achieve established targets, CDC supports state and local tobacco program efforts that promoting smoke-free environments. The percentage of the population covered by a smoke-free law has steadily increased from 13.5 percent in 2005 to 48 percent in 2010. While significant progress has been achieved, Americans in 25 states are still lack comprehensive statewide smoke-free laws. In fact, each year 88 million Americans are exposed to secondhand smoke.<sup>21</sup> Those disproportionately affected include those in blue collar jobs and hospitality workers such as bar and casino employees. Significant geographic gaps in smoke-free policy coverage also exist, as no southeastern state (i.e. tobacco growing states and their neighbors) has a strong statewide law that protects people from secondhand smoke exposure in workplaces, restaurants, bars, and other public places. The target for FY 2012 of 56.9 percent is based on the Healthy People 2020 target that all states will have implemented comprehensive smoke-free laws by 2020.

#### **Long Term Objective 4.6, Performance Measure 5**

This measure focuses on reducing youth smoking, which complements CDC's focus on reducing adult smoking. This is a Healthy People 2020 measure on youth prevalence in the United States. The target is consistent with the Healthy People 2020 target of 16%.

Youth cigarette use declined sharply during 1997–2003; however, this decline has stalled over the past several years. In 2003, the percent of youth cigarette use reported was 22 percent. In 2005 it increased to 23 percent and then dropped to 20 percent in 2007 and 19.5 percent in 2009.

There are two data sources for this measure: 1) Youth Risk Behavior Surveillance System (YRBSS) and 2) National Youth Tobacco Survey (NYTS). The primary data source for setting and reporting targets is YRBSS, which is conducted every other year (odd years). To obtain data on an annual basis, CDC will conduct the NYTS in the intervening years, which tracks closely with YRBSS.

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<sup>21</sup> Centers for Disease Control and Prevention. Vital Signs: Nonsmokers' Exposure to Secondhand Smoke—United States, 1999–2008. *Morbidity and Mortality Weekly Report* 2010;59(35).

To achieve proposed targets, CDC supports state and local tobacco program efforts to engage in proven strategies that include increasing the price of tobacco products, promoting smoke-free environments, using media interventions, and assisting with FDA regulations.

Through the National Tobacco Control Program (NTCP), CDC provides national leadership for a comprehensive, broad-based approach to reducing tobacco use which involves: preventing young people from starting to smoke; eliminating exposure to secondhand smoke; promoting quitting; and, identifying and eliminating disparities in tobacco use among population groups. It also develops health communication campaigns aimed at informing the public about the health risks associated with tobacco use and secondhand smoke exposure, and reducing disparities in these exposures.

CDC supports state education agencies and tribal governments to build the capacity of schools and school districts to implement quality, cost-effective school health. These agencies establish a partnership with their state health agency to focus on reducing chronic disease risk factors including tobacco use, as well as poor nutrition, and physical inactivity. This funding will stimulate increased professional development for education agency personnel; support expanded partnerships between schools and the community; and promote policy and environmental change to improve health programs delivered in school.

CDC provides guidelines and tools for schools. Education agencies use CDC guidelines and tools to assist schools and school districts in implementing evidence-based, effective prevention curricula and instructional practices. To date, these guidelines have addressed tobacco-use prevention, as well as promotion of healthy eating and physical activity, prevention of unintentional injuries and violence, skin cancer prevention, and AIDS education. CDC has produced multiple tools and strategy documents for schools. Examples include the Health Education Curriculum Analysis Tool, School Health Index, and Making A Difference: Key Strategies to Prevent Obesity

Additionally, the American Recovery and Reinvestment Act has funded all states and 21 communities/tribes through the Communities Putting Prevention to Work (CPPW) initiative to promote state and local policy and environmental changes that effectively reduce high school smoking prevalence.

Secondhand smoke has been determined to be a known human carcinogen. The 2006 Surgeon General's Report on The Health Consequences of Involuntary Exposure to Tobacco Smoke concluded that secondhand smoke exposure causes heart disease and lung cancer in nonsmoking adults and a number of health conditions in children, including sudden infant death syndrome, acute respiratory infections, middle ear disease, more severe asthma, respiratory symptoms, and slowed lung growth. The Report also concluded that secondhand smoke contains more than 50 carcinogens, and that there is no risk-free level of secondhand smoke exposure.

CDC continues to extend and maximize the impact of the 2006 Surgeon General's Report on The Health Consequences of Involuntary Exposure to Tobacco Smoke by collaborating with its partners to publish and present studies expanding the science base on secondhand smoke, to work with the news media to keep secondhand smoke in the news, to provide technical assistance to states as they implement and evaluate smoke-free laws, and to disseminate information on the report and ancillary materials to a wide range of partners and stakeholders.



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**BIRTH DEFECTS, DEVELOPMENTAL DISABILITIES AND DISABILITY AND HEALTH**

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**BIRTH DEFECTS, DEVELOPMENTAL DISABILITIES AND DISABILITY AND HEALTH PERFORMANCE**

*Measures and targets have not yet been adjusted for the new consolidated approach. These changes will be made in the FY 2013 President's Budget request.*

*The new approach consolidates disease specific funding into three new budget lines: Child Health and Development (including Autism), Health and Development for People with Disabilities, and Public Health Approach to Blood Disorders, representing new comprehensive programs that refocus activities on integrated and competitive grant programs that facilitate more effective approaches. This gives CDC greater flexibility to address critical public health challenges and allocate resources to maximize the public health impact of its programmatic activities.*

*A gradual transition to the consolidated approach will take place over the next three years to avoid disruption of current activities and grant cycles. CDC, working with external stakeholders, may continue some existing programs as currently structured, expand others, redirect resources to more effective activities, change the scope of existing activities based on effectiveness and need, and if appropriate, use existing program resources to start new activities or end some existing programs. FY 2012 funds will support CDC's goal to prevent birth defects, improve outcomes of individuals affected by birth defects and developmental disabilities, eliminate disparities associated with disabilities, and prevent death and disability associated with blood disorders.*

**LONG-TERM OBJECTIVE 5.1: PREVENT BIRTH DEFECTS AND DEVELOPMENTAL DISABILITIES.\***

Measure	FY	Target	Result
5.1.1: Identify and evaluate the role of at least five new risk factors for birth defects and developmental disabilities. (Output)	2012	Evaluate association between pregestational diabetes and prepregnancy obesity and major birth defects	Dec 31, 2012
	2011	Complete data collection for developmental disabilities research sample	Dec 31, 2011
	2010	Establish large statistically powerful sample for developmental disabilities research	Yes (Target Met)
	2009	Publish findings on occupational exposures	Yes (Target Met)
	2008	Publish findings on maternal medications	Yes (Target Met)
	2007	Publish findings on alcohol, caffeine use, and nutrition	Yes (Target Met)
	2006	Finalize research agenda for birth defects and publish findings on smoking, obesity, and other exposures with high potential impact	Yes (Target Met)
5.1.2: Reduce health disparities in the occurrence of folic acid-preventable spina bifida and anencephaly by reducing	2012	4.4	Feb 23, 2016
	2011	4.5	Feb 23, 2015
	2010	4.6	Feb 23, 2014
	2009	4.7	Feb 23, 2013
	2008	4.8	Feb 23, 2012

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Measure	FY	Target	Result
the birth prevalence of these conditions among Hispanics. <i>(Outcome)</i>	2007	4.9	5.7/10,000 (Target Not Met)
	2006	5.0	5.5/10,000 (Target Not Met but Improved)
5.1.3: Increase the percentage of health providers who screen women of childbearing age for risk of an alcohol-exposed pregnancy and provide appropriate, evidence-based interventions for those at risk. <i>(Outcome)</i>	2012	Increase provider-based screening and intervention by 3% from baseline.	Dec 31, 2012
	2011	Increase provider-based screening and intervention by 2.5% from baseline.	Dec 31, 2011
	2010	Increase provider-based screening and intervention by 2% from baseline	Yes (Target Met)
	2009	Increase provider-based screening and intervention by 1% from baseline.	Yes (Target Met)
	2008	Implement ongoing provider education programs and establish baseline rates of provider-based screening and intervention.	Yes (Target Met)
	2007	Assess the screening and intervention practices of nationally representative samples of provider groups.	Yes (Target Met)
	2006	Develop and disseminate screening and intervention tools for health care providers serving women of childbearing age.	Yes (Target Met)
	5.1.4: Improve the quality and usability of birth defects surveillance data. <i>(Outcome)</i>	<i>Out-Year Target</i>	Publish results from 3 collaborative projects related to birth defects surveillance, research, and public health interventions. (2015)
2012		Develop and promote the use of minimal standards for surveillance in 10 state-based birth defects programs	12/2012
2011		a) Disseminate guidelines for incorporating surveillance of stillbirth into birth defects monitoring systems. b) Evaluate the feasibility of conducting population-based surveillance for fetal alcohol syndrome	12/2011
2010		a) Estimate the prevalence of spina bifida by race and sex among children and adolescents in 10 regions of the U.S. b) Publish results of collaborative research projects on clubfoot and pyloric stenosis.	No (Target Unmet)
2009		Use a new data linkage software tool developed at CDC to evaluate the association of childhood cancer and birth defects.	No (Target Unmet)

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Measure	FY	Target	Result
	2008	a) Complete a collaborative multi-state study on the association of birth defects with preterm delivery. c) Evaluate the association of maternal diabetes and birth defects using a multi-site case control study based on surveillance data.	Yes (Target Met)
	2007	Estimate the prevalence of Down syndrome by race and sex among children and adolescents in metropolitan Atlanta.	Yes (Target Met)

*\* Measures and targets have not yet been adjusted for the new consolidated approach. These changes will be made in the FY 2013 President's Budget request.*

Unique Identifier	Data Source	Data Validation
5.1.1	<p>Birth defects data are collected from the National Birth Defects Prevention Study, a collaboration between the eight funded Centers for Birth Defects Research and Prevention and a ninth site in Georgia at CDC.</p> <p>Developmental disabilities data are collected by the Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE), a collaboration between the five funded CADDRE sites and a sixth site in Georgia at CDC.</p>	<p>Each site participating in NBDPS has implemented the uniform study protocol, and data are collected at a coordinating center.</p> <p>Each site participating in CADDRE is implementing the uniform study protocol for SEED, and data are also collected and housed at a central coordinating center.</p>
5.1.2	Data are taken from the National Birth Defects Prevention Network (NBDPN), a collaborative effort of state-based birth defects surveillance programs around the United States.	These programs, which all meet certain data quality standards, contribute to a pooled data set, which represents the most comprehensive population-based estimate of birth defects in the country.
5.1.3	<p>Rationale for measure is based on Project CHOICES findings, a CDC-funded randomized controlled trial of a provider-based intervention for women of childbearing age who are at risk for having an alcohol-exposed pregnancy, and also from the recommendations of the U.S. Preventive Services Task Force on the effectiveness of alcohol screening and behavioral counseling interventions in primary care.</p> <p>Data and benchmarks for 2006-2008 are from work with ACOG in the development of clinician tools for screening and brief intervention and through an ACOG-conducted survey of obstetrician-gynecologists.</p> <p>Data for 2008 and beyond are from DocStyles. DocStyles is a Web-based survey with a main</p>	<p>Results of the randomized controlled trial from Project CHOICES were published in the American Journal of Preventive Medicine in 2007. The recommendations of the U.S. Preventive Services Task Force on the effectiveness of alcohol screening and behavioral counseling interventions in primary care settings were published in the Annuals of Internal Medicine in 2004.</p> <p>Results from the most recent ACOG survey of obstetricians-gynecologists were published in the Journal of Addiction Medicine in 2010</p> <p>Data from DocStyles are analyzed</p>

Unique Identifier	Data Source	Data Validation
	sample of primary care physicians and additional samples of other specialties. The physician samples are drawn from Epocrates Honors Panel, an opt-in, verified panel of over 156,000 medical practitioners. The sample is drawn to match the American Medical Association master file proportions for age, gender, and region.	annually to assess the percentage of health providers who screen women of reproductive age for alcohol use and the percentage of health providers who conduct brief interventions with women at risk..
5.1.4	Select member programs of the National Birth Defects Prevention Network (NBDPN)	Each NBDPN program has quality control measures in place to ensure the validity of data. CDC also compares NBDPN data with other national data to identify any anomalies.

**Long-term Objective 5.1, Performance Measure 1**

Increasing understanding of modifiable risk and preventive factors for birth defects and developmental disabilities can provide important opportunities for prevention. This understanding is supported by the research infrastructure for birth defects, autism, and other developmental disabilities. In 2010, the goal was met to establish a statistically powerful sample for developmental disabilities research. As these systems develop, annual performance measures focus on publication of research findings to expand the knowledge base and disseminate key findings.

*Birth Defects*

To date, CDC's birth defects study has collected data on nearly 37,000 individuals in order to examine the association between selected risk factors and birth defects. An analysis of maternal occupational exposures is expected to be published in 2010 and additional projects are underway to assess some specific exposures of concern.

Notable recent study publications include use of herbal products during pregnancy. Despite the lack of safety information for most herbal preparations, this study found that nearly 10 percent of pregnant women report using an herbal product during pregnancy. This suggests approximately 395,000 US births annually have antenatal exposure to at least one herbal product, and that research is critically needed on the safety or risk of these exposures to maternal and infant health.

- Antibiotics and birth defects: This study found that use of the most common antibacterials such as penicillin, erythromycin, and cephalosporin does not appear to be associated with birth defects. Some risks were observed for nitrofurantoin and sulfonamides. This information can help women and their health care providers make informed treatment decisions.
- Maternal occupation and birth defects: A few maternal occupations, such as janitorial or scientific occupations, are positively associated with certain types of major birth defects. These findings will help direct further research about specific occupational exposures that might contribute to the risk of birth defects.
- Maternal thyroid disease and major birth defects: This study found an association between maternal thyroid disorder and craniosynostosis, hydrocephalus and hypospadias which is consistent with previous studies. It also found potential new associations with certain heart defects and with anorectal atresia.
- Body mass index and congenital heart defects: This study confirmed previous findings of a risk of heart defects among overweight and obese mothers.
- Assisted reproduction and birth defects: Use of In Vitro Fertilization (IVF) has increased over time, and this study compared the risk of birth defects in pregnancies conceived with and without

IVF. Among singleton births, IVF was associated with increased risks for septal heart defects, cleft lip with or without cleft palate, and intestinal atresias.

#### Autism and Other Developmental Disabilities

CDC continues to evaluate potential risk factors for ASD through the collection and analysis epidemiologic data. CDC's Study to Explore Early Development (SEED) has enrolled over 3,000 children and their families in the first phase of the study to establish a large statistically powerful sample for developmental disabilities research. This initiative will allow CDC to 1) characterize the autism behavioral phenotype and associated developmental, medical and psychiatric conditions of autism, with a special focus on identifying homogeneous autism subgroups for etiologic analysis, and 2) understand the genetic and environmental risk factors for autism with a special focus on immunological, hormonal, gastrointestinal and sociodemographic features. In FY 2011, CDC re-competed the CADDRE program and will fund up to five sites to initiate a second round of SEED recruitment and data collection. This investment will further enhance the SEED sample size allowing CDC to conduct analyses looking at priority risk factors and potential gene-environment interactions with greater statistical power. CDC anticipates the release of the first results from SEED in FY 2012.

- CDC's Autism and Developmental Disabilities Monitoring (ADDM) Network continues to track and monitor the rates of ASDs in across a network of 12 sites in the US. The Metropolitan Atlanta Developmental Disabilities Surveillance Program (MADDSP) serves as the Georgia ADDM site and functions as the model for the network. Maintaining this core group of sites conducting surveillance of 8-year-old children will ensure our ability to track trends in prevalence over time. In FY 2010, CDC also provided supplemental funding to six of the ADDM sites to expand ASD surveillance efforts to include 4-year-olds. This expansion will help CDC to better inform early intervention efforts and inform state and national policy.

Notable recent publications which evaluate potential risk factors for ASD and other developmental disabilities include:

- Assisted reproduction and developmental disabilities: This population-based follow-up study found no risk of ASD in children born after assisted conception.
- Perinatal exposure to hazardous air pollutants and risk for ASD: The screening design of this study was limited by exposure misclassification of air pollutants and the use of an alternate developmental disorder as the control group, both of which may have biased results toward the null. Despite these limitations, methylene chloride, quinoline, and styrene emerged (based on this analysis and prior epidemiologic evidence) as candidates that warrant further investigation for a possible role in autism etiology.
- Hospitalization for infection and risk for ASD: The association between hospitalization for infection and ASDs observed in this study did not suggest causality because a general association was observed across different infection groups. Also, the association was not specific for infection or for ASDs.
- Prenatal, perinatal, and neonatal factors associated with ASDs: this study found that the prenatal factors that occurred significantly more frequently among children with ASDs were advanced maternal age and parity. Increased level of education among mothers of children with ASDs was small but statistically significant. Significant perinatal factors were breech presentation and primary cesarean delivery. When corrected for breech presentation, a known indication for cesarean delivery, the association between primary cesarean delivery and ASDs was eliminated. There were no significant associations found between ASDs and neonatal factors.

- Multiplicity and early gestational age as risk of cerebral palsy after assisted reproduction: This study found that the risk of CP is increased after both IVF and OI. The increased risk of CP in children born after assisted conception, and in particular IVF, is strongly associated with the high proportion of multiplicity and preterm delivery in these pregnancies. A more widespread use of single embryo transfer warrants consideration to enhance the long-term health of children born after IVF.

### **Long-term Objective 5.1, Performance Measure 2**

Neural tube defects (NTDs), like spina bifida and anencephaly, have profound effects on children, their families, and their communities. Folic acid fortification of enriched cereal grain products in the United States resulted in the prevention of an estimated 1,000 NTDs per year since its full implementation in 1998. However, analyses show that while fortification significantly lowered NTD rates among all racial and ethnic groups, Hispanics continue to have the highest rates overall. The FY2007 target was not met because Hispanic women continue to consume less folic acid compared to non Hispanic white women. The most recent data from the National Birth Defects Prevention Network (NBDPN) continues to show a higher risk for NTDs among Hispanics compared to non Hispanic white women.

CDC's folic acid program recently completed formative research with Hispanic women of childbearing age in order to develop new folic acid educational materials and radio public service announcement messages that address the unique needs of this audience. These materials and messages are available to our partners and to the public free of charge on the NCBDDD website. Also, a promotora project was completed in 2010 through a partnership with Migrant Health Promotion. This project aimed to increase folic acid awareness, knowledge, and consumption among Spanish-speaking women living in migrant health communities in three Texas border counties. Furthermore, CDC currently has projects underway in two counties in North Carolina in partnership with the North Carolina March of Dimes and the North Carolina Folic Acid Council. These projects involve utilizing promotoras, or lay health outreach workers, to conduct grassroots education related to folic acid consumption for Spanish-speaking women in these areas. CDC is currently working to expand these efforts in four more states.

In addition to folic acid fortification of enriched cereal grain products, the use of folic acid containing supplements is another way to decrease NTD rates. The proportion of reported use of folic acid containing supplements has remained much the same in the last several years. In addition, there have been no large scale campaigns among Hispanics to increase that proportion. Formative research conducted with Spanish-speaking Hispanic women found that many misperceptions still exist about vitamin use (for example, that it causes weight gain), which appear to be a big barrier to vitamin consumption. Other factors include higher rates of diabetes and obesity among Hispanics (known risk factors for NTDs), which may make it more difficult to reduce NTD rates. Research has shown that supplementation campaigns need to be sustained and repeated over time. As this is difficult and requires resources, CDC is providing technical assistance to partners pursuing fortification of corn masa flour. Following the 1998 fortification of cereal grain products, NTD rates significantly declined. The goal is to see a decline in rates for Hispanics with fortification of corn masa flour. At present, corn masa flour is not fortified in the U.S.

### **Long-term Objective 5.1, Performance Measure 3**

Despite public health advisories and subsequent outreach efforts, recent data indicate that significant number of women continue to drink during pregnancy. Implementing interventions to reduce alcohol consumption during pregnancy is an important strategy to reducing the occurrence of alcohol-related birth defects and developmental disabilities, including fetal alcohol syndrome (FAS) and other fetal alcohol spectrum disorder (FASDs). Research shows that provider-based screenings and interventions for women of childbearing age at risk of having an alcohol-exposed pregnancy are effective at reducing risk.

These findings have prompted CDC to place an emphasis on developing health care provider-based interventions. CDC supports a variety of provider education initiatives geared toward the prevention, identification, and treatment of FASDs. This has included working with the American College of Obstetricians and Gynecologists to develop a quick-reference clinician tool to facilitate screening and intervening, and supporting five FASD Regional Training Centers, which train medical and allied health students and professionals in the prevention, identification, and treatment of FASDs. Through these efforts, and in collaboration with other agencies and organizations, CDC aimed to show improvement in the percentage of health care providers who screen women of childbearing age at risk of alcohol-exposed pregnancy, and provide appropriate interventions for those at risk. To date, the performance targets for this measure have been met.

Initially, CDC considered obtaining baseline rates of alcohol screening from a nationally representative sample of obstetrician-gynecologists. However, due to an inability to conduct this survey on an annual basis, CDC sought out other data sources that could be used to estimate physician participation in screening and intervening with women of child-bearing age. The health marketing survey *DocStyles* contains CDC-supported items that query physicians regarding alcohol screening and brief intervention practices with women of childbearing age (pregnant, not pregnant, and not trying but at risk of pregnancy). Starting in 2008, this information has been collected annually and provides a consistent, ongoing source for monitoring progress made on this performance measure.

*DocStyles* data show that the proportion of physicians who reported they always screen and conduct brief interventions with women of childbearing age increased for all provider types from 2008 to 2010. Screening rates from 2009 to 2010 held steady for all provider types combined while rates of conducting brief interventions declined. Changes in rates of screening and brief interventions varied substantially by provider type, emphasizing the importance of monitoring these rates among provider sub-specialties and targeting ongoing training efforts to meet their specific needs. Among other efforts, CDC's commitment to educating providers and improving their skills in the prevention, identification, and treatment of FASDs has contributed to the improvements in rates of screening for alcohol use and providing appropriate interventions for women at risk of an alcohol-exposed pregnancy.

#### **Long-term Objective 5.1, Performance Measure 4**

Target was not met for FY2010, but completion is expected in early 2011. Preliminary results of the CDC study suggested a need to further classify birth defect cases by phenotype, so all cases are undergoing a review by clinical geneticists. Prevalence estimates of spina bifida among children and adolescents (Target 5.4.1.a) was published in August, 2010, and provided the first population-based estimates of prevalence of spina bifida among older age groups. The multi-state clubfoot study (Target 5.4.1.b, part 1) published results in November, 2009, that provided the first multi-state analysis on the occurrence of clubfoot and associated risk factors. The pyloric stenosis study (Target 5.4.1.b, part 2) has not been completed and data collection is ongoing. This study was delayed because of the prioritization of a study to produce national estimates of select birth defects, which will be published in December, 2010.

Surveillance data provide information necessary for public health decision-making. Birth defects surveillance data are essential for a) determining the population prevalence of, and morbidity and mortality associated with, birth defects; b) understanding the socio-demographic factors that influence prevalence, morbidity, and mortality to better address disparities across racial, ethnic, and socioeconomic groups; c) developing data-driven prevention programs and health services for children with birth defects; d) evaluating the effectiveness of intervention and prevention efforts; e) examining trends in occurrence of birth defects and morbidity and mortality over time; and f) supporting and stimulating research. By employing new data analysis methods and utilizing data linkages to enhance the basic birth defects surveillance dataset, the quality and usability of birth defects surveillance data will increase.

The priority areas for improving surveillance data in this performance measure are based on the National Center on Birth Defects and Developmental Disabilities’ strategic plan. Since 1968, CDC has administered the Metropolitan Atlanta Congenital Defects Program (MACDP), a birth defects surveillance program in the five central counties of Atlanta, GA, that has served as a model for state and international birth defects surveillance programs and a training ground for public health professionals. In addition to serving as a reference by providing comprehensive prevalence data for a wide range of birth defects, MACDP focuses on the development of new surveillance methods and innovative analytic uses of surveillance data, and in providing assistance to state birth defects surveillance programs in the implementations of such methods. CDC currently funds 14 state-based birth defects surveillance programs across the U.S. as well as supports the National Birth Defects Prevention Network, which strives to improve the quality of birth defects tracking data by sharing information and developing uniform methods of data collection. The Network also promotes collaborative research projects and the pooling of data in order to better understand patterns of birth defects prevalence on a national level. CDC is working with the Network to develop and implement minimal standards for state-based birth defects surveillance to replace the current guidelines.

**LONG TERM OBJECTIVE 5.2: IMPROVE THE HEALTH AND QUALITY OF LIFE OF AMERICANS WITH DISABILITIES.\***

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
5.2.1: Increase the number of people with blood disorders who participate in the Universal Data Collection project by 10%. <i>(Outcome)</i>	2012	27,399	Dec 31, 2012
	2011	26,862	Dec 31, 2011
	2010	25,607	26,335 (Target Exceeded)
	2009	22,195	25,104 (Target Exceeded)
	2008	18,948	23,347 (Target Exceeded)
	2007	18,590	21,760 (Target Exceeded)
	2006	18,232	19,889 (Target Exceeded)
5.2.2: Identify an effective public health intervention to ameliorate the effects of poverty on the health and well-being of children. <i>(Outcome)</i>	2012	Data collection and analysis for age 8 year	Dec 31, 2012
	2011	Publish findings to demonstrate intervention effectiveness in improving developmental outcomes for children in low-income families	Dec 31, 2011
	2010	Data collection and analysis for age 5 year	Yes (Target Met)
	2009	Data collection and analysis for age 4 year	Yes (Target Met)
	2008	Data collection and analysis for age 3 year	Yes (Target Met)
	2007	Data collection and analysis for age 2 year	Yes (Target Met)
	2006	Data collection and analysis for age 1 year	Yes (Target Met)



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Measure	FY	Target	Result
5.2.4: Increase the mean lifespan of patients with Duchenne and Becker Muscular Dystrophy (DBMD) by 10% as measured by the Muscular Dystrophy Surveillance, Tracking and Research Network. (Outcome)	2012	Report the percentage of individuals aged 20-24 who have Duchenne muscular dystrophy that are surviving through 2007, which indicates that survival has increased by more than 2 years (10% of survival for the cohort born during the 1970s).	Sept 23, 2012
	2011	Publish findings demonstrating trends in mortality and morbidity in patients with DBMD using MD STARnet data.	Feb 23, 2012
	2010	Increase the percentage of patients with DBMD who have access to treatments based on national standards of care to 80% as measured by MD STARnet and national or nationally representative data collection methods	Feb 23, 2011
	2009	Identify and report on (1) the trends on incidence and prevalence of secondary complications related to DBMD annually based on MDSTARnet data and (2) the trends of service utilization by people with DBMD and their families based on MD STARnet data.	Yes (Target Met)
	2008	Report on the impact of clinic use on morbidity and mortality in DBMD using MD STARnet data	Yes (Target Met)
	2007	Identify and report on (1) the incidence and prevalence of DBMD in the United States based on MD STARnet data (2) early signs and symptoms of DBMD based on MD STARnet and (3) cost of health care of people with DBMD.	Yes (Target Met)
	2006	Conduct data analysis on MD STARnet data collected in the 4 current sites and include one additional state.	Yes (Target Met)
5.2.5: Reduce the number of infants not passing the hearing screening that are lost to follow up.	Out-Year Target	25% (2014)	12/2016
	2012	31%	12/2014
	2011	33%	12/2013
	2010	37%	12/2012
	2009	40%	12/2011
	2008	43%	43% (Target Met)
	2007	N/A	44.8%
	2006	N/A	46.3%
	2005	Baseline	59.9%

*\*Measures and targets have not yet been adjusted for the new consolidated approach. These changes will be made in the FY 2013 President's Budget request.*

Unique Identifier	Data Source	Data Validation
5.2.1	Data are from the CDC Universal Data Collection System, which collects data from yearly patient visits conducted through the 135 CDC funded Hemophilia Treatment Centers (HTCs).	HTCs can choose to submit their data either electronically or via paper data collection form. For those grantees that participate in electronic form submission, the data are abstracted from a patient's medical record, updated in real time. For all others CDC verifies the data quarterly by comparing the data inputted with the original data collection forms.
5.2.2	Data are from the CDC's Legacy for Children(TM), a longitudinal, multi-site, randomized controlled study which collects data from birth to age 8 from children and families who are enrolled in the study.	Both sites participating in Legacy have implemented a standard operating procedure for data security and validation, including quality control methods for data collection and management. Data are submitted electronically to an independent Project Coordination Center (PCC) where the data are housed.  Data validation protocol includes on-site, independent validation of hard copies to electronic files. Ongoing training of data collection staff is conducted.
5.2.5	Data for 2004 and prior years are from the Directors of Speech and Hearing Programs for State Health and Welfare Agencies (DSHPSHWA).Data for 2005 and beyond are from CDC's Hearing Screening and Follow-up Survey (HSFS). HSFS is a web-based voluntary response survey designed to gather standardized data about the screening, diagnostic and intervention status of every birth reported on the survey.	States submit data through a secure web-based application that includes error checks; CDC validates data against CDC's National Vital Statistics data, state annual reports and previously submitted data to CDC, and communication with states when necessary.
5.2.4	Data are from MD STARnet.2001-2004datafromtheMarketScan Commercial Claims and Encounters Database.	There are several quality control checks in the data collection and analysis process such as ongoing training and testing of abstractors to maintain quality of data entered, and independent data analysis by a second site when analyzing data to be used for publication. Other methods include: 1. Abstracted data reviewed in a step-wise manner by a local reviewer, local clinical reviewer, clinical review committee, and assigned case status. 2. Abstraction instrument that has built-in checks. 3. Interviewer training and quality control activities.

**Long-term Objective 5.2, Performance Measure 1**

CDC has surpassed its current measure of increasing by 10 percent the number of people who participate in CDC's Universal Data Collection (UDC) project. We expect to see a continued increase in enrollment as Hemophilia Treatment Centers (HTCs) are increasingly treating patients with blood disorders other

than hemophilia and thalassemia. Rather than continue the current measure, we plan to propose a new measure in 2013 that reflects the health impact of activities arising from the information obtained in the UDC.

The UDC collects data and blood samples from individuals seen at a network of 135 HTC's and seven Thalassemia Treatment Centers across the country. Patients are monitored for the presence of blood-borne infections, as well as any complications due to their underlying blood disorder, such as joint disease or the development of antibodies (e.g. inhibitors) to blood products. The UDC also provides information on bleeding occurrences, treatments, and vaccinations.

Increasing the number of patients enrolled has been important to ensure that the majority of people with bleeding disorders are monitored so that complications and other risk factors may be assessed on a population level. Over the past few years, patient enrollment has consistently exceeded expectations. This exceptional enrollment may be for a number of possible reasons, including:

- A lower than anticipated refusal rate (about 9 percent) compared to other national studies of this type and size;
- Increased marketing by community-based organization to promote the HTC's;
- Recognition by patients and healthcare professionals the coordinated care approach has demonstrated decreased mortality and hospitalizations among patients visiting HTC's; and
- The broad extent of the HTC network, which reaches both urban and rural areas, allows catchment of individuals with blood disorders in all areas of the country.

### **Long-term Objective 5.2, Performance Measure 2**

One in six Americans under age 18 lives in a family with household income below the federal poverty threshold. These children, more than 13 million, are at increased risk of a wide variety of negative long-term health and developmental outcomes, including developmental delays and disabilities. Research has demonstrated the critical role that early experience plays in determining lifelong learning, emotional and physical well-being, social attainment, and presence or absence of chronic disease. The strong association between the nature of early experience and short- and long-term health and well-being make early childhood environmental risk associated with poverty a public health issue.

Legacy for Children™ (Legacy) was developed by CDC to prevent developmental delay due to poverty and to address the need for rigorous studies of early childhood intervention. Reflecting a community public health model, Legacy is a group-based parenting intervention to promote optimal developmental outcomes for children in low-income families. Legacy was implemented in two urban sites, Miami and Los Angeles (LA), to document the extent to which the intervention model can be adapted to reflect the needs of specific communities and to examine intervention across these communities.

The program goals were based on rigorous research, designed to measure the impact of the intervention on children's outcomes. The Legacy program has successfully met its milestones to date, including study initiation, establishment of a baseline, data collection and analysis for children from birth to five years of age, as well as initiation of a follow-up study for children eight, 10, and 12 years of age and feasibility testing in the community. Methodological and outcome papers on the Legacy intervention are planned for 2011. Current activities include establishing feasibility sites and the dissemination of Legacy materials (e.g., curricula, training manual, and process manual). The intent is for Legacy to be available as an evidence-based intervention for communities who want to prevent poor outcomes among children experiencing poverty. Results from the Legacy study could inform public policy on promoting child development and well-being in at-risk children. CDC is working with the Administration for Children and Families (ACF) to develop, plan, and adapt the Legacy curricula for implementation in four communities (12 groups) across multiple ACF Early Head Start sites within ACF Region IV to work with more than

100 families to determine feasibility and identify barriers to generalization of the Legacy intervention to ACF Early Head Start Programs.

**Long-term Objective 5.2, Performance Measure 4**

CDC has been successful in the development of a population-based monitoring system designed to ascertain key health information for people with Duchenne and Becker muscular dystrophy (DBMD). Through this system, MD STARnet, CDC is obtaining population-based data on the medical care and outcomes of persons with DBMD. These data will provide evidence-based information to better understand the natural history of the disorder and current treatment practices. Additionally, CDC sponsored the development of care considerations for Duchenne muscular dystrophy (DMD). Upon dissemination of the data from MD STARnet, and from the care considerations, health care providers will have information to make more informed decisions about the medical care for boys with DBMD. With over 4 million births in the United States each year, about 400 to 600 boys with DBMD are born every year. Girls rarely have DBMD.

In FY 2010, state-specific prevalence data and Duchenne muscular dystrophy Care Considerations were published. Manuscripts are in preparation regarding trends in service utilization.

**Long-term Objective 5.2, Performance Measure 5**

CDC actively works to ensure timely diagnosis and referral to intervention services for all infants with hearing loss. CDC's support of state and territorial-based early hearing detection and intervention (EHDI) programs is important for ensuring and documenting that infants not passing the hearing screening receive timely follow-up diagnostic tests. These tests are needed to confirm if an infant has a hearing loss. Early diagnosis is important to ensure that infants with a hearing loss develop appropriate communication skills that are commensurate with their cognitive abilities, allowing them to do well both academically and socially.

Due in part to CDC's efforts, early hearing screening rates have increased from 46 percent in 1999 to 97 percent in 2008. However, screening newborns for hearing loss is only the first critical step. Making sure that infants who do not pass the screening receive early diagnostic tests, and if recommended appropriate early intervention are the next vital steps. Efforts are currently underway at the national, state, and local levels to reduce loss to follow-up (LFU). To respond to this challenge CDC is actively supporting the development of tracking and standardized procedures for data management. These systems and procedures can help ensure all infants are screened for hearing loss and receive recommended follow-up diagnostic and intervention services. CDC met its FY 2010 target of reducing the percentage of infants lost to follow up to 43 percent.

Two key strategies have been identified by multiple state teams to reduce the number of infants lost to follow up: 1) enhance reporting systems; and 2) improve communication with primary care providers and families. In order to meet its EHDI target goals and evaluate the effectiveness of these two strategies, CDC needs to continue to support and provide technical assistance to state and territorial EHDI programs. This support includes activities to 1) promote the coordinated use of accepted and useful newborn hearing screening standards 2) enhance tracking and surveillance systems to accurately identify, match, and collect unduplicated individual identifiable data, 3) improve the capacity of state and territorial programs to accurately report the status of every current birth throughout the EHDI process, and 4) provide planning and implementation support for the enhanced interoperability of EHDI Information Systems with Electronic Health Records (EHR) including a specific focus on the exchange of newborn hearing screening and audiological diagnostic data.



**ENVIRONMENTAL HEALTH**

*CDC is revising measures to develop a more consolidated approach. These changes will be made in the FY 2013 President's Budget request.*

Measure	FY	Target	Result
6.E.2: Maintain the percentage of cost savings each year for NCEH/ATSDR as a result of the Public Health Integrated Business Services HPO. ( <i>Efficiency</i> )	2011	30%	Dec 31, 2011
	2010	29%	42% (Target Exceeded)
	2009	28%	38% (Target Exceeded)
	2006	Baseline	0%

Unique Identifier	Data Source	Data Validation
6.E.2	CDC's Management Analysis and Services Office, COMPARE data system	CDC's Financial Management Office validates the data against FTE database information for the Management Analysis and Services Office

**Efficiency Measure 6.E.2:**

The Public Health Integrated Business Services High Performing Organization (PHIBS HPO) was instituted as a five year process, from 2006 to 2011. In 2010, CDC's Organizational Improvement efforts lead to the dissolution of Coordinating Centers, which included changes to staffing and administration priorities. As a result, the PHIBS HPO is no longer able to be tracked in its original state. The cost savings reported for 2010 exceeded the 2010 target and are reflective of cost factors that have been adjusted in order to align with the cost factors used to establish the original baselines based on the Coordinating Centers and reported PHIBS related duties. CDC is considering a limited number of agency-wide measures to replace programmatic efficiency measures for FY 2013.

**LONG-TERM OBJECTIVE 6.1: DETERMINE HUMAN HEALTH EFFECTS ASSOCIATED WITH ENVIRONMENTAL EXPOSURES.\***

Measure	FY	Target	Result
6.1.1: Number of environmental chemicals, including nutritional indicators that are assessed for exposure of the U.S. population. ( <i>Output</i> )	2012	323	Oct 31, 2012
	2011	323	Oct 31, 2011
	2010	323	323 (Target Met)
	2009	323	323 (Target Met)
	2008	280	280 (Target Met)
	2007	250	293 (Target Exceeded)
	2006	180	274 (Target Exceeded)
6.1.2: Complete studies to determine the harmful	2012	25	Oct 31, 2012
	2011	25	Oct 31, 2011

health effects from environmental hazards (Output)	2010	25	25 (Target Met)
	2009	25	25 (Target Met)
	2008	12	32 (Target Exceeded)
	2007	25	36 (Target Exceeded)
	2006	25	34 (Target Exceeded)
6.1.3: Number of laboratories participating in DLS Quality Assurance and Standardization Programs to improve the quality of their laboratory measurements (i.e., newborn screening, chronic diseases [diabetes, cholesterol], environmental health [blood lead, cadmium and mercury], and nutritional indicators). (Output)	2012	974	Oct 31, 2012
	2011	974	Oct 31, 2011
	2010	974	974 (Target Met)
	2009	959	967 (Target Exceeded)
	2008	967	967 (Target Met)
	2007	1,001	1,001 (Target Met)
	2006	990	987 (Target Not Met but Improved)

\* CDC is revising measures to develop a more consolidated approach. These changes will be made in the FY 2013 President's Budget request.

Unique Identifier	Data Source	Data Validation
6.1.1	Environmental Health Laboratory data systems	Data systems at Centers for Disease Control and Prevention (CDC) Environmental Health Laboratory monitor laboratory performance under Clinical Laboratory Improvement Amendments (CLIA). CDC also conducts quality assurance activities internally to confirm results and ensure their validity.
6.1.2	Annual Division Report (year-end)	Internal Program Review
6.1.3	Environmental Health Laboratory data systems	Data systems at Centers for Disease Control and Prevention (CDC) Environmental Health Laboratory monitor laboratory performance under Clinical Laboratory Improvement Amendments (CLIA). CDC also conducts quality assurance activities internally to confirm results and ensure their validity.

### Long-term Objective 6.1, Performance Measure 1

The 2010 target of 323 chemicals assessed was met. Currently, CDC's Environmental Health Laboratory can measure at least 450 environmental chemicals and dietary indicators in human blood or urine. However, not all of these are yet measured in specimens obtained from participants in the National Health and Nutrition Examination Survey (NHANES). In FY 2010, the laboratory continued to measure environmental chemicals in people who participated in NHANES. These data provide unique exposure data to scientists, physicians, and health officials and can be used in multiple ways: 1) to determine which chemicals and indicators are in peoples bodies and at what levels; 2) to establish national reference ranges

against which physicians and health officials can determine whether a person or group has an unusually high exposure; 3) to track trends in levels of exposure in the population over time; and 4) to assess the effectiveness of public health actions. The laboratory published data on levels of cotinine in the U.S. population. Environmental tobacco smoke (ETS) has significant health effects on cardiovascular and respiratory disease. Cotinine is a metabolite of nicotine, and for nonsmokers, levels of cotinine in people's blood tracks exposure to ETS. In the past 15 years, data show that blood cotinine levels for nonsmokers in the U.S. population have decreased about 70 percent, indicating that public health interventions to reduce ETS exposure have been successful. For FY 2012, the program is maintaining its target of measuring 323 environmental chemicals and nutritional indicators in the U.S.

### **Long-term Objective 6.1, Performance Measure 2**

The 2010 target of 25 studies was met/exceeded. This measure reflects the efforts of CDC's Environmental Hazards and Health Effects (EHHE) Program. CDC investigates the human health effects of exposures in the environment, such as water and air pollutants, mold, and radiation as well as exposures related to natural and other disasters. The results of these investigations and studies help CDC develop, implement, and evaluate actions and strategies for preventing or reducing harmful exposures and their health consequences. Since FY 2005, the program has significantly exceeded its targets. Strained financial and staff resources in state health departments over the past several years have required state health departments to rely more heavily on CDC's technical expertise and assistance to conduct investigations into suspected environmental exposures. Most of the studies conducted by EHHE are a result of response activities to clarify emerging environmental threats. Response activities by definition are not planned. Other factors that affect this performance measure are the number of natural disasters and emergency response situations. EHHE investigated an outbreak of 111 fatal, diethylene glycol (DEG) poisonings among infants in Nigeria. The team interviewed 71 potential case patient families, collected medications for DEG analysis and reviewed medical records. The team successfully confirmed the source of the outbreak (a teething medication), identified an additional contaminated medication, enhanced surveillance and initiated a public awareness campaign. Results were published in the MMWR in December of 2009. Targets are established based on experience and available resources.

### **Long-term Objective 6.1, Performance Measure 3**

The program ensures the quality of several different tests in a large number of laboratories that voluntarily participate in quality assurance and standardization programs. In FY 2010, the program met its target of 974 laboratories. Although CDC makes every effort to encourage participation in these programs, it cannot compel laboratories to participate. The targets for FY 2011 and FY 2012 realistically reflect anticipated participation in these voluntary standardization programs. One of the standardization programs, the Newborn Screening Quality Assurance Program (NSQAP) is the only comprehensive program in the world devoted to ensuring the accuracy of newborn screening tests. In many cases, detecting these disorders spells the difference between life and death for newborns; in other instances, identifying babies with a disorder means that they can be treated and thus not face life-long disability or cognitive impairment. In FY 2011, NSQAP will produce, certify, and distribute over 750,000 dried-blood spot quality assurance materials to newborn screening laboratories in the U.S. and worldwide. The program provides data reports for use in program evaluation and informed selection of commercial screening test kits and products to enhance performance.

In FY 2012, the program will maintain its target of 974 laboratories participating in the standardization and quality assurance programs due to the voluntary nature of the participation.

## **LONG-TERM OBJECTIVE 6.2: PREVENT OR REDUCE ILLNESSES, INJURY, AND DEATH RELATED TO ENVIRONMENTAL RISK FACTORS.\***



Measure	FY	Target	Result
6.2.2: Number of children under age 6 with elevated blood lead levels. (Outcome)	2012	67,000	June 30, 2014
	2011	67,000	Jun 30, 2013
	2010	79,000	Jun 30, 2012
	2009	95,000	Jun 30, 2011
	2008	104,000	255,000 (Target Not Met)
	2007	112,000	255,000 (Target Not Met)
	2006	190,829	121,000 (Target Exceeded)
6.2.4: Increase the proportion of those with current asthma who report they have received self – management training for asthma in populations served by CDC funded state asthma control programs. (Output)	2012	51%	July 31, 2014
	2011	50%	July 31, 2013
	2010	49%	July 31, 2012
	2009	48%	July 31, 2011
	2008	47%	43% (Target Unmet, but within random error limits)
	2007	46%	46%
	2006	Baseline	45%

\* CDC is revising measures to develop a more consolidated approach. These changes will be made in the FY 2013 President's Budget request.

Unique Identifier	Data Source	Data Validation
6.2.2	NHANES	Increased reporting from laboratories electronically, resulting in fewer errors introduced in data during data entry.
6.2.4	BRFSS Asthma Call-Back Survey	Approximately 4-6 month process conducted by CDC staff that involves processing, cleaning, weighting, and checking survey data to develop an aggregate data set for reporting purposes.

### Long-term Objective 6.2, Performance Measure 2

Authorized in 1998, the Childhood Lead Poisoning Prevention Program uses funds to develop programs and policies to prevent lead poisoning, educate the public and health-care providers about lead poisoning, fund state and local health departments to determine the extent of lead poisoning by screening for elevated blood lead levels, help ensure medical and environmental follow-up for lead poisoning, and develop neighborhood-based efforts to prevent lead poisoning.

The program provides over 80 percent of its budget to fund competitive cooperative agreements in 34 states and six localities for lead poisoning prevention programs. Funding for the current five-year project period began in July 2006 and final awards were sent to grantees during June 2010.

The Agency proposes to revise this Government Performance and Results Act (GPRA) Measure 6.2.2 in the FY 2013 Congressional Justification. The current GPRA Measure 6.2.2 relies on NHANES data of the number of children with elevated blood lead levels in the U.S. The analysis and interpretation of the NHANES data has highlighted some significant challenges with the current measure. Because the number of children with elevated blood lead levels in the U.S. is steadily decreasing, determining stable national prevalence estimates and changes in estimated prevalence from year to year using NHANES is increasingly difficult. In the 2005-06 and 2007-08 NHANES cycles, there were eleven and nine survey participants respectively, who were age 1-5 with blood lead levels greater than or equal to 10 µg per deciliter. Attempting to extrapolate a national estimate based on such a small sample of children increases the chances that a sampling peculiarity will occur, either greatly increasing or decreasing an estimate when the actual population with elevated blood lead is relatively stable. While an estimate from any sample has some variability, using numbers this small restricts our ability to estimate precisely the

number of lead poisoned children, except within a large margin of error. For example, for 2007-2008, we can only be reasonably sure that the actual number of children with elevated blood lead falls somewhere between 38,700 and 656,600 children. Thus, the 2007 and 2008 actual values are within the range of the targets, but cannot be precisely determined because of the variability of the data. Therefore, the 2007 and 2008 targets appear to be unmet. We will propose replacing the current GPRA Measure with tracking overall blood lead levels and disparities in blood lead levels among race and income level groups using the geometric mean (GM) blood lead level for the entire population of children aged 1-5 included in the NHANES sample.

With FY 2012 funding, CDC will fund a new Healthy Homes cooperative agreement that for approximately 46 programs. These programs will implement strategic plans for their jurisdictions to address multiple health hazards in homes, including exposure to lead. By the end of FY 2012, 46 states will be implementing the new Healthy Homes Lead Poisoning Surveillance System. This web-based system allows programs to gather data related to home health hazards such as the presence of lead, asthma triggers, second hand smoke and the absence of smoke alarms.

#### **Long-term Objective 6.2, Performance Measure 4**

Asthma is the fourth leading cause of work absenteeism and diminished productivity, resulting in nearly 12 million missed or less productive work days annually. According to the National Heart, Lung, and Blood Institute (NHLBI) asthma costs the nation \$19.7 billion dollars every year. One of four activities outlined by the National Asthma Education and Prevention Program (NAEPP) of the NHLBI in 2002 for providing quality care to patients with asthma is the provision of education to the patient about the steps they can take in managing their disease and what steps to take if symptoms worsen (self-management). An analysis conducted by the Cochrane Collaboration showed reductions (20 - 35 percent) where self-management education reduced asthma exacerbations, emergency room visits, unscheduled office visits to the doctor, and days off work or from school (Gibson et al, 2002). All states funded by CDC's National Asthma Control Program (NACP) to address asthma from a public health perspective work with partners throughout their states to implement educational and training interventions. Results from a systematic review of reports provided by states in the implementation phase of their program (30 at time of review) showed that 100 percent of state asthma control programs conduct training based interventions. In addition, the review found that 25 states (83.3 percent) are currently conducting asthma educational activities that are designed to improve medical practitioner adherence and the proper diagnosis, control, and management of asthma. A variety of other training-based interventions are conducted by state asthma control programs, including those which are designed to directly educate persons with asthma and their families (70 percent of states). These numbers represent the strong emphasis state asthma control programs place on increasing the likelihood that persons with asthma will receive information about asthma self-management either through the activities of their medical providers or through direct contact with the state asthma program. CDC believes this measure provides a more accurate portrait of the performance the program is making towards reducing the burden of asthma within funded states. The NACP has increased national and state asthma surveillance. CDC's data source is the Behavioral Risk Factor Surveillance System (BRFSS) Asthma Call-Back Survey.

The data that CDC is collecting, analyzing, and reporting for this measure is based on calendar year not fiscal year. Results for CY 2006 are reported at 45 percent and CY 2007 at 46 percent. CY 2008 did not meet the target of 47 percent, but is still within statistical random error limits. CDC expanded the number of states participating in the ACS from 20 states in CY 2006 to 29 states in CY 2008, therefore the composition of the data group changed. This may provide an explanation for the decrease.

**INTENTIONAL INJURY**

**LONG-TERM OBJECTIVE 7.1: ACHIEVE REDUCTIONS IN THE BURDEN OF INJURIES, DISABILITY, OR DEATH FROM INTENTIONAL INJURIES FOR PEOPLE AT ALL LIFE STAGES.**

Measure	FY	Target	Result
7.1.1: Reduce youth homicide rate by 0.1 per 100,000 annually. (Outcome)	2012	8.6/100,000	Aug 31, 2014
	2011	8.7/100,000	Aug 31, 2013
	2010	8.7/100,000	Aug 31, 2012
	2009	8.8/100,000	Aug 31, 2011
	2008	8.8/100,000	7.4/100,000 (Target Exceeded)
7.1.2a: Reduce victimization of youth enrolled in grades 9-12 as measured by: a reduction in the lifetime prevalence of unwanted sexual intercourse (Outcome)	Out-Year Target	6.1/100,000 (2013)	Dec 31, 2014
	2011	6.4%	Dec 31, 2012
	2009	6.7%	7.4% Target Not Met but Improved)
	2007	6.9%	7.8% (Target Not Met)
7.1.2b: Reduce victimization of youth enrolled in grades 9-12 as measured by: the 12-month incidence of dating violence (Outcome)	Out-Year Target	7.3/100,000 (2013)	Dec 31, 2014
	2011	7.7%	Dec 31, 2011
	2009	8.1%	9.8% (Target Not Met but Improved)
	2007	8.4%	9.9% (Target Not Met)
7.1.2c: Reduce victimization of youth enrolled in grades 9-12 as measured by: the 12-month incidence of physical fighting. (Outcome)	Out-Year Target	27.4/ 100,000 (2013)	Dec 31, 2014
	2011	28.4%	Dec 31, 2011
	2009	29.3%	31.5% (Target Not Met but Improved)
	2007	30.3%	35.5% (Target Not Met but Improved)

Unique Identifier	Data Source	Data Validation
7.1.1	National Violent Death Reporting System (NVDRS)	Data verified through CDC's National Center for Injury Prevention and Control, Office of Statistics and Programming Analysis.
7.1.2	Youth Risk Behavior Survey	Data verified through CDC's National Center for Injury Prevention and Control, Office of Statistics and Programming Analysis.

**Long-term Objective 7.1, Performance Measure 1**

Homicide is the second leading cause of death for youth ages 10-24 years in the U.S. and the fourth leading cause of death for children ages 1-14 years. This measure is monitored utilizing data from persons aged 10-24 years among states participating in the National Violent Death Reporting System (NVDRS) in 2003. This measure contributes to CDC's long-term goal to reduce homicide rates among youth aged 10-24 by 10 percent in NVDRS states with FY 2003 baseline data.

The FY 2008 target of 8.8/100,000 was exceeded for this measure (actual was 7.4/100,000). There are many factors that contribute to youth violence and homicide rates, including economic conditions, lifestyle behaviors, and social and physical environments. CDC works to prevent this violence by

identifying effective strategies that reduce risk factors and increase promotive and protective factors at the individual, family, and community levels. As trends in these risk factors change, such as poorer economic conditions or changes in the prevalence and types of substance abuse, youth violence and youth victimization may increase. CDC will continue to keep the existing projection of targets for future years as results may fluctuate and while trends are still being established.

### **Long-term Objective 7.1, Performance Measure 2**

This measure contributes to CDC's long-term goal to impact self-reported victimization of youth as measured by reductions in two of three of the following: unwanted sexual intercourse, dating violence, and physical fighting.

CDC funds numerous programs and activities to address the victimization of youth. The data source of youth victimization is CDC's Youth Risk Behavior Survey (YRBS). In the YRBS, students enrolled in grades nine to twelve are asked these questions:

- During the past 12 months, did your boyfriend or girlfriend ever hit, slap, or physically hurt you on purpose?
- Have you ever been physically forced to have sexual intercourse when you did not want to?
- During the past 12 months, how many times were you in a physical fight?

The FY 2009 targets were not met for this measure. There are many factors that contribute to youth violence and victimization, including economic conditions, lifestyle behaviors, and social and physical environments. CDC works to prevent this violence by identifying effective strategies that reduce risk factors and increase promotive and protective factors at the individual, family, and community levels. As trends in these risk factors change, such as poorer economic conditions or changes in the prevalence and types of substance abuse, youth violence and youth victimization may increase. CDC will continue to evaluate and modify efforts to achieve its targets in reducing incidences of unwanted sexual intercourse, dating violence, and physical fighting. CDC continues to keep the existing projection of targets for future years while trends fluctuate and are still being established; however, there is currently not a national program to fund states for youth violence activities. This presents a challenge with impacting national level statistics.

**UNINTENTIONAL INJURY**

**LONG-TERM OBJECTIVE 7.2: ACHIEVE REDUCTIONS IN THE BURDEN OF INJURIES, DISABILITY OR DEATH FROM UNINTENTIONAL INJURIES FOR PEOPLE AT ALL LIFE STAGES.**<sup>22</sup>

Measure	FY	Target	Result
7.2.2: Achieve an age-adjusted fall fatality rate among persons age 65+ of no more than 69.6 per 100,000. (Outcome)	<i>Out-Year Target</i>	58.7 per 100,000 (2013)	Oct 31, 2015
	2012	56.5/100,000	Oct 31, 2014
	2011	54.3/100,000	Oct 31, 2013
	2010	52.1/100,000	Oct 31, 2012
	2009	50.0/100,000	Oct 31, 2011
	2008	47.8/100,000	May 31, 2011
	2007	45.6/100,000	47.1/100,000 (Target Not Met)
	2006	43.4/100,000	44.4/100,000 (Target Not Met)
7.2.3: Decrease the estimated percent increase of age-adjusted fall fatality rates among persons age 65+ years. (Outcome)	<i>Out-Year Target</i>	9.73% reduction (2012)	Dec 31, 2014
	2011	9.66% reduction	Dec 31, 2013
	2010	9.56% reduction	Dec 31, 2012
	2009	9.45% reduction	Dec 31, 2011
	2008	9.30% reduction	May 31, 2011
	2007	9.10% reduction	-1.05% (Target Not Met)
	2006	8.82% reduction	0.87% (Target Not Met but Improved)

Unique Identifier	Data Source	Data Validation
7.2.1 - 7.2.3	National Vital Statistics System	Data verified through CDCs National Center for Injury Prevention and Control, Office of Statistics and Programming Analysis.

**Long-term Objective 7.2, Performance Measure 2**

This measure was not met for the time period between FY 2004 and FY 2007. FY 2004 was the first year of implementation of a process to track the new older adult falls baseline measures. The target of 39.0 per 100,000 population for FY 2004 was based on a best estimation of an achievable result, given trends and existing prevention efforts. The reasons CDC is not meeting the targets on falls are unclear, but rates of older adult fall deaths are increasing. Falls are the leading cause of death among adults age 65 and older. With the aging society, older adults are the fastest growing segment of the U.S. population, this will continue to be a rising public health concern. In addition, the average life expectancy has increased and death rates from cardiovascular and chronic diseases have decreased. Although the fatality rates were adjusted for age, additional age-related factors may explain the increasing rate. Advancing age is associated with physiologic changes, including decreased muscle strength and endurance, delayed reaction times, slowed reflexes, and loss of visual acuity. These changes may interact with use of psychoactive medications and chronic conditions, such as osteoporosis, arthritis, and diabetes, which put older adults at high risk of sustaining fatal fall injuries. There are currently no CDC funded national falls

<sup>22</sup> Targets do not reflect impact of funding from PPACA/PPHF.

prevention activities implemented at the state level to reduce the fall fatality rate, although a pilot study in a limited number of states is underway.

Efforts are underway to decrease deaths from falls among older adults. For example, within HHS, CDC is collaborating with states to provide custom exercise classes designed to improve strength, balance, and mobility; education about how to reduce fall risk factors; assistance to improve the home environment; and medical referrals as appropriate. CDC will seek to revise its measures to reflect milestones and outcomes which may be more practical to achieve given resources, capacity, and trends in this important cause of morbidity and mortality in the U.S.

Data for FY 2008 has not been released by the National Center for Health Statistics (NCHS). Therefore, the program is unable to report the actuals at this time. As a result, the reporting date for this program assessment measure has been shifted from October 2010 to May 2011 to allow NCHS to release the FY 2008 Vital Statistics Data. Existing targets will remain unchanged until FY 2008 data can be reviewed and trends assessed.

### **Long-term Objective 7.2, Performance Measure 3**

This measure was not met for the time period FY 2004 to FY 2007 although progress has been made. FY 2004 was first year of implementation of a process to track the new older adult falls baseline measures. The target of a 7.67 percent reduction was based on a best estimation of an achievable result, given trends and existing prevention efforts. The reasons CDC is not meeting the targets on falls are unclear, but rates of older adult fall deaths are increasing. Falls are the leading cause of death among adults age 65 and older. With the aging society, older adults are the fastest growing segment of the U.S. population, this will continue to be a rising public health concern. In addition, the average life expectancy has increased and death rates from cardiovascular and chronic diseases have decreased. In addition, although the fatality rates were adjusted for age, additional age-related factors may explain the increasing rate. Advancing age is associated with physiologic changes, including decreased muscle strength and endurance, delayed reaction times, slowed reflexes, and loss of visual acuity. These changes may interact with use of psychoactive medications and chronic conditions, such as osteoporosis, arthritis, and diabetes, which put older adults at high risk of sustaining fatal fall injuries.

Efforts are underway to decrease deaths from falls among older adults. For example, within HHS, CDC is collaborating with states to provide custom exercise classes designed to improve strength, balance, and mobility; education about how to reduce fall risk factors; assistance to improve the home environment; and medical referrals as appropriate. There are currently no CDC funded national falls prevention activities implemented at the state level to reduce the fall fatality rate, although a pilot study in a limited number of states is underway. CDC will seek to revise its measures to reflect milestones and outcomes which may be more practical to achieve given resources, capacity, and trends in this important cause of morbidity and mortality in the U.S.

Data for FY 2008 has not been released by the National Center for Health Statistics (NCHS). Therefore, the program is unable to report the actuals at this time. As a result, the reporting date for this program assessment measure has been shifted from October 2010 to May 2011 to allow NCHS to release the FY 2008 Vital Statistics Data. Existing targets will remain unchanged until FY 2008 data can be reviewed and trends assessed.

Please note: Some results include negative numbers, as the actual rates are not only larger than the target rate, but also the projected rates as well.

**PUBLIC HEALTH SCIENTIFIC SERVICES**

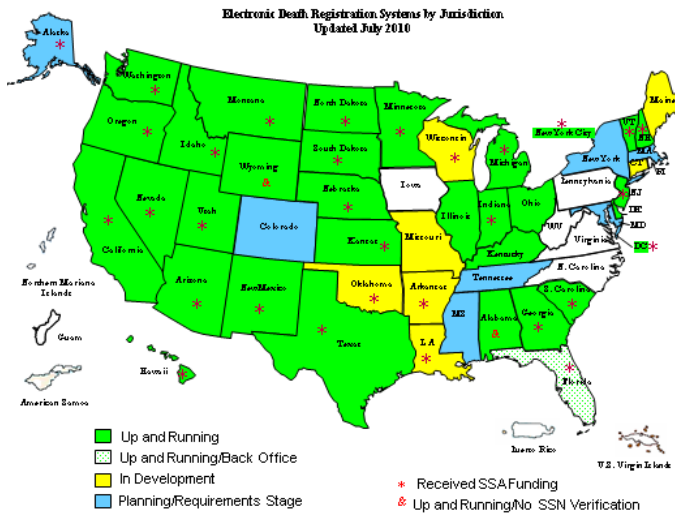
**HEALTH STATISTICS**

The systematic collection, compilation and dissemination of data reflecting the health and health behaviors of the American population is essential to guide actions and policies to improve the health of the nation. Providing timely and high-quality data is even more imperative as the U.S. faces ever-changing demographics, the globalization of society, and the constant emergence of health threats. Health statistics make it possible to document the health of the population; identify disparities by race, ethnicity, socioeconomic status, region, and other characteristics; monitor trends; identify emerging issues; and evaluate the impact of health policies and programs.

CDC’s Health Statistics program serves as the Federal agency responsible for the collection and dissemination of the nation’s vital and health statistics. To carry out its mission, Health Statistics conducts a wide range of annual, periodic, and longitudinal sample surveys and administers the national vital statistics systems.

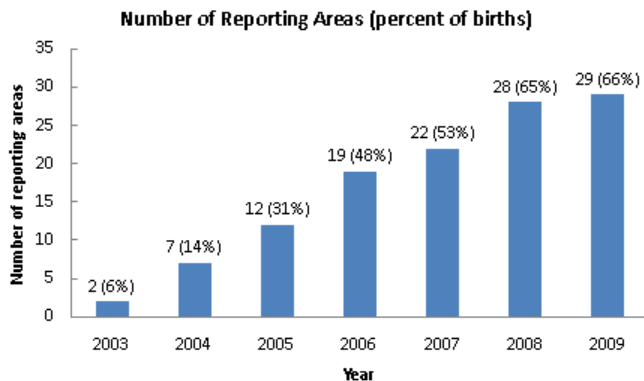
**Trends in Health Statistics**

*Vital Statistics – Electronic Death and Birth Records*



The Electronic Death Records (EDR) map at left shows the jurisdictions and the status of their electronic death record efforts. Jurisdictions in green have implemented their EDR system; however it does not mean that all the death records are online with the EDR system. States/territories (10) in white have made no progress in transitioning to EDR.

**Number of reporting areas and percent of all births by year implementing electronic birth records: 2003-2009**



Note: 2008 and 2009 include NYC.

The Electronic Birth Records (EBR) bar chart at left represents the number of jurisdictions that have implemented electronic birth records from 2003 to 2009 along with the percent of U.S births represented by these jurisdictions. By January 2013, the National Center for Health Statistics (NCHS) expects that all jurisdictions will have implemented electronic birth records and will be submitting data electronically.

### **Advances in Health Statistics**

- To improve the timeliness and quality of information derived from vital records, the vital registration systems operated by the states, New York City, the District of Columbia and the territories have been undergoing a re-engineering in partnership with the National Association for Public Health Statistics and Information and NCHS. Progress has been faster for the natality systems. By the end of 2010, the prediction is that 33 percent of states (corresponding to 72 percent of births) will have re-engineered their birth registration systems, and 3 additional states will have re-engineered their death registration systems. (see figures)
- NCHS has added components to ongoing data collections to monitor trends in the adoption of electronic health records to inform policy in this critical area. In addition, as health care providers transition to electronic health records, it will be possible for NCHS's provider surveys to transition from current practices to obtaining information directly from the records. The information now being collected will be used to inform the transition in data collection modalities. (see figure)
- The need for data at the community level is growing but the cost of collecting the needed data is considerable. This is especially true for objective health data. To meet this need, the NCHS is testing the feasibility of using blood spots for tests usually done by blood draw in the National Health and Nutrition Examination Survey. If successful, it would be possible to add selected laboratory tests to interview surveys which can more easily provide estimates at the local level.

### **CDC's Role and Major Activities**

Data from Health Statistics systems and surveys are used to track changes in health and health care, including CDC, HHS and Healthy People 2010/2020 goals, and help to ensure that program interventions achieve the greatest health impact. The data is available to policy, researchers, private industry, and the public to help inform stakeholders on health issues including health reform priorities.

- **Surveys and Data Collection Systems:** CDC health surveys and data collection systems provide critical data that represent the society's health in various areas. The systems are designed to provide health statistics to support decision making and research on health. NCHS collects data through the National Health Interview Survey, National Health Care Surveys, National Health and Nutrition Examination Survey, and birth and death data to supply information regarding a broad range of health and health care topics.
- **Data Access and Dissemination:** CDC data access and dissemination activities are designed to provide information to a wide range of users in formats to meet their needs.
- **Data Collection and Methodology:** Methodology research and dissemination is essential to provide accurate data in a timely fashion to meet increasing data requirements.

More detailed information about CDC's National Center for Health Statistics and its key partners can be found at <http://www.cdc.gov/nchs/>. More information about CDC's National Center for Health Statistics program budget and accomplishments can be found at [http://intra-apps.cdc.gov/fmo/appropriations\\_budget\\_formulation/default.asp](http://intra-apps.cdc.gov/fmo/appropriations_budget_formulation/default.asp).



**HEALTH STATISTICS PERFORMANCE**

Measure	FY	Target	Result
8.A.E.1: The number of months for release of data as measured by the time from end of data collection to data release on internet. (Outcome)	2012	9.4	Jan 31, 2015
	2011	9.5	Jan 31, 2014
	2010	9.6	Jan 31, 2013
	2009	9.7	Jan 31, 2012
	2008	9.8	Jan 31, 2011
	2007	9.9	10.8 (Target Unmet)
	2006	10.0	9.6 (Target Exceeded)

Unique Identifier	Data Source	Data Validation
8.A.E.1	National Health and Nutrition Examination Survey (NHANES), National Vital Statistics System (NVSS), National Health Interview Survey (NHIS) and the National Health Care Survey (NHCS)	Review internal information on end of data collection and release of data for NHANES, NVSS, NHIS and NHCS.

**Efficiency Measure 8.A.E.1:**

This efficiency measure was developed in 2005 and is also serving as a long-term outcome measure. Through this measure, CDC tracks improvement in the timeliness of data provided to the nation’s health decision makers. In 2003, data was released in 14.5 months and serves as the baseline. The measure will address Health Statistics data in the aggregate; the unit of measurement is months.

The 2007 target of 9.9 months was not met due to an unusual delay in closing the 2007 mortality file. A problem was encountered in a state with the adoption of an electronic death record system, resulting in state staff having to contract out data entry after system failures to collect and process the data. This resulted in a delay in sending the data to NCHS and thus the closing out the national mortality file. The state appears to have successfully made the transition to their electronic death record system.

The National Association for Public Health Statistics and Information Systems (NAPHSIS), NCHS and state representatives have instituted a joint task force to develop specific strategies to improve the timeliness and quality of birth and death data. These strategies include the targeting of poorly performing states with ongoing outreach and technical assistance from NAPHSIS and NCHS.

Another joint project focuses on efforts to actively encourage states that have not yet adopted the 2003 revised certificate to do so; having to process and report on non-comparable data involves significant inefficiencies for NCHS and delays the data dissemination process.

The re-engineering of the National Vital Statistics System will be completed this year, so internal systems will be more efficient and timely in the processing of birth and death records in 2010. The re-engineered system will enable NCHS to identify data problems earlier in the year and return problematic or incomplete records to states for corrections. Even with the addition of the re-engineered NCHS system, until all states have electronic systems in place, this problem may occur again.

**LONG-TERM OBJECTIVE 8.A.1: MONITOR TRENDS IN THE NATION’S HEALTH THROUGH HIGH-QUALITY DATA SYSTEMS AND DELIVER TIMELY DATA TO THE NATION’S HEALTH DECISION-MAKERS.**

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
8.A.1.1a: Percentage of key data users and policy makers, including reimbursable collaborators, that are satisfied with data quality and relevance. web survey ( <i>Outcome</i> )	2012	Maintain 75.2 %	Dec 31, 2012
	2011	Increase from 72.2% to 75.2%	Dec 31, 2011
	2010	Increase satisfied from 67.2% to 72.2% (agree or strongly agree)	71.3% (Unmet)
	2009	conduct survey/report results 2010	Survey was delayed (November) due to CDC conducting their own web-based customer satisfaction survey.
	2008	Baseline	67.2% Satisfied (Agree or Strongly Agree)
8.A.1.1b: Percentage of key data users and policy makers, including reimbursable collaborators, that are satisfied with data quality and relevance. federal power users ( <i>Outcome</i> )	2012	Maintain 100% Good or Excellent	Dec 31, 2012
	2011	Maintain 100% Good or Excellent	Dec 31, 2011
	2010	Maintain 100% Good or Excellent	100% Good or Excellent (Target Met)
	2009	conduct survey, maintain 100% Good or Excellent	100% Good or Excellent (Target Met)
	2007	Baseline	100% Good or Excellent
8.A.1.1c: Percentage of key data users and policy makers, including reimbursable collaborators that are satisfied with data quality and relevance. reimbursable customers ( <i>Outcome</i> )	2012	NA (will not be conducted again until 2016)	Dec 31, 2012
	2011	Increase Excellent from 56% to 61%	Dec 31, 2011
	2010	N/A	Dec 31, 2011
	2007	Baseline	91% (56% Excellent/35% Good)
8.A.1.1d: Percentage of key data users and policy makers, including reimbursable collaborators that are satisfied with data quality and relevance. data users conference attendees ( <i>Outcome</i> )	2012	Increase Excellent from 43% to 45%	Dec 31, 2012
	2010	Conduct survey/increase Excellent from 38% to 43%	June 30, 2011
	2007	Baseline	91% (38% Excellent/53% Good)
8.A.1.2: The number of new or revised charts and tables and methodological changes in Health, United States, as a proxy for continuous improvement and innovation in the scope and detail of information. ( <i>Output</i> )	2012	20	Dec 31, 2012
	2011	15	Dec 31, 2011
	2010	15	Feb 28, 2011
	2009	15	3 new detailed Trend Tables and 20 new charts (Target Exceeded)
	2008	15	4 new detailed trend tables and 26 new charts (Target Exceeded)
	2007	15	5 new detailed trend tables and 21 new charts (Target Exceeded)
	2006	15	5 new detailed trend tables and 19 new charts (Target Exceeded)
8.A.1.3a: Number of improved user tools and technologies and web visits as a proxy for the use of	2012	5	Dec 31, 2012
	2011	5	Dec 31, 2011
	2010	5	7 (Target Exceeded)

Measure	FY	Target	Result
NCHS data. Number of improved user tools and technologies ( <i>Output</i> )	2009	5	6 (Target Exceeded)
	2008	5	6 (Target Exceeded)
	2007	5	5 (Target Met)
	2006	5	5 (Target Met)
8.A.1.3b: Number of web visits ( <i>Output</i> )	2012	8.5M	Dec 31, 2012
	2011	8.0M	Dec 31, 2011
	2010	7.5 M	8.7M (Target Exceeded)
	2009	7.5 M	7.7M (Target Exceeded)
	2008	7.1 M	6.8 M (Target Not Met)
	2007	6.8 M	6.9 M (Target Exceeded)
	2006	6.45 M	6.8 M (Target Exceeded)

Unique Identifier	Data Source	Data Validation
8.A.1.1	Health Statistics Board of Scientific Counselors and other independent groups	NCHS plans to implement a systematic approach and tool for assessing the satisfaction of key data users and policy makers.
8.A.1.2	<i>Health, United States</i>	Improvement and innovation in <i>Health, United States</i> can be assessed through four components: a) new charts in the Chartbook; b) new trend tables; c) tables substantially revised; and d) major methodological changes. The published archived volumes can be inspected yearly and compared to their predecessors to measure the continuous improvement and innovation.
8.A.1.3	CDC/NCHS Website	Internal checks of data.

**Long-term Objective 8.A.1, Performance Measure 1**

This measure addresses the performance element of quality and relevance. CDC will implement a systematic approach and tool for assessing the satisfaction of key data users and policy makers (e.g., reimbursable collaborators, Assistant Secretary for Planning and Evaluation, OMB, Congressional Research Service, and others) relative to data quality and scope. The Health Statistics Board of Scientific Counselors has identified the list of key data users and policy makers to be surveyed, along with those organizations that directly work with CDC through interagency agreements. NCHS will survey the following on an intermittent basis: Reimbursable customers, Data User Conference attendees, Federal Power Users, and Web-based Users. Performance results will be used by CDC managers to drive program improvements.

In 2010, CDC conducted a series of informational interviews with Federal Power Users to assess their satisfaction with NCHS products and services including data quality, ease of data accessibility and use, professionalism of staff, relevance of data to major health issues, and relevance of data to user needs. The target of 100 percent Good or Excellent was met. NCHS conducted an online satisfaction survey of web users from November, 2009 through February, 2010 with 460 respondents. The overall satisfaction with data quality and data relevance increased from 67.2 percent in 2008 to 71.3 percent in 2010 - the target

was not met. The performance target for the measure was set at an approximate target level and the deviation from that level is small. There was no effect on overall program or activity performance. Based on the survey results (quantitative and qualitative), NCHS has identified three areas for web improvements: website navigation and architecture, social marketing and data inquiries.

The NCHS Feedback Survey for attendees of the National Conference on Health Statistics (8.A.1.d) is in the clearance process. When approval is received, volunteers will be invited to participate in the month-long NCHS Feedback survey. Results will be reported in June 2011.

Due to an error in the reporting date for the results of the survey of key data users (8.A.1.c), NCHS survey results assessing satisfaction of data quality and relevance from reimbursable customers will not be available until December 2011.

#### Website Navigation and Architecture

NCHS is currently working on web mock-ups to improve web site navigation and web architecture. By the end of June, on-line tips will be available and readily accessible to the web visitor. Over 50 percent of the NCHS web site has been migrated to CDC-mandated templates to standardize the look and feel of the entire CDC site. NCHS has limited flexibility to make changes to specifically address users concerns.

Long-term web enhancement plans include:

1. The “NCHS for You” web section has been completed, and was completed on the website.
2. NCHS conducted a usability study with 17 participants at the 2010 National Conference on Health Statistics to gain knowledge about ease of user access to NCHS information via the web. Based on survey findings, NCHS web users have three primary data tasks: downloading or accessing data; browsing publications; and specific data requests. NCHS will continue long-term enhancements (i.e. web navigation changes, data user instructions for the web) to ensure all users can easily access data.

#### Social Marketing

An NCHS committee composed of division representatives has recommended IT solutions to senior staff addressing NCHS’ digital subscriber line (DSL) capability needs for social marketing. Currently, the committee is using the CDC Local Area Network (LAN) which has DSL capability to announce and promote NCHS events on Facebook. The committee will continue to collaborate with CDC’s Twitter and Facebook staff, and expect to use the CDC LAN for NCHS’ social marketing through November. CDC utilized the Twitter and Facebook sites to announce the National Conference on Health Statistics, the National Health Interview Survey’s Data User Workshop, and releases of new reports. In addition, CDC staff are exploring using other social media avenues to use in the future.

#### Data Inquiries

The CDC/INFO currently provides responses to NCHS data inquiries. Based on a content review of the standardized responses, NCHS provided additional training for CDC/INFO staff in April, 2010, to ensure that respondents receive accurate, up-to-date information. Additional training (dates not yet determined) will be conducted in an effort to maintain ongoing communication for optimal data response.

### **Long-term Objective 8.A.1, Performance Measure 2**

This measure addresses the performance element of scope. *Health, United States* (HUS), the most comprehensive publication produced by CDC, draws information from each data system, as well as data from other federal partners and collaborators. Improvements in the scope and detail of *Health, United States* are a proxy for the scope of data produced and made available by CDC. Improvement and innovation in *Health, United States* can be assessed through four components: 1) new charts in the

Chartbook; 2) new trend tables; 3) tables substantially revised; and 4) major methodological changes. Published archived volumes can be inspected yearly and compared to their predecessors to measure the continuous improvement and innovation.

*Health, United States, 2010* is still in the clearance process and is expected to be published by February 28, 2011.

### **Long-term Objective 8.A.1, Performance Measure 3**

A primary objective of CDC is to maximize the use of data collected through investment of public funds. As the use of data increases, so does the return on investment. One way to increase use is to make data available in more easily accessible forms. CDC makes its data available in a variety of forms through the internet and works to improve the speed and efficiency with which people access the data by: 1) development of data input statements/programs that allow people quick access to data files; 2) development of Fast Stats and Quick Stats to quickly access data files; and 3) use of Beyond 20/20 software making it more likely that systems such as the CDC Health Data Interactive, the Data Resource Center for Child and Adolescent Health, Vital Stats and Healthy People 2010, will be found and used, thereby increasing the use of data already collected

The FY 2010 target of 5 improved user tools and technologies has been exceeded; the goal of 7.5M visits to the site was also exceeded. CDC was notified that there was a change in Omniture reporting that affects the way site visits are reported. This new method will be used to calculate the number of visits for FY2013 when new targets are set.

During FY 2010 the following improvements were made on the CDC website:

1. Developed a new website with proceedings from the NCHS National Health Conference and published the NCHS 50<sup>th</sup> Anniversary proceedings.
2. Released 23 new NCHS Data Briefs on topics of interest to policy makers.
3. Launched the new NHANES Environmental Chemical Data Tutorial.
4. Completed the NCHS web migration to the CDC-mandated templates. The site now has the standardized look of the CDC website.
5. Utilized Gov-delivery mailing lists to improve web alerts for users on new NCHS publications, data releases, and website updates.
6. Published announcements on events such as the National Conference on Health Statistics, the National Health Interview Survey's Data User Workshop, and releases of new reports through CDC's Facebook and Twitter channels.
7. Published the schedule of Statistical Products and Reports to provide users with up-to-date release of information in response to OMB Statistical Policy Directive 4.

**PUBLIC HEALTH SURVEILLANCE**

**LONG-TERM OBJECTIVE 8.B.1: LOWER BARRIERS TO DATA EXCHANGE ACROSS JURISDICTIONS FOR PUBLIC HEALTH SURVEILLANCE AND RESPONSE.**

Measure	FY	Target	Result
8.B.1.1: Increase the number of States that can send electronic messages to CDC in compliance with published standards. (Output)	2012	42	12/2012
	2011	30	12/2011
	2010	10	28 (Exceeded)
	2009	5	22 (Exceeded)
	2008	Baseline	0

Unique Identifier	Data Source	Data Validation
8.B.1.1	NEDSS, PHIN Certification	HL7 messages received by CDC

**Long-term Objective 8.B.1, Performance Measure 1**

This measure assesses States’ capabilities to exchange data via electronic messages with CDC consistent with established standards for National Notifiable Disease Case Notifications (e.g., PHIN requirements, message specification and mapping guides, and vocabulary and format standards). In order for States to share information for routine surveillance and outbreak response, they must be able to generate messages that use a common set of standards and specifications. This ensures that the data can be shared regardless of the State’s unique systems and infrastructure. The ability to send electronic data will improve public health through more timely and complete identification of cases of notifiable diseases, sharing case reports for follow-up and management with other jurisdictions, and more coordinated emergency response across jurisdictional lines.

The 2010 results of 28 states exceeded the target of 10. As of December 2010, there were three case notification message specifications published for reporting jurisdictions to use to submit case notifications to CDC for nationally notifiable diseases--guides were available for tuberculosis, varicella, and generic conditions (the generic message can be sent for 26 nationally notifiable conditions which do not have disease-specific data that need to be reported to CDC). The status of implementation of these guides as of December 01, 2010, is as follows:

- 28 of 50 TB reporting jurisdictions in production with the TB case notification message.
- A total of 20 of 40 reporting jurisdictions were in production with the varicella case notification message.
- There were 5 of 50 reporting jurisdictions in production with the generic message.

All reporting jurisdictions are not expected to use each case notification message that is published. Reporting jurisdictions which did not make a nationally notifiable condition reportable are not expected to send or message data to CDC about those conditions. For some conditions (most notably arboviral conditions and influenza-associated pediatric mortality) other mechanisms for reporting data to CDC existed prior to the development of the messaging option; hence, some reporting jurisdictions might not utilize the case notification messaging option to send CDC data or they may transition to messaging more slowly. A number of factors may affect the ability for states to transition to the case notification message for nationally notifiable conditions; these include the following: a) states have numerous public health

priorities they need to address actively and the transition to messaging data to CDC is not among their high priorities, b) state public health resources have declined due to the economic downturn in our country, and there might be no additional resources available from CDC or elsewhere to support the transition to messaging, The transition to the TB case notification message has been more successful than the other case notification messages to date in large part because of the resources the TB program has had to promote and support the transition to messaging. For example, the TB program provides reporting jurisdictions cooperative agreement funds which can be used for the transition to messaging and the TB program provided substantial monitoring and technical support to manage the transition.

**LONG-TERM OBJECTIVE 8.B.2: IMPROVE ACCESS TO AND REACH OF CDC'S SCIENTIFIC HEALTH INFORMATION AMONG KEY AUDIENCES TO MAXIMIZE HEALTH IMPACT.**

Measure	FY	Target	Result
8.B.2.1: Provide health information to health professionals and partner organizations (e.g. state and local health departments) in order to educate, inform and improve health outcomes (system approaches to health) a. Number of subscribers to the <i>Morbidity and Mortality Weekly Report</i> (MMWR)	2012	135,322	12/2012
	2011	132,822	12/2011
	2010	130,322	130,357 (Target Exceeded)
	2009	104,103	110,771 (Target Exceeded)
	2008	Baseline	76,000
8.B.2.2 Increase the electronic media reach of CDC Vital Signs through the use of mechanisms such as CDC.gov and social media outlets*	2012	420,000 (20% over 2011)	10/2012
	2011	350,000 (40% over 2010)	10/2011
	2010	Baseline	256,243
	2009	Baseline	0
8.B.2.3 Increase the number of annual Community Guide reviews.*	2012	15	12/2012
	2011	12	12/2011
	2010	9	18
	2009	6	10
8.B.2.4 Increase the number of counties/communities that implement evidence-based policies/interventions as a result of their county health ranking. (MATCH County Rankings program)*	2012	20	12/2012
	2011	10	12/2011
	2010	Baseline	5

\* Also represents a measures in the HHS 2010-2015 Strategic Plan

Unique Identifier	Data Source	Data Validation
8.B.2.1	Electronic subscribers – GovDelivery statistics Hard-copy subscribers – CDC Management Analysis and Services Office (MASO), the Massachusetts Medical Society (MMS), and the Superintendent of Documents	Staff collects usage statistics on an on-going basis and monitors improvements over time.

Unique Identifier	Data Source	Data Validation
8.B.2.2	The data source for this measure is Omniture® web analytics, which is a software product that provides consolidated and accurate statistics about interactions with CDC.gov and social media outlets as individuals seek and access information about <i>CDC Vital Signs</i> .	<i>CDC Vital Signs</i> is a new publication combining science, policy, and communication to inform the public and policymakers about progress in key areas of public health using clear, concise, and compelling data. New data and their policy implications will be presented monthly in a stand-alone MMWR publication, which will be linked to electronic resources that provide additional information in formats readily usable by the public and the media.
8.B.2.3	The Guide to Community Preventive Services (Community Guide) Project Management System	Ongoing validation of all data in the Community Guide Project Management System, and cross referencing with official minutes of Task Force meetings and conference calls.
8.B.2.4	Association of State and Territorial Health Officials (ASTHO) State and Territorial Public Health Survey.	The 2010 ASTHO survey is the second survey in a longitudinal series about state/territorial health agency responsibilities, structure, planning and quality improvement activities, workforce, and more that provides core data for ongoing public health systems research and a source for tracking state public health performance and best practices. Iterative draft versions of the survey were reviewed by State Public Health Agency (SPHA) senior staff, ASTHO Alumni, public health systems researchers, ASTHO staff, and representatives of other national public health organizations. The survey was then pilot tested by a select group of public health experts including former state health officials (SHOs) and SPHA senior staff. The final surveys were sent to senior deputies in the 57 state and territorial health agencies (50 states, 6 territories, and the District of Columbia). Telephone and e-mail follow-up was conducted as needed.

**Long-term Objective 8.B.2, Performance Measure 1**

CDC provides health information to health professionals and partner organizations in order to educate, inform and improve health outcomes.

MMWR is the nation’s leading public health bulletin and the flagship publication of CDC. MMWR provides public health officials and health-care providers with the reliable recommendations necessary to: (a) direct response to disease outbreaks or public health emergencies, (b) educate peers and the public, and (c) provide proven practices for disease and injury prevention and control.

MMWR's distribution is far reaching, and electronic distribution is expanding. The 2010 result of 130,357 subscribers to the MMWR exceeded the target of 130,322. Currently, over 115,000 persons receive the *MMWR* electronically, and the *MMWR* website receives approximately 1.5 million hits per month. MMWR is also indexed in PubMed, which allows individuals to access full-text MMWR content electronically. Through PubMed, MMWR content is accessed over 13,000 times per month. In addition, weekly MMWR podcasts of published reports receive approximately 67,000 hits per month.

MMWR will continue to serve as the communication vehicle for CDC, publishing timely and accurate science-based public health information and associated CDC or CDC-sanctioned recommendations and surveillance data.

**Long-term Objective 8.B.2, Performance Measure 2**



The public health indicators to be addressed in the monthly issues of the *CDC Vital Signs* Program are related to the leading causes of morbidity and mortality in the United States. This includes the five leading cause of death—heart disease, cancer, stroke, chronic lower respiratory diseases, and unintentional injury—and contributing causes of death such as tobacco use, binge drinking, and obesity. These five causes of death combine to represent 85 percent of deaths from the 10 leading causes. Addressing these leading causes of death and disability by targeting individual and public behavior and medical care, public health, and policy-making practices will have a substantial impact on the nation's health. The *CDC Vital Signs* Program will do so by providing the critical information that individuals need to take steps to improve their own health in these key areas. At the same time, the information will assist policy makers and practitioners in developing and implementing policies and practices based on the most current public health research available.

*CDC Vital Signs* is an innovative program at the intersection of science, policy, and communications. The concept for the *CDC Vital Signs* Program was developed late in 2009 and the first issue was published on July 6, 2010. The twelve annual *CDC Vital Signs* Program topics include the five topics coinciding with the five leading causes of death in the U.S. An additional three of these twelve topics are known risk factors of these five leading causes of death, namely, obesity, tobacco use, and alcohol use. Due to the magnitude of morbidity, mortality, and financial cost associated with the indicators addressed in each issue of *CDC Vital Signs*, small changes in individual behavior, medical care practices, and public health policies that are expected to result from the release and use of this information have the potential to transform the nation's medical care and public health systems.

Three issues of *CDC Vital Signs* were released in Fiscal Year (FY) 2010, and baseline data reflect three months of data collection. In FY 2011 and beyond, twelve issues of *CDC Vital Signs* will be released, and the increase from three to twelve issues is anticipated to result in a substantial expansion of media reach between Fiscal Years 2010 and 2011.

In the future, as the program matures, CDC will increase the number of electronic media channels that are used to disseminate *CDC Vital Signs*, which will yield further increases in media reach; however, media channels are limited, and saturation of the market will eventually occur. The anticipated result of market saturation is a more gradual increase in annual media reach (as expected in FY 2013 and beyond) rather than the large increases anticipated in FY 2011 and FY 2012. CDC will continue to enhance the use of existing media channels after saturation occurs, which will contribute to ongoing growth in reach in the future.

### **Long-term Objective 8.B.2, Performance Measure 3**

*Community Guide* systematic review findings form the basis for evidence-based recommendations about effective programs and policies for increasing wellness and preventing many chronic and infectious diseases, disabilities, and injuries. Increasing the number of reviews completed each year will lead to the following impacts:

- Increase in number of Task Force findings and recommendations;
- Increased implementation of evidence-based practices and policies;
- Increase in availability of relevant information to assist decision makers and practitioners in prioritization of interventions for implementation;
- Increase in cost savings for federal and state programs including Medicare/Medicaid, Community Health Centers, the Indian Health Service, the Veteran Health Administration, etc.;
- Increased efficiency in use of resources and effectiveness of prevention efforts.

The measure is the number of reviews for which the Task Force issues one or more findings or recommendations. Targets have been set based on anticipated increase in *Community Guide* infrastructure to enable completion of more high priority reviews. The actual number of reviews initiated and completed by the *Community Guide* has been erratic and has depended on: the number of available trained and qualified scientific staff; the complexity of the specific review; the amount of scientific evidence available; whether the review is a new review or an update of an existing review; and availability of funding. Supplemental resources are often provided by other CDC programs in support of specific reviews in their area of interest. These funds are typically received at the end of the fiscal year, therefore not allowing for reflection in formal performance targets. In FY 2007, four *Community Guide* reviews were completed; in FY 2008, 20; and in FY 2009, 10. In FY 2010, the *Community Guide* completed 18 reviews, exceeding the target of 9. The FY 2010 actual reported number for *Community Guide* reviews was much higher than the FY 2010 target because there were an unusually large number of updated reviews.

Moving into FY 2012, the *Community Guide* will focus its systematic review efforts on conducting new reviews, which take much more time and staff resources to complete than updating reviews. On average, it takes 18 months to complete a new review, which is almost double the average length in time for completing a review update. In FY 2012, new reviews will focus on select high priority areas as determined by the Task Force on Community Preventive Services (Task Force) and support CDC's Winnable Battle areas. For updated reviews, CDC's *Community Guide* scientific staff does not foresee a good amount of new scientific evidence being available between now and the end of FY 12 that would lead to a substantial number of review updates in FY 2012.

Targets are considered ambitious, as many of the systematic reviews that the *Community Guide* needs to undertake to provide guidance in addressing the most important public health challenges are complex. They must adequately reflect the involvement of a wide range of socio-ecologic factors as well as health system transformation. They must also interface with the findings of the *Guide to Clinical Preventative Services*, as developed by the U.S. Preventative Services Task Force, in ways that provide synergies to better meet the needs of healthcare and public health decision makers. The *Community Guide*'s recent experience has also suggested that updates of our existing reviews will also be affected by increasing complexity. Finally, there is increasing demand from end-users and Congress for improved and more detailed guidance on key issues related to implementation of the interventions, such as costs, resource needs, and applicability to different populations and settings. Relevant data are often incomplete or ambiguous, which requires further development of methods for integrating information derived from data from multiple sources, and theory.

To achieve future targets, CDC will ensure adequate infrastructure to support the regular prioritization of reviews, conduct of high priority reviews, bringing of the reviews to the Task Force to secure Task Force findings and recommendations, methods refinement, dissemination to key audiences, and ensuring adequate input of Liaisons and partners at all stages of *Community Guide* work. CDC has made progress on streamlining review processes to ensure completion of reviews in a timely manner.

#### **Long-term Objective 8.B.2, Performance Measure 4**

The first annual *County Health Rankings – Mobilizing Action Toward Community Health (MATCH)* were released on February 17, 2010. The *County Health Rankings* is an initiative to rank the health of all counties within every state based on a summary measure of health outcomes and a related summary measure of health determinants. This project was initiated to increase awareness of the multiple determinants of health, including social and economic factors, the physical environment, clinical care access and quality, and health promoting behaviors.

This effort supports a comprehensive, prevention focused approach to health by including traditional and non-traditional determinants at the local level. Providing annual rankings and consistent use of population-based health measures will allow counties to assess their progress over time as well as

compare their health to other counties within their state. From a national and state perspective, MATCH could be useful in drawing insights from the healthiest counties and identifying other counties that could benefit from additional resources and attention.

The 2010 ASTHO State and Territorial Public Health Survey data provides information to establish the performance baseline. The specific survey measure used is the number of states reporting they have, “Developed partnerships across multiple sectors to improve community health.” Future iterations of the ASTHO Survey will capture the actual number and types of evidence-based policies/interventions that were implemented as a result of information conveyed by the rankings. Additionally, beginning in 2011, this measure will be supplemented with similar data from the National Association of County and City Health Officials (NACCHO) survey, which will collect information from local health departments on the use of the County Health Rankings to develop partnerships across multiple sectors to improve community health.

Building off of the RWJF three-year pilot, CDC proposes to develop a comprehensive national MATCH program that improves the health of communities through shared responsibility. The basic elements of the program will include the following activities:

- Promote utilization of the County Health Rankings
- Evaluate and improve usability, utility, and associated public health impact of the Rankings for 2011 and beyond
- Develop a complementary companion Healthy Cities Index, primarily based on sub-county level data that can be used to rate and improve the health outcomes and related health determinants in major metropolitan areas.
- Collaborate with internal and external partners to identify and provide evidence-based tools and interventions that address the Rankings measures and constructs

**LONG-TERM OBJECTIVE 8.B.3: INCREASE THE NUMBER OF FRONTLINE PUBLIC HEALTH WORKERS AT THE STATE AND LOCAL LEVEL THAT ARE COMPETENT AND PREPARED TO RESPOND TO BIOTERRORISM, INFECTIOUS DISEASE OUTBREAKS, AND OTHER PUBLIC HEALTH THREATS AND EMERGENCIES; AND PREPARE FRONTLINE STATE AND LOCAL HEALTH DEPARTMENTS AND LABORATORIES TO RESPOND TO CURRENT AND EMERGING PUBLIC HEALTH THREATS.**

Measure	FY	Target	Result
8.B.3.1: Evaluate the impact of training programs conducted by the NLTN on laboratory practices. <i>(Output)</i>	2012	More than 50% of public health and clinical laboratorians attending NLTN public health laboratory workshops either updated or improved laboratory policies or practices as a result of the course.	Dec 31, 2012
	2011	More than 65% of public health and clinical laboratorians attending biosecurity and biosafety NLTN courses who reported lacking practices for protection of individuals, security of assets and information, or training/practice drills added these practices or modified current practices as a result of the course.	Dec 31, 2011

Measure	FY	Target	Result
	2010	More than 65% of public health and clinical laboratorians attending biosecurity and biosafety NLTN courses who reported lacking practices for protection of individuals, security of assets and information, or training/practice drills added these practices or modified current practices as a result of the course.	70% (Target Met)
	2009	More than 40% of public health and clinical laboratorians attending biosecurity and biosafety NLTN courses who reported lacking practices for protection of individuals, security of assets and information, or training/practice drills added these practices or modified current practices as a result of the course.	90% (Target Exceeded)
	2008	More than 40% of public health and clinical laboratorians attending biosecurity practice NLTN courses who reported lacking practices for physical security/access control, information security and training/practice drills added these practices or modified current practices as a result of the course.	51% (Target Met)
	2007	More than 40% of public health and clinical laboratorians attending biosecurity practice NLTN courses who reported lacking practices for physical security/access control, information security and training/practice drills added these practices or modified current practices as a result of the course.	51% (Target Met)
	2006	90% of the public health and clinical laboratorians attending NLTN courses can correctly handle, process, or identify potential disease agents.	90% (Target Met)

Unique Identifier	Data Source	Data Validation
8.B.3.1	Data for the FY 2006 - FY 2011 targets are related to laboratory safety and security. The data are collected following each course, reviewed, and evaluated by a statistician.	Data are reviewed by the CDC Training Advisor responsible for the course. Collective data are checked quarterly.

**Long-term Objective 8.B.3, Performance Measure 1**

The National Laboratory Training Network (NLTN) provides cost-effective, high-quality continuing education in the laboratory sciences. During FY 2010, the NLTN trained more than 34,500 public health and clinical laboratorians in more than 181 courses via hands-on workshops, seminars, online and computer-based courses, audio conferences, and webcasts. NLTN training courses are developed based on documented training needs and delivered in collaboration with state public health laboratories. Course topics include bioterrorism and chemical terrorism preparedness; safe packaging and shipping of diagnostic and infectious agents; biosafety and biosecurity; antimicrobial susceptibility testing; infectious disease testing, mycology, foodborne illness, parasitology, and pandemic influenza preparedness. All training events are evaluated to ensure that the defined learning objectives were met, an appropriate level of knowledge was gained, or a measurable improvement in laboratory practice or performance was reported.

A positive training impact for 70% percent of the course attendees was achieved in FY 2010, exceeding the target of 65%. The decrease from 90% to 70% in FY 2010 was expected. FY2010 represents the

fourth year biosafety and biosecurity have been offered to public health laboratories. The audience has become newly saturated with this information. FY 2011 will target specific regions of the country that have not received training. After FY 2011, the frequency of biosafety and biosecurity training courses will decrease to level appropriate for refreshing skills and addressing staff turnover.

In FY 2012, the performance target will shift from the biosafety and biosecurity focus of previous years to NLTN's public health laboratory workshops. These workshops provide intensive hands-on training in critical public health laboratory areas such as rabies, foodborne illness, influenza, mycobacteriology, virology, parasitology, mycology, select agents, vaccine-preventable diseases, and other infectious diseases. The intensive transfers of laboratory techniques and practices are unique to NLTN and provide core laboratory training for public health scientists of all experience levels.

**SCIENTIFIC AND EDUCATIONAL DEVELOPMENT**

**LONG-TERM OBJECTIVE 8.B.4.1: CDC WILL DEVELOP AND IMPLEMENT TRAINING TO PROVIDE FOR AN EFFECTIVE, PREPARED, AND SUSTAINABLE HEALTH WORKFORCE ABLE TO MEET EMERGING HEALTH CHALLENGES.**

Measure	FY	Target	Result
8.B.4.1: Maintain the number of recruits who join public health programs in local, state, and federal health departments to participate in training in epidemiology or public health leadership management. (Output)	2012	200	12/2012
	2011	200	12/2011
	2010	200	200 (Target Met)
	2009	200	198 (Target Not Met)
	2008	200	203 (Target Exceeded)
	2007	200	205 (Target Exceeded)
	2006	200	206 (Target Exceeded)
8.B.4.2: Increase the number of CDC trainees in State, Tribal, Local, and Territorial public health agencies.+	2012	237*	12/2012
	2011	198	12/2011
	2010	N/A	182
	2009	Baseline	119

\*Reflects impact of funding from PPACA/PPHF.  
+Also represents a measures in the 2010-2015 HHS Strategic Plan

Unique Identifier	Data Source	Data Validation
8.B.4.1	Currently, data are based on the number of core-funded fellows (EIS, PHPS, and PMR/F).	Staff reviews and validates data through the Public Health Workforce Development programs personnel system.
8.B.4.2	Data are compiled annually on November 15 to count the total number of fellows in field assignments in state, tribal, local, and territorial public health agencies for the named fellowship programs: in 2009 included EIS, PHPS, PMR, and PHAP; in 2010, PHIFP is added; in 2012, the HPC will be added.	Staff reviews and validates data through the fellowship programs' personnel system.

**Long-term Objective 8.B.4, Performance Measure 1**

CDC continues to train professional staff to address public health workforce gaps and meet challenges affecting the health of the public through its Epidemic Intelligence Service (EIS), Preventive Medicine Residency and Fellowship (PMR/F), and the Public Health Prevention Service (PHPS). The measure and target for the fellowship programs will remain the same in FY 2012. The new program office (created in CDC's restructuring) will consider modifications for the FY 2013 cycle.

The FY 2010 result of 200 met the target. Reasons for the increase over 2009 include the number of PMR applications increased in FY 2010, resulting in more residents and fellows than during the previous year; and, the PHPS program had funding to bring on a full class of 25 fellows. While the number of core-funded EIS officers has decreased, Preparedness and Response funds, as well as funds from the Applied Epidemiology Fellowship Training and H1N1 lines, have allowed the Public Health Workforce Development program to continue to train the same number of EIS officers each year.

To help track and report progress toward accomplishing this long-term objective, CDC has implemented the Fellowship Management System, an electronic system designed to improve monitoring and tracking of fellows in 10 cross-cutting fellowship programs. CDC also is researching the development of new fellowships designed to address the public health needs of the increasingly diverse U.S. population.

#### **Long-term Objective 8.B.4, Performance Measure 2**

The public health workforce has shrunk by 50,000 people since 1980. State health departments report shortages of critical disciplines such as epidemiologists, managers, disease investigation specialists, laboratorians, environmental scientists, etc. CDC fellows fill critical workforce needs in the field while they are in training for careers in the field of public health. In 2009 this measure included Epidemic Intelligence Service (EIS), Preventive Medicine Residency/Fellowship (PMR/F), Public Health Prevention Specialists (PHPS), and the Public Health Apprenticeship Program (PHAP); the Public Health Informatics Fellowship Program (PHIFP) is included in FY 2010 and future years; and the new Health Prevention Corps (HPC) will be added in 2012. FY 2010 examples of direct impact include:

- Field-based EIS officers conducted 224 epidemiologic investigations in their health departments' jurisdictions.
- A preventive medicine resident led the planning and execution of a local health department's mass vaccination campaign resulting in over 33,000 persons receiving H1N1 vaccine
- PHPS prevention specialists assisted with a measles outbreak investigation in New York and served on response teams for H1N1 in communities across the United States;
- A public health apprentice provided ongoing communication to providers about vaccine guidelines and tracking vaccine inventory during the H1N1 pandemic. Her exemplary work was recognized by the public health leadership in the community.

The annual targets for the number of trainees expected reflect growth in 2010 over the 2009 baseline, with continued growth anticipated in 2011 and maintenance in 2012. Increasing the number of trainees requires a strong programmatic infrastructure to manage the ongoing functions for each new class of fellows. The sustainment of these fellowships with the anticipated growth in the number of trainees requires significant ongoing budget support for recruitment, training, retention, and program evaluation, as well as to cover the salaries and benefits for fellows and staff, including cost of living adjustments.

CDC will focus on the recruiting, selecting, matching to assignments, and relevant, competency-based training to ensure successful fellowship programs. CDC will also collaborate with state, tribal, local, and territorial public health agencies to ensure quality of assignments, expert supervision and mentoring, and implement strong program evaluation methods for accountability. CDC will implement the new Health Prevention Corps (HPC) in FY 2011 and place the first class in field assignments in FY 2012. HPC is an entry-level program targeted at bachelor's prepared candidates in scientific disciplines with known shortages - epidemiology, environmental health, and laboratory practice.

CDC has redesigned the PHAP program to enhance collaboration between front line supervisors and PHAP staff supervisors and created a competency-based curriculum. A revised curriculum encompasses all public health programs and activities. With 23 states, one territory, and the District of Columbia participating as public health apprenticeship sites, PHAP is considering directed recruitment in order to expand into previously unrepresented host site areas, as well as to increase recruiting of additional qualified, diverse candidates from among tribal and Hispanic populations. Per a recent ASHTO public health workforce study<sup>23</sup> approximately 11,000 public health jobs at the state and local level will not be

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<sup>23</sup> ASTHO (2010) Public Health Workforce Position Statement. Accessed July 14, 2010, at <http://www.astho.org/Display/AssetDisplay.aspx?id=169>

filled due to budget shortfalls and hiring freezes. Going forward in this environment, PHAP must ensure that the trained apprentices have public health career opportunities (GS-9 or state/local equivalent) available to them following completion of the program to promote retention.



**OCCUPATIONAL SAFETY AND HEALTH**

Measure	FY	Target	Result
9.E.2: Reduce consumption of utilities (e.g., gas, electric, water). ( <i>Efficiency</i> )	2012	\$3.11/sq. ft	Dec 31, 2013
	2011	\$3.13/sq. ft	Dec 31, 2012
	2010	\$3.16/sq. ft	Dec 31, 2011
	2009	\$3.19/sq. ft	\$2.79/sq.ft (Target Exceeded)
	2008	\$3.23/sq. ft	\$3.09/sq.ft (Target Exceeded)
	2007	Baseline	\$3.26/sq.ft

Unique Identifier	Data Source	Data Validation
9.E.2	Office of Administrative and Management Services Records	NIOSH Operations Officers at each facility (Pittsburgh, Spokane, Morgantown, and Cincinnati) track the annual costs spent on utilities. The expenditures, which are measured in dollars for each tracked utility, are adjusted for rate changes from the utility suppliers. NIOSH energy consumption is tracked monthly and the usages are trended. The usages come from utility bills and are verified against meter readings.

**Efficiency Measure 9.E.2:**

This measure focuses on the consumption of utilities at NIOSH research facilities. Specifically, the annual costs spent on utilities (water, gas, electric, and coal) at the Morgantown, Cincinnati, Pittsburgh, and Spokane facilities per square feet of used space during the year. Utilities are a significant part of the CDC budget. NIOSH research facilities have specific requirements (e.g., continuous air cooling/heating for animal housing facilities, human sample storage) making efficiency efforts more difficult than they are for other types of government operations. This measure is not a duplication of CDC’s Buildings and Facilities program efficiency measures on energy and water reduction. NIOSH, unlike other CDC CIOs is responsible for covering utility expenses out of its total program budget. Therefore, NIOSH’s expenses are not captured within the existing measure.

It is expected that utility costs may advance at a faster rate than utility usage efficiencies, possibly leading to an overall increase in utility costs for these facilities. Thus the numerator will be corrected for price increases that NIOSH cannot control. It is proposed that the numerator reflect expenditures (measured in dollars) for each tracked utility adjusted for rate changes from the utility suppliers. Hence, baseline rates were provided the as part of the proposed measure.

**LONG-TERM OBJECTIVE 9.1: CONDUCT RESEARCH TO REDUCE WORK-RELATED ILLNESSES AND INJURIES.**

Measure	FY	Target	Result
9.1.1 : Progress in implementing activities in areas of occupational safety and health most relevant to future improvements in workplace	2014	100% of the [8] evaluated CDC NIOSH programs will receive a score of 4 out of 5 or better based on an external review of their progress implementing recommendations from their National Academies reviews.	12/2015

Measure	FY	Target	Result
protection.(Outcome)	2012	100% of the [8] evaluated CDC NIOSH programs will receive a score of 2 out of 5 or better, and 50% of these will receive a score of 4 out of 5 or better based on an external review of their progress implementing recommendations from their National Academies reviews.	12/2013
	2010	Develop implementation plans in response to National Academies recommendations.	Target Met
	2009	Evaluate relevance of final 1/5 of CDC NIOSH program activities according to specifications below.	Target Met
9.1.2: Improve the quality and usefulness of tracking information for safety and health professionals and researchers in targeting research and intervention priorities; measure the success of implemented intervention strategies. (Output)	2012	A) Evaluate the role that tracking information had in designing research and intervention projects. B) Identify the role that follow-up tracking information can have in assessing the success of interventions. C) Reduce the prevalence rate of elevated blood lead levels in adults by 3% (from the previous year value)	Jun 30, 2013
	2011	A) Evaluate the role that tracking information had in designing research and intervention projects. B) Identify the role that follow-up tracking information can have in assessing the success of interventions. C) Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%.	Jun 30, 2012
	2010	A) Evaluate the role that tracking information had in designing research and intervention projects. B) Identify the role that follow-up tracking information can have in assessing the success of interventions. C) Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%.	Jun 30, 2011
	2009	A) Evaluate the role that tracking information had in designing research and intervention projects. B) Identify the role that follow-up tracking information can have in assessing the success of interventions. C) Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%.	A) 189 research and intervention projects were based on tracking information; B) 51 intervention projects used tracking information to demonstrate the success of intervention strategy C) 6.3 adults per 100,000 with elevated blood lead levels (Target Met)

Measure	FY	Target	Result
	2008	A) Evaluate the role that tracking information had in designing research and intervention projects. B) Identify the role that follow-up tracking information can have in assessing the success of interventions. C) Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%.	A) 252 research and intervention projects were based on tracking information; B) 33 intervention projects used tracking information to demonstrate the success of intervention strategy C) 7.4 adults per 100,000 with elevated blood lead levels (Target Met)
	2007	A) Evaluate the role that tracking information had in designing research and intervention projects. B) Identify the role that follow-up tracking information can have in assessing the success of interventions. C) Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%.	A) 211 research and intervention projects were based on tracking information (Met); B) 34 intervention projects used tracking information to demonstrate the success of the intervention strategy (met) C) 7.8 adults per 100,000 with elevated blood lead levels (Target Met)
	2006	A) Evaluate the role that tracking information had in designing research and intervention projects. B) Identify the role that follow-up tracking information can have in assessing the success of interventions. C) Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%.	A) 155 research and intervention projects were based on tracking information (Met); B) 15 intervention programs used tracking information to demonstrate the success of the intervention strategy (Met); C) 7.6 adults per 100,000 with elevated blood lead levels (Target Met)
9.1.3: Percentage of NIOSH programs that will have completed program-specific outcome measures and targets in conjunction with stakeholders and customers. (Output)	2012	100%	Sep 30, 2012
	2011	90%	Sep 30, 2011
	2010	90%	90% (Target Met)
	2009	80%	80% (Target Met)
	2008	70%	80% (Target Exceeded)
	2007	60%	61% (Target Exceeded)
	2006	50%	52% (Target Exceeded)

Unique Identifier	Data Source	Data Validation
9.1.1	National Academies (NA) direct report to NIOSH	NIOSH has contracted with the NA to complete reviews of at least two NIOSH sector programs annually. Upon completion of the reviews, the NA submits a formal report to NIOSH, which includes a quantitative rating of the program, summary of findings, refined outcome measures and suggestions for future improvement.
9.1.2	NIOSHTIC II database and NIOSH Project Planning and Management (NPPM) system	a) Annually, the Office of the Director develops a report on the number of

Unique Identifier	Data Source	Data Validation
		publications produced by select projects using the NIOSHTIC II database and NPPM system. This report is sent to the Divisions for review, to ensure the accuracy and completion of the information; b) Internal Projects competing for new NORA funds undergo a formal external peer-review process. The NPPM system is used to identify new projects and peer review is verified by the NIOSH Associate Director for Science. External Projects - All external projects are reviewed through the NIH peer review system. The date and details of the reviews are recorded and reviewed by the NIOSH Office of Extramural Programs.
9.1.3	National Academies (NA) direct report to NIOSH	NIOSH has contracted with the NA to complete reviews of at least two NIOSH sector programs annually. Upon completion of the reviews, the NA submits a formal report to NIOSH, which includes a quantitative rating of the program, summary of findings, refined outcome measures and suggestions for future improvement.

**Long-term Objective 9.1, Performance Measure 1**

The 2010 target was met. CDC entered into a contract with the National Academies (NA) to conduct a review of its occupational safety and health (OSH) research program portfolio, based on a 2005 NA Framework Committee extensive study of appropriate program evaluation criteria for judging the relevance and impact of CDC research programs. The NA evaluation committees subsequently used the Framework document to guide the review of CDCs OSH research programs by a panel of experts. The purpose of the review was to assess the impact and relevance of each program and to identify emerging issues. NA evaluation committees have reported favorable scores for program relevance and impact for eight CDC programs: hearing loss, mining, agriculture, respiratory diseases, traumatic injuries, construction, personal protective technology, and health hazard evaluations. The results of these reviews provided NIOSH with a number of recommendations, which will guide the direction of OSH research and contribute to improved safety and health of the Nation's workers.

**Long-term Objective 9.1, Performance Measure 2**

CDC supports several state-based surveillance activities and maintains national databases of occupational injuries and fatalities. Linked to this health information is the identification of exposures to hazards that can lead to illness and injury. With this information, specific research initiatives can be undertaken to understand the relationships between exposures and health outcomes. In turn, intervention strategies are developed and implemented to reduce illness and injury.

CDC continues to meet its performance targets by using surveillance information to develop and evaluate projects. In FY 2009, 252 research and intervention projects were based on tracking information, and 33 intervention programs used tracking information to demonstrate the effectiveness of the programs strategies. From FY 2004 to FY 2008, the number of research and intervention projects using surveillance information has varied due to changes in the total number and types of projects funded each fiscal year. Although not included in the target, many CDC projects such as training initiatives and information projects are also initiated in response to surveillance information. CDC continuing education courses, CDC Alerts and Fact Sheets may be developed for occupational safety and health professionals,

employers and employees to renew concern and present prevention strategies for identified workplace hazards. The ABLES program has been successful in improving surveillance of lead exposures among adults by increasing to 40 the number of states conducting surveillance in 2008. The programs strategy for making progress toward meeting the target includes continuing to focus on providing funding to states for surveillance of blood lead levels, providing technical support to state surveillance programs, and promoting lead exposure prevention. In addition, CDC continues to improve its capacity to analyze blood lead data among adults and to make data available to researchers and the public

The continued use of surveillance information in developing and evaluating projects and other OSH activities has been encouraged by the sector-based approach of the second decade of National Occupational Research Agenda (NORA) and the comprehensive NA reviews. Both of these initiatives urge scientists to analyze OSH surveillance data, and conduct projects that are relevant to existing OSH hazards and will result in a reduction in workplace illness and injury.

**Long-term Objective 9.1, Performance Measure 3**

As part of the National Academies' comprehensive review of research activities (referenced above) and NORA, all programs will develop comprehensive outcome-based measures and targets in conjunction with stakeholders and customers. These two initiatives have assisted CDC in exceeding this performance goal from FY 2005 to present. To date, NIOSH research programs have established Steering Committees and have drafted strategic plans with goals, measures, and targets. In FY 2010 the target was met. The Steering Committees completed strategic plans for 90 percent of CDC's programs including mining, construction, agriculture, health care, transportation, services, public safety, and wholesale and retail trade. These plans guide the research programs in conducting customer-based, transparent research, and have aided the National Academies' program committees in their evaluation of the relevance and impact of the research programs.

**LONG-TERM OBJECTIVE 9.2: PROMOTE SAFE AND HEALTHY WORKPLACES THROUGH INTERVENTIONS, RECOMMENDATIONS AND CAPACITY BUILDING.**

Measure	FY	Target	Result
9.2.1: Increase the percentage of CDC NIOSH-trained professionals who enter the field of occupational safety and health after graduation. (Outcome)	2012	80%	Dec 31, 2012
	2011	80%	Dec 31, 2011
	2010	80%	85% (Target Exceeded)
	2009	80%	81% (Target Exceeded)
	2008	80%	85% (Target Exceeded)
	2007	80%	85% (Target Exceeded)
	2006	80%	80% (Target Met)
9.2.2a: Reduce the annual incidence of work injuries, illnesses, and fatalities, in targeted sectors: Reduction of non-fatal injuries among youth ages 15–17. (Output)	2012	4.1/100 FTE	Dec 31, 2012
	2011	4.2/100 FTE	Dec 31, 2011
	2010	4.2/100 FTE	3.8/100 FTE (Target Exceeded)
	2009	4.4/100 FTE	4.2/100 FTE (Target Exceeded)
	2008	4.4/100 FTE	4.2/100FTE (Target Exceeded)
	2007	4.4/100 FTE	4.4/100 FTE (Target Met)
	2006	4.8/100 FTE	4.4/100 FTE (Target Exceeded)

Measure	FY	Target	Result
9.2.2b: Reduce the annual incidence of work injuries, illnesses, and fatalities, in targeted sectors: Reduction of fatal injuries among youth 15–17. (Output)	2012	2.6/100,000 FTE	Dec 31, 2012
	2011	2.5/100,000 FTE	Dec 31, 2011
	2010	2.5/100,000 FTE	2.7/100,000 FTE (Target Exceeded)
	2009	3.0/100,000 FTE	2.3/100,000FTE (Target Exceeded)
	2008	2.5/100,000 FTE	2.0/100,000 FTE (Target Exceeded)
	2007	2.5/100,000 FTE	2.0/100,000 FTE (Target Exceeded)
	2006	3.2/100,000 FTE	3.2/100,000 FTE (Target Met)
9.2.2c: Reduce the annual incidence of work injuries, illnesses, and fatalities, in targeted sectors: Percentage of active underground coal mines in the U.S. that possesses NIOSH-approved plans to perform x-ray surveillance for pneumoconiosis (Output)	2012	90%	Dec 31, 2011
	2011	90%	Dec 31, 2011
	2010	90%	98% (Target Exceeded)
	2009	90%	98% (Target Exceeded)
	2008	90%	98% (Target Exceeded)
	2007	90%	94% (Target Exceeded)
	2006	90%	92% (Target Exceeded)
9.2.3a: Reduce occupational illness and injury as measured by: Percent reductions in respirable coal dust overexposure. (Outcome)	Out-Year Target	50% reduction (2014)	Dec 31, 2014
9.2.3b: Reduce occupational illness and injury as measured by: Percent reduction in the number of construction workers killed in roadway construction work zones due to being struck by construction vehicles or equipment (Outcome)	Out-Year Target	40% reduction (2014)	Dec 31, 2014
9.2.3c: Reduce occupational illness and injury as measured by: Percent of firefighters and first responders' with access to CBRN respirators. (Outcome)	Out-Year Target	75% of firefighters and first responders have CBRN respirators available (2014)	Dec 31, 2014

Unique Identifier	Data Source	Data Validation
9.2.1	NIOSH Office of Extramural Programs training grantee annual progress reports, which include performance data	OEP staff review and verify data with grantees via phone or email contact, as needed
9.2.2	a) National Electronic Injury Surveillance System (NEISS); b) Census of Fatal Occupational Injuries (CFOI) special research file provided	a) The Consumer Product Safety Commission (CPSC) annually visits emergency departments that submit data to NEISS to assess case capture,

Unique Identifier	Data Source	Data Validation
	<p>to NIOSH by Bureau of Labor Statistics; c) National Occupational Respiratory Mortality System (NORMS), an interactive query system designed to generate statistics, charts, and maps relating to mortality from occupationally-related lung diseases.</p>	<p>and review records as they are submitted for completeness and internal consistency. NIOSH receives NEISS data quarterly and reviews the subset of work-related cases that CPSC provides to ensure the cases meet NIOSH definitions of work-relatedness. NIOSH reviews a sample of cases after coding by a contractor to ensure a high level of accuracy for codes that describe source of injury and event/exposure leading to injury; b) NIOSH receives the special CFI file annually. To avoid duplication of fatalities in the counts, source documents are matched using the decedent's name and other information. To ensure an accurate count of fatal occupational injuries, the census program requires that for each case, the work relationship (that is, whether a fatality is work related) be substantiated by two or more independent source documents or a source document and a follow-up questionnaire; c) NORMS is based on public-use, multiple cause of death data files obtained annually from the National Center for Health Statistics (NCHS). NCHS performs data quality check to remove invalid codes, verify the coding of certain rare causes of death, and ensure age/cause and sex/cause compatibility. To ensure the accuracy of the NORMS results, NIOSH compares the findings to the NCHS control tables.</p>
9.2.3	<p>a) The Mine Safety and Health Administration (MSHA) and NIOSH data sets that are shared between the agencies - MSHA data is routinely collected as part of the enforcement and compliance requirements, and NIOSH data collected during field investigations, in support of current and future research experiments.; b) See Measure 2b c) 1- NIOSH has a partnership with the International Safety Equipment Association (ISEA) to obtain aggregate market information regarding NIOSH certified products purchased by fire departments throughout the nation. NIOSH also has a partnership with the National Fire Protection Agency (NFPA) to obtain survey results from the NFPA Fire Needs Assessment Survey.</p>	<p>a) The MSHA data is collected according to the Agency's standard rigorous sampling and handling protocols. The validation of NIOSH data is ensured by following the protocols developed during the generation of the research proposals. The proposals are peer-reviewed and include calibration requirements for the measurement and handling of the dust samples, as well as procedures for analyzing the results and ensuring the meaningfulness of the data points; b) See Measure 2b. c) 1-The NFPA Fire Needs Assessment Survey is repeated about every 4 years. This survey has been reviewed internally and externally and informally validated by an NFPA advisory group and fire fighters who worked in the</p>

Unique Identifier	Data Source	Data Validation
	<p>2- The Department of Homeland Security (DHS) awards grants to fire departments to enhance their ability to protect the public and fire service personnel from fire and related hazards. Three types of grants are available: Assistance to Firefighters Grants (AFG), Staffing for Adequate Fire and Emergency Response Grants (SAFER), and Fire Prevention and Safety Grants (FP&amp;S).</p>	<p>industry for 30-40 years.</p> <p>2- FEMA manages the grant awards program and compiles a database of fire departments both paid and volunteer across the US who apply for grants. The awards are categorized as Operations and Firefighter Safety or Firefighting Vehicles Acquisition. The Operations and Firefighter Safety awards have three activity levels: Equipment, Personal Protective Equipment (PPE) and Training that allows for further breakdown monies awarded. NIOSH will work with FEMA to identify PPE grants awarded specifically for CBRN certified respirators.</p>

**Long-term Objective 9.2, Performance Measure 1**

This measure focuses on the effectiveness of CDC training with respect to entry into the field of occupational safety and health. CDC conducts a competitive training grant program aimed at increasing the number of professionals trained to work in the occupational safety and health field. CDC supports a network of Education and Research Centers (ERCs) and Training Project Grants (TPGs) around the country. In FY 2010, 544 professionals graduated from these programs with specialized training in disciplines that include occupational medicine, occupational health nursing, industrial hygiene, occupational safety, and other closely related occupational safety and health fields of study. From 2003 to 2010, the number of occupational trained professionals has steadily increased. This is due to the increase in awareness of occupational safety and health and the comprehensive curriculum which provides a variety of continuing education opportunities for occupational safety and health professionals. CDC estimates that about half of all U.S. occupational safety and health professionals graduate from CDC-supported programs at the master’s and doctoral levels. In FY 2010, CDC exceeded its performance goal with 85 percent of the professionals graduating from CDC-funded programs pursuing careers in occupational safety and health. The increase in demand for OSH professionals and the agency’s ability to provide needed OSH training opportunities via the ERC/TPG network has enabled CDC to meet and exceed performance targets over the past several years.

**Long-term Objective 9.2, Performance Measure 2**

The 2010 targets were exceeded. CDC has a long history of conducting and supporting young worker safety and health research and intervention activities, and working with partners to improve young worker safety and health. Contributions to improvements in young worker safety include increased awareness of the issue and recent changes in child labor laws.

In FY 2007, CDC, CDC grantees and others, finalized and disseminated curricula that will increase young workers basic knowledge of workplace safety and health if adopted and widely used. The curricula engages students and teachers in the exploration of risks to youth in the workplace, their rights and relevant labor laws, common workplace hazards and controls, communication skills, and young workers role in emergency preparedness and response. CDC has publicized the availability of the curricula and encouraged its use; however, schools are faced with limited opportunities to introduce new curricula. The product is currently underutilized. CDC continues to reach out to the education community to encourage use of the curricula, and plans to hire a curriculum expert to help develop a document showing where each part of the curriculum aligns with mandatory national education standards in high schools.



CDC has also made valuable contributions in the area of child labor laws. CDC provided input into the revised child labor regulations that became effective February 14, 2005, that prohibit youth less than 18 years of age from working in particularly dangerous work, such as work on roofs and with compacting and baling equipment. Further progress was made on April 17, 2007, when the Department of Labor proposed federal child labor laws that will prohibit youth less than 18 years of age from working in poultry slaughtering and packaging plants, riding on a forklift as a passenger, fighting forest fires, and operating certain power-driven hoists and work assist vehicles. These proposed regulatory changes are responsive to specific science-based recommendations made by CDC, and a final rule is anticipated within the next couple of years.

A particular challenge for reducing young worker deaths are the preponderance of deaths in the agriculture sector. CDC produces data to help guide prevention efforts in the agricultural sector, leads a federal interagency working group on childhood agricultural injury prevention, funds research on childhood agricultural injury prevention, and funds a National Children's Center to conduct outreach to the agricultural sector. CDC data demonstrate a 39 percent reduction in injuries to youth working on farms between 1998 and 2006.

All actively producing underground coal mines are required to file a mine x-ray plan with NIOSH. This plan outlines where and when working underground coal miners will be able to obtain a chest x-ray free of charge to them. Prior to 2003 the percentage of active underground coal mines in the U.S. that were in compliance with having a NIOSH-approved plan was not monitored. CDC has exceeded the 90 percent target level since the FY 2003 baseline year, but 90 percent remains an ambitious target for several reasons. Because pneumoconiosis continues to occur, it will be important to maintain high levels of participation among coal mines in CDC's Coal Workers Health Surveillance Program because of production demands, it is anticipated that many new coal mines will open that will need to be entered into the program. CDC will work to encourage coal mines to participate by establishing surveillance plans in two ways: directly contacting mines without approved programs and assist them in developing approved programs, and partnering with the MSHA by informing them of mines without approved plans. MSHA has the ability to follow up with these mines to encourage participation, and if necessary, is able to issue citations to mines without plans and vacate the citations once plans are established.

### **Long-term Objective 9.2, Performance Measure 3**

For most program activities, reductions in occupational illnesses and injuries are due to multiple factors of which research is one component. However for some sectors and activities, extenuating circumstances are minimal and efforts are at a stage where future decreases in illness and injuries logically can be attributed to the success of programs without requiring the additional level of analysis. This measure targets three such high risk sectors and activities which represent impact in (1) occupational illness (due to coal dust overexposure); (2) occupational fatalities (in construction workers killed in roadway construction work zones due to being struck by construction vehicles or equipment); and (3) preparedness (firefighter and first responder's access to CBRN respirators). In FY 2003, the baseline for each was established: (1) 13.7 percent; (2) 154 over 7 years or 22 deaths; and (3) greater than seven percent. Recent trend data from 2009 indicates a 30.9 percent reduction in coal dust exposure. As far as construction deaths, there were 51 workers struck by a vehicle (this includes both construction vehicles and motorist vehicles) in 2004 and 42 in 2008. This represents an 18 percent decrease over the four-year-period. In 2003, NIOSH issued 12 CBRN Self-Contained Breathing Apparatus (SCBA) certifications to manufacturers. To date, 62 NIOSH CBRN SCBA certifications have been issued to manufacturers; thereby increasing the availability of CBRN certified SCBA respirators on the market. CDC will report on this long-term measure in FY 2014.

**GLOBAL HEALTH**

**GLOBAL HIV/AIDS**

LONG-TERM OBJECTIVE 10.A.1: THE DIVISION OF GLOBAL HIV/AIDS (DGHA) WILL HELP IMPLEMENT PEPFAR IN 31 COUNTRIES AND 3 REGIONAL PROGRAMS BY PARTNERING WITH OTHER USG AGENCIES TO ACHIEVE THE PEPFAR GOALS OF TREATING 4 MILLION HIV-INFECTED PEOPLE, CARING FOR 12 MILLION PEOPLE INFECTED WITH OR AFFECTED BY HIV/AIDS, AND PREVENTING 12 MILLION NEW HIV INFECTIONS BY 2014.

Measure	FY	Target	Result
10. A.1.1: Number of individuals receiving antiretroviral therapy. (Output)	2012	3,639,500	Dec 1, 2012
	2011	3,399,600	Dec 1, 2011
	2010	3,183,800	3,209,900 (Target exceeded)
10. A.1.2: Number of individuals infected and affected by HIV/AIDS, including OVCs, receiving care and support services. (Output)	2012	13,346,700	Dec 1, 2012
	2011	12,573,800	Dec 1, 2011
	2010	11,845,700	11,361,600 (Target Not Met)
10. A.1.3: Number of pregnant women receiving HIV counseling and testing programs. (Output)	2012	10,026,000	Dec 1, 2012
	2011	9,164,600	Dec 1, 2011
	2010	8,377,100	8,385,022 (Target Exceeded)
10. A.1.4: Number of HIV+ pregnant women receiving ARV prophylaxis. (Output)	2012	840,000	Dec 1, 2012
	2011	720,000	Dec 1, 2011
	2010	600,000	602,500 (Target Exceeded)

Unique Identifier	Data Source	Data Validation
10.A.1.1 - 10.A.1.4	Annual Program Results (APRs)	All USG data are validated by the OGAC Strategic Information team following internal procedures.

CDC along with the other USG agencies implementing the President’s Emergency Plan for AIDS Relief (PEPFAR) will work in partnership with host nations to support cost effective and efficient HIV/AIDS treatment for at least 4 million people, prevention of 12 million new infections, and care for 12 million people, including 5 million orphans and vulnerable children. Past progress in performance can partially be attributed to momentum achieved through the establishment of local program infrastructure and systems in partner countries to support greater levels of performance. Many variables impact performance and it should be noted that accelerated progress is not due to CDC efforts alone but to the combined efforts of all the PEPFAR implementing agencies including the Department of State, USAID, Department of Commerce, Department of Labor, Department of Defense, Peace Corps and the following HHS OPDIVS: CDC, HRSA, NIH, FDA and SAMHSA. Progress in these areas is expected to continue with even greater gains in the future as in-country infrastructure and capacity supporting these activities is strengthened over time.

In 2010, the Department of State, Office of the Global AIDS Coordinator (SGAC) transitioned the PEPFAR performance measures from reporting on 15 focus countries and “other bilateral” countries to a single denominator of 31 countries and 3 regional programs. This requires the establishment of new performance measure targets. Target setting is done at the country-level through the PEPFAR Country

Operational Plans and globally by S/GAC. The 31 countries and 3 regional programs include: Angola, Cambodia, Caribbean Region, Central America Region, Central Asia Region, China, Cote d'Ivoire, Democratic Republic of the Congo, Dominican Republic, Ghana, India, Indonesia, Lesotho, Malawi, Russia, Sudan, Swaziland, Thailand, Ukraine, and Zimbabwe.

Information regarding past performance and trends, current performance, and strategies can be found in the PEPFAR Sixth Annual Report to Congress at <http://www.pepfar.gov>. Information regarding past performance and trends, current performance, and strategies can be found in the PEPFAR Sixth Annual Report to Congress at <http://www.pepfar.gov>

**Long-term Objective 10.A.1, Performance Measure 1**

The number of individuals receiving HIV/AIDS treatment significantly increased from 66,911 in 2003 to 3,209,900 in FY 2010. The 2010 target of 3,183,800 individuals was exceeded. This represents tremendous progress that is anticipated to accelerate going forward through health systems strengthening, integrated service delivery and increased workforce capacity.

**Long-term Objective 10.A.1, Performance Measure 2**

Care comprises a broad range of services including physical, psychological, and social support services. In the 15 PEPFAR focus countries, the number of individuals provided with general HIV-related care and support significantly increased from 854,800 in FY 2004 to 11,361,600 in FY 2010 just short of the 11,845,700 target for FY10. Trend analysis shows that progress in expanding care has been constant with significant increases each year. This is expected to continue with key infrastructure components supporting this activity strengthened over time.

**Long-term Objective 10.A.1, Performance Measure 3**

The number of pregnant women receiving HIV counseling and testing increased dramatically from 1,271,449 in FY 2004 to 8,385,022 in FY 2010. The 2010 target of 8,377,100 individuals was exceeded. Progress in expanding PMTCT services has been steady and is anticipated to accelerate in concert with an increased programmatic focus on a women-centered approach for Phase II of PEPFAR.

**Long-term Objective 10.A.1, Performance Measure 4**

Providing anti-retroviral prophylaxis for HIV+ pregnant women to prevent other-to-child transmission has been and continues to be a key PEPFAR strategy and one that CDC plays a fundamental role in providing leadership and technical assistance in establishing and scaling up in PEPFAR-supported countries. In FY 2004, 125,069 HIV+ pregnant women received anti-retroviral prophylaxis. Scale-up since then has been substantial. In FY2010 602,500 HIV+ pregnant women received anti-retroviral prophylaxis. The FY2010 target of 600,000 was surpassed.

**GLOBAL IMMUNIZATION**

Measure	FY	Target	Result
10. B.E.1: The portion of the annual budget that directly supports the program purpose in the field. (Output)	2012	>=90%	Apr 30, 2013
	2011	>=90%	Apr 30, 2012
	2010	>=90%	Apr 30, 2011
	2009	>= 90%	93% (Target Exceeded)
	2008	>= 90%	93% (Target Exceeded)
	2007	>= 90%	96% (Target Exceeded)
	2006	>= 90%	91% (Target Exceeded)

Unique Identifier	Data Source	Data Validation
10.B.E.1	Data are tracked and analyzed through IRIS, GMIS, UFMS, and ICE systems, which are financial management systems specific to CDC and or HHS.	The monthly budget update is reviewed for accuracy by the Divisions Associate Director for Management and Operations (ADMO). The ADMO monitors appropriate use of funds by category (polio, measles, and global disease detection) and CAN numbers. The ADMO works with the GID Branches to ensure that funds are completely obligated by the end of the fiscal year. The overall budget is reviewed by the Branch Chiefs, Deputy Division Director, and Division Director quarterly.

**Efficiency Measure 10.B.E.1:**

Developed through the 2005 program assessment process, this measure demonstrates that the majority of the Global Immunization Programs funding is used to support mission-critical activities directly through CDCs global partners, the WHO, UNICEF, PAHO and UNF. Specifically, these funds are used to purchase measles and polio vaccine and/or to provide technical or operational support through these agencies. CDC will maintain this efficiency and support for these activities in order to continue to meet global health goals. CDC has consistently exceeded this target for the five fiscal years it has been reported. The 2009 target of 90% was exceeded.

**LONG-TERM OBJECTIVE 10.B.1: HELP DOMESTIC AND INTERNATIONAL PARTNERS ACHIEVE WORLD HEALTH ORGANIZATION'S GOAL OF GLOBAL POLIO ERADICATION.**

Measure	FY	Target	Result
10. B.1.1: Number of doses of oral polio vaccine (OPO) purchased for use in OPV mass immunization campaigns in Asia, Africa, and Europe (1 dose = 1 child reached). (Output)	2012	254 million doses	Jun 30, 2013
	2011	240 million doses	Jun 30, 2012
	2010	240 million doses	Jun 30, 2011
	2009	240 million doses	298.4 million doses (Target Exceeded)
	2008	240 million doses	278.9 million doses (Target Exceeded)
	2007	260 million doses	287 million doses (Target Exceeded)
	2006	500 million doses	341 million doses (Target Not Met)
10. B.1.2: Number of	2012	51 million children reached	Jun 30, 2013

Measure	FY	Target	Result
children reached with OPV as a result of non-vaccine operational support funding provided to implement OPV mass immunization campaigns in Asia, Africa, and Europe. (Output)	2011	45 million children reached	Jun 30, 2012
	2010	45 million children reached	Jun 30, 2011
	2009	45 million children reached	35.6 million children reached (Target Not Met)
	2008	60 million children reached	39.6 million children reached (Target Not Met)
	2007	100 million children reached	119 million children reached (Target Exceeded)
	2006	Baseline	37 million children
10. B.1.3: Number of countries in the world with endemic wild polio virus. (Outcome)	2012	0 endemic countries	Dec 31, 2013
	2011	0 endemic countries	Dec 31, 2012
	2010	0 endemic countries	Dec 31, 2011
	2009	0 endemic countries	4 endemic countries (Target Not Met)
	2008	0 endemic countries	4 endemic countries (Target Not Met)
	2007	3 endemic countries	4 endemic countries (Target Not Met)
	2006	4 endemic countries	4 endemic countries (Target Met)

Unique Identifier	Data Source	Data Validation
10.B.1.1	UNICEF provides the number of doses of polio purchased with CDC funding in an annual report that is part of the CDC/UNICEF cooperative agreement.	Case count and surveillance indicators provided weekly by WHO are reviewed and analyzed by the Global Immunization Division.
10.B.1.2	GID tracks SIA operations funds provided by country through WHO and UNICEF. WHO provides a cost per child figure for SIA operational costs for each country. GID uses this data to generate and validate the number of children reached with CDC funds.	
10.B.1.3	WHO provides the polio case data generated from reports submitted by countries.	

### Long-term Objective 10.B.1, Performance Measure 1

CDC continues to be one of the Global Polio Eradication Initiatives (GPEI) largest procurers of Oral Polio Vaccine (OPV). CDC works in partnership with WHO and UNICEF to ensure that CDC funding is used to fill critical unmet needs for the global initiative.

In FY 2009, performance was exceeded because CDC's grantee UNICEF does its best to ensure lowest-cost procurement whenever possible, and grantee efforts resulted in cost savings that allowed for additional vaccine to be procured with CDC funds. Starting in FY 2007, future targets were established using estimates provided by CDC's grantee UNICEF. Variation in grantee estimates occurs because of variability in vaccine costs throughout the year as UNICEF procures through multiple vaccine producers. In 2009, CDC exceeded its target with procurement of 298.4 million doses of vaccine; each dose of vaccine purchased is the equivalent of one child reached with the vaccine. The amount of vaccine purchased by CDC is dependent on late-breaking events; as such outbreak events result in an increase of vaccine purchase. With the implementation of the new 2010-2012 GPEI Strategic Plan, maintaining the doses at 240 million will be necessary. An additional investment of \$2-6 million will expedite the management of monovalent OPV (mOPV) and bivalent OPV (bOPV) by facilitating the work of UNICEF

with industry to insure a sustainable supply and pricing of vaccines (currently \$0.14/dose) for national SIAs and routine immunization programs.

### **Long-term Objective 10.B.1, Performance Measure 2**

WHO and UNICEF have successfully mobilized new donor contributions to the GPEI, especially for OPV procurement. While critical OPV funding gaps have been filled, significant funding gaps remain for the extensive program operations required to reach children during supplemental immunization activities (SIAs) (transport, vaccinators, and cold chain management). The average cost to reach a child during SIAs is \$0.31/per child (variable by country). The availability of other donor support for OPV has allowed CDC to use its more flexible funding to fill critical SIA operational gaps, ensuring that the vaccines do indeed reach the child, as well as supporting outbreak response activities related to imported poliovirus.

In FY 2009, the program procured 298.4 million doses of oral polio vaccine and provided operational funding that supports vaccinating 635.6 million children in mass vaccination campaigns. CDC funds are oftentimes strategically used as the funds of last resort to fill urgent funding gaps not met by other sources. Polio funding is finite and since flexibility must be maintained to ensure that priority polio eradication activities are conducted, there is sometimes a need to direct funds to priority gaps, leaving some activities with less resources or unfunded. In FY 2009, polio funds were used to procure additional OPV doses to ensure that campaigns were conducted, which resulted in a reduction of available funds for SIA operations. However, the Global Polio Eradication Initiative works constantly to identify other sources of funding towards ensuring availability of OPV to meet annual targets, and to augment, and replace CDC funds used to procure OPV necessary on an emergency basis. An additional investment of \$2-3 million will ensure that vaccination rounds take place in the remaining endemic countries of Nigeria, Afghanistan, Pakistan, and India and in the polio re-infected countries.

### **Long-term Objective 10.B.1, Performance Measure 3**

Since 1988, global polio incidence has declined by more than 99 percent from more than 350,000 cases annually to 1,606 cases in 2009. By mid-December 2010, the number of polio cases globally was 921, a decrease of 41.7 percent from the 1,579 cases recorded by mid-December 2009.

Interrupting polio transmission in the remaining four endemic countries (India, Nigeria, Afghanistan, and Pakistan) presents the greatest immediate challenge to the global polio eradication initiative. The challenge of interrupting the residual Wild poliovirus (WPV) transmission in these areas has been compounded by the recurrent exportation of WPV from northern Nigeria and northern India into previously polio-free areas within and outside their borders. Many of these re-infected countries, particularly in sub-Saharan Africa, suffered substantial and recurrent polio outbreaks due to low routine immunization coverage (<80 percent), suboptimal outbreak response and weak health systems, together constituting a 'WPV importation belt' that stretched from west Africa, into central Africa and to the Horn of Africa. In four of these countries, the imported WPV was either known (Angola, Chad) or suspected (Democratic Republic of the Congo, southern Sudan) to have persisted for >12 months as of mid-2009, leading to their designation as having re-established' transmission. In addition to these four 're-established transmission' countries, 15 countries suffered new importations.

In response to the 2009 outbreaks across Africa, a 2010-2012 Global Polio Eradication Initiative Strategy will be adopted at the World Health Assembly in May 2010. This strategy seeks to contain the 2009 outbreak in Africa and sets a goal of WPV interruption for 2012. This will be validated by having no WPV cases arise by the end of 2013. The original goal to have WPV interruption in all countries by 2008 has been replaced the 2010-2012 plan.

New strategies being implemented to achieve the polio eradication goal include: New laboratory procedures are now in place that significantly decrease the time it takes to detect and confirm new polio infection from 42 to 21 days; this enables more rapid detection of WPV and allows for faster response to importations and/or spread of virus. The use of monovalent OPV (mOPV), which provides greater protection against the two types of WPV currently circulating (Types 1 and 3), is now widespread in the four polio-endemic countries and in countries experiencing outbreaks. Use of mOPV Type 1 has significantly reduced transmission of WPV Type 1, and its sustained use will be critical to interrupting WPV Type 1 globally. Research is on-going to assess the potential for use of additional tools to achieve the polio eradication strategy, including safer and more cost-effective variations of inactivated polio vaccine (IPV) (Sabin and, intradermal), fractional dose IPV, and other vaccine administration techniques, including the improvement of low routine immunization coverage in endemic areas. An investment of \$3 million could more quickly provide new tools to prevent re-importation of the virus in areas where transmission has been interrupted.

This measure is an adaptation developed as a result of the 2005 program assessment process and serves as both a long-term and annual measure. The previous goal tracked cases of polio, whereas the new goal tracks number of countries with endemic polio. The ultimate objective is to eradicate polio.

**LONG-TERM OBJECTIVE 10.B.2: WORK WITH GLOBAL PARTNERS TO REDUCE THE CUMULATIVE GLOBAL MEASLES-RELATED MORTALITY BY 90% COMPARED WITH 2000 ESTIMATES (BASELINE 777,000 DEATHS) AND TO MAINTAIN ELIMINATION OF ENDEMIC MEASLES TRANSMISSION IN ALL 47 COUNTRIES OF THE AMERICAS.**

Measure	FY	Target	Result
10.B.2.1: Number of global measles-related deaths. (Outcome) <sup>24</sup>	2012	50,000	Dec 31, 2013
	2011	75,000	Dec 31, 2012
	2010	75,000	Dec 31, 2011
	2009	100,000	March 31, 2011
	2008	327,600	164,000 (Target Exceeded)
	2007	363,400	197,000 (Target Exceeded)
	2006	399,200	242,000 (Target Exceeded)
10.B.2.2: Number of non-import measles cases in all 47 countries of the Americas as a measure of maintaining elimination of endemic measles transmission. (Outcome)	2012	0	Dec 31, 2013
	2011	0	Dec 31, 2012
	2010	0	Dec 31, 2011
	2009	0	0 (Target Met)
	2008	0	0 (Target Met)
	2007	0	0 (Target Met)
	2006	0	0 (Target Met)

Unique Identifier	Data Source	Data Validation
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<sup>24</sup> Recent measles outbreaks in Africa have delayed the completion of WHO country consultations to validate global measles mortality data for 2009; these data are expected to be released by WHO in March 2011.

10.B.2.1 - 10.B.2.2	WHO, Pan American Health Organization.	A team of WHO epidemiologists and statisticians annually review the estimates using a standardized methodology. This is supplemented with information obtained in national surveillance and program reviews as well as special studies. In addition, WHO works with partners to examine the quality and accuracy of these data.
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**Long-term Objective 10.B.2, Performance Measure 1**

CDC provided scientific, technical, and programmatic support for measles outbreak investigations; supported reviews of immunization surveillance in the European, African and Western Pacific regions; and evaluated the regional surveillance system for measles, rubella and congenital rubella syndrome in the American and European regions. CDC also contributed funding and or technical assistance to measles immunization campaigns in 30 African countries. These efforts resulted in recommendations for improved surveillance and control activities and contributed substantially to declines in measles mortality.

Measles has been eliminated from the Western Hemisphere. Outstanding progress has been made towards reducing measles mortality globally. These achievements highlight the technical feasibility of measles mortality reduction. By the end of 2010, CDC and global immunization partners aim to reduce the global measles-related mortality by 90 percent compared with this estimate from 2000. As of 2008, the efforts of CDC’s global measles initiative contributed to a reduction of global measles mortality in all ages by 78 percent, from an estimated 733,000 deaths in 2000 to an estimated 164,000 deaths in 2008. As of January 2011, the global measles mortality numbers for 2009 are still being tabulated why WHO, in consultation with individual countries with delays likely attributable to multiple measles outbreaks in southern and central Africa in 2010.

- The regional percent reduction in estimated measles mortality reached the 2010 target of 90 percent in the WHO African Region, Eastern Mediterranean Region, and Western Pacific Region, which accounted for 60, 17, and four percent of the global reduction in measles mortality, respectively.
- As of 2008, out of six WHO regions, only the South East Asian Region did not attain the 90 percent reduction in measles mortality compared to the 2000 estimates: in 2008, it accounted for the majority (77 percent) of estimated measles deaths worldwide.

The model used to generate the preceding year coverage is based on routine and campaign related performance data that is captured by a joint WHO/UNICEF reporting form. WHO and UNICEF convene a panel committee to review this data annually and reach consensus on estimates of disease burden.

**Long-term Objective 10.B.2, Performance Measure 2**

The 2009 target of 0 cases was met. This performance measure corresponds with the goal adopted by the PAHO for Latin America and the Caribbean. According to available surveillance information, measles transmission has been interrupted in all countries of the Western Hemisphere since November 2002. However, imported measles cases, with limited secondary spread, continue to occur in several countries, including the U.S. Deaths from measles complications in the Americas have virtually disappeared. Globally, measles caused an estimated 164,000 deaths in 2008 and was the leading cause of death among children under five years of age from a vaccine-preventable disease.



**GLOBAL MALARIA**

**LONG-TERM OBJECTIVE 10.C: DECREASE THE RATE OF ALL-CAUSE MORTALITY IN CHILDREN UNDER FIVE IN THE PRESIDENT'S MALARIA INITIATIVE TARGET COUNTRIES.**

Measure	FY	Target	Result
10.C.1: Increase the proportion of children under five years old who slept under an insecticide treated net the previous night PMI target countries. <i>(Outcome)</i>	2012	85% in 2007 countries	Dec 31, 2012
	2011	85% (median) in 2006 countries	Dec 31, 2011
	2010	NA	NA
	2009	NA	NA
	2008	3rd 6 of 8 countries - Baseline	13.1%
	2007	2nd 4 countries - Baseline	14.5%
	2006	Baseline	16.0%
10.C.2: Increase the proportion of children under five with fever in the previous two weeks that received treatment with antimalarials within 24 hours of onset of their symptoms in PMI target countries. <i>(Outcome)</i>	2012	85% in 2007 countries	Dec 31, 2012
	2011	85% (median) in 2006 countries	Dec 31, 2011
	2010	NA	NA
	2009	NA	NA
	2008	3rd 6 of 8 countries – Baseline	29.5%
	2007	2nd 4 countries – Baseline	13.4%
	2006	Baseline	32.2%
10.C.3: Increase the proportion of women who have received two or more doses of intermittent preventive treatment during pregnancy (IPTp) among women that have completed a pregnancy in the last two years. <i>(Outcome)</i>	2012	85% in 2007 countries	Dec 31, 2012
	2011	85% (median) in 2006 countries	Dec 31, 2011
	2010	NA	NA
	2009	NA	NA
	2008	3rd 5 of 8 countries - Baseline	4.9%
	2007	2nd 4 countries – Baseline	30.6%
	2006	Baseline	17.6%

Unique Identifier	Data Source	Data Validation
10.C.1 – 10.C.3	Demographic and Health Surveys (DHS), Multiple Indicator Surveys (MICS), and Malaria Indicator Surveys (MIS).	In sub-Saharan Africa, nationally representative household surveys, like the UNICEF Multiple Indicator Cluster Surveys (MICS) or the MEASURE Demographic and Health Surveys (DHS) conducted by MACRO/Measure Evaluation measure mortality of children less than five as a complement to decadal censuses.

**Long-term Objective 10.C, Performance Measure 1**

Malaria causes approximately 250 million clinical cases and 860,000 deaths annually; most deaths occur in young children. Although one-third of the world's population is at risk for malaria, 90 percent of the cases and deaths occur in sub-Saharan Africa. In the U.S. about 1,500 people get malaria annually, almost all from traveling to countries where malaria is transmitted. In the last decade, 48 people in the United States have died from malaria. The Presidents Malaria Initiative (PMI) supports participating countries to achieve an ultimate goal of a fifty percent reduction in malaria mortality. Eight indicators focus on coverage with four interventions: long-

lasting insecticidal bed nets (LLINs); indoor residual spraying with insecticide (IRS); intermittent preventive treatment for pregnant women (IPTp); and prompt treatment with artemisinin-based combination therapy. The mortality burden of malaria is concentrated among children in sub-Saharan Africa. For this reason, studies often focus on mortality among children less than five-years old to assess the impact of malaria control efforts on mortality.

Insecticide Treated Nets (ITNs) are highly effective in killing mosquitoes, and the netting acts as a protective barrier. Consistently sleeping under an ITN can decrease severe malaria by 45 percent, reduce premature births by 42 percent, and cut all-cause mortality between 17 percent and 63 percent. The targets are very ambitious, given the programmatic challenge of overcoming barriers to rapid scale-up of ITN distribution and usage often encountered in resource poor settings with infrastructure challenges.

### **Long-term Objective 10.C, Performance Measure 2**

Malaria causes approximately 250 million clinical cases and 860,000 deaths annually; most deaths occur in young children. Although one-third of the world's population is at risk for malaria, 90 percent of the cases and deaths occur in sub-Saharan Africa. In the U.S. about 1,500 people get malaria annually, almost all from traveling to countries where malaria is transmitted. In the last decade, 48 people in the United States have died from malaria. The President's Malaria Initiative (PMI) supports participating countries to achieve an ultimate goal of a fifty percent reduction in malaria mortality. Eight indicators focus on coverage with four interventions: long-lasting insecticidal bed nets (LLINs); indoor residual spraying with insecticide (IRS); intermittent preventive treatment for pregnant women (IPTp); and prompt treatment with artemisinin-based combination therapy. The mortality burden of malaria is concentrated among children in sub-Saharan Africa. For this reason, studies often focus on mortality among children less than five-years old to assess the impact of malaria control efforts on mortality.

Artemisinin-based combination therapy (ACTs) represents the most effective treatment currently available for malaria. Three day treatment with ACTs will completely eliminate the malaria parasite from a person's body. The targets are very ambitious in light of programmatic challenges such as overcoming barriers to rapid scale-up of ACT procurement and distribution often in resource poor settings with infrastructure challenges.

### **Long-term Objective 10.C, Performance Measure 3**

Malaria causes approximately 250 million clinical cases and 860,000 deaths annually; most deaths occur in young children. Although one-third of the world's population is at risk for malaria, 90 percent of the cases and deaths occur in sub-Saharan Africa. In the U.S. about 1,500 people get malaria annually, almost all from traveling to countries where malaria is transmitted. In the last decade, 48 people in the United States have died from malaria. The President's Malaria Initiative (PMI) supports participating countries to achieve an ultimate goal of a fifty percent reduction in malaria mortality. Eight indicators focus on coverage with four interventions: long-lasting insecticidal bed nets (LLINs); indoor residual spraying with insecticide (IRS); intermittent preventive treatment for pregnant women (IPTp); and prompt treatment with artemisinin-based combination therapy. The mortality burden of malaria is concentrated among children in sub-Saharan Africa. For this reason, studies often focus on mortality among children less than five-years old to assess the impact of malaria control efforts on mortality.

Each year more than 30 million African women living in malaria-endemic areas become pregnant and are at risk for malaria. IPTP protects pregnant women from possible death and anemia and also prevents malaria-related low birth weight in infants, which is responsible for between 100,000 and 200,000 infant deaths annually in Africa. The targets are very ambitious in light of

programmatic challenges such as overcoming barriers to rapid scale-up of IPTp implementation often in resource poor settings with infrastructure challenges.

**AFGHAN HEALTH INITIATIVE**

**LONG-TERM OBJECTIVE 10.D.1: REDUCE MATERNAL AND NEONATAL MORBIDITY AND MORTALITY ASSOCIATED WITH HIGH-RISK C-SECTION DELIVERIES.**

Measure	FY	Target	Result
10. D.1.1: The in-hospital maternal mortality rate per 1,000 caesarean sections at Rabia Balkhi Women's Hospital in Kabul, Afghanistan. (Outcome)	2012	4.5	Dec 31, 2012
	2011	5.5	Dec 31, 2011
	2010	Baseline	6.8
10. D.1.5: The rate of fetal deaths occurring during labor or delivery among newborns who weigh at least 2500 grams at birth at Rabia Balkhi Women's Hospital in Kabul, Afghanistan per 1,000 such births. (Outcome)	2012	4.8	Feb 26, 2013
	2011	5.0	Feb 26, 2012
	2010	5.2	Feb 26, 2011
	2009	5.8	3.4
	2008	6.0	14.3
	2007	6.3	7.8
	2006	5.8	8.7
10. D.1.8: The number of women who have a cesarean section that subsequently develop a post-operative infection at Rabia Balkhi Women's Hospital. (Outcome)	2012	6.5/1000	Dec 31, 2012
	2011	20/1000	Dec 31, 2011
	2010	Baseline	28/1000

Unique Identifier	Data Source	Data Validation
10.D.1.1 10.D.1.5 10.D.1.8	In-hospital Surveillance Program at Rabia Balkhi Women's Hospital (RBH)	Surveillance program links discharge outcomes with the operating room logbook for all women experiencing a C-section at RBH. In-hospital data is validated by direct observation of clinical staff. The RBH QA team maintain routine surveillance for all deaths and C-section procedures.

**Long-term Objective 10.D.1, Performance Measure 1**

Caesarean sections have been associated with high rates of maternal deaths at Rabia Balkhi Women's Hospital (RBH). In a low resource environment, high risk interventions such as C-sections can be life threatening rather than life saving procedures if not performed appropriately. The interventions carried out under the AHI focus on reducing the maternal mortality rate (MMR) in support of the United Nations Millennium Development Goals (MDG) for Newborn mortality and morbidity, and for Maternal Health.

The in-hospital maternal mortality ratio per 1,000 C-sections performed at RBH reflects the quality of care provided to C-section patients. The initial rate of maternal deaths at RBH was 9/1000 C-sections performed at RBH, well above an acceptable rate even in a low resource setting. With a general emphasis on several of the subsystems within the C-section system the rate has been reduced to 6.8/1000 (28 percent). By measuring "in-hospital" rates, this becomes a

measure of the internal RBH system, reflecting the systemic performance that is within the control of the RBH staff. Additionally, it allows for a better measurement of RBH performance and intervention effectiveness.

The challenges of a hostile environment, staff absences, frequent staff turnover, and the availability and accessibility of important supplies are frequent events. These routine disruptions cause frequent problems in maintaining routine processes within the C-section system due to operating in a war zone. Going forward, CDC has engaged an NGO to assist in hospital management including items in an overall hospital improvement plan. CDC will divide the C-section system process into its subunits/components in order to perform quality improvement projects (QuIPS) on each part of the system including the decision tree, surgical skills, blood transfusion system, anesthesia, and infection control systems.

#### **Long-term Objective 10.D.1, Performance Measure 5**

The 2009 target of 5.8 was exceeded. This measure is a measure of several things: The quality, if any of the antenatal care, the health of the mother, the baby, the care during labor, delivery and follow up. Twenty-five hundred grams or greater is considered a full-term baby and suggests a positive outcome barring any complications on the part of the mother, her baby and attending health providers and their support system. An excess of mortality suggests that a closer look be taken at the cases whose outcome is not positive for either the mother or her baby.

Past performance indicates an improvement in the reduction of fetal deaths. This is due in part to several interventions. The implementation of quality assurance principles to identify gaps in performance is one. Others include training, demonstrate-by-doing, (each one teach one), and reducing the decision-to-incision time. Targets are adjusted in small increments and cautiously due to the complex nature of variables associated with a successful or negative outcome in the delivery of a full-term baby.

#### **Long-term Objective 10.D.1, Performance Measure 8**

Caesarean sections have been associated with high rates of maternal deaths at Rabia Balkhi Women's Hospital (RBH). In a low resource environment, high risk interventions such as C-sections can be life threatening rather than life saving procedures if not performed appropriately. Infection prevention is an important public health program in any setting but is especially important in a hospital setting that provides a high risk intervention in a low resource setting. Additionally, the microbiological environment is directly affected by prevention practices both in technique and antibiotics used. The interventions carried out under the AHI focus on reducing the maternal mortality rate (MMR) in support of the United Nations Millennium Development Goals (MDG) for Newborn mortality and morbidity, and for Maternal Health.

This is a short term outcome measure that assesses the quality of care related to infection prevention provided women before, during, and after C-section performed at RBH. In the past, infection prevention has received little attention during this initiative. Emphasis is now being placed on infection control because of the overall impact that it has in all areas and operations in the hospital.

The 2010 baseline was established that 28 per 1000 women who have a cesarean section at RBWH subsequently develop a post-operative infection.

This measure tracks the number of women who develop post-operative infections as a result of a caesarean section divided by the total number of women who have had caesarean sections. The data collection for post-operative infections for this measure have been restricted to pre-discharge patient information because detecting post-discharge infection is difficult to measure. After release from the hospital many women do not return to RBH for infection care and currently there

is not an accurate follow-up program for tracking patient outcomes after hospital discharge. As a result a better measure of the quality of care related to infection prevention provided women before, during, and after C-section performed at RBH is pre-discharge. The postoperative stay at RBH is 7 days, which allows for a window of observation to detect post-operative infections.

**GLOBAL DISEASE DETECTION AND EMERGENCY RESPONSE**

**LONG-TERM OBJECTIVE 10.E: THE DIVISION OF GLOBAL DISEASE DETECTION AND EMERGENCY RESPONSE WILL WORK WITH MINISTRIES OF HEALTH, OTHER USG AGENCIES, AND INTERNATIONAL PARTNERS TO BUILD OUTBREAK DETECTION AND RESPONSE PUBLIC HEALTH CAPACITY IN SUPPORT OF THE INTERNATIONAL HEALTH REGULATIONS (2005).**

Measure	FY	Target	Result
10.E.1: Percentage of outbreak and possible Public Health Emergencies of International Concern assistance requests that are handled in a timely manner ( <i>Outcome</i> )	2012	79%	Dec 31, 2012
	2011	76%	Dec 31, 2011
	2010	73%	76.7% (Target Exceeded)
	2009	Baseline	70%

Unique Identifier	Data Source	Data Validation
10.E.1	GDD Regional Center Monitoring and Evaluation Quarterly Reports.	All GDD Regional Centers submit data to CDC HQ on a quarterly basis, as part of ongoing GDD monitoring and evaluation activities. GDD HQ provides program review of data/quality assurance process and periodic technical assistance site visits to GDD Regional Centers.

**Long-term Objective 10.E.1, Performance Measure 1**

The 2010 target of 73% was exceeded.

On July 15th, 2007, the revised International Health Regulations entered into force. In December, 2009, the Division of Global Disease Detection and Response was officially designated by the World Health Organization (WHO) as a Collaborating Center for Implementation of the International Health Regulations National Surveillance and Response Capacity. As a WHO Collaborating Center, GDD coordinates a full range of expertise and resources in each of the WHO regions to build national core capacities to meet the minimum IHR requirements in surveillance and response. Measuring the timeliness of outbreak responses is an indicator of the progress in building global outbreak response capacity as a whole.

The speed of response is defined as the time that the GDD Regional Center receives a request for assistance (even if the outbreak or event started earlier) to the time when appropriate actions are underway to respond to that request. Response actions depend on the type of assistance requested, which includes sending a team to the field, providing phone consultation with health officials, or providing laboratory testing. GDD defines timely as responding within 24 hours of receiving the request for assistance. Because of the unpredictability with outbreaks and emergency public health events, a target of 100 percent is not attainable on a continual basis. Additionally, as new Regional Centers are added, they are expected to initially have lower response times. Therefore, progress will be measured based on the 2009 baseline and projected growth for this measure. In addition to providing timely and effective support for outbreak responses, GDD Regional Centers build regional capacity through a number of other activities. Since 2006, GDD Regional Centers:

- Trained over 44,500 public health practitioners in epidemiology and laboratory methods, rapid response, and other public health topics

- Built capacity to perform 179 pathogen-specific laboratory tests in-country; and  
Detected 55 pathogens that are either new to the world, to the region, or that have a new mode of transmission.



**GLOBAL PUBLIC HEALTH CAPACITY DEVELOPMENT**

**LONG-TERM OBJECTIVE 10.F: TO INCREASE THE NUMBER OF SKILLED EPIDEMIOLOGISTS PROVIDING SUSTAINED PUBLIC HEALTH CAPACITY IN LOW AND MIDDLE INCOME COUNTRIES.**

Measure	FY	Target	Result
10.F.1a: Increase epidemiology and laboratory capacity within global health ministries through the Field Epidemiology (and Laboratory) Training Program (FELTP). New Trainees* (Outcome)	Out-Year Target	219 (2015)	Dec 31, 2016
	2012	179	Dec 31, 2012
	2011	164	Dec 31, 2011
	2010	149	140 (Target Not Met)
	2009	Baseline	134
10.F.1b: Increase epidemiology and laboratory capacity within global health ministries through the Field Epidemiology (and Laboratory) Training Program (FELTP). Total Graduates.* (Outcome)	Out-Year Target	3,166 (2015)	Dec 31, 2016
	2012	2,676	Dec 31, 2012
	2011	2486	Dec 31, 2011
	2010	2,316	2305 (Target Not Met)
	2009	Baseline	2,166

\*This measure is also included in the HHS 2010-2015 Strategic Plan

Unique Identifier	Data Source	Data Validation
10.F.1	FETP Annual Program Reports	Reports from Countries are submitted to CDC annually. These reports are confirmed by program directors in each Country.

**Long-term Objective 10.F, Performance Measure 1a,b:**

Globally, there is a severe shortage of skilled epidemiologists, especially in low- and middle-income countries, and particularly those with weak/emerging health systems. To date, it is estimated that less than one percent of the desired target coverage of one epidemiologist for every 200,000 population has been achieved globally. The U.S. Centers for Disease Control and Prevention (CDC) has over 30 years of international experience training public health leaders through its Field Epidemiology Training Programs (FETPs), a two-year applied capacity development program, modeled on the U.S. Epidemic Intelligence Service. CDC has demonstrated that replication of this model is possible across diverse countries. Scaling up this model is now a stated imperative to address endemic and (re-) emerging infectious diseases, and the burden posed by non-communicable diseases.

Since 1980, CDC has developed 40 international Field Epidemiology and Laboratory Training programs (FETP) serving 56 countries, graduating 2305 epidemiologists. Twenty mature programs are sustained without a need for full-time Resident Advisors. The numbers of programs and thus trainees that CDC is supporting varies from year to year as new programs are started and mature programs become sustained. The number of trainees per year can also vary because some programs only enroll new trainees every two years. In FY 2010 FE(L)TP graduated 140 new epidemiologists, totaling 2305 graduated since the program began. Although, the targets for FY 2010 were not met due to a variety of unanticipated adverse conditions in some participating programs, there was an increase in new trainees and graduates from the 2009 baseline.

CDC is poised to rapidly achieve major impact in public health workforce development by expanding these programs and establishing new ones in priority countries. As an Agency and Department Priority, these measures allow the program to track the progress of new and expanded programs in graduating well-trained applied epidemiologists. We will continue to work with current programs to support their work in continuing to graduate skilled epidemiologist in countries. The current targets are ambitious and based on existing funding levels. If increased funding becomes available we will re-align strategic priorities to focus on priority countries with greatest need and likelihood of programmatic success, based on indices of burden of disease, population, country capacity, national commitment, population size, and presence of CDC programs. Additionally, we will work to increase the number of trainees and graduates in priority countries to better meet their country specific health needs.

**PUBLIC HEALTH LEADERSHIP AND SUPPORT**

**LONG-TERM OBJECTIVE 11.B.1: IMPROVE ACCESS TO AND REACH OF CDC'S SCIENTIFIC HEALTH INFORMATION AMONG KEY AUDIENCES TO MAXIMIZE HEALTH IMPACT.**

Measure	FY	Target	Result
11.B.1.1: Provide health information to the public in order to educate, inform and improve health outcomes. a. User satisfaction with CDC.gov. (outcome)	2012	82.5%	Dec 31, 2012
	2011	82%	Dec 31, 2011
	2010	82%	79% (Target Not Met)
	2009	81%	81% (Target Met)
	2008	Baseline	81%
b. Percentage of inquirers making a behavior change as a result of information gained from their experience with CDC-INFO (outcome)	2012	52.5% / 82.5%	Dec 31, 2012
	2011	52% / 82%	Dec 31, 2011
	2010	50% / 82%	44% of respondents expressed the intention to change behavior. Of these, 80% reported that they were already engaging in new behavior (Target Not Met)
	2009	Baseline	48% of respondents expressed the intention to change behavior; of these, 80% reported that they were already engaging in new behavior
c. Health Behavior impact of CDC.gov (outcome)	2012	71%	Dec 31, 2012
	2011	70%	Dec 31, 2011
	2010	69%	66% of users indicated they are likely or very likely to make a change based on their experience with CDC.gov (Target Not Met)
	2009	Baseline	68% of users indicate they are likely or very likely to make a change based on their experience with CDC.gov

Unique Identifier	Data Source	Data Validation
11.B.1.1a-c	Division of News and Electronic Media and Division of Community Engagement	Staff to collect electronic channel usage statistics on an on-going basis and monitor improvements over time. User performance and user satisfaction will be measured in user testing and other user research methods (on-line surveys, interviews, etc).

CDC has initiated many successful health communication efforts to educate, inform, and improve health outcomes of the general public. Timely communication of public health information is

important with regards to promoting general well-being. However, during public health emergencies, this becomes critical to maximizing understanding of actions that need to be taken and minimizing adverse impact on individual and public health. These products reflect and address the increasing diffusion of the channels through which the general public seeks information.

Ensuring rapid dissemination of CDC's important health information, health messaging and critical behavioral change opportunities through CDC.gov, and interactive media channels including content syndication and mobile, and through electronic communication efforts such as CDC-INFO can significantly contribute to the health, safety, and well-being of people around the world. CDC.gov and CDC-INFO can also be more effectively integrated and used as key channels to communicate with and educate CDC's partners in state and local health departments, health care organizations, laboratories, universities, businesses, and other government agencies to disseminate the latest research into practice, provide emergency updates, increase knowledge and skills in public health practice, and much more.

### **Long-term Objective 11.B.1, Performance Measure 1a**

To measure access, use, and engagement with and health impact of the CDC.gov Web presence, CDC relies on a number of analytical tools including Omniture, American Customer Satisfaction Index (ACSI) surveys, and other commercial services which analyze real time user behavior, satisfaction, and the overall user experience. CDC.gov has high user satisfaction scores per the American Customer Satisfaction Index (ACSI) and consistently ranks in the top major federal Web portals. In the last 2 years, CDC has significantly increased the sample size of pages that are included in the ACSI survey. With the increase in the number pages added to the survey it revealed user satisfaction problems embedded within the site that caused the FY 2010 target to go unmet. This information will allow CDC to embark upon efforts to make web site improvements at the topic level. Following is a summary of satisfaction scores for FY2010 for four key audiences of CDC.gov:

- Health Care Providers who make up 33% of users to CDC.gov have a satisfaction score of 83 out of 100. 58% of Health Care Providers reported that they found the information they were looking for, while another 19% of Health Care Providers were still looking for the information when they responded to the satisfaction survey.
- Educators and Students who make up 16% of users to CDC.gov have a satisfaction score of 83 out of 100. Fifty-two percent of Educators and Students reported that they found the information they were looking for, while another 22% of Educator and Students were still looking for the information when they responded to the satisfaction survey.
- Consumers who make up 29% of users to CDC.gov have a satisfaction score of 79 out of 100. Fifty-two percent of Consumers reported that they found the information they were looking for, while another 22% Consumers were still looking for the information when they responded to the satisfaction survey.
- Public Health Professionals who make up 7% of users to CDC.gov have a satisfaction score of 79 out of 100. Fifty-four percent of Public Health Professionals reported that they found the information they were looking for, while another 21% of Public Health Professionals were still looking for the information when they responded to the satisfaction survey.

### **Long-term Objective 11.B.1, Performance Measure 1b**

In order to ensure that CDC-INFO remains a trusted and credible resource among the general public, CDC-INFO uses its OMB-approved surveys to determine the level of satisfaction with

service provided to the inquirer. Both surveys are voluntary; automated and call back surveys are offered to call and email inquirers. The satisfaction surveys pose additional questions asking whether the information provided by CDC-INFO inspired the inquirer to consider changing a behavior, and whether the actual behavior change took place. This measure enables CDC-INFO to measure the effectiveness of the information it provides in influencing health-related behavior on call and email inquirers.

In FY 2010, 44 percent of call-back survey respondents from a sample of 3063 indicated that what they had learned from CDC-INFO made them want to change their behavior and of those, 80 percent reported they had made a behavior change. The most common behavior changes made included reducing risky sexual behavior and getting immunized. In FY 2009, 48.4 percent of call-back survey respondents from a sample of 3,512 indicated that what they had learned from CDC-INFO made them want to change their behavior and of those 81.7 percent reported they had made a behavior change. The most common behavior changes made included reducing risky sexual behavior, exercising better hygiene, and getting immunized. Prior to the CDC-INFO consolidation, none of this information was collected, so the public health impact of CDC's phone and email services provided was not known.

CDC-INFO will continue to strengthen development of prepared scripts and training to ensure that the CDC-INFO inquirer experience is compelling and leads to measurable outcomes and health benefits for inquirers. In FY 2010, CDC-INFO modified and refined nearly 58% (4,515) of 7,792 of prepared responses, in order to ensure that the information provided to callers is clear, accurate, compelling and relevant to the inquirer. Reduced funding for CDC-INFO means that resources to improve performance in this area are limited, leading to modest levels of improvement in performance targets. The quality assurance staff are working to better understand the drivers/predictors of higher levels customer satisfaction behavior change, and to identify targeted coaching, training, and inquiry handling strategies that address the areas where the biggest gains in customer satisfaction and behavior change can be achieved, funding permitting.

To meet the FY 2010 performance measure target CDC relied on the call back survey data gathered from voluntary callers to the contact center. Normally participants were called back to assess their behavior change 15-30 days from their initial call to the contact center. However in August 2010, the CDC-INFO contract was modified and this service was reduced. As a result, data from July, August, and September's pool of participants was not available and the 2010 target was not met. In addition, H1N1 as part of the regular flu season, shifted reported behavior change from the normally reported HIV and STD to immunizations, which lowered the overall number of those people 'already engaged' in new behavior.

### **Long-term Objective 11.B.1, Performance Measure 1c**

The Pew Internet in American Life Project estimates that more than 95 million American adults use the Internet to find health information. With a potential audience of this size and over 800 million page views of CDC.gov in 2009, CDC must effectively and strategically use the Internet to optimize its role as CDC's primary public health communication channel to produce positive health impact by using credible information to promote positive behavior change.

There were several factors that lead to the 2010 target not being met. First, the baseline year was an atypical year due to the high H1N1 traffic and large percentage of H1N1 responses to the survey. Second, this is only the second year this measure has been collected. Without any historical trends, it was difficult to understand potential future trends. Third, the 2010 measure

was collected from data from both health professionals and consumers. However, consumers were the only target for this measure. This has been corrected for 2011.

In order to achieve improved performance, CDC is undertaking a number of activities. The program is expanding use of CDC.gov through content syndication and other innovative technical products that increase the reach and partnership of CDC data and information to achieve the overall goals of health impact. CDC.gov is now revising its American Customer Satisfaction Index (ACSI) survey for CDC.gov Web site that will help CDC better evaluate health impact and behavior change associated with CDC.gov. Since CDC's satisfaction score is declining, we are trying to reach a better understanding of the improvements required. CDC is expanding the use of metrics analysis specifically for its health campaigns to understand the reach of web based campaigns. CDC.gov will continue to pursue online collaborations with credible organizations to help improve the dissemination of key health messages and promote online traffic to CDC.gov. CDC has extended its successful content syndication project to provide the syndication capability to other HHS OPDIVS for use across CDC and for state and local health departments and other partners for them to syndicate out their health content. Currently, over 330 public health partners have registered since the 2007 launch of the content syndication pilot.

### **Interactive Media**

Currently there is not a measure for interactive media. CDC will consider a measure for FY2013. For FY2010, with regard to new media usage (in the last three months), most (50 percent) say that they have watched a video online, approximately half (49 percent) say they have received text messages, nearly half (38 percent) say they receive e-mail updates from a Web site, and a large proportion (34 percent) have browsed through online photo galleries.

In response to public health emergencies, CDC continued to disseminate health and safety messages through CDC.gov and CDC's Social Media profiles on Twitter and Facebook, including for the Haiti Earthquake and Cholera outbreak, and for the Horizon Gulf Oil Spill. And in support of ongoing CDC programs, increasing amounts of information are being deployed to the public through CDC's electronic media channels. Launched in July 2010, CDC Vital Signs monthly data releases on CDC.gov are being disseminated to the public through Web and Social media channels and through collaborations with online partners. In 2010, CDC programs also are building topic specific profiles on Twitter and Facebook to engage the public, including public health campaigns around concussions and safe teen driving. Additionally, CDC is adding interactive elements to our social media efforts including online quizzes, online pledges, mobile interaction and continued use of Widgets. The number of other Web sites utilizing CDC's widget grew 73% in 2010.

Recent evaluations of CDC's social media activities showed that 95% of our twitter users are very satisfied or satisfied with CDC's twitter efforts and that 71% of our mobile text users are satisfied or very satisfied with CDC's texting service. CDC will be evaluating its Facebook users in FY2011. CDC must continue to increase access, use and engagement with the public in order to raise awareness of CDC scientific data and health information and increase the impact on the public's health.

### **LONG-TERM OBJECTIVE 11.B.2: PREPARE MINORITY, MEDICAL, VETERINARY, PHARMACY, UNDERGRADUATE, AND GRADUATE STUDENTS FOR CAREERS IN PUBLIC HEALTH.**

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
11.B.2.1: Increase the	2012	95	December 31, 2013

Measure	FY	Target	Result
number of minority students participating in programs, such as the Hispanic Serving Health Professions Internship and Fellowships Program, Ferguson Emerging Infectious Disease Fellowship Program, Public Health Summer Fellowship Program, Research Initiatives for Student Enhancement (RISE) and Project IMHOTEP. (Output)	2011	95	December 31, 2012
	2010	95	December 31, 2011
	2009	95	112 (Target Exceeded)
	2008	95	112 (Target Exceeded)
	2007	87	106 (Target Exceeded)
	2006	87	106 (Target Exceeded)

Unique Identifier	Data Source	Data Validation
11.B.2.1	Information will be ascertained from administrative records identifying the number of interns and fellows in each program.	Data quality assurance is measured by review of quarterly and annual program progress reports.

**Long-term Objective 11.B.2, Performance Measure 1**

In FY 2009, the target was exceeded because of programs with Kennedy Krieger Institute/RISE, and Morehouse College/IMHOTEP programs which provided opportunities for 17 additional students. Although the trend of exceeding the target has been consistent for the past four years, the target will not be set upward. Additionally, supplemental funding from other CDC programs to support minority student internships is increasingly difficult to identify. In FY 2011, a new training Funding Opportunity Announcement (FOA) will be announced through the mechanism of a five-year cooperative agreement. The proposed FOA is currently under development and will continue to track this objective and performance measure.

**LONG-TERM OBJECTIVE 11.B.3: SUPPORT POLICY STRATEGIES OF EXISTING NATIONAL AND REGIONAL MINORITY ORGANIZATIONS.**

Measure	FY	Target	Result
11.B.3.1: Identify program and organizational infrastructure needs (i.e., policy analysis, program assessment and development, and evaluation) of public health agencies/organizations serving minority communities and provide technical assistance to improve the health status and access to programs for racial and ethnic minority populations. (Output)	2012	250	October 31, 2013
	2011	250	October 31, 2012
	2010	250	October 31, 2011
	2009	100	240 (Target Exceeded)
	2008	100	240 (Target Exceeded)
	2007	85	240 (Target Exceeded)
	2006	Baseline	477

Unique Identifier	Data Source	Data Validation
11.B.3.1	Information will be derived from the number of collaborative efforts, documented activities and products	Data will be measured by information contained in annual progress reports, minutes and

Unique Identifier	Data Source	Data Validation
	reported in the annual program progress reports and publications.	program-related documents.

**Long-term Objective 11.B.3, Performance Measure 1**

Since 2008, CDC and its cooperative agreement recipients worked with 240 partner entities to identify and help meet their analytic and program management needs. The target was exceeded, because OMHD received additional funding from the different CDC National Centers to support additional students in the different summer programs sponsored by OMHD. National Centers also contributed funding for the six-month and one-year student training programs. Programs funded under this measure support national and/or regional initiatives to develop, expand, and enhance health promotion, educational, and community-based programs targeting racial and ethnic populations. The seven cooperative agreements awarded to support and strengthen existing NMOs/RMOs that engage in health advocacy, promotion, education and preventive health care with the intent of improving the health and well-being of racial and ethnic minority populations have led to collaborations and technical assistance that benefited 240 entities. In FY 2011, a new Funding Opportunity Announcement (FOA) will be announced. Although the current objective and performance measure will be a component of the new FOA, it is imminent that after release of the FOA that it will be reassessed to reflect any changes in the announcement that will be tracked over the five years of the cooperative agreement.



**BUILDINGS AND FACILITIES**

**LONG-TERM OBJECTIVE 12.E: ACHIEVE ENERGY/WATER REDUCTION AND INCREASED SUSTAINABILITY.**

Measure	FY	Target	Result
12.E.1: Reduce Energy and Water consumption. Implement high performance energy and water sustainability requirements. ( <i>Efficiency</i> )	2012	21%(E); 10%(W)	Dec 31, 2012
	2011	18% (E); 8% (W)	Dec 31, 2011
	2010	15% (E); 6% (W)	17.08% (E), 13.1% (W) (Target Exceeded)
	2009	12% (E); 4% (W)	20.9%(E); 4.4%(W) (Target Exceeded)
	2008	9% (E); 2% (W)	16.7% (E); 2.4% (W) (Target Exceeded)
	2007	6% (E); Baseline - Water	12.6% (E); 0% (W)
12.E.2: Incorporate sustainable practices in building construction, repair, renovation, and modernization projects, according to the Guiding Principles for High Performance and Sustainable Federal Buildings. ( <i>Efficiency</i> )	2012	9%	Dec 31, 2012
	2011	7%	Dec 31, 2011
	2010	5%	17.4% (Target Exceeded)
	2009	4%	19.4% (Target Exceeded)
	2008	3%	3% (Target Met)
	2007	Baseline	0%

Unique Identifier	Data Source	Data Validation
12.E.1	Energy electrical metering, utility bills, Water metering, water bills; Sustainability HHS Assessment, Appendix H and Appendix G for new facilities.	Manual processes to verify calculations.
12.E.2	Sustainability HHS Assessment, Appendix H and Appendix G for new facilities.	Sustainability through third party verification from Green Globe and LEEDs

**Efficiency Measure 12.E.1:**

This measure provides goals for current/future energy reduction and the incorporation of sustainable practices for CDC constructed assets. Energy goals reduce costs, reduce environmental impact, and increase availability of energy sources for other users. Incorporation of sustainable practices ensures implementation of integrated design principles, increased energy efficiency, protection and conservation of water, enhancement of indoor air quality, and minimizes environmental impact of materials. Steam, water (gal), and power (kwhd) are metered and measured per EISA 2007 for each government facility. The Energy Independence and Security Act (EISA) of 2007 requires comprehensive energy and water evaluations for 25 percent of facilities annually. The evaluations are conducted in a manner that ensures the total facility is evaluated every four years. The target setting methodology is to reduce energy consumption by three percent every year from the 2005 baseline for a 30 percent reduction in energy use by 2015. Water usage is targeted to be reduced by two percent per year from the 2007 baseline to a 16 percent reduction in water usage by 2015. Assets built with sustainable practices, as per the Guiding Principles for High Performance and Sustainable Federal Buildings, will account for at least 15 percent of CDC aggregate assets by 2015. Regular Assessments are made on sustainable practices utilized by CDC buildings. The HHS Existing Building Assessment Tool is used for

assessing existing facilities and the HHS Sustainable Buildings Checklist for Projects is used for assessing construction, improvement and repair projects.

Past performance has been significant in the area of reducing energy and water consumption from baselines (previous measures). Energy trend data is consistent with the level and type of portfolio growth. The energy and water targets are very ambitious and metric requirements do not take into account programmatic growth in asset, utilization, mission, etc. The reduction requirement also does not take into account energy use density based on the type and age of facility and technology. The CDC asset management plan included the construction of many significant new buildings within recent years. These buildings have already appreciably contributed to the reduction of energy and water consumption, making additional targets of two percent water and three percent energy reductions per year difficult. These buildings are already outperforming similar buildings.

CDC's specific mission for disease control requires construction of state-of-the-art laboratory facilities. Such facilities have specific material and system design requirements, making the incorporation of all of the sustainable practices and the further reduction of energy and water consumption difficult to implement. Increased metering will be installed to measure energy consumption at the building level. Energy savings equipment will be specified for new and existing buildings. The Guiding Principles for High Performance and Sustainable Federal Buildings has been incorporated into the CDC Design and Construction Standards. The result is that the Guiding Principles will be incorporated, as per the DHHS Policy for Sustainable and High Performance Buildings, in all projects to the greatest extent possible. Existing building assessments will be performed to determine opportunities for sustainable improvements of existing facilities as well as opportunities for energy and water use improvements. CDC exceeded the Performance Measure targets for 2009 and 2010.

**Efficiency Measure 12.E.2:**

Incorporation of sustainable practices ensures implementation of integrated design principles, increased energy efficiency, protection and conservation of water, enhancement of indoor air quality, and minimizes environmental impact of materials.

Regular Assessments are made on sustainable practices utilized by CDC buildings. The HHS Existing Building Assessment Tool is used for assessing existing facilities and the HHS Sustainable Buildings Checklist for Projects is used for assessing construction, improvement and repair projects.

CDC added another LEED certified project to its building portfolio in 2010. The Ft. Collins Building 401 Core & Shell Space Build-Out Achieved LEED Gold for Commercial Interiors. Completed in 2010, the Ft. Collins Building 401, floors 4 and 4M, provide approximately 27,000 gross square feet of additional laboratory and laboratory support space. Because this new space was part of a core and shell build-out in an existing laboratory building, the design and construction team registered with the USGBC for LEED Commercial Interiors (CI) certification. Notification of LEED CI Gold certification was received by the CDC in June of 2010. CDC already has a portfolio of 3 existing buildings with LEED certification. Building 21 at Roybal received LEED Silver certification. Buildings 106 and 110 at Chamblee received LEED Gold certification. These buildings count towards meeting the Guiding Principles of Federal High Performance Buildings Memorandum of Understanding (MOU) 2006 and the Executive Order 13514 Federal Leadership in Environmental, Energy and Economic Performance.

A decrease in the "energy" and "sustainable practices" measures is reflected in the 2010 results over the 2009 results due to the completion of Building 23, a 730,000 sf laboratory and animal holding facility, under contract prior to October 1, 2008 and not required to meet the Guiding Principles at the time. Many features for sustainability, energy, and water conservation were included in the building and an evaluation is currently underway to determine if Building 23 meets the Guiding Principles. The completion of the Ft. Collins Core & Shell Space project impacted the "energy" measure results as well, since this space is now fully built-out, occupied and using more energy than when it was empty space.

**LONG-TERM OBJECTIVE 12.1: EXECUTE EARNED VALUE ANALYSIS/  
EARNED VALUE MANAGEMENT FOR PROJECT MANAGEMENT.**

Measure	FY	Target	Result
12.1.1: Aggregate of scores for capital and repair/improvement projects rated on scope, schedule, and cost. (Output)	Out-Year Target	1.00±0.08 (2013)	Dec 31, 2013
	2012	1.00±0.08	Dec 31, 2012
	2011	1.00±0.09	Dec 31, 2011
	2010	1.00±0.09	.99 (Target Met)
	2009	1.00±0.09	1.00±0.09 (Target Met)
	2008	1.00±0.10	99% (Target Exceeded)
	2007	Baseline	90%

Unique Identifier	Data Source	Data Validation
12.1.1	Cost and Schedule are tracked using Cost and Schedule Indexes from the Earned Value Analysis/ Management (EVA/EVM) - IFMS EVA/EVM Project Status Monthly Report	Independent Review of Project EAC, ETC, CPI, & SPI

**Long-term Objective 12.1, Performance Measure 1**

This measure provides a private industry and Government recognized performance tool for project progress: Earned Value Management. The previous OMB program assessment measure addressed traditional tracking of scope, budget, schedule, and quality. These traditional measures are not predictive for project management. On the other hand, the Earned Value Management (EVM) project management system uses normalized indexes to predict the S-curve trending of project progress. This allows a project manager to predict and adjust schedule and budget to meet shortfalls in either.

Section 5051 of the Federal Acquisition Streamlining Act of 1994 (FASA) requires the Office of Federal Procurement Policy (OFPP) to report annually on an agency's implementation of Performance-Based Management Systems (PBMS). Major acquisition programs within an agency must achieve, on average, 90 percent of their cost and schedule goals. OMB guidance in the use of PBMS is detailed in Circular A-11, Part 7 and its supplement, the Capital Programming Guide. This guidance specifically emphasizes the use of EVM. OMB has required reporting of EVM data on major capital projects (>\$10M) starting in December of 2009. CDC Buildings and Facilities Offices (BFO) was proactive in implementing EVM in October of 2007 for its major and minor projects.

Project cost and schedule performance is measured by calculating a Cost Performance Index (CPI) and a Schedule Performance Index (SPI) at regular intervals of a projects progress. Cost Performance index is the ratio of Earned Value (Budget Cost of Work Performed) to Actual Cost of Work Performed.  $CPI = EV/ACWP$  Schedule Performance Index is the ratio of Earned Value (Budget Cost of Work Performed) to Budget Cost of Work Scheduled.  $SPI = EV/BCWS$ .

Project scope, schedule and budget have been performance metrics managed by BFO since 2000. However, existing techniques tracked historical data and were non-predictive.

EVM is used as the de facto project management tool in BFO's organizations. In addition to the OMB reporting requirement, EVM is reported locally on a monthly basis as part of the business metrics. Targeted indexes have been met since Q1, FY 2008 and EVM targets were exceeded for 2010.

**LONG-TERM OBJECTIVE 12.2: EXECUTE BUSINESS AND PROJECT TACTICS.**

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
12.2.1a: Improve CDC's Buildings and Facilities Office's processes and performance as reflected by two Key Performance Indicators - Work Order Closure Rates and Customer Satisfaction - and by three Federal Real Property Council (FRPC) metrics of Utilization, Mission Dependency, and Facility Condition Index for CDC buildings  Work Order Closure Rates <i>(Outcome)</i>	2012	91%	Dec 31, 2012
	2011	91%	Dec 31, 2011
	2010	89%	94% (Target Exceeded)
	2009	87%	89% (Target Exceeded)
	2008	85%	95% (Target Exceeded)
12.2.1b: Customer Satisfaction Survey Results <i>(Outcome)</i>	2012	NA* (see narrative)	Dec 31, 2012
	2011	85%	Dec 31, 2011
	2010	80%	N/A* (see narrative)
	2009	80%	80% (Target Met)
	2008	75%	94% (Target Exceeded)
12.2.1c: Condition Index <i>(Outcome)</i>	2012	90.0CI	Dec 31, 2012
	2011	90.0CI	Dec 31, 2011
	2010	90.0CI	86.39 (Not Met)
	2009	87.6CI	90.0CI (Target Exceeded)
	2008	87.2CI	93.9 (Target Exceeded)
12.2.1d: Mission Dependency	2012	2.00%	Dec 31, 2012
	2011	2.00%	Dec 31, 2011

Measure	FY	Target	Result
<i>(Outcome)</i>	2010	5.00%	.61% (Target Exceeded)
	2009	5.48%	0% (Target Exceeded)
	2008	5.95%	0% (Target Exceeded)
<u>12.2.1e:</u> Utilization <i>(Outcome)</i>	2012	6.7%O, 5.00%U	Dec 31, 2012
	2011	6.7%O, 5.00%U	Dec 31, 2011
	2010	6.7%O, 5.00%U	2.14%O, 1.84%U (Target Exceeded)
	2009	6.7%O, 5.12%U	2.42%O; 1.51%U (Target Met)
	2008	6.7%O, 5.24%U	1.8%O, 1.8%U (Target Exceeded)
<u>12.2.1f:</u> Operating Costs <i>(Outcome)</i>	2012	\$10.29/sq. ft.	Dec 31, 2012
	2011	\$10.29/sq. ft.	Dec 31, 2011
	2010	\$10.29/sq. ft.	8.57/sq. ft. (Target Exceeded)
	2009	\$10.39/sq. ft.	\$11.93/sq. ft. (Target Not Met)
	2008	\$10.50/sq. ft.	\$11.94/sq. ft. (Target Not Met)

Unique Identifier	Data Source	Data Validation
12.2.1	ARIS Data Tables, IFMS Project and Maintenance Data, Customer Satisfaction Surveys	Manual processes to verify calculations

This objective provides analysis of tactical business performance and execution of Buildings and Facilities Office (BFO) services and stewardship of HHS-owned assets. The objective combines metrics required both locally at CDC (Work Order Closure Rate, Customer Satisfaction) with HHS and OMB reporting requirements based on Federal Real Property Council and Real Property Asset Management Program goals (Condition Index, Mission Dependency, Utilization, Operating Costs). It supports the office's adherence to the Federal Real Property Council guidelines and requirements for owned and leased assets by providing performance metrics and asset value preservation.

**Long-term Objective 12.2, Performance Measure 1a**

Work Order Closure Rates measure the ratio between closed work orders and closed work orders with intervals of less than 30 days. This is a direct measurement of maintenance trouble call performance. It sets strategic guidelines on establishing the difference between projects and work orders (e.g., if a work order takes more than 30 days to complete, it should be defined as a project). The Work Order closure rate of 89% for 2010 was exceeded.

**Long-term Objective 12.2, Performance Measure 1b**

The Customer Satisfaction Survey system previously in use at the CDC was deactivated on March 16th, 2010. This system encompassed all offices of the CDC's business services, including BFO. BFO will be working in the next two years to implement our own Customer Satisfaction Survey system. However, manual data will be used in the interim, if possible. Regardless, the deactivation of the existing system mandates a reset of our Customer Satisfaction processes. Reporting for 2011/12 may not be applicable to the Performance Measure's existing targets.

### **Long-term Objective 12.2, Performance Measure 1c**

Condition Index (CI) – a Facility Replacement Value (FRV) divided by the cost of needed repairs (sometimes referred to as the Backlog of Maintenance And Repair - BMAR), subtracted from one and multiplied by 100. The Real Asset Property Management goals require all agencies to bring building CI's to a minimum of 90 as a long-term goal. HHS developed separate CI goals according to building space type in 2007. CI reflects an aggregate of all facilities. Although more recently facility types have been prioritized to focus attention on most critical assets first, the metric continues to be reported as an aggregate to OMB. HHS reports both straight average (from FRPP), which is the OMB required metric, and weighted average (from OPDIVs), which more accurately captures current inventory condition overall.

2010 saw the completion of CDC's largest laboratory building to date with the East Campus Consolidation project. The project allowed the demolition of numerous existing laboratory buildings with very low Condition Indexes (CI). The CI's decreased as the project progressed, since imminent occupation of the new building made CI investments in the old structures uneconomical. However, since occupation of the new building and demolition of the old buildings both commenced in FY10, the overall CI of the CDC's assets decreased. FY11 should see an improvement in CI as the older buildings are removed from CDC's assets.

### **Long-term Objective 12.2, Performance Measure 1d**

Mission Dependency - is the Agency's mission directly dependent on this asset; is it critical? These are declarations of the importance of our assets. Ideally, all CDC buildings would become mission-dependent or they would be disposed/demolished. This Performance Measure sets the percentage of non-Mission Dependent assets as a goal - less than 5 percent (the long-term, maintained target) of the total CDC assets should be made up of non-Mission Dependent assets. The 2010 result of .61% exceeded the 2010 target.

### **Long-term Objective 12.2, Performance Measure 1e**

Utilization Rate - this is a ratio between the number of occupants and the space within a building. The goal is to meet HHS guidelines for Utilization Rates for all CDC buildings, so that adequate space is available - but not wasted. Both Over-utilization and Under-utilization is tracked, with percentages of each measured as goals. Results for both exceeded their respective 2010 targets.

### **Long-term Objective 12.2, Performance Measure 1f**

Operating Costs are maintenance and utility costs, on an annual basis, divided by the total gross square footage. Goals are set by percentage reduction on an annual basis. However, this Performance Measure goal has not been adequately defined in a similar manner as CI. It should be noted that CI reflects an aggregate of all facilities. Although more recently facility types have been prioritized to focus attention on most critical assets first, the metric continues to be reported as an aggregate to OMB. HHS reports both straight average (from FRPP), which is the OMB required metric, and weighted average (from OPDIVs), which more accurately captures current inventory condition overall. Recognizing that there are different priorities depending on the criticality of the asset, HHS OFMP segregated CI by building types, so that goals could be properly measured against the most critical assets. However, the operating cost measure is only defined as a single lumped amount for all assets. CDC laboratories, by their own laboratory standards, are much higher in operating costs than an office building or other building types. If the CDC is right-sizing their portfolio into Mission Dependent and Mission Critical assets, then the preponderance of these assets will be skewed by high-operating cost laboratories. Yet, the operating costs measure makes no distinction in asset type. The measure must be revised to

account for those differences in asset types. The 2010 result of \$8.57/sq. ft exceeded the 2010 target.

**PUBLIC HEALTH PREPAREDNESS AND RESPONSE**

**HEALTH MONITORING AND SURVEILLANCE**

*The title for this section, Health Monitoring and Surveillance, will be updated during the FY 2013 budget process to align with its corresponding title in the President's Budget request.*

Maintain situational awareness at the global, national, state, or local level regarding current population health status, real or potential health threats, and/or environmental threats.

**LONG-TERM OBJECTIVE 13.1: INTEGRATE AND ENHANCE EXISTING SURVEILLANCE SYSTEMS AT THE LOCAL, STATE, NATIONAL, AND INTERNATIONAL LEVELS TO DETECT, MONITOR, REPORT, AND EVALUATE PUBLIC HEALTH THREATS.**

Measure	FY	Target	Result
13.1.1: Increase the number of outpatient and emergency department (ED) patient visits under surveillance in BioSense program per 1,000 population in United States ( <i>Output</i> )	2012	499 [10% increase]	3/2013
	2011	454	3/2012
	2010	413	424.0 (Target Exceeded)
	2009	[trend data]	405.44
	2008	[trend data]	378.65
	2007	Baseline	339.36
13.1.2: The BioSense program will reduce the time needed from a triggering biosurveillance event (the identification of a potential disease event or public health emergency event) to initiate event-specific standard operating procedures (the initiation of a public health investigation and, if needed, subsequent public health intervention) for all infectious, occupational or environmental (whether man-made or naturally occurring) threats of national importance. ( <i>Outcome</i> )	2012	6.0 days	Dec 31, 2012
	2011	6.11 days	Dec 31, 2011
	2010	6.26 days	6.74 days (Target Unmet)
	2009	7.26 days	6.97 days (Target Exceeded)
	2008	Baseline	7.78 days
13.1.3: Number of Laboratory Response Network member laboratories able to use their current Laboratory Information Management System (LIMS) for LRN-	2012	15	Dec 31, 2012
	2011	10	Dec 31, 2011
	2010	5	3 (partially met)
	2009	7	0 (Target Not Met)
	2008	3	0 (Target Not Met)



PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY  
PUBLIC HEALTH PREPAREDNESS AND RESPONSE  
HEALTH MONITORING AND SURVEILLANCE

Measure	FY	Target	Result
specific electronic data exchange. (Output)	2007	Baseline	0
13.1.4: Reduce the time needed for a Laboratory Response Network (LRN) laboratory to enter and message LRN-related standardized results to the CDC. (Outcome)	2012	A) Chemical - 7 minutes B) Biological - 4 minutes	Dec 31, 2012
	2011	A) Chemical -7 minutes B) Biological - 4 minutes	Dec 31, 2011
	2010	A) Chemical – 10 minutes B) Biological – 5 minutes (2010)	A) Chemical – 10 minutes B) Biological – 5 minutes (Target met)
	2009	A) Chemical – 17 minutes B) Biological – 16 minutes	A) Chemical – 13 minutes B) Biological – 7 minutes (Target Exceeded)
	2008	A) Chemical – 23 minutes B) Biological – 27 minutes	A) Chemical - 20 minutes B) Biological - 20 minutes (Target Exceeded)
	2007	Baseline	A) Chemical – 30 minutes B) Biological – 37 minutes

Unique Identifier	Data Source	Data Validation
13.1.1	Data on number of patient visits is available from the BioSense system	The BioSense system monitors total numbers of patient visits reported from participating facilities each day and assesses whether the patient visit count is higher or lower than expected (using statistical analytic methods to detect change over time).
13.1.2	This measure includes five types of data feeds: manual data collection, state syndromic surveillance automated feed to CDC, non-federal hospital feed to CDC, DoD feed to CDC, and VA feed to CDC. BioSense application data is used to determine the median number of days it takes for each type of data feed. The performance outcome for this measure is calculated using a weighted average rather than a simple average. The weight for each type of feed is determined based on the number of facilities feeding into BioSense that fall under that category.	There are automated system controls in place as well as manual procedures that are frequently conducted to validate that the information being collected is accurate.
13.1.3	In addition to specimen and results data, the Health Level 7(HL7) message utilized for messaging LRN data to the CDC carries information regarding the specific data source(i.e., from a labs own system rather than LRN Results Messenger). This information will allow CDC to differentiate between LRN Results Messenger and a local LIMS data. Further development is	Data will be validated through project managers. Each laboratory that is engaged in the LRN LIMS Integration process is being tracked by a project manager. Labs participate in workgroup meetings and are tracked in detail as to their progress toward using their own LIMS. As labs progress, they will enter into a test phase, during which they will be sending test

Unique Identifier	Data Source	Data Validation
	underway to allow easy reporting on various types of messages from the different sources, allowing CDC to quickly discern the number of messages related to various programs.	results using their own systems. After their test results using the new mechanism have been validated to be correct and complete (technical validation), the lab will be considered to have fulfilled the target of data exchange using their own LIMS.
13.1.4	Data are obtained by using LRN Results Messenger to send simulated messages and measure the amount of time to send messages for both biological and chemical agents. The LRN Results Messenger team is instituting a performance test plan using tools that will provide substantial measures of application response time, and also indicate areas that can be improved. This test plan will include load testing, stress testing, and capacity testing.	Validation of reaching the target of improved application performance will be provided by comparing performance test plan results from year to year.

**Long-term Objective 13.1, Performance Measure 1**

The FY 2010 target for increasing the number of patient visits per 1,000 under surveillance through BioSense was exceeded.

The BioSense Program mission is to support and improve public health surveillance infrastructure and human capacity required to monitor (with minimal lag) critical population health indicators of the scope and severity of acute health threats to the public health; and support national, state, and local responses to those threats. This mission is consistent with the 2006 Pandemic All Hazards Preparedness Act (PAHPA), and 2007 Homeland Security Presidential Directive (HSPD-21), both of which call for regional and nationwide public health situational awareness, through an interoperable network of systems, built on existing state and local situational awareness capability.

Current BioSense data sources include: 1) Veteran’s Administration (VA) and Department of Defense (DoD) clinical information systems (since 2005); 2) non-federal hospital direct reporting to CDC (since December 2005); 3) State Health Departments’ syndromic surveillance systems (since December 2006); 4) Anti-infective prescription data from outpatient pharmacies (since October 2007); and 5) microbiology tests and results from LabCorp and Quest Diagnostics (since December 2007).

These data are received from: 1) 640 civilian hospitals, including 162 “direct reporting” hospitals and 478 hospitals reporting through eight health department syndromic surveillance systems; 2) 1,239 DoD [875] and VA [364] hospitals and healthcare facilities; and 3) approximately 27,000 outpatient retail pharmacies throughout the United States. The program exceeded the performance measure in FY 2010 as a result of the enrollment of approximately 50 additional hospitals in the local and state syndromic surveillance systems that share data with the BioSense Program.

In FY 2010, CDC started redesigning the BioSense program based on input and guidance from CDC programs and our local, state, and federal partners under the new Office of Surveillance,

Epidemiology and Laboratory Services (OSELs). The focus of the redesign is to coordinate and link existing surveillance systems with BioSense to ensure rapid and enhanced interchange of information. While retaining its original purpose of early event (or threat) detection and characterization, the BioSense program's updated vision is to provide multi-purpose value in timely data for: 1) raising public health situation awareness; 2) improving routine public health practice; and 3) improving health outcomes and public health. BioSense, as an all-hazards and near real-time electronic surveillance system, will provide a regional (i.e., multistate) and national view of multiple health outcomes and syndromes. By integrating local and state-level data into a cohesive "picture," BioSense will improve its utility for state and local users.

BioSense's new direction will help increase the geographic coverage and representativeness of the program's network of local and state syndromic surveillance systems to provide more valid information for targeting preparedness and response activities. With inclusion of new health department syndromic surveillance systems and the implementation of syndromic surveillance as a meaningful use of electronic health record technology by healthcare providers, CDC anticipates an increase in the population under surveillance and more geographically-distributed coverage of Emergency Department visits in the U.S.

### **Long-term Objective 13.1, Performance Measure 2**

BioSense enables participating local and state public health departments to simultaneously share and access existing data from health care organizations, providing a more complete picture of potential and actual health events both locally and across jurisdictional boundaries. The request will improve the effectiveness of the interface between Health Departments' electronic surveillance systems and human analysts, decision makers and responders. As in FY 2010, grant funding will be directed towards state and local public health for the purposes of enabling state and local surveillance systems to exchange detailed level data (or aggregate where applicable) with the BioSense Program, allowing interoperability and collaboration for effective, cross-jurisdictional situation awareness and public health response.

BioSense has made progress in enhancing public health capacity at the state and local level to participate in and contribute to a national public health surveillance network. While the FY 2010 target of 6.26 days was not met, progress was made in the timeliness of data feeds at 6.74 days in 2010, down from 6.97 days in 2009. Target projections are based on a combination of governmental and non-governmental data feeds. The two largest contributors to BioSense are the Veterans Administration (VA) and the Department of Defense (DoD), whose fixed data feeds are not readily amenable to improved timeliness because the data extraction and reporting processes are part of a larger organizational data enterprise and their provisioning procedures have remained the same in recent years. When the targets for this performance measure were estimated for the out-years (FY 2010 - FY 2012), the fixed nature of the data reporting processes from VA and DoD was not adequately factored-in to the estimation of improvements in timeliness. If the timeliness from these data sources does not improve markedly, then the overall timeliness reflected in this performance measure cannot improve. As a result, the FY 2010 target was not met and the estimates of improved timeliness are higher than they should be for the out-year targets. For this reason and others noted below, CDC will propose to retire this measure during the FY 2013 performance budget cycle and replace it with a more robust measure which meaningfully reflects BioSense's new direction.

Accomplishments that illustrate the programs impact on surveillance are listed below:

Improved internal contracts management resulted in savings being applied directly to support state health departments' syndromic surveillance efforts Jurisdictions requested

funding to support personnel costs (e.g., epidemiologists, statisticians, informaticians), surveillance software enhancements and modifications, and expansion of surveillance networks. Currently, seven jurisdictions have expressed interest in joining BioSense in FY 2011. Additionally, BioSense funded the Council of State and Territorial Epidemiologists (CSTE), the Association of State and Territorial Health Officials (ASTHO), the National Association of County and City Health Officials (NACCHO), and the International Society of Disease Surveillance (ISDS) to assist with BioSense redesign and the Meaningful Use initiatives.

CDC launched the new [BioSense Redesign Collaboration Site](https://sites.google.com/site/biosenseredesign/) (<https://sites.google.com/site/biosenseredesign/>) on September 1, 2010 in collaboration with RTI International. This site features interactive elements designed to foster and encourage transparent information exchange and allow users to: (a) communicate and exchange ideas with one another and with the BioSense Redesign team; (b) provide input; and (c) follow the BioSense Redesign project as it progresses.

In FY 2012, BioSense will provide a regional and national overview of the distribution of disease by integrating local and state-level data into a cohesive "picture," but the focus will be on improved utility for state and local users. The concept and activities for the redesign process include the following:

- Focus on the business and work flow needs at the local, state, and federal levels
- Let the public health community drive the direction of BioSense
- Create and support communities of interest
- Align the scope of BioSense to best complement and strengthen existing surveillance systems that support emergency preparedness programs; e.g.:
  - Improve the alignment between surveillance and informatics activities funded under the CDC PHEP Cooperative Agreement and the BioSense program (e.g., HIEs, ELC grants, cooperative agreements to academic institutions, non-profit organizations, professional societies (ISDS, CSTE, ASTHO, NACCHO), etc.)
- New charter and governance structure
  - Surveillance professional driven
  - CDC and partners at the table, working collaboratively
  - Joint steering committee (balanced representation of participants and CDC)
  - Develop problem escalation/resolution process
  - Requirements and development priorities set by the public health community

Additionally, the BioSense Program will support development of state and local capability to conduct syndromic surveillance as a Meaningful Use of electronic health record technology at the state, local, tribal, and territorial (SLTT) levels.

### **Long-term Objective 13.1, Performance Measure 3**

This measure reflects CDC's efforts in working with Laboratory Response Network (LRN) member laboratories to migrate away from their current use of the CDC-provided LRN Results Messenger software to their own Laboratory Information management System (LIMS) to exchange LRN-specific results. The advantages of transitioning from the LRN Results Messenger to a LIMS include the elimination of double data entry for many labs, the ability to manage LRN data within the labs' familiar workflow and systems, the increased availability of

LRN testing data for local disease surveillance, and the implementation of common data standards and messaging infrastructure that can be utilized by the lab for other public health laboratory data exchange needs. The targets proposed for the revised measure may appear low, but are considered ambitious in light of several challenges. Progress in transitioning efforts requires the availability of funding/resources, commitment and prioritization by the lab. Thirty percent of LRN labs now receive funding through the Public Health Emergency Preparedness (PHEP) Cooperative Agreement enabling them to purchase and maintain a LIMS. Another 30 percent may receive funds indirectly, but these funds are limited and are often spent on other priority items. Of the LRN labs that currently have functional LIMS in place, many are still working to develop LIMS capacity for their primary lab functions and have placed a lower priority on biological and chemical terrorism. These factors, most of which are outside of the CDC's sphere of influence, directly impact CDC's ability to demonstrate significant progress in a short period of time. The use of a lab's LIMS to electronically exchange LRN-specific data is CDC's ultimate goal, and one that will take a longer period of time to realize.

CDC is currently working with 39 LRN laboratories in 35 States and the District of Columbia on development of the LRN Health Level (HL7) Test Result message. These labs represent a wide spectrum of capability and readiness, ranging from those that are still in the LIMS selection process to those that are currently configuring their LIMS and/or HL7 message. Strategies employed to assist LRN laboratories in reaching these performance measure targets include:

- Providing monetary incentives to ensure that laboratories will be able to fund and prioritize resources to accomplish HL7 messaging of all LRN biological agents in FY 2011. Labs receiving supplemental funding will be strictly monitored to ensure success. This approach was successful for the three labs that were funded in FY 2010.
- Working with major LIMS vendors to develop standard bioterrorism modules that can be utilized by all of their customers. This has been accomplished with the STARLIMS vendor for its version 10 product and is in process with Chemware.
- Conducting site visits to the state public health labs to provide hands-on guidance to support their efforts to become capable of sending LRN-specific data.

These efforts are affected by limited state health departmental resources and competing priorities within the LRN laboratories. The FY 2010 target was partially met. Three state public health laboratories (Massachusetts, Virginia, and Idaho) that received supplemental funding for FY 2010 completed LIMS integration objectives in September 2010. The FY 2011 objective of 10 laboratories is well on its way to being accomplished. The standard bioterrorism LIMS modules from STARLIMS and Chemware improve the chances of success for a great number of LRN labs. In addition, more LRN laboratories have been selected to receive funding to complete this objective in FY 2011, including the Florida state public health laboratory, which will be able to accomplish LRN LIMS integration with its 5 LRN laboratories that share a centralized LIMS.

#### **Long-term Objective 13.1, Performance Measure 4**

The ability to exchange laboratory data, both within the Laboratory Response Network (LRN) as well as between the LRN and CDC, is critical to initiate event-specific standard operating procedures (e.g., aggregation of data at a national level) for all infectious, occupational or environmental (whether man-made or naturally occurring) threats of national importance. Reducing the time needed for a LRN laboratory to enter and message LRN-related standardized results to CDC is one aspect of CDC efforts to minimize the time required to initiate event-specific standard operating procedures. The LRN Results Messenger project directly supports the

CDC's Laboratory Response Network mission, standardizing the exchange of LRN-related data and easing the burden of reporting on LRN laboratories.

CDC is measuring the amount of time it takes a laboratorian to enter a specific number of samples into the system, assign and result typical tests performed, and to send those results to CDC. Much work has been done to refine and enhance the performance of LRN Results Messenger since its initial deployment. The application has dramatically improved data entry times; labs initially reported taking more than an hour to enter 10 samples. The FY 2010 targets for this measure were met: A) Chemical – 10 minutes B) Biological – 5 minutes. A feature designed to facilitate the entry of large number of samples in surge situations was implemented in early FY 2010.

As evidenced by the trend data, significant gains have been made over the past three years. In FY 2012, it is anticipated that further progress will be limited, as timeliness of messaging abilities will be nearing maximum potential. CDC will explore the need to either revise or retire this measure over the coming year.

**PUBLIC HEALTH LABORATORY SCIENCE AND SERVICE**

*The title for this section, Public Health Laboratory Science and Service, will be updated during the FY 2013 budget process to align with its corresponding title in the President's Budget request.*

All of CDC's work pertaining to internal or external laboratory research/investigations, workforce development, support services, and partner laboratory support.

**LONG-TERM OBJECTIVE 13.3: ENHANCE AND SUSTAIN NATIONWIDE AND INTERNATIONAL LABORATORY CAPACITY TO GATHER, SHIP, SCREEN, AND TEST SAMPLES FOR PUBLIC HEALTH THREATS AND TO CONDUCT RESEARCH AND DEVELOPMENT THAT LEAD TO INTERVENTIONS FOR SUCH THREATS.**

Measure	FY	Target	Result
13.3.1: Percentage of Laboratory Response Network (LRN) labs that pass proficiency testing for Category A and B threat agents. (Output)	2012	92%	Dec 31, 2012
	2011	92%	Dec 31, 2011
	2010	92%	95% (Target Exceeded)
	2009	92%	95% (Target Exceeded)
	2008	92%	94% (Target Exceeded)
	2007	100%	91% (Target Not Met)
	2006	84%	87% (Target Exceeded)

Unique Identifier	Data Source	Data Validation
13.3.1	The Laboratory Response Network (LRN) delivers accurate and timely identification of agents causing public health threats, including both naturally occurring disease and organisms that could be used in a biologic terrorism attack.	The data collection and validation activities across the LRN significantly enhances the capacity of laboratories to rapidly detect and identify agents likely to be used in a terrorist attack and provide timely information to health professionals.

**Long-term Objective 13.3, Performance Measure 1**

This measure determines the readiness posture of the Laboratory Response Network (LRN) for rapid detection of biological threat agents. Since laboratories infrequently encounter biological threat agents, the proficiency testing (PT) program provides familiarity in working with these agents, performing LRN assays using agent-specific testing algorithms, and using available electronic resources to report test results.

The PT program has been in place since the LRN was founded in FY 1999. At its onset, very few LRN member laboratories were able to rapidly and accurately identify biological threat agents and other agents of public health importance. Although the LRN exceeded the target in FY 2010, 92 percent remains an ambitious target for FY 2011 and FY 2012 in light of proposed funding reductions. Although many laboratories retain their capabilities from year to year, proficiency testing is conducted each year. The capability and measurement of the capability is dependent on the abilities of staff in the labs and staff turnover; technical assistance from CDC which is

dependent on funding for the program that is being proposed for a reduction in FY12; funding for assays and reagents which are developed and distributed in part by CDC; and the receipt and processing of data by CDC.

A 100 percent passing rate is not feasible for several reasons. First, an evolving priority threat list results in the introduction of new tests, technologies and equipment that require staff to gain additional training and experience. Additionally, the LRN program office at CDC is working to increase the complexity of the PT program to include a) multiple agents in a single challenge, b) testing in various non-clinical samples (e.g., food, water, and environmental samples), and c) requirements to complete a full testing algorithm rather than solely focusing on rapid tests.



**RESPONSE AND RECOVERY OPERATIONS**

*The title for this section, Response and Recovery Operations, will be updated during the FY 2013 budget process to align with its corresponding title in the President's Budget request.*

The systematic response, investigation, and control of urgent or emergency health threats or hazards.

**LONG-TERM OBJECTIVE 13.4: ASSURE AN INTEGRATED, SUSTAINABLE, NATIONWIDE RESPONSE AND RECOVERY CAPACITY TO LIMIT MORBIDITY AND MORTALITY FROM PUBLIC HEALTH THREATS.**

Measure	FY	Target	Result
13.4.2: Percentage of state public health agencies that are prepared to use materiel contained in the SNS as demonstrated by evaluation of standard functions as determined by CDC. <i>(Outcome)</i>	2012	100% prepared	Dec 31, 2012
	2011	100% prepared	Dec 31, 2011
	2010	90% prepared	98% (Target Exceeded)
	2009	90% prepared	100% (Target Exceeded)
	2008	90% prepared	91% (Target Exceeded)
	2007	90% prepared	78% (Target Not Met)
	2006	80% prepared	70% (Target Not Met)
13.4.4: The number of successful annual exercises that test response to multiple events with a 12-hour response time. <i>(Outcome)</i>	2012	1	Dec 31, 2012
	2011	1	Dec 31, 2011
	2010	1	1 (Target Met)
	2009	1	1 (Target Met)
	2008	1	1 (Target Met)
	2007	1	1 (Target Met)
	2006	1	1 (Target Met)
13.4.5: Number of trained and ready preparedness and response personnel available for response to multiple events <i>(Output)</i>	2012	19	Dec 31, 2012
	2011	19	Dec 31, 2011
	2010	15	19 (Target Exceeded)
	2009	7	9 (Target Exceeded)
	2008	9	9 (Target Met)
	2007	7	6 (Target Not Met)
	2006	6	6 (Target Met)
13.4.6: Percentage of inventory discrepancies that are reduced by using quality inventory management systems.	2012	<5%	Dec 31, 2012
	2011	<5%	Dec 31, 2011
	2010	<5%	2.56% (Target Exceeded)
	2009	<5%	0.67% (Target Exceeded)

PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY  
PUBLIC HEALTH PREPAREDNESS AND RESPONSE  
RESPONSE AND RECOVERY OPERATIONS

Measure	FY	Target	Result
<i>(Outcome)</i>	2008	<5%	0.88% (Target Exceeded)
	2007	<5%	24.33% (Target Not Met)
	2006	<5%	0.33% (Target Exceeded)
13.4.E.2 Dollars saved per \$1 invested in the Food and Drug Administration's (FDA) Shelf Life Extension Program (SLEP) for available projects. <i>(Outcome)</i>	2012	\$18	Dec 31, 2012
	2011	\$20	Dec 31, 2011
	2010	\$20	\$12 (Target Not Met)
	2009	\$28	\$15 (Target Not Met but Improved)
	2008	\$28	\$10 (Target Not Met)
	2007	\$26	\$13 (Target Not Met)
	2006	\$24	\$20 (Target Not Met)

Unique Identifier	Data Source	Data Validation
13.4.2	DSNS State Technical Assistance Review Tool	The SNS program maintains a staff Program Services Consultants who provide ongoing technical advice and training assistance to Public Health Emergency Preparedness & Response grantees. The consultants also assess the grantees level of preparedness to receive, distribute and dispense SNS assets. These services improve the grantees ability to receive, stage, store and distribute the SNS material.
13.4.4	DSNS	DSNS maintains internal tracking systems to monitor its ability to deliver critical medical assets in a national emergency. A Stockpile Resource Planning (SRP) database and inventory system is used to track and validate stockpiled material.
13.4.5	DSNS	DSNS maintains internal tracking systems to monitor its ability to deliver critical medical assets in a national emergency. An internal roster of Emergency Response Teams is updated daily.
13.4.6	DSNS	DSNS maintains internal tracking systems to monitor its ability to deliver critical medical assets in a national emergency. A Stockpile Resource Planning (SRP) database and inventory system is used to track and validate stockpiled material.
13.4.E.2	DSNS Inventory Management System	CDC's SNS coordinates with the FDA and maintains an internal tracking system for identification of products that may be eligible for the SLEP.

**Long-term Objective 13.4, Performance Measure 2**

As of the fourth quarter of FY 2010, 98 percent (53/54) of the States and directly-funded cities demonstrated preparedness to use Strategic National Stockpile (SNS) assets. There was a slight decrease in FY2010 compared to FY 2009 due to an increase in minimum scores required to be considered acceptable. Preparedness to receive, stage, store and distribute SNS material is essential to saving lives at risk during a public health emergency. Trend data from the FY 2004 baseline of 72 percent to FY 2010's result of 98 percent demonstrate significant improvement in state public health agency's capabilities. CDC will continue to evaluate the preparedness of state public health agencies through exercises and reviews of SNS distribution plans. The target for this measure increases to 100 percent prepared in FY 2011. Evidence of SNS preparedness levels suggests that resources are needed to transfer knowledge and the application of various modeling techniques to state and local jurisdictions. To achieve this end, in July 2010, CDC held the second annual SNS Summit that brought 440 state and local SNS planners and coordinators together to provide a forum for sharing experiences and best practices.

Although there are many challenges to sustaining this preparedness capability, CDC believes that recent efforts to enhance preparedness through more rigorous planning and assessment processes combined with technical assistance, training, and exercises; and additional tools and future strategies for advancing innovative modeling, will improve grantees' long-term ability to respond to and sustain preparedness for public health emergencies.

#### **Long-term Objective 13.4, Performance Measure 4**

CDC conducted one exercise to test the response to multiple public health emergencies each year from FY 2005 through FY 2010, meeting the targets for this measure. CDC conducted one exercise during the second half of FY 2010 to test its response operations and validate the ability to respond to multiple public health emergencies in a timely manner. The annual exercise to fulfill this measure requirement allowed SNS to test a 12 hour response capability during more than one event scenario, which strengthens CDC's preparedness capability. CDC plans to conduct at least one exercise annually to meet future targets.

#### **Long-term Objective 13.4, Performance Measure 5**

For both public health preparedness and public health emergency events CDC's objective is to supply personnel including subject matter experts, technical consultants, science experts and specialized deployment teams to strengthen the preparedness and response capacity for state and local health departments, medical providers, emergency response organizations and the federal government. Through the availability of DSNS qualified preparedness and response personnel, CDC is able to deploy critical medical materiel and personnel to support a national emergency.

During FY 2009 DSNS reassessed the deployment strategy of TARU teams and decided to transition from the TARU fixed team structure to a pool of specialized responders in order to better support state and local jurisdictions. This new strategy allows the DSNS to deploy tailored teams of technical specialists in the same strategic manner as TARU while continuing to provide the highest level of service needed to support our partners and stakeholders during an event. In FY 2010 it was determined that CDC DSNS needed at least 15 deployable teams in order to adequately respond to multiple public health emergencies in a timely manner. At the end of FY 2010 DSNS supported 19 deployable teams, exceeding the FY 2010 target.

#### **Long-term Objective 13.4, Performance Measure 6**

As a result of OMB's program assessment and Strategic National Stockpile (SNS) planning process, CDC developed performance measures to track inventory discrepancies. The discrepancy percentage represents the total number of instances where the locations for items identified for that quarter's inventory do not exactly match with the inventory report for that item. In FY 2006,

inventory discrepancies were reduced to 0.33 percent, exceeding the target of less than five percent. In FY 2007, discrepancies were at the rate of 24.33 percent. This large discrepancy rate was caused by a single clerical error and no SNS items were lost as a result of that error. In FY 2008, the SNS discrepancy target was met with a 0.88 percent actual rate. In FY 2009, the SNS discrepancy target has been met with a 0.67 percent actual rate. In FY 2010, the SNS discrepancy target has been met with a 2.56 percent actual rate. Over the past several years, systems and inventory management processes have been implemented to improve program performance, resulting in a more consistent accuracy rate. Future strategies are being explored to introduce electronic data collection systems to enhance inventory accuracy and accountability.

#### **Long-term Objective 13.4, Efficiency Measure 2**

CDC will continue to partner with the U.S. Department of Defense and the U.S. Food and Drug Administration (FDA) on the Shelf Life Extension Program (SLEP). This program enables CDC to extend the shelf life of produces in the Strategic National Stockpile when the extension of shelf life is more cost effective than product replacement, when a product has not been replaced, and when FDA testing capacity enables shelf life to be extended. Where a product has been determined to be an appropriate candidate for SLEP, the cost avoidance calculation for Strategic National Stockpile (SNS) participation in SLEP is based on each dollar spent on SLEP costs (e.g., testing, shipping, re-labeling). Cost avoidance projections do not reflect fluctuations in product handling costs or the actual amount of product eligible for FDA SLEP program. Combined, these variables account for the actual performance since the FY 2005 baseline of 22 dollars. For FY 2008, cost avoidance was 10 dollars for each dollar spent on SLEP costs. For FY 2009, cost avoidance was 15 dollars for each dollar spent on SLEP costs.

The FY2010 target was not met. Cost avoidance was 12 dollars for each dollar spent on SLEP costs, a slight decrease compared to FY 2009. In order to capture the true efficiency gained by participating in the program, the focus should be on the actual cost avoidance. CDC will continue to pursue cost avoidance savings and explore long-term strategies for assessing the value of extending shelf life in association with participation in the SLEP program in FY 2011. CDC is continuing to evaluate full life cycle costs associated with stockpiled medical countermeasures to include participation in the SLEP program.

It is important to note that the performance targets reflect incremental progress and may not accurately capture the true efficiency gained by participating in the FDA SLEP program. For example, actual cost avoidance figures may be much higher or lower than targets due to the volume of stockpiled products eligible for SLEP during the planning period. Actual cost avoidance projections are also affected by fluctuation in handling costs.

**PUBLIC HEALTH SYSTEM SUPPORT**

*The title for this section, Public Health System Support, will be updated during the FY 2013 budget process to align with its corresponding title in the President's Budget request*

CDC's provision of resources and technical assistance to state, local, and territorial health departments, nations, non-profit organizations, and others to implement public health programs and interventions to improve the environment, communities, and the health and well-being of individuals.

**LONG-TERM OBJECTIVE 13.5: ENHANCE AND SUSTAIN PREPAREDNESS AND RESPONSE CAPABILITY ACROSS STATE, LOCAL, AND TERRITORIAL HEALTH DEPARTMENTS.**

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
13.5.1: Percentage of states that have level three chemical lab capacity, and have agreements with and access to (specimens arriving within 8 hours) a level-one chemical lab equipped to detect exposure to nerve agents, mycotoxins, and select industrial toxins. <i>(Output)</i>	2012	Unable to report	Dec 31, 2012
	2011	100%	Dec 31, 2011
	2010	100%	100% (Target Met)
	2009	100%	100% (Target Met)
	2008	100%	100% (Target Met)
	2007	100%	100% (Target Met)
	2006	100%	100% (Target Met)
13.5.2: Percentage of state public health laboratories that directly receive CDC PHEP funding that can correctly subtype E. coli O157:H7 and submit the results into a national reporting system within four working days for 90% of the samples received. <i>(Outcome)</i>	2012	65%	Dec 31, 2012
	2011	68%	Mar 31, 2012
	2010	64%	Mar 31, 2011
	2009	79%	62% (Target Not Met but Improved)
	2008	63%	60% (Target Not Met but Improved)
	2007	Baseline	46%
13.5.3: Percentage of public health agencies that directly receive CDC PHEP funding that can convene within 60 minutes of notification a team of trained staff that can make decisions about appropriate response and interaction with partners. <i>(Outcome)*</i>	2012	91%	Dec 31, 2012
	2011	83%	Mar 31, 2012
	2010	75%	Mar 31, 2011
	2009	Re-baselined (to reflect significant changes to the measure)	68%
	2008	87%	85% (Target Not Met but Improved)
	2007	Baseline	84%
13.5.4: Percentage of public health agencies that directly receive CDC PHEP funding that can complete an After Action	2012	68%	Dec 31, 2012
	2011	73%	Mar 31, 2012
	2010	66%	Mar 31, 2011

PROGRAM PERFORMANCE MEASURES AND ACCOUNTABILITY  
PUBLIC HEALTH PREPAREDNESS AND RESPONSE  
PUBLIC HEALTH SYSTEM SUPPORT

Measure	FY	Target	Result
Report and Improvement Plan within 40 days of a real or simulated response. <i>(Outcome)</i>	2009	Re-baselined (to reflect significant changes to the measure)	60%
	2008	85%	92% (Target Exceeded)
	2007	Baseline	81%
13.5.5: Increase the percentage of the PPHR (formerly TPER) allocation for which budget execution matches strategic funding priorities. <i>(Output)</i>	2012	100%	Dec 31, 2012
	2011	100%	Dec 31, 2011
	2010	100%	100% (Target Met)
	2009	98%	99% (Target Exceeded)
13.5.6: Improve the on-time achievement of individual project milestones for Epidemiology, Laboratories and Emergency Response. <i>(Outcome)</i>	2012	96%	Dec 31, 2012
	2011	96%	Dec 31, 2011
	2010	96%	94% (Target not met)
	2009	95%	93% (Target Not Met but Improved)
	2008	93%	89% (Target Not Met but Improved)
	2007	90%	84% (Target Not Met)
	2006	Baseline	87%
13.5.7: Achieve progressive improvements in the quality of projects submitted for PPHR (formerly TPER) Upgrading CDC Capacity funding consideration. <i>(Output)</i>	2012	90%	Dec 31, 2012
	2011	N/A	N/A
	2010	87%	Dec 31, 2010 (Did not report)
	2009	85%	Dec 31, 2009 (Did not report)
	2008	78%	83% (Target Exceeded)
	2007	Baseline	74%
13.5.E.1a: Decrease the amount of (A) time and (B) cost required for the Division of State and Local Readiness (DSLRL) Project Development Officers to conduct technical reviews of work plans and budgets for all 62 grantees by providing appropriate tools and functionality in the DSLRL Management Information System (MIS). A) time (days) <i>(Outcome)</i>	2012	35 days	Dec 31, 2013
	2011	20 days	Dec 31, 2012
	2010	20 days	Dec 31, 2011
	2009	21 days	12 days (Target Exceeded)
	2008	25 days	17 days (Target Exceeded)
	2007	28 days	30 days (Target Not Met)
	2006	Baseline	30 days
13.5.E.1b: Decrease the amount of (A) time and (B) cost required for the Division of State and Local Readiness (DSLRL) Project Development Officers to conduct technical reviews of work plans and budgets for all	2012	0%	Dec 31, 2013
	2011	20.2%	Dec 31, 2012
	2010	23.3%	Dec 31, 2011
	2009	22.9%	56% (Target Exceeded)
	2008	11.6%	52.8% (Target Exceeded)
	2007	4.3%	0% (Target Not Met)

Measure	FY	Target	Result
62 grantees by providing appropriate tools and functionality in the DSLR Management Information System (MIS). B) cost (percentage reduction) (Outcome)	2006	Baseline	\$126,507

\* This measure is also included in the HHS 2010-2015 Strategic

Unique Identifier	Data Source	Data Validation
13.5.1	The Laboratory Response Network (LRN) delivers accurate and timely identification of agents causing public health threats, including naturally occurring exposures, organisms that could be used in a biologic terrorism attack, and chemical agents.	The data collection and validation activities across the LRN significantly enhances the capacity of laboratories to rapidly detect and identify agents that cause public health threats and provide timely information to health professionals.
13.5.2 - 13.5.4	Self-reported data as part of required progress reports	Quality assurance reviews with follow-up with grantees
13.5.5 - 13.5.7	Self-reported data as part of required progress reports.	See Efficiency Measure Data Validation.
13.5.E.1	CDC's Office of Public Health Preparedness and Response has maintained a management information system on CDC's Secure Data Network (SDN) for approximately three years. This system, known as SLPP-MIS, is used to receive, process, monitor, and evaluate cooperative agreements of about \$688 million in FY 2009 for 62 grantees.	When the technical review process begins, the date/ time will be noted in the system; Once the target date/time is reached, the system will be closed and Project Officers will not be able to conduct additional technical reviews.

### Long-term Objective 13.5, Performance Measure 1

Currently, 53 state, county, and metropolitan public health laboratories are members of the chemical component of the Laboratory Response Network. Each chemical network member participates in Level 3 activities. CDC is training all Level 3 public health chemical laboratories in the proper collection and shipment of human samples following a chemical terrorism event. This training includes an overview of chemical agents; CDC's responsibilities in responding to chemical terrorism events; a discussion of federal regulations on diagnostic packaging procedures and evidentiary-control measures; and hands-on exercises involving the packaging and shipping of human samples. These public health chemical laboratories will then train internal partners (e.g., hospital laboratories, hazardous materials technicians, doctors, office laboratories) in the proper collection and shipment of human samples after a chemical terrorism event.

In FY 2006, significant progress was made on this measure as 100 percent of states have Level 3 lab capacity. This progress was maintained from FY 2007 to FY 2010. Fifty percent of the states are within an eight hour driving distance to a Level 1 chemical laboratory due to CDC's efforts in increasing the number of Level 1 laboratories from five to 10 in FY 2005. Additionally, in FY 2010, all 53 LRN-C laboratories participated in a sample collection, packaging, and shipping exercise with 100 percent passing rigorous performance standards. While data will still

be collected in FY 2012, reduced funding will mean insufficient funding for the program to conduct the analysis and validation of data reported by the states related to this measure. Therefore, CDC will be unable to report on validated results in FY 2012.

### **Long-term Objective 13.5, Performance Measure 2**

Diagnosed cases of E. coli O157:H7 and other serious infections are routinely reported to health departments in most states; and then states report them to CDC. Grantees need to be able to inform local, state, and national laboratorians and epidemiologists of disease occurrences in a timely manner in order to determine the extent and scope of potential outbreaks and to minimize the effects of these outbreaks.

Performing Pulsed Field Gel Electrophoresis subtyping and submitting data results to the PulseNet electronic database in a timely manner indicates the public health laboratory's ability to sub-type specific bacteria and share results quickly.

The FY 2009 target was not met. For this measure, awardees were incongruent with reporting times. From the notes awardees have entered into PERFORMS, it is clear that not all awardees understand the measure as it was intended. For example, the measure is intended to measure the time the PFGE laboratorians receive a "clean" isolate that they can subtype and submit to PulseNet. However, some awardees have used as the start time the time the lab receives an isolate, regardless of whether is suitable for subtyping. In such instances, the state lab may need to go back to the originating lab for a different specimen, thus increasing the time it takes to complete the testing and report to PulseNet. In other cases, awardees have used the start time as the time in which the state laboratory receives the sample, even if the PFGE laboratorians are not available (e.g., mandatory furloughs); again increasing the time it takes to process the sample. CDC continues to work with awardees to refine definitions and concepts so that more accurate reporting occurs. In addition to this reporting incongruence, 37% of those states cited staff shortages, including mandatory furlough days, as a major reason for not completing testing and reporting to PulseNet within four working days while an additional 20% of states reported that a rerun of the analysis caused delays.

Reduced PHEP funding will reduce the staffing and support for laboratory equipment, reagents, and assays in states and therefore the ability of states to correctly subtype and submit results to CDC in a timely fashion. The FY 2012 target has been reduced accordingly.

### **Long-term Objective 13.5, Performance Measure 3**

This measure stipulates that public health agencies must be able to rapidly convene staff to integrate information and prioritize resource allocation to ensure timely and effective coordination within the public health agency and with key response partners during an emergency response.

This measure is incorporated as a specific reporting measure for the Division of State and Local Readiness's (DSLRL) grantees. The baseline for this revised measure was established by grantee self-reports. Although DSLRL will continue to report on this measure, some grantees desire additional clarification of the measure. DSLRL currently frames the measure as, "Time to notify all primary staff (secondary or tertiary staff as needed) with public health agency Incident Command System (ICS) functional responsibilities that the public health agency's Emergency Operations Center (EOC) is being activated."



DSLRL will continue to highlight this measure as a grantee reporting requirement, and identify personnel trained to function within the eight primary components of ICS within the EOC. Specific minutes are required to be reported by grantees, and these reporting requirements permit DSLRL to analyze and compare scores across differing health jurisdictions.

Based on feedback from awardees and other stakeholders, this measure was revised in FY2009. In contrast to previous years, the staff assembly in FY2009 only counted if it was unannounced and immediate, making it a more difficult measure than previous years. However, these conditions (unannounced and immediate) more accurately reflect what might occur in a real incident, and thus are an improvement over previous years.

This measure is an HHS High Priority Performance Goal (HPPG), but the scope of the HPPG is limited to the 50 states, while the GPRA measure also includes the territories and the four major metropolitan areas of LA, Chicago, NYC, and Washington DC (62 awardees, in total). The HPPG measure requires all reported examples of staff assembly to be unannounced, whereas the previous measure allowed reporting of both announced and unannounced examples. Given that many emergencies provide little to no notice but require a rapid response nonetheless, this requirement was added to ensure that all states are able to convene staff without having provided advance notice.

#### **Long-term Objective 13.5, Performance Measure 4**

This measure reflects the important ability of public health agencies to systematically assess their response capabilities through After-Action Reports (AARs) and Improvement Plans (IP). In order for adjustments or corrections to be made in a timely manner, it is important that the AARs/IPs are drafted soon after the exercise or real event. The baseline for this measure was based on the average time in FY 2009 that awardees took to draft AARs/IPs.

Reduced PHEP awards will diminish the ability of state and local awardees to perform and report on performance by reducing the number of state and local staff. The FY 2012 target has been reduced accordingly

#### **Long-term Objective 13.5, Performance Measure 5**

The FY 2010 target to increase the percentage of the PHEP allocation for which budget execution matches strategic funding priorities was met.

This measure reflects the need to ensure that budget execution matches strategic funding priorities. The Office of Public Health Preparedness and Response (OPHPR) developed specific priorities for FY 2009 that built on priorities from the previous fiscal year. An advisory group prioritized recommendations and related priorities within OPHPR with preparedness and response priorities across the agency. OPHPR then developed its top priorities from the horizontal list and communicated these priorities to the agency for new FY 2009 proposals.

Proposals received in response to the internal funding announcement were in alignment with the strategic funding priorities.

#### **Long-term Objective 13.5, Performance Measure 6**

All individual projects funded to CDC Preparedness and Response Capability must improve performance in order to achieve the long-term measures. Individual project performance is monitored continuously and can be summarized as the average time-appropriate achievement of milestones in the core functional areas. Improving on-time achievement of individual milestones for Epidemiology, Laboratory and Emergency Response functional objective related projects ensures that the projects are making substantial progress to complete all planned activities by the end of FY 2008 in order to help achieve CDC's Health Protection Goals. The target for FY 2008

was not achieved due to a number of projects extending the completion of their milestones into the next fiscal year. This extension is due to a number of reasons depending on the specific projects situation. For example, a project's priorities might change during the fiscal year so work specific to a milestone can get extended past the initial completion date while efforts are spent on other activities. In addition, in some cases milestones were delayed due to unexpected hiring difficulties or other personnel changes. However, performance improved from FY 2007 to FY 2008, and a more detailed feedback process was implemented to improve future performance. In addition, past project performance issues (i.e., projects that did not meet their milestones even with extensions) were taken into consideration during the review phase for FY 2009 funding.

At the conclusion of FY2010, PHPR-funded activities achieved an average completion rate of 94% against a target completion rate of 100%, and more than half of PHPR funded activities (56%, n=56) achieved 100% completion. While project made significant gains, the most commonly reported reasons for milestone incompleteness across all CIOs were change of scope or new organizational priorities, including changes associated with Organizational Improvement, staffing issues, and unexpected delays or time constraints.

### **Long-term Objective 13.5, Performance Measure 7**

Projects submitted for OPHPR funding include detailed work plans, timelines, and responses to standardized evaluation questions that are used to rate and select projects for funding. This process allows for the selection of projects that are a) most likely to achieve the objectives of upgrading some part of CDC's preparedness capacity, b) not duplicative of each other, c) well-specified and d) likely to succeed, thus improving overall preparedness capacity.

FY 2007 performance represents a baseline of the quality of project submissions, relatively early in the evolution of the Office for Public Health Preparedness and Response's (OPHPR) Health Impact Planning process. During FY 2008, the quality of project submitted improved due to additional specific guidance and criteria for project submissions. In addition, to improve future performance, during FY 2008, OPHPR implemented more specific scoring criteria so projects can receive more targeted feedback from reviewers. Note: FY 2008 performance represents FY 2008 program activities providing guidance for and reviewing project submissions for FY 2009 funding.

Under advisement from its Board of Scientific Counselors, OPHPR has moved from an annual review of projects to a two-year project cycle. As a result, no competitive reviews were conducted for FY 2009 for funding consideration. In FY 2010, only new projects went through the competitive review process. Alternatively, continuing projects are subjected to accountability reviews twice each fiscal year to monitor progress, delays, and change of scopes. Information and analysis gathered from these accountability reviews allows OPHPR to work collaboratively with funded National Centers to develop and implement solutions required to overcome programmatic difficulties that may be encountered, and to make appropriate changes necessary to improve the quality of continuing projects for the coming fiscal year.

As currently written, this measure is no longer applicable due to changes in the review process. With consultation from the office managing internal projects funded by PHPR, a new measure will be proposed for consideration.

### **Long-term Objective 13.5, Efficiency Measure E.1:**

CDC's DSLR is responsible for providing management oversight and technical assistance for the administration of the Public Health Emergency Preparedness (PHEP) Cooperative Agreement. As part of the application process, grantees are required to submit detailed work plans and budgets which can total 100 pages each. CDC Project Development Officers (PDO) review, provide

feedback, and approve applications before funds can be awarded. In addition, at the end of the extensive review process, PDOs provide recommendations for each work plan activity and line items are restricted or disallowed for the budget. The issues cited during this review are monitored and resolved during the year.

Historically, PDOs conducted technical reviews of the grants using paper-based approaches. This resulted in cumbersome paperwork and difficulty in tracking resolution of issues raised during the review process. To deal with these operational limitations, CDC's Management Information System (MIS) was enhanced to centralize the collection, tracking and management of review information. The MIS allows grantees to submit their budgets and work plans directly to the system. The MIS not only maximizes efficiency of the initial application review, but helps facilitate technical assistance efforts throughout the course of the year. The automation and integration of this process will create overall efficiencies in the grants management process by decreasing the time it takes to conduct initial reviews and by providing rapid access to information to track and manage over time.

The efficiency gained from the integration of the review section into the MIS translates into other efficiencies from the grantees stand point, including a reduction in the time it takes grantees to obtain feedback regarding their work plans and budgets from Project Officers. This in turn results in a faster implementation of recommended changes, thereby improving the overall efficiency of their programmatic operations. MIS also enables rapid submission of applications and recommended changes, reducing potential for funding restrictions or delays.

In FY 2009, the program conducted technical reviews in 12 days, resulting in a cost reduction of 56 percent, significantly exceeding the targets. The improvement can be attributed to diligent project management, database efficiencies, and scheduling challenges. The program guided reviewers to meet strict milestones and deadlines defined prior to the review process. The PERFORMS database used by the program provided time-based cost savings by expediting follow-up reviews.

In FY2011, CDC will release a new Funding Opportunity Announcement for the PHEP that will require grantees to structure their applications according to a self-assessment of needs within each of 15 priority capabilities. The new application format will require greater CDC staff time for review, and the FY2012 target has been adjusted accordingly. In addition, reduced funding has been proposed for CDC's State and Local Preparedness activities. There will be reduced funding available to support and enhance PERFORMS, the IT system that enables CDC staff to review PHEP application budget and work plans, and reduced funding will reduce the number of available staff to conduct the application reviews.

**CDC STRATEGIC GOALS LINKAGE TO HHS STRATEGIC PLAN**

The table below shows the alignment of CDC’s strategic goals with HHS Strategic Plan goals.

	CDC Strategic Goals				
	Surveillance and Epidemiology	State and Local Support	Global Health	Health Policy	Leading Causes
<b>HHS Strategic Objectives</b>					
<b>1 Transform Health Care</b>					
1.A Make coverage more secure for those who have insurance, and extend affordable coverage to the uninsured	--	--	--	--	--
1.B Improve health care quality and patient safety	X	X	X	X	X
1.C Emphasize primary and preventive care linked with community prevention services	X	X	X	X	X
1.D Reduce the growth of health care costs while promoting high-value, effective care	--	--	--	--	--
1.E Ensure access to quality, culturally competent care for vulnerable populations	X	X	X	X	X
1.F Promote the adoption of health information technology	X	X	X	X	X
<b>2 Advance Scientific Knowledge and Innovation</b>					
2.A Accelerate the process of scientific discovery to improve patient care	X	--	--	X	--
2.B Foster innovation at HHS to create shared solutions	X	X	--	--	--
2.C Invest in the regulatory sciences to improve food and medical product safety	X	--	--	X	--

	CDC Strategic Goals				
	Surveillance and Epidemiology	State and Local Support	Global Health	Health Policy	Leading Causes
<b>HHS Strategic Objectives</b>					
2.D Increase our understanding of what works in public health and human service practice	X	X	X	X	X
<b>3 Advance the Health, Safety and Well-Being of the American People</b>					
3.A Ensure the safety, well-being, and healthy development of children and youth	X	X	X	X	X
3.B Promote economic and social well-being for individuals, families and communities	X	X	X	X	X
3.C Improve the accessibility and quality of supportive services for people with disabilities and older adults	X	X	X	X	X
3.D Promote prevention and wellness	X	X	X	X	X
3.E Reduce the occurrence of infectious diseases	X	X	X	X	X
3.F Protect Americans' health and safety during emergencies, and foster resilience in response to emergencies	X	X	X	X	X
<b>4 Increase Efficiency, Transparency, and Accountability of HHS Programs</b>					
4.A Ensure program integrity and responsible stewardship of resources	X	X	--	--	--
4.B Fight fraud and work to eliminate improper payments	--	X	--	--	--
4.C Use HHS data to improve the health and well-being of the American people	X	X	X	X	X

	CDC Strategic Goals				
	Surveillance and Epidemiology	State and Local Support	Global Health	Health Policy	Leading Causes
<b>HHS Strategic Objectives</b>					
4.D Improve HHS environmental, energy, and economic performance to promote sustainability	X	X	X	X	X
<b>5 Strengthen the Nation's Health and Human Service Infrastructure and Workforce</b>					
5.A Invest in the HHS workforce to meet America's health and human services needs today and tomorrow	X	X	X	X	--
5.B Ensure that the Nation's health care workforce can meet increased demands	X	--	--	X	--
5.C Enhance the ability of the public health workforce to improve public health at home and abroad	X	X	X	X	--
5.D Strengthen the Nation's human services workforce	X	X	--	--	--
5.E Improve national, state, and local surveillance and epidemiology capacity	X	X	X	--	--

As indicated in the Overview of Performance, CDC's vision for a safer, healthier nation is accomplished through five strategic priorities:

- 1. Promote excellence in surveillance, epidemiology and laboratory services** – Quality surveillance data serve as the foundation for program planning and evaluation in public health practice. CDC's data collection, analysis and dissemination serves as a key resource nationally and across the globe in detecting emerging threats, monitoring ongoing health issues and their risk factors, and evaluating the impact of strategies to prevent disease and promote health.
- 2. Strengthening support for state, tribal, local, and territorial public health** - Strong state and local systems, the cornerstone of public health practice across the country, are critical to meeting public health needs in a timely, efficient, and effective manner. CDC supports state and local systems through delivery of expert scientific and technical

assistance; provision of data collection, analysis and reporting tools and resources; and numerous grants and cooperative agreements to build capacity, conduct surveillance and implement evidenced-based public health interventions.

3. **Increase global health impact** – With international travel, interdependent food systems, and global migration, the health of people across the world increasingly impacts the health and safety of Americans. As the world becomes even more interconnected, CDC plays a key role in US contributions to global health that, in turn, serve to strengthen and protect the health of our nation. Our vision for global health is healthier, safer, and longer lives worldwide through science-based public health action.
4. **Use scientific and program expertise to advance policy change that promotes health** – As we further develop our understanding of effective ways to improve the health of our nation, it has become increasingly clear that the policies we promote and implement nationally as well as at state and local levels have an important impact on risk for poor health outcomes. Policy has the potential to make the broadest impact on the largest portion of the public. Our goal is to promote evidence-based policies that result in demonstrable improvements in population health.
5. **Better prevent the leading causes of death and disability** – Through a focus on the leading causes of premature death, disability, and injury and the health disparities associated with these health outcomes, CDC can substantially impact the health of the nation overall.

With a commitment to continuous improvement, and as owner of several performance measures within the HHS Strategic Plan, CDC supports the Department’s Goals and embraces the challenge to realize ever greater public health impact. The HHS Strategic Plan measures for which CDC is responsible are:

**Goal 1: Transform Health Care**

Objective B: Improve health care quality and patient safety

- *Measure:* Increase the number of hospitals and other selected health care settings that report into the National Healthcare Safety Network (NHSN)

**Goal 2: Advance Scientific Knowledge and Innovation**

Objective D: Increase our understanding of what works in public health and human service practice

- *Measure:* Increase the number of annual Community Guide reviews.

**Goal 3: Advance the Health, Safety and Well-Being of the American People**

Objective D: Promote Prevention and Wellness

- *Measure:* Reduce the proportion of adolescents (grades 9-12) who are current cigarette smokers
- *Measure:* Increase the number of states with policies to improve nutritional quality of competitive foods
- *Measure:* Increase epidemiology and laboratory capacity within global health ministries through the Field Epidemiology (and Laboratory) Training Program (FELTP).

Objective E: Reduce the occurrence of infectious diseases

- *Measure:* Reduce the estimated number of cases of invasive MRSA infection
- *Measure:* Reduce the Central Line Associated Blood Stream Infection (CLABSI) standardized infection ratio (SIR)

Objective F: Protect Americans' health and safety during emergencies, and foster resilience in response to emergencies

- *Measure:* Increase the percentage of state public health agencies that can convene within 60 minutes of notification a team of trained staff that can make decisions about appropriate response and interaction with partners (this measure also represents a HHS Priority Performance Goal)

**Goal 4: Increase Efficiency, Transparency and Accountability of HHS Programs**

Objective C: Use HHS data to improve the health and well-being of the American People

- *Measure:* Increase the electronic media reach of CDC Vital Signs through the use of mechanisms such as CDC.gov and social media outlets

**Goal 5: Strengthen the National Health and Human Services Infrastructure and Workforce**

Objective C: Enhance the ability of the public health workforce to improve public health at home and abroad

- *Measure:* Increase the number of CDC trainees in state, tribal, local, and territorial public health agencies

Objective E: Improve national, state, local, and tribal surveillance and epidemiology capacity

- *Measure:* Increase the number of counties/communities that implement evidence-based policies/interventions as a result of their county health ranking. (MATCH County Rankings program)



**FULL COST TABLE**

FY 2012 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION SUMMARY OF FULL COST (Budgetary Resources in Millions)			
HHS Strategic Goals and Objectives	FY 2010 <sup>1</sup>	FY 2011 <sup>1</sup>	FY 2012 <sup>2</sup>
<b>1 Transform Health Care</b>	<b>\$24.4</b>	<b>\$24.4</b>	<b>\$39.81</b>
1.A: Make coverage more secure for those who have insurance, and extend affordable coverage to the uninsured			
1.B: Improve health care quality and patient safety	\$24.4	\$24.4	\$39.81
1. C: Emphasize primary and preventive care linked with community prevention services			
1.D: Reduce the growth of health care costs while promoting high-value, effective care			
1.E: Ensure access to quality, culturally competent care for vulnerable populations			
1.F: Promote the adoption of health information technology			
<b>2 Advance Scientific Knowledge and Innovation</b>	<b>\$136.0</b>	<b>\$136.0</b>	<b>\$144.1</b>
2.A: Accelerate the process of scientific discovery to improve patient care			
2.B: Foster innovation at HHS to create shared solutions			
2.C: Invest in the regulatory sciences to improve food and medical product safety			
2.D: Increase our understanding of what works in public health and human service practice	\$136.0	\$136.0	\$144.1
<b>3 Advance the Health, Safety, and Well-Being of the American People</b>	<b>\$5,755.1</b>	<b>\$5,756.0</b>	<b>\$5,447.6</b>
3.A: Ensure the safety, well-being, and healthy development of children and youth	\$372.1	\$372.1	\$342.2
3.B: Promote economic and social well-being for individuals, families, and communities	\$7.9	\$7.9	\$7.5
3.C: Improve the access ability and quality of supportive services for people with disabilities and older adults	\$153.1	\$153.1	\$24.8
3.D: Promote prevention and wellness	\$1,665.3	\$1,666.3	\$1,372.9
3.E: Reduce the occurrence of infectious diseases	\$2,129.4	\$2,129.4	\$2,142.1
3.F: Protect Americans' health and safety during emergencies, and foster resilience in response to emergencies	\$1,427.2	\$1,427.2	\$1,558.1
<b>4 Increase Efficiency, Transparency, and Accountability of HHS Programs</b>	<b>\$304.5</b>	<b>\$304.5</b>	<b>\$484.1</b>
4.A: Ensure program integrity and responsible stewardship of resources			

4.B: Fight fraud and work to eliminate improper payments			
4.C: Use HHS data to improve the health and well-being of the American people	\$304.5	\$304.5	\$484.1
4.D: Improve HHS environmental, energy, and economic performance to promote sustainability			
<b>5 Strengthen the Nation's Health and Human Service Infrastructure and Workforce</b>	<b>\$529.7</b>	<b>\$529.7</b>	<b>\$192.3</b>
5.A: Invest in the HHS workforce to help meet America's health and human service needs today and tomorrow			
5.B: Ensure that the Nation's health care workforce can meet increased demands			
5.C: Enhance the ability of the public health workforce to improve public health at home and abroad	\$53.0	\$53.0	\$154.8
5.D: Strengthen the Nation's human service workforce			
5.E: Improve national, state, local, and tribal surveillance and epidemiology capacity	\$476.7	\$476.7	\$37.5
<b>Total</b>	<b>\$6,749.6</b>	<b>\$6,750.5</b>	<b>\$6,307.9</b>

<sup>1</sup> Full cost estimates for FY 2010 and FY 2011 are based on professional judgments for performance measures that were current for those years. These estimates include measures that have been retired, replaced, or revised after FY 2010.

<sup>2</sup> To the extent possible, FY 2012 full cost estimates have been revised to account for budget changes and do not reflect measures that have been retired or replaced. In some cases, these revisions resulted in significant differences in FY 2012 amounts when compared to FY 2010 and FY 2011. CDC is proposing significant changes to its performance plan to accommodate an initiative to reduce the number of reported measures and make measures more meaningful. Full cost estimates have not yet been developed for many newly proposed and revised measures as a result of this effort. As measures are evaluated and approved in the future, full cost estimates will be developed.

**SUMMARY OF FINDINGS AND RECOMMENDATIONS FROM COMPLETED PROGRAM  
EVALUATIONS**

**EVALUATIONS INCLUDED IN HHS PROGRAM EVALUATIONS DATABASE FOR FY 2010**

**1. What is the feasibility and desirability of working towards a set of core indicators across the Resource Centers?**

Summary: This program evaluation studied the feasibility and desirability of working towards a set of core indicators across three Resource Centers managed by the National Center on Physical Activity and Disability (NCPAD), the Paralysis Resource Center of the Christopher and Dana Reeve Foundation and the National Limb Loss Information Center of the American Amputee Coalition (ACA). The study found that each Resource Center has a robust evaluation system, including expertise and applications to collect extensive information on output and impact indicators. Technically, according to this study, it is feasible to develop a set of common core indicators as a first step towards more systematic cooperation among the Resource Centers in evaluating the impact of their work. However, larger issues regarding inter-organizational issues would need to be studied.

Key Findings: The study found that each Resource Center has a robust evaluation system, including expertise and applications to collect extensive information on output and outcome indicators. Hence, from a technical point of view, the study concluded it is feasible to develop a set of common core indicators as a first step towards more systematic cooperation among the Resource Centers in evaluating the impact of their work. However, larger issues regarding inter-organizational issues would need to be studied more fully before making the decision to implement these.

**2. What is the status of health disparities among minority communities? 2. What community-based interventions are effective in eliminating health disparities in minority communities??**

Summary: Racial and Ethnic Approaches to Community Health across the US (REACH US) is a community-based multilevel program that approaches the elimination of racial and ethnic health disparities. REACH U.S. Risk Factor Survey is a program evaluation through conducting annual survey in 28 minority communities. Within each community, a total of 900 residents are surveyed each year. These individuals will be persons over the age of 18 years who are within the race and ethnic group (i.e., African American, Hispanic, American Indian, and Asian/Native Hawaii/Pacific Islander) targeted by the specific REACH community. The survey focuses on the following areas: health-related quality of life, access to health care, diabetes screenings and treatment, physical activity, consumption of fruits and vegetables, cigarette smoking, hypertension and cholesterol screening and treatment, knowledge of the signs and symptoms of heart attack and stroke, mammography and cervical cancer screening, and influenza and pneumonia vaccinations. The survey is conducted through telephone call, mailing, and in-person interviews.

Key Findings: Data from the REACH Risk Factor Survey show that the REACH U.S. program is helping people to significantly reduce their health risks and manage their

chronic diseases. Survey results include the following: Over a 4-year period, the cholesterol screening rates for Hispanics living in REACH communities increased steadily, from 56.3% in 2002 to 68.6% in 2006 (see figure). In 2002, the cholesterol screening rate for African Americans living in REACH communities (74.2%) was below the national average (76.2%). By 2006, the rate had risen to 78.8%, which was above the national average of 75.2% for that year. In REACH communities that focused on breast and cervical cancer prevention, the percentage of women who reported having a pap smear in the previous year increased from 81% in 2002 to 86% in 2006. The rate of cigarette smoking among Asian American men in REACH communities decreased from 42% in 2002 to 20% in 2006.

**3. What is the relationship between participation in the Charlotte-Mecklenburg Schools asthma program and students' ability to manage their asthma?**

Summary: Charlotte-Mecklenburg Schools (CMS) was conducting an evaluation of its Asthma Program in the context of coordinated school health. The Centers for Disease Control and Prevention (CDC) and Macro International provided CMS with technical assistance to conduct the evaluation of the asthma program. Student-level program components included case management of students with asthma by the school nurse; respiratory therapy for students with asthma; and Open Airways for Schools, an asthma education curriculum for 3rd-5th grade students with asthma. Additional program components included asthma-focused school health teams and education for administrators, teachers, and other staff. Although there were several evaluation questions answered in the study, three key questions included: What are the scope, depths, and duration of the Asthma Program components in each of the pilot schools? What is the relationship between participation in the asthma program and students' ability to manage their asthma? What can CMS schools do to further support students with asthma? Twelve elementary schools and 2 high schools participated in the evaluation. Data were collected using paper-and-pencil questionnaires about asthma management self-efficacy and difficulties from 234 elementary school students with asthma. Additional data on the asthma management program were gathered through interviews with 41 district and asthma program staff and focus groups with 16 parents, 54 elementary school students, and 26 high school students. Evaluation results revealed: Approximately half of the students with medium or high levels of need for the intervention were formally enrolled in at least one student-level component of the program. At posttest, students who received at least one student-level component of the asthma program demonstrated higher asthma management self-efficacy than students who were not enrolled in any service. Medium and high need students who received at least one student-level component of the asthma program demonstrated improvement in asthma management difficulties from pretest to posttest. Twenty-six percent of students reported that they can always get to their inhalers quickly during the school day. Elementary school students who were exposed to smoke reported significantly higher levels of asthma management difficulties than students not exposed to smoke. In addition, exposure to tobacco smoke was commonly reported by high school students with asthma. CMS is planning to use these evaluation findings to improve their program. Specifically, asthma program staff plan to re-examine the ways students are selected for asthma program services, better market the district's policy allowing self-carry and self-administration of asthma medications, and integrate smoking cessation classes into their current system for providing parent education.

**Key Findings:** Approximately half of the students with medium or high levels of need for the intervention were formally enrolled in at least one student-level component of the program. At posttest, students who received at least one student-level component of the asthma program demonstrated higher asthma management self-efficacy than students who were not enrolled in any service. Medium and high need students who received at least one student-level component of the asthma program demonstrated improvement in asthma management difficulties from pretest to posttest. Twenty-six percent of students reported that they can always get to their inhalers quickly during the school day. Elementary school students who were exposed to smoke reported significantly higher levels of asthma management difficulties than students not exposed to smoke. In addition, exposure to tobacco smoke was commonly reported by high school students with asthma.

**4. How successful were the four CDC-funded Tribal Motor Vehicle Injury Prevention Programs at reducing high rates of motor vehicle crashes, injuries, and deaths in four Tribal communities?**

**Summary:** The purpose of this project was to evaluate the four CDC-funded Tribal Motor Vehicle Injury Programs. This evaluation included identifying core elements and key characteristics for success and making recommendations for translation to other Tribal communities. From 2004 to 2009, CDC's National Center for Injury Prevention and Control (NCIPC) funded four Native American Tribes to design, implement, and tailor effective injury prevention programs to reduce motor vehicle-related injuries and deaths among members of their communities. The evidence-based interventions were selected from *The Guide to Community Preventive Services*, a systematic review of community-based interventions. The goals of this evaluation project were to: 1) determine if the effective strategies from the Community Guide can be successfully tailored to Tribal communities to reduce the high rates of motor vehicle injury and death; 2) determine the impact of these strategies in reducing motor vehicle injuries, reducing crashes, or increasing occupant restraint use among the four Tribes; 3) determine the core elements, key characteristics, and collaborations needed for these strategies to be successful in Tribal communities; 4) determine the barriers that Tribes face in implementing these programs; and 5) learn how to move these effective strategies into widespread use with other Tribes. This report will determine the extent to which the goals, as stated above, were achieved and make recommendations for translation of the findings from these Tribal Injury Prevention Programs.

**Key Findings:** Tribal programs increased driver seat belt use by 25-30%, passenger seat belt use by 40%, child safety seat use by 40% , and decreased motor vehicle crashes by 25%.

**5. Did Business Improvement Districts in Los Angeles lead to decreases in youth violence?**

**Summary:** This project evaluated the impact of Business Improvement Districts (BIDs) in Los Angeles on youth violence. Previous research has shown that violence is higher in communities with certain social, physical and economic characteristics, such as high rates of family disruption, unemployment, concentrated poverty, and limited access to

economic opportunities. Less research has identified specific actionable interventions that can change these community-level factors. BIDs use commercial property assessments to improve services such as sanitation, security, marketing, and planning. These are expected to increase social cohesion and physical neighborhood improvements, which in turn should reduce rates of youth violence. 148 census tracts that contained or were bordering BIDs were compared over 10 years to a sample of 85 similar census tracts without BIDs. The aims of the study were to: (1) test whether census tracts with BIDs have lower rates of youth violence than census tracts without BIDs; and (2) test whether the relations between BIDs and youth violence are mediated by improvements in social, physical, and/or economic characteristics of the communities. An analysis of official crime reports found positive effects of BIDs on lowering the rate of interpersonal crimes of violence. The average incidence of total reported crimes dropped more in BID areas than non-BID areas, reflecting a 44% greater reduction. Similarly, the average incidence of arrests dropped more in BID areas than in non-BID areas, reflecting a 45% greater reduction. Future analyses will examine differences in violence outcomes as related to spending patterns of BID resources, which may assist BIDs in other communities with decision-making. Analyses will also determine which social, physical, and economic characteristics of neighborhoods mediated or moderated the pattern of initial results.

**Key Findings:** An analysis of official crime reports found positive effects of BIDs on lowering the rate of interpersonal crimes of violence. The average incidence of total reported crimes was dropped more in BID areas than non-BID areas, reflecting a 44% greater reduction; average incidence of arrests dropped more in BID areas than in non-BID areas, reflecting a 45% greater reduction.

**6. Does the communications campaign increase parental involvement in their teen's driving education and experience, and encourage teens to adopt safer driving practices?**

**Summary:** The data collection assessed the appropriateness and impact of the "Parents Are the Key" communication campaign's messages and creative materials, which are intended to (a) increase parental involvement in their teen's driving education and experience, and (b) encourage teens to adopt safer driving practices. CDC conducted a telephone survey of 400 parents each in Little Rock and Columbus both before and after the campaign to determine its impact. Parents were asked questions about their awareness of the teen driving issue, their own habits behind the wheel and restrictions they may impose on their teen driver.

The research revealed that parents are aware of the dangers of teen driving, yet not all are taking specific actions to prevent their teens from engaging in the risky behaviors that cause crashes, nor are all parents acting as positive role models for their children.

**Key Findings:** About six-in-ten parents indicated that driving was their "biggest worry" as it relates to their teen, yet a majority of parents do not model safe driving behaviors themselves. About eight-in-ten parents strongly agree that parents have a strong influence on their teen driver. Overall, there was a significant increase (7%) in awareness about the campaign. The survey revealed a greater change in campaign message awareness among parents in Columbus (10% increase) compared to Little Rock (5% increase). Parents who were aware of "Parents Are the Key" campaign messages scored significantly higher on "low-salience" issues – i.e., parents who read or heard campaign messages were

significantly more likely to talk with their children about distractions such as eating or adjusting the stereo while driving than parent respondents as a whole. Parents who were aware of the campaign were also more likely to discuss all of the comprehensive list of issues mentioned in survey as potential discussion items with their teen driver.

**7. Will the research framework envisioned in the draft document address the most significant scientific issues in asbestos toxicity, occupational exposures, epidemiology, and sampling/analytical methods?**

a. Link: [http://www.nap.edu/catalog.php?record\\_id=12697](http://www.nap.edu/catalog.php?record_id=12697)

**8. What is the role and impact of a biosurveillance system on the detection and response to an outbreak?**

Summary: RTI 1) conducted cases studies of biosurveillance system use in North Carolina Tarrant CO TX in 2007; 2) conducted case study of Cook County, Ill itch mite outbreak of 2007; 3) conducted case study of the North Carolina Heat Wave of 2007; 4) conducted a review of syndromic surveillance systems in the U.S.; 5) implemented a series of data quality improvement activities for NCDETECT to assess wider applicability to other systems; 6) prepared a paper describing a framework for evaluating the costs of biosurveillance; 7) conducted discussions with biosurveillance users to identify key needs and requirements for future biosurveillance systems. Based on these case studies, RTI found the utility for early detection of illness and case detection limited but present in two systems. There was a clear and strong qualitative evidence of enhancement of situational awareness in all 3 systems for a) better understanding of scale, scope and spread of an outbreak or event; and b) Identification of new risk groups. Additionally, timeliness of response in these systems was enhanced and communication to the public was faster and more accurate. The evaluation also found that syndromic surveillance complemented traditional surveillance; facilitate monitoring of non-reportable diseases (norovirus, botulism, influenza) and reportable diseases not well reported- (Meningococcal meningitis); and enhanced public health credibility and authority by getting information out to public and stakeholders quickly and accurately promotes trust and respect. RTI reviewed and summarized the use of North Carolina's syndromic surveillance system NC Detect to monitor and respond to a major heat event (heat wave) in the summer of 2007. The data showed that men, ages 18 to 44, were at disproportionately high risk of emergency room visits. Previous heat emergency recommendations suggested that the young, the elderly, and those with chronic illnesses were at the greatest risk. In reaction to the new information, North Carolina changed its heat wave recommendations to emphasize the risk to those working outdoors. NOTE: The funding amount in this report is an estimation based on the total amount of funding for the cooperative agreement, which includes several evaluation studies.

Key Findings: Biosurveillance systems had some limited utility in early detection of illness and case detection; but did enhance situational awareness of scale, scope and spread of an outbreak or event, and identification of new risk groups. Systems also improved timeliness of response and accuracy and speed of communication to the public. Syndromic surveillance systems complemented traditional surveillance, facilitated monitoring of non-reportable diseases and reportable diseases not well reported, and enhanced public health credibility and authority by getting information out to public and

stakeholders quickly. Use of syndromic surveillance systems in one of the cases led to more detailed information on populations at risk in a heat wave and led the state to revise its recommendations accordingly.

**9. What is the impact of biosurveillance systems on public health system preparedness, detection and response to public health threats?**

Summary: From their research, RTI identified the following key elements which make biosurveillance useful and acceptable to users: 1) it's automated (does not rely on someone to report the information); 2) it's flexible (can create filters and queries to integrate new information), 3) it's easy to use (easily integrated into day to day monitoring activities and takes only a few minutes to check). To understand the characteristics, scope, and geographic dispersion of syndromic surveillance systems in the United States in the year 2008, RTI found 39 states and the District of Columbia had syndromic surveillance systems. ED records, the most common source of data, were collected by 65% of states, followed by hospital admissions records (43% of states). Respiratory (57%) and gastrointestinal (53%) syndromes were most commonly tracked syndromes. Systems that used ED records covered an average of 47% of all ED visits in the state. Several states estimated ED coverage rates above 75%. The Northeast, Midwest, and Southeast were more likely to have systems than areas west of the Mississippi River. Northeastern and Midwestern states had substantially higher ED coverage rates and were more likely to track multiple syndromes than Western states. RTI identified wide variance in the sources of data, the syndromes tracked, and the completeness of syndromic surveillance coverage across states. While some states have well established systems that capture a diverse amount of data at high levels of coverage, many others states have small local systems or no systems at all. RTI developed a framework for evaluating the cost-benefit tradeoffs associated with biosurveillance. Using the NC DETECT system as an example, it estimates roughly \$1 million in annualized costs. For benefits, it presents a value-of-information framework, which indicates that the benefits of early event detection (e.g., anthrax attack) alone are unlikely to outweigh these costs. When the benefits of situational awareness are included, the cost-benefit conclusions ultimately depend on the system's potential to avoid premature deaths. NOTE: The funding amount in this report is an estimation based on the total amount of funding for the cooperative agreement, which includes several evaluation studies.

Key Findings: There is wide variation in syndromic surveillance systems in terms of sources of data, the syndromes tracked, and the completeness of syndromic surveillance coverage. Of the 40 systems identified, emergency department (ED) records were collected by 65% of states, followed by hospital admissions records (43% of states). Systems that used ED records covered an average of 47% of all ED visits in the state, and several states have estimated ED coverage rates above 75%. Respiratory (57%) and gastrointestinal (53%) syndromes were most commonly tracked syndromes. In terms of cost-benefit of syndromic surveillance, the study's framework indicated that benefits of early event detection (e.g., anthrax attack) alone are unlikely to outweigh the costs. However, when the benefits of situational awareness are included, the cost-benefit conclusions may change and ultimately depend on the system's potential to avoid premature deaths.



**10. What are the different approaches taken by different health departments for the BioSense program?**

Summary: The objective of the evaluation was to utilize a survey to analyze the approaches different health departments are taking to the BioSense program, and evaluate the structural capability of several state departments of health to respond to a public health incident. In early 2008, the John Hopkins team adopted the survey format originally developed by the Mayo team and used to evaluate the programs for Indiana, Wisconsin and Minnesota. The survey allowed the teams to develop a coordinated continuum of BioSense including centralized public health, decentralized public health and the various strengths, weaknesses and related costs, barriers and successes along the continuum. The survey team interviewed departments of health in the states and are in the process of analyzing the results. Preliminary results demonstrated vastly different approaches to public health from state to state. The team then explored the findings from the surveys with case studies and how the studied states deal with BioSense. Specifically, the team analyzed how BioSense is implemented and administered under public health programs from five unique states. Differences due to the degree of centralization of public health within a state, methods of implementing Biosurveillance, the uptake of biosurveillance by individual healthcare organizations was also examined. Furthermore, to add to the understanding of how communities are affected by biosurveillance, four site visits were completed [summaries of visits were presented at PHNIC conference (8/2008) and ISDS (12/2008)]. Preliminary business process analysis flow diagrams and analyses were completed, on how each site is acquiring and using data and how these processes impact the value of the surveillance system for each of the biosurveillance stakeholders. Additionally, analyses were also completed on the quality and reliability of BioSense-generated signals and their impact on alert interpretation. Results showed that syndromic surveillance data (specifically BioSense) can be used as a proxy for detecting and monitoring outbreak events where rapid testing is not available - ILI, H1N1, and chickenpox (as a proxy for smallpox). Attention; however, must be paid to accurate binning and signal stability within the surveillance system to facilitate accurate analysis. Additional work assessed using natural language processing (NLP) for parsing clinicians' free text notes in relation to ILI and GI illness. Results showed: 1) Increases statistical performance over detection by ICD9 codes alone, 2) Increases statistical performance when combined with ICD9 codes, 3) Can lower the delay and workload requirements needed to detect an ILI outbreak, 4) Increases the sensitivity of detection ILI when compared to using such information as chief complaint, and ED and triage notes, 5) Can be of greater assistance to public health investigations as compared to structured data sources, 6) Can increase sensitivity when combined with analysis using chief complaint, and ED and triage notes, 7) Detection using above NLP technique can be improved by detecting patient with febrile illness within that cohort, and 8) Using an NLP that detects negative statements in these notes lowers false positives. Furthermore, BioSense's CUSUM algorithm was assessed and showed to provide a shorter detection delay than SatScan. NOTE: The funding amount in this report is an estimation based on the total amount of funding for the cooperative agreement, which includes several evaluation studies.

Key Findings: Results indicated that BioSense's CUSUM algorithm provided a shorter detection delay than SatScan. Syndromic surveillance data (specifically BioSense) can be used as a proxy for detecting and monitoring outbreak events where rapid testing is not available - ILI, H1N1, and chickenpox (as a proxy for smallpox). However, attention must be paid to accurate binning and signal stability within the surveillance system to

facilitate accurate analysis. With regard to using natural language processing (NLP) for parsing clinicians' free text notes in relation to ILI and GI illness, results indicated NLP: increases performance over detection by ICD9 codes alone; increases performance when combined with ICD9 codes; can lower the delay and workload requirements needed to detect an ILI outbreak; increases the sensitivity of detection ILI when compared to using such information as chief complaint, and ED and triage notes; can be of greater assistance to public health investigations as compared to structured data sources; can increase sensitivity when combined with analysis using chief complaint, and ED and triage notes. In addition, detection using above NLP technique can be improved by detecting patient with febrile illness within that cohort. And using an NLP that detects negative statements in these notes lowers false positives.

**11. How well does the BioSense syndrome categorization process (binning algorithms) identify potential Category A agents?**

Summary: In 2008, the CDC outlined an objective for the BioSense program to “develop technologies for automated detection of suspected cases of infection with bioterrorism relevant agents from clinical data streams.” A challenge toward accomplishing this objective is that surveillance systems like BioSense are built to be highly sensitive, and the rare occurrence of Category A agents means the predictability to detect the statistical anomalies aimed to detect these agents is extremely low. (Category A data is defined as foundational data which includes chief complaints, demographics, working diagnosis, discharge diagnosis, disposition, hospital utilization, and clinical data.) Local and state health department staff is unlikely to investigate all anomalies, thus diminishing the value of the system. To enhance BioSense’s value in this regard, it is important to evaluate each case comprising alerts and assess whether each patient comprising the alert has a presentation compatible with the Category A agent intended to be detected by that syndrome. Patients who comprised the alerts for specific syndrome generated by BioSense from 08/01/2007 thru 01/31/2008, were placed into a spreadsheet for each of the 11 BioSense syndromes\*. Data abstracted from medical records for each patient included: the date the alert occurred in BioSense; the BioSense syndrome to which the encounter was categorized; the type of data that caused the categorization of this record into the syndrome (i.e. final diagnosis, chief complaint, or reason for admission); the associated ICD9 codes\*\*; and chief complaint text string associated with the patient visit.

Localized cutaneous syndrome (LCS), which results in skin lesions, was the first syndrome evaluated. Physician reviewers assessed whether each patient comprising the anomalies had a presentation compatible with tularemia or cutaneous anthrax, as defined by the CDC. Reviewers used an assigned scoring (1, low suspicion – 5, high suspicion) to rate the degree of compatibility with either of the Category A agents. The scores for all participating clinicians were summed and averaged to create a combined likelihood score.

Key Findings: BioSense statistical anomalies were not infrequent during the study period. Results from this study lead to conclude final diagnosis codes were less likely to predict a potential Category A agent within the localized cutaneous syndrome than chief complaint text strings, largely due inclusion of spurious ICD9 codes. Removing these codes may permit improved specificity and an increase in the predictability of anomalies, resulting in an increase in the value of the system. \*11 BioSense syndromes: botulism-

like, fever, gastrointestinal, hemorrhagic illness, localized cutaneous lesion, lymphadenitis, neurological, rash, respiratory, severe illness/death, specific infection \*\* ICD9 codes classify diseases and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances and external causes of injury or disease NOTE: The funding amount in this report is an estimation based on the total amount of funding for the cooperative agreement, which includes several evaluation studies.

**12. How can we promote high quality, effective evaluation practice among our asthma programs?**

- a. Link: [http://www.cdc.gov/asthma/program\\_eval/guide.htm](http://www.cdc.gov/asthma/program_eval/guide.htm)

**13. Was the comprehensive community-based approach effective in: reaching children suffering a disparate burden of asthma; bringing about institutional and policy change; and achieving improved health outcomes?**

Summary: *Controlling Asthma in American Cities:* NACP funded seven cities through the Controlling Asthma in American Cities Project (CAACP). The project was designed to translate “bench and bedside” success in the clinical management of asthma to community and household level populations in underserved communities with a high asthma burden. The Project’s intent was to create seven inner-city laboratories where evidenced-based or promising asthma interventions could be applied in a culturally appropriate, integrated way to improve the health of children with asthma. Although improving access to quality asthma care and asthma self-management training was a primary concern, the Project’s other objectives focused on multiple outcomes at the institutional, community, and policy levels. The experiences of the seven sites will be summarized in a forthcoming supplement to the *Journal of Urban Health* scheduled for publication in early 2011.

Key Findings: Because the project involved site-specific interventions in seven sites, the findings are specific to each site and its intervention. Findings of the seven sites will be summarized in a forthcoming supplement to the *Journal of Urban Health* scheduled for publication in early 2011.

**14. Are multi-trigger, multicomponent asthma interventions effective in reducing asthma symptoms, absenteeism, and health care utilization or other adverse outcomes?**

- a. Link: [http://www.cdc.gov/asthma/interventions/community\\_guide.html](http://www.cdc.gov/asthma/interventions/community_guide.html)

**DISCONTINUED PERFORMANCE MEASURES****IMMUNIZATION AND RESPIRATORY DISEASES**

<b>Discontinued Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
1.1.1a: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Paralytic Polio ( <i>Outcome</i> )	2010	0	Sep 30, 2011
	2009	0	1 (all ages) (Target not met)
	2008	0	0 (all ages) (Target Not In Place)
	2007	0	0 (all ages) (Target Met)
	2006	0	0 (Target Met)
	2005	0	0 (Target Met)
	2004	0	0 (Target Met)
1.1.1b: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Rubella ( <i>Outcome</i> )	2010	0	Sep 30, 2011
	2009	5	2 (all ages) (Target met)
	2008	8	8 (all ages) (Target Met)
	2007	8	12 (all ages) (Target Not Met)
	2006	15	11 (Target Exceeded)
	2005	15	7 (Target Exceeded)
	2004	15	7 (Target Exceeded)
1.1.1c: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Measles ( <i>Outcome</i> )	2010	0	Sep 30, 2011
	2009	25	51 (Target not met)
	2008	35	115 (all ages) (Target Not Met)
	2007	45	14 (all ages) (Target Exceeded)
	2006	50	24 (Target Exceeded)
	2005	50	42 (Target Exceeded)
	2004	50	10 (Target Exceeded)
1.1.1d: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Haemophilus influenzae ( <i>Outcome</i> )	2010	0	Sep 30, 2011
	2009	75	213 (Target Not Met)
	2008	150	193 (b + unknown) (children under 5) (Target Not Met but Improved)
	2007	150	202 (b + unknown) (children under 5) (Target Not Met)

Discontinued Measure	FY	Target	Result
	2006	150	208b + unknown (Target Not Met)
	2005	150	226 (Target Not Met)
	2004	150	196 (Target Not Met)
	2010	0	Sep 30, 2011
1.1.1e: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Diphtheria (Outcome)	2009	3	0 (Target Exceeded)
	2008	4	0 (persons <35 years of age) (Target Exceeded)
	2007	4	0 (persons <35 years of age) (Target Exceeded)
	2006	5	0 (Target Exceeded)
	2005	5	0 (Target Exceeded)
	2004	5	0 (Target Exceeded)
	2003	5	0 (Target Exceeded)
	2010	0	Sep 30, 2011
1.1.1f: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Congenital rubella Syndrome (Outcome)	2009	2	1 (children under one) (Target met)
	2008	3	0 (children under one) (Target Exceeded)
	2007	4	0 (children under one) (Target Exceeded)
	2006	5	0 (Target Exceeded)
	2005	5	0 (Target Exceeded)
	2004	5	0 (Target Exceeded)
	2003	5	1 (Target Exceeded)
	2010	0	Sep 30, 2011
1.1.1g: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Tetanus (Outcome)	2009	8	7 (Target Not Met)
	2008	10	6 cases (persons under 35 years of age) (Target Exceeded)
	2007	13	6 (persons under 35 years of age) (Target Exceeded)
	2006	25	12 (Target Exceeded)
	2005	25	5 (Target Exceeded)
	2004	25	6 (Target Exceeded)
	2003	25	6 (Target Exceeded)
	2010	0	Sep 30, 2011
1.1.2: Reduce the number of indigenous cases of mumps in persons of all ages from	2009	100	1965 (all ages) (Target not met)

Discontinued Measure	FY	Target	Result
666 (1998 baseline) to 0 by 2010. <i>(Outcome)</i>	2008	200	418 (Target Not Met but Improved)
	2007	200	800 (Target Not Met but Improved)
	2006	200	6,584 (Target Not Met)
	2005	200	314 (Target Not Met)
	2004	200	258 (Target Not Met)
	2003	250	231 (Target Exceeded)
1.1.3: Reduce the number of indigenous cases of pertussis among children under 7 years of age. <i>(Outcome)</i>	2010	2,000	Sep 30, 2011
	2009	2,150	4,799 (Target Not Met)
	2008	2,300	4,166 (Target Not Met)
	2007	2,300	3,106 (Target Not Met but Improved)
	2006	2,300	3,841 (Target Not Met but Improved)
	2005	2,300	7,347 (Target Not Met)
	2004	N/A	6,850 (Target Not In Place)
1.1.4: Reduce or eliminate indigenous cases of Varicella (persons 17 years of age and under). <i>(Outcome)</i>	2010	223,000	Sep 30, 2011
	2007	Baseline	582,535
1.2.1a: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 4 doses DTaP vaccine <i>(Output)</i>	2008	90%	85% (Target Not Met)
	2007	90%	85% (Target Not Met)
	2006	90%	85% (Target Not Met)
	2005	90%	86% (Target Not Met)
	2004	90%	86% (Target Not Met)
1.2.1b: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 3 doses Hib vaccine <i>(Output)</i>	2010	At least 90% coverage	Sep 30, 2011
	2009	At least 90% coverage	84% <sup>25</sup> (Target Not Met) <sup>26</sup>
	2008	At least 90% coverage	91% (Target Exceeded)
	2007	At least 90% coverage	93% (Target Exceeded)
	2006	At least 90% coverage	93% (Target Exceeded)
	2005	At least 90% coverage	94% (Target Exceeded)

<sup>25</sup> ≥3 doses.

<sup>26</sup> Beginning in 2009, coverage estimates are reported based on a more accurate measurement of Hib vaccination status that takes into account vaccine product type (Hib vaccine products vary in the number of recommended doses). For additional background, please see <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5933a3.htm>.

<b>Discontinued Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
	2004	At least 90% coverage	94% (Target Exceeded)
1.2.1d: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 3 doses hepatitis B vaccine (Output)	2010	At least 90% coverage	Sep 30, 2011
	2009	At least 90% coverage	92% (Target Exceeded)
	2008	At least 90% coverage	94% (Target Exceeded)
	2007	At least 90% coverage	93% (Target Exceeded)
	2006	At least 90% coverage	93% (Target Exceeded)
	2005	At least 90% coverage	93% (Target Exceeded)
	2004	At least 90% coverage	92% (Target Exceeded)
1.2.1e: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 3 doses polio vaccine (Output)	2010	At least 90% coverage	Sep 30, 2011
	2009	At least 90% coverage	93% (Target Exceeded)
	2008	At least 90% coverage	94% (Target Exceeded)
	2007	At least 90% coverage	93% (Target Exceeded)
	2006	At least 90% coverage	93% (Target Exceeded)
	2005	At least 90% coverage	93% (Target Exceeded)
	2004	At least 90% coverage	92% (Target Exceeded)
1.2.1f: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 1 dose varicella vaccine (Output)	2010	At least 90% coverage	Sep 30, 2011
	2009	At least 90% coverage	90% (Target Met)
	2008	At least 90% coverage	91% (Target Exceeded)
	2007	At least 90% coverage	90% (Target Met)
	2006	At least 90% coverage	88% (Target Not Met)
	2005	At least 90% coverage	88% (Target Not Met)
	2004	At least 90% coverage	88% (Target Not Met)
1.2.1g: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 4 doses of pneumococcal conjugate vaccine (PCV7). (Outcome)	2010	At least 90% coverage	Sept 30, 2011
	2009	At least 90% coverage	80% (Target Not Met)
	2008	At least 90% coverage	80% (Target Not Met but Improved)
	2007	At least 90% coverage	75% (Target Not Met but Improved)
	2006	At least 90% coverage	68% (Target Not Met)
1.2.2: Achieve or sustain immunization coverage of at least 90% in adolescents 13 to 15 years of age for: 1 dose Td containing vaccine.	2010	At least 90% coverage	Sep 30, 2011
	2009	At least 90% coverage	75% (Target Not Met but Improved)
	2008	At least 90% coverage	71% (Target Not Met but Improved)

Discontinued Measure	FY	Target	Result
<i>(Intermediate Outcome)</i>	2007	At least 90% coverage	69% (Target Not Met but Improved)
	2006	Baseline	56.7%
1.4.1a: By 2010, reduce the rates of invasive pneumococcal disease in children under 5 years of age to 46 per 100,000 and in adults 65 years and older to 42 per 100,000 Children under 5 years of age <i>(Outcome)</i>	2010	46	Dec 31, 2011
	2009	46	20.0 (Target Exceeded)
	2008	46	20.9 (Target Exceeded)
	2007	47	21.9 (Target Exceeded)
	2006	48	20.8 (Target Exceeded)
	2005	Baseline	21
	2010	42	Dec 31, 2011
1.4.1b: By 2010, reduce the rates of invasive pneumococcal disease in children under 5 years of age to 46 per 100,000 and in adults 65 years and older to 42 per 100,000 Adults 65 years and older <i>(Outcome)</i>	2009	42	40.1 (Target Exceeded)
	2008	42	37.6 (Target Exceeded)
	2007	45	39.2 (Target Exceeded)
	2006	47	40.5 (Target Exceeded)
	2005	Set Baseline	39 (Baseline)
	2010	10,000,000	Jun 30, 2011
	2009	10,000,000	9,100,000 (Target Not Met but Improved)
1.5.1: Improve capacity to conduct immunization safety studies by increasing the total population of managed care organization members from which the Vaccine Safety Datalink (VSD) data are derived annually to 13 million by 2010. <i>(Output)</i>	2008	10,000,000	9,100,000 (Target Not Met but Improved)
	2007	10,000,000	9,000,000 (Target Not Met)
	2006	10,000,000	9,000,000 (Target Not Met)
	2005	10,000,000	9,000,000 (Target Not Met but Improved)
	2004	10,000,000	7,500,000 (Target Not Met)
	2003	10,000,000	7,500,000 (Target Not Met)
	2002	Baseline	7,500,000

### Performance Measures 1.1.1-1.4

*CDC, working with state and local partners, provides the most significant contribution to the reduction of vaccine preventable diseases in the United States by achieving and maintaining high immunization coverage; however the VPD measures are influenced by factors outside of CDC's program, operations, and resource investment decisions. Therefore, they do not provide the most meaningful measures by which to hold CDC accountable for GPRA. CDC continually monitors cases of vaccine preventable diseases to identify disease outbreaks and changes in incidence. Appropriate response to such changes could include assessing vaccine effectiveness or duration of protection and revision of vaccine policy recommendations. Although retiring this as a CDC measure, CDC will continue to monitor and report on vaccine preventable diseases measures through Healthy People 2020.*

### Performance Measure 1.5



This measure is owned by CDC's Division of Healthcare Quality Promotion but is not meaningful to drive program performance. The nature of the program's work in relation to this measure is to conduct surveillance to identify adverse events and conduct research as warranted, and the research timeframe does not lend itself to annual or more frequent reporting.

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### HIV/AIDS, VIRAL HEPATITIS, STD, AND TB PREVENTION

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Discontinued Measure	FY	Target	Result
2.6.4: Increase the number of areas reporting chronic hepatitis C virus infections to CDC to 50 states and New York City and District of Columbia. (Output)	2009	35	Feb 28, 2011
	2008	33	33 (Target Met)
	2007	N/A	33
	2006	N/A	34
	2005	N/A	29
	2004	N/A	24
	2003	Baseline	19
2.7.3: Reduce the prevalence of chlamydia among women under age 25, in publicly funded family planning clinics. (Outcome)	2009	7 %	7.5 % (Target Not Met)
	2008	6.3 %	7.4 % (Target Not Met)
	2007	6.3 %	6.9 % (Target Not Met)
	2006	6.3 %	6.7 % (Target Not Met)
	2005	N/A	6.3 %
	2004	N/A	6.3 %
	2003	N/A	5.9 %
2.8.4: Increase the percentage of contacts of infectious (Acid-Fast Bacillus (AFB) smear-positive) cases that are placed on treatment for latent TB infection and complete a treatment regimen. (Outcome)	2006	59 %	47.2 % (Target Not Met but Improved)
	2005	61.1 %	43.5 % (Target Not Met but Improved)
	2004	60.4 %	43.3 % (Target Not Met but Improved)
	2003	N/A	41 %
	2002	N/A	41 %

CDC has replaced these measures with more effective and efficient measures to monitor impacts. To monitor Chlamydia prevalence the program will retain measure 2.7.2 which tracks all Chlamydia prevalence for the project.

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### EMERGING AND ZOO NOTIC INFECTIOUS DISEASES

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Discontinued Measure	FY	Target	Result
3.3.1: Reduce the rate of central line associated bloodstream infections in medical/surgical ICU patients. (Outcome)	2010	.05	May 31, 2011
	2009	1*	1.4 (Target Not Met)*
	2008	3.19	1.4 (Target Exceeded)
	2007	3.54	1.8 (Target Exceeded)
	2006	3.58	2.2 (Target Exceeded)

Discontinued Measure	FY	Target	Result
	2005	3.62	N/A
	2004	3.66	3.6 (Target Exceeded)
	2003	Baseline	3.7

\*The 2009 target was incorrectly recorded and should have been set at 2.87 infections per 1,000 central line days. Therefore, the target was exceeded based on a result of 1.4 infections per 1,000 central line days

### Long-Term Objective 3.3, Measure 1

CDC is retiring this measure and replacing it with the Central Line-Associated Blood Stream Infection (CLABSI) standardized infection ratio (SIR) measure 3.3.3. These changes are due in part to improved science, which has allowed DHQP to revise the existing measures for CLABSIs and incorporate them in to both the HHS Action Plan and Healthy People 2020. In addition to aligning with the HHS Action Plan and Healthy People 2020, measure 3.3.3 also provides a better indication of DHQP activities to reduce CLABSIs.

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## CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION

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Measure	FY	Target	Result
4.1.3r: Percent of women 40 years of age and older diagnosed with breast cancer whose cancer was diagnosed at in situ or localized stage. (Output)	<i>Out-Year Target</i>	69% (2015)	Jun 30, 2018
	2012	68%	Jun 30, 2015
	2011	68%	Jun 30, 2014
	2010	68%	Jun 30, 2013
	2009	68%	Jun 30, 2012
	2008	N/A	Jun 30, 2011
	2007	N/A	71%
	2006	N/A	69%
4.1.4r: Decrease the age-adjusted rate of invasive cervical cancer per 100,000 women ages 20+ screened through the NBCCEDP (excludes invasive cervical cancer diagnosed on the initial program screen). (Outcome)	<i>Out-Year Target</i>	12 (2013)	Feb 23, 2015
	2012	13	Feb 23, 2014
	2011	13	Feb 23, 2013
	2010	13	Feb 23, 2012
	2009	14	Feb 23, 2011
	2008	14	15 (Target Not Met)
	2007	14	14 (Target Met)
	2006	N/A	15

### Long Term Objective 4.1, Performance Measures 3r & 4r

These measures are being retired as a result of the Chronic Disease and Health Promotion consolidated approach. New measures for this approach will be completed in the FY 2013 President's Budget request.

Measure	FY	Target	Result
4.2.1: Reduce the age-adjusted annual rate of trachea, bronchus, and lung cancer mortality per 100,000 population. (Outcome)	<i>Out-Year Target</i>	43.3 (2013)	Jun 30, 2015
	2006	Trend data	51.5
	2005	Trend data	52.6
	2004	Trend data	53.2

Measure	FY	Target	Result
	2003	Baseline	54.1

### Long-Term Objective 4.2, Measure 1

Although CDC makes a significant contribution to the reduction of trachea, bronchus, and lung cancer mortality in the United States, these outcomes are dependent upon and influenced by many factors outside of CDC's program, operations, and resource investment decisions. Therefore, this does not serve as a meaningful measure by which to hold CDC accountable for GPRA. CDC will continue to monitor and report trend data related to trachea, bronchus, and lung cancer mortality.

Measure	FY	Target	Result
4.3.1r: Maintain the age-adjusted rate of incidence of End-Stage Renal Disease (ESRD) per 100,000 diabetic population at no higher than its current rate. (Outcome)	Out-Year Target	231.7 (2013)	Dec 31, 2014
	2002	Baseline	231.7

### Long Term Objective 4.3, Performance Measures 1r

This measure is being retired as a result of the Chronic Disease and Health Promotion consolidated approach. New measures for this approach will be completed in the FY 2013 President's Budget request

Measure	FY	Target	Result
4.5.2r: Slow the estimated average age-adjusted annual rate of increase in obesity rates among adults age 18+. (Outcome)	Out-Year Target	+0.16 average increase per year (2014)	Jun 30, 2016
	2004	Baseline	+0.64 average increase per year

### Long Term Objective 4.5, Performance Measures 2r

This measure is being retired as a result of the Chronic Disease and Health Promotion consolidated approach. New measures for this approach will be completed in the FY 2013 President's Budget request

Measure	FY	Target	Result
4.6.3r: Reduce the proportion of children aged 3 to 11 who are exposed to second-hand smoke. (Outcome)	2010	45%	June 30, 2014
	2008	45%	53.6% (Target Not Met)
	2006	N/A	50.8%
	2004	N/A	64.8%
	2002	Baseline	55%

**Long-Term Objective 4.6, Measure 3r**

While this data is key to understanding exposure of children in their own homes, the data source is NHANES, which is biennial and requires an additional year of data lag to allow validation/cleaning of data. This measure has been replaced with measure 4.2.4, Increase the proportion of the U.S. population that is covered by comprehensive state and/or local laws making workplaces, restaurants, and bars 100 percent smoke-free (no smoking allowed, no exceptions). The new measure is inclusive of all ages, not only children, and effectively broadens the scope of performance measurement regarding second hand smoke.

Measure	FY	Target	Result
4.6.4: Percentage of youth (grades 9-12) who were active for at least 60 minutes per day for at least five of the preceding seven days. (Outcome)	2011	35.8%	Jun 30, 2012
	2009	35.8%	37% (Target Met)
	2007	35.8%	34.7% (Target Not Met)

This measure is being retired as a result of the Chronic Disease and Health Promotion consolidated approach. New measures for this approach will be completed in the FY 2013 President's Budget request.

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**BIRTH DEFECTS, DEVELOPMENTAL DISABILITIES AND DISABILITY AND HEALTH**


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Measure	FY	Target	Result
5.E.2: Increase the percentage of cost savings for CCHP as a result of the Public Health Integrated Business Services HPO. (Efficiency)	2010	38.0%	42.4% (Target Exceeded)
	2009	36.8%	65% (Target Exceeded)
	2008	37.7%	39.3% (Target Exceeded)
	2007	37.6%	28.4% (Target Not Met but Improved)
	2006	Baseline	0% Savings

This measure is proposed for retirement after 2011. It is no longer able to be tracked given dissolution of the coordinating centers and changes to administration priorities, the power of the PHIBS HPO as a consolidated unit has been greatly reduced. The Public Health Integrated Business Services HPO was instituted as a 5 year process, from 2006 to 2011. Additionally, CDC is considering a limited number of agency-wide measures to replace programmatic efficiency measures.

Measure	FY	Target	Result
5.2.3: Ensure that 95% of all infants are screened for hearing loss by 1 month of age. (Outcome)	2010	95%	Jan 31, 2013
	2009	94%	Jan 31, 2012
	2008	93%	97% (Target Exceeded)

	2007	92%	97% (Target Exceeded)
	2006	91%	92% (Target Exceeded)

CDC has exceeded the established target for the past several reported years and has maintained the target to ensure that it could be met consistently over time. A new measure has been established to evaluate its efforts for the next stage which is reducing the number of infants not passing the hearing screening that are lost to follow up.

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## INJURY PREVENTION AND CONTROL

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Measure	FY	Target	Result
7.E.2: Maintain the percentage of cost savings each year for CCEHIP as a result of the Public Health Integrated Business Services HPO. (Outcome)	Out-Year Target	30% (2011)	Dec 31, 2011
	2010	29%	42% (Target Exceeded)
	2009	28%	38%
	2006	Baseline	0%

The Public Health Integrated Business Services HPO was instituted as a five year process, from 2006 to 2011. It is no longer able to be tracked given dissolution of the coordinating centers and changes to administration priorities, the power of the PHIBS HPO as a consolidated unit has been greatly reduced. Additionally, CDC is considering a limited number of agency-wide measures to replace programmatic efficiency measures.

Discontinued Measure	FY	Target	Result
7.2.1: Among the states receiving funding from CDC, reduce deaths from residential fires by 0.01 per 100,000 population. (Outcome)	2010	1.10/100,000	Oct 31, 2012
	2009	1.11/100,000	Oct 31, 2011
	2008	1.12/100,000	May 31, 2011
	2007	1.13/100,000	1.11/100,000 (Target Exceeded)

FY 2010 was last year of the most recent five year cooperative agreement for the Smoke Alarm Installation and Fire Safety Education Program (SAIFE), between CDC and 17 states for the installation of smoke alarms in homes in high risk areas. CDC will continue to address cutting edge residential fire prevention scientific and policy-related opportunities as well as other priority topics in unintentional injury prevention.

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## GLOBAL HEALTH

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Discontinued Measure	FY	Target	Result
10. A.1.1: Number of people receiving HIV/AIDS treatment. (Output)	2009	2,568,137	2,329,400 (Target Not Met but Improved)
	2008	1,668,800	2,007,800 (Target Exceeded)
	2007	1,200,000	1,358,375 (Target Exceeded)
	2006	741,000	822,000 (Target Exceeded)

<b>Discontinued Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
	2005	470,000	401,233 (Target Not Met but Improved)
	2004	200,000	235,000 (Target Exceeded)
	2003	Baseline	66,911
10. A.1.2: Number of individuals provided with general HIV-related care services. (Output)	2009	7,693,971	6,855,300 (Target Not Met but Improved)
	2008	4,970,650	5,734,800 (Target Exceeded)
	2007	3,130,341	3,901,543 (Target Exceeded)
	2006	2,496,157	2,464,063 (Target Not Met but Improved)
	2005	1,662,820	1,397,555 (Target Not Met but Improved)
	2004	N/A	854,800
10. A.1.3: Number of pregnant women receiving PMTCT services, including counseling and testing. (Output)	2009	7,134,086	6,565,800 (Target Not Met but Improved)
	2008	5,406,208	5,850,100 (Target Exceeded)
	2007	3,650,949	4,011,797 (Target Exceeded)
	2006	2,100,292	2,837,409 (Target Exceeded)
	2005	2,372,913	1,957,932 (Target Not Met but Improved)
	2004	Baseline	1,271,300
10. A.1.4: Number of individuals who received counseling and testing services for HIV and received their test results. (Output)	2009	16,527,468	18,719,300 (Target Exceeded)
	2008	12,258,174	17,901,400 (Target Exceeded)
	2007	7,671,789	10,580,699 (Target Exceeded)
	2006	5,590,762	6,426,120 (Target Exceeded)
	2005	3,982,958	4,653,257 (Target Exceeded)
	2004	Baseline	1,791,000
10. A.2.1: Number of individuals receiving antiretroviral therapy at the end of the reporting period (includes PMTCT+ sites). (Output)	2009	123,435	155,900 (Target Exceeded)
	2008	99,706	115,000 (Target Exceeded)
	2007	306,053	276,965 (Target Not Met but Improved)
	2006	43,859	165,964 (Target Exceeded)
	2005	33,958	69,766 (Target Exceeded)
	2004	Baseline	20,774
10. A.2.2: Number of individuals trained to provide laboratory-related activities. (Output)	2009	2,479	1,349 (Target Not Met)
	2008	3,951	3,420 (Target Not Met)
	2007	4,652	3,988 (Target Not Met)

Discontinued Measure	FY	Target	Result
	2006	1,770	6,252 (Target Exceeded)
	2005	1,772	1,772 (Target Met)
	2004	Baseline	1,488
10. A.2.3: Number of pregnant women who received HIV counseling and testing for PMTCT and received their test results. (Output)	2009	674,359	802,425 (Target Exceeded)
	2008	290,768	457,509 (Target Exceeded)
	2007	3,308,371	3,268,602 (Target Not Met but Improved)
	2006	633,185	1,108,500 (Target Exceeded)
	2005	623,787	603,913 (Target Not Met but Improved)
	2004	Baseline	145,133
10. A.2.4: Number of individuals who received counseling and testing during the reporting period. (Output)	2009	2,022,878	2,506,200 (Target Exceeded)
	2008	1,112,592	1,644,600 (Target Exceeded)
	2007	4,096,661	5,249,131 (Target Exceeded)
	2006	1,049,628	2,478,262 (Target Exceeded)
	2005	955,492	1,710,048 (Target Exceeded)

In 2010, the Department of State, Office of the Global AIDS Coordinator (SGAC) transitioned the PEPFAR performance measures from reporting on 15 focus countries and “other bilateral” countries to a single denominator of 31 countries and 3 regional programs. New performance measures and baselines have been established based on PEPFAR Country Operational Plans and targets established globally by S/GAC.

Discontinued Measure	FY	Target	Result
10. D.1.1: The in-hospital mortality ratio per 100,000 caesarean sections at Rabia Balkhi Women's Hospital (RBH) in Kabul, Afghanistan. (Outcome)	2010	105	Feb 26, 2011
	2009	110	117
	2008	120	157
	2007	130	129.5
	2006	170	136.5
	2005	140	146
10. D.1.2: The percent of trainees enrolled in courses. (Output)	2010	99%	Feb 26, 2011
	2009	99%	98%
	2008	85%	95%
	2007	80%	99%
	2006	50%	70%
	2005	40%	60%
10. D.1.3: The time to hire and deploy essential staff trainers. (Output)	2010	1.5 mos	Feb 26, 2011
	2009	2 mos	2 mos
	2008	2.5 mos	2 mos
	2007	3 mos	4.5 mos
	2006	2.5 mos	4.2 mos
	2005	2 mos	3 mos
10. D.1.4: The percentage of staff trainers who fulfill the agreed upon in-country	2010	95%	Feb 26, 2011
	2009	95%	93%
	2008	92%	90%

Discontinued Measure	FY	Target	Result
contract. (Output)	2007	89%	87.5%
	2006	40%	85%
	2005	60%	80%
10. D.1.6: The newborn pre-discharge mortality rate for Babies weighing at least 2500 grams at birth at Rabia Balkhi Women's Hospital in Kabul, Afghanistan per 1,000 births. (Outcome)	2010	1.8	Feb 26, 2011
	2009	1.9	1.9
	2008	2.0	1.9
	2007	2.2	2.50
	2006	2.2	2.54
	2005	2.0	2.2
10. D.1.7: The percentage of nurse midwives at Rabia Balkhi Women's Hospital (RBH) who meet the selected competency measures of the 37 Afghanistan Standards of Practice. (Outcome)	2010	95%	Feb 26, 2011
	2009	92%	90%
	2008	88%	80%
	2007	85%	71%
	2006	50%	75%
	2005	30%	40%
10. D.1.8: The percentage of women who have a caesarean section delivery who subsequently develop a post-operative infection at Rabia Balkhi Women's Hospital in Kabul, Afghanistan. (Outcome)	2010	2.2%	Feb 26, 2011
	2009	2.4%	4%
	2008	2.7%	4%
	2007	3.0%	1.8%
	2006	3.0%	6.3%
	2005	2.8%	3.75%

The Afghan Health Initiative (AHI) began as a Secretarial Initiative in the Office of Global Health Affairs (OGHA), in 2004. After conducting a programmatic review of the initiative, CDC has modified measures to more accurately reflect current and future programmatic activities including maternal mortality, fetal deaths, and post-operative infection rates.

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## PUBLIC HEALTH LEADERSHIP AND SUPPORT

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Discontinued Measure	FY	Target	Result
11.A.1.1: Provide health information to <u>health professionals and partner organizations</u> (e.g. state and local health departments) in	2010	30,800	12,000 (Target Not Met)
	2009	12,100	28,000 (Target Exceeded)



Discontinued Measure	FY	Target	Result
order to educate, inform and improve health outcomes (system approaches to health) a. Number of total subscribers to CDC's Partnership Matters (biweekly email update with information on CDC partnerships, public health initiatives involving partners, personnel changes, reader feedback, and upcoming events and seminars).	2008	Baseline	11,000
b. Number of Partners registered with the CDC Partner Network (formerly known as the Partners Portal database). ( <a href="http://www.cdc.gov/partners">www.cdc.gov/partners</a> )	2010	805 subscribers	730 (Target Not Met)
	2009	639 subscribers	732 subscribers (Target Exceeded)
	2008	Baseline	300 subscribers

Discontinued Measure	FY	Target	Result
11.A.2.1: Participate in the HHS National and Regional Tribal Consultation Sessions to strengthen CDC and HHS partnerships with tribes to accelerate health impact and address health disparities in AI/AN populations. (Output)	2010	Hold 3 tribal consultations	Held 2 tribal consultations and participated in 3 (Exceeds Target)
	2009	Hold 3 tribal consultations	Held 3 tribal consultations (Target Met)
	2008	Hold 3 tribal consultations	Held 3 tribal consultations (Target Met)
	2007	Baseline	Hold 2 tribal consultations
11.A.2.2: Maintain support for, and effective communication with the CDC/ATSDR Tribal Consultation Advisory Committee (TCAC). (Output)	2010	Hold 2 meetings and act on 5 tribal recommendations	Held 2 TCAC meetings and acted on 12 (target Exceeded)
	2009	Hold 2 meetings and act on 5 tribal recommendations	Held 3 TCAC meetings and acted on 12 tribal recommendations (Target Exceeded)
	2008	Hold 4 meetings and act on 5 tribal recommendations	Held 5 meetings and acted on 10 recommendations (Target Exceeded)
	2007	Baseline	Held 4 meetings and acted on 2 tribal recommendations (Target Met)
11.A.2.3: Categorize, systematically monitor, and critically assess CDC resources allocated to programs that directly benefit AI/AN people and communities. (Output)	2010	2 Interagency Agreements	Maintained 2 IAAs (Target Met)
	2009	2 Interagency Agreements	Maintained 2 IAAs (Target Met)
	2008	2 Interagency Agreements	Maintained 2 IAAs (Target Met)
	2007	Baseline	Maintained 2 IAAs and attended 2 meetings of each council (Target Met)
11.A.2.4: Participate and support the Interagency Agreement for the Intradepartmental Council	2010	Attend 2 meetings of each council	Attended 2 meetings of each council (Target Met)
	2009	Attend 2 meetings of each council	Attended 2 meetings of each council (Target Met)

Discontinued Measure	FY	Target	Result
on Native American Affairs and the HHS AI/AN Research Council. <i>(Output)</i>	2008	Attend 2 meetings of each council	Attended 2 meetings of each council (Target Met)
	2007	Baseline	Maintain 2 IAAs and attend 2 meetings of each Council

CDC is retiring inherited GPRA measures due to CDC's Organizational Improvement efforts. These measures are outputs, narrow in scope and are not representative of the strategic direction being undertaking. OSTLTS is working this year to identify its specific priorities, strategies, activities and performance measures.

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**PUBLIC HEALTH PREPAREDNESS AND RESPONSE**


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Measure	FY	Target	Result
13.1.1: Number of top 50 metropolitan areas using BioSense. <i>(Output)</i>	2010	10% increase from 2009	9% increase (Target Unmet)
	2009	Additional population coverage in Top 50 metropolitan areas	9% increase in population coverage from FY 2008 (Target Met)
	2008	50	50 (Target Met)
	2007	50	49 (Target Not Met but Improved)
	2006	40	38 (Target Not Met but Improved)
13.1.1 Increase the number of outpatient and emergency department (ED) patient visits under surveillance in BioSense program per 1,000 population in United States.	2012	499 [10% increase]	3/2013
	2011	454 [10% increase]	3/2012
	2010	413	3/2011
	2009	[trend data]	405.44
	2008	[trend data]	378.65
	2007	[Baseline]	339.36
13.2.1: By 2010, CDC's epidemiology system will reduce the time to initiate, coordinate and resolve investigations to identify causes, risk factors and recommended interventions. <i>(Outcome)</i>	Targets not established		
	2009	\$0/BPI and Health Impact system	\$0 (Target Met)
	2008	\$0/BPI and Health Impact system	\$0 (Target Met)
	2007	\$50,000/ BPI and Health Impact system	\$8,685.20/BPI and Health Impact system (Target Met)
	2006	N/A	\$86,800/BPI and Health Impact system
13.3.2: By 2010, CDC's laboratory system will decrease the time from receipt of tissue, food and environmental samples to confirm and report chemical, biological and radiological agents to stakeholders. <i>(Outcome)</i>	Targets not established		

Measure	FY	Target	Result
13.4.1: Expand and enhance the Health Alert Networks (HAN) ability to rapidly provide access to public health guidelines, best practices, and information on the effectiveness of public health interventions. <i>(Outcome)</i>	2010	a) 85 percent of state health departments acknowledge receipt of health alert messages within 30 minutes of delivery on a 24/7 basis	(Did not report)
	2009	a) 85 percent of state health departments acknowledge receipt of health alert messages within 30 minutes of delivery on a 24/7 basis b) 85 percent of state grantees will have a protocol for testing and documenting send/ receive capabilities	(Did not report)
	2008	a) 80 percent of state health departments acknowledge receipt of health alert messages within 30 minutes of delivery on a 24/7 basis b) 85 percent of state grantees will have a protocol for testing and documenting send/ receive capabilities	a) 88 percent of State Health Departments acknowledge receipt of health alert messages within 30 minutes of delivery. (Exceeded) b) (Unmet)
	2007	a) 75 percent of state health departments acknowledge receipt of health alert messages within 30 minutes of delivery on a 24/7 basis b) 80 percent of state grantees will have a protocol for testing and documenting send/receive capabilities	a) 77 percent of State Health Departments acknowledging receipt of health alert messages within 30 minutes of delivery. (Exceeded) b) (Unmet)
	2006	a) 70 percent of state health departments acknowledge receipt of health alert messages within 30 minutes of delivery on a 24/7 basis. b) 75 percent of state grantees will have a protocol for testing and documenting send/ receive capabilities	a) 58 percent of Cooperative Agreement recipients acknowledge receipt of health alert messages within 30 minutes of delivery on a 24/7 basis (Unmet) b) Unmet c) 60 percent (Met) d) 98 percent (Exceeded)
13.4.3: Number of treatments/prophylaxis for the appropriate response to known terrorist threats or public health emergencies for chemical, biological, radiological and nuclear threats in millions. <i>(Outcome)</i>	2011	TBD per BARDA	N/A
	2008	2.3, 60, 0.17	N/A
13.4.7: By 2010, CDC's response operations system will decrease the time from event to actions that will minimize morbidity and mortality. <i>(Outcome)</i>	Targets not established		
13.4.13: Protect the U.S. population by increasing the number of 25 US international airports and land borders	2009	Trend data	20
	2008	Trend data	6
	2007	Trend data	9

Measure	FY	Target	Result
covered by a communicable disease preparedness plan. <i>(Outcome)</i>	2006	Trend data	5

In order to enhance the quality and ensure that the performance measures are representative of the current and future state of CDC Preparedness activities, CDC is taking a multiphase effort to revise the performance plan. This is the first of a multiphase efforts to ensure that the GPRA performance plan reflective of key influential preparedness planning and strategies across the federal government.

Measure	FY	Target	Result
13.5.E.2: Decrease annual costs for personnel and materials development with the development and continuous improvement to the budget and performance integration information system tools. <i>(Outcome)</i>	2010	\$0/BPI and Health Impact system	\$0 (Target Met)

Due to the current process of using HealthImpact.net for programs to develop proposals and for OPHPR to review proposals, full efficiency as described in this measure has been achieved.