

**Meeting of the Board of Scientific Counselors, Office of Infectious Diseases
Centers for Disease Control and Prevention
Tom Harkin Global Communications Center
Atlanta, Georgia**

May 18, 2011

A one-day, open public meeting of the Board of Scientific Counselors (BSC), Office of Infectious Diseases (OID), was held on May 18, 2011, at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. In addition to board members and CDC staff, the meeting was attended by representatives of several public health partner organizations (attached).

The focus of the meeting was to generate ideas for helping CDC and state, local, and other health departments transition infectious disease prevention programs during current changes in healthcare and current economic constraints. These discussions were held following opening remarks and updates from OID, the Influenza Coordination Unit (ICU), the infectious disease national centers—the National Center for Emerging and Zoonotic Infectious Diseases (NCEZID); the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP); and the National Center for Immunization and Respiratory Diseases (NCIRD)—and the Center for Global Health (CGH).

OPENING REMARKS

BSC Chair Dr. Rich Whitley called the meeting to order and was joined by CDC Deputy Director for Infectious Diseases Dr. Rima Khabbaz in welcoming participants and facilitating introductions. Dr. Whitley stated that five BSC members had completed their terms of office since the last board meeting in December 2010: Drs. Barry Beaty, Gail Bolan, Ralph DiClemente, Sam Katz, and Marci Layton. He also informed members that Dr. Bolan has since joined CDC as Director of the Division of Sexually Transmitted Disease Prevention (DSTDP) in NCHHSTP.

Dr. Whitley and Dr. Beth Bell, Director, NCEZID, then provided an update to the board regarding provisions in the 2010 Food Safety Modernization Act (FSMA) that direct CDC to work to improve foodborne surveillance systems and to designate five integrated food safety centers of excellence at state health departments that can identify and implement best practices in foodborne disease surveillance and serve as resources for public health professionals. As part of these responsibilities, the FSMA calls for the establishment of a working group to make recommendations to the Secretary, Department of Health and Human Services (HHS), regarding improvements in surveillance and criteria for the centers of excellence. Plans have begun for establishing this workgroup under the BSC/OID, with membership including two BSC members and other experts and stakeholders in food safety. Dr. Bell reported that BSC members Drs. Jim Hadler and Matt Boulton have agreed to serve on the workgroup, with Dr. Hadler serving as chair. Drs. Hadler and Boulton are working with Dr. Dale Morse, Senior Advisor, CDC Division of Foodborne, Waterborne, and Environmental Diseases (DFWED/NCEZID), to develop terms of reference for the workgroup and assemble a list of potential members from academia, industry, and state and local public health departments. The plan is to hold the first workgroup meetings in a few months. Updates from the workgroup will be provided regularly to the BSC/OID.

OID UPDATE

Dr. Khabbaz opened her update with a reminder of the 2012 International Conference on Emerging Infectious Diseases (ICEID 2012), to be held March 11-14 at the Hyatt Regency Atlanta. Partners and co-sponsors have been identified, and a planning committee met in April to select topics and organize panels and plenary sessions.

She then provided an update on the December 2010 board meeting, and its focus—the development of the *CDC Framework for Preventing Infectious Diseases*. Dr. Khabbaz reported that OID used the extensive input from the December BSC meeting (as well as additional internal and external comments received after the meeting) to revise and improve the *Framework*. The revised *Framework* is almost complete and ready for final clearance at CDC and HHS. When finalized, the *Framework* will be distributed as a short, summary document, with the full document available on the OID website.

Dr. Khabbaz also reported on CDC's FY 2011 budget, including funds for work on infectious diseases. CDC's total budget decreased by \$740 million (-11%) from FY 2010 to FY 2011, bringing it to the lowest level since 2003. The FY 2011 budget includes \$200 million in statutory reductions specified by Congress and an additional \$500 million that CDC had to apply through various programmatic reductions and eliminations. In making these decisions, CDC took into account key agency priorities. A summary of CDC's budget is available at www.cdc.gov.

For NCEZID and NCIRD, the reductions have been partially offset by other funds, including the Prevention and Wellness Fund created by the 2009 American Recovery and Reinvestment Act (ARRA) and the Prevention and Public Health Fund (PPHF) created by the 2010 Affordable Care Act (ACA). For NCHHSTP, the budget authority has increased by \$27.7 million to help implement the [National HIV/AIDS Strategy](#). However, funding for TB and some other NCHHSTP programs has been reduced. In addition, reductions in emergency preparedness funds administered by the CDC Office of Public Health Preparedness and Response (OPHPR) will cause significant decreases in cooperative-agreement funding to state and local health departments and will affect several infectious disease programs which receive preparedness funding.

Follow-up questions from BSC members and other meeting participants along with responses from Dr. Khabbaz are summarized as follows:

- Regarding the impact of budget cuts on building construction, only new building projects will be affected.
- ARRA and ACA funds are directed for specific purposes and cannot be used to replace lost funding. The ARRA funding will end in FY 2011, and the ACA PPHF will continue to grow to \$2 billion by 2015. The PPHF, however, may be redirected through acts of Congress.
- All three infectious disease national centers will be affected by the budget cuts. Specific budget issues relevant to each center will be addressed in their updates.

NCEZID

Dr. Beth Bell reported on several senior staff appointments, recent major activities/accomplishments, and current budget issues for NCEZID.

- *Staff appointments.*
 - Dr. Cecilia Curry, Associate Director for Policy
 - Dr. Dale Morse, Senior Advisor for both DFWED and the NCEZID Office of the Director

- Dr. Steve Solomon, Director, Antimicrobial Resistance Office, Division of Healthcare Quality Promotion (DHQP)
- Dr. Toby Merlin, Director, Division of Preparedness and Emerging Infections (DPEI). (One of NCEZID’s newly formed divisions, DPEI houses several major infectious disease programs including the Epidemiology and Laboratory Capacity [ELC] cooperative agreement, Emerging Infections Programs [EIP], and Laboratory Response Network [LRN]).
- *Activities and accomplishments.*
 - Healthcare-associated infections (HAIs). Data reported in a March [MMWR Vital Signs](#) on central line-associated bloodstream infections (CLABSIs) showed a 58% reduction from 2001 to 2009 in CLABSIs among patients in intensive care units. Other recent HAI reduction activities include increased enrollment in the National Healthcare Safety Network (NHSN) and continued partnership with the Centers for Medicare & Medicaid Services (CMS) to provide data for the CMS Inpatient Prospective Payment System.
 - Antimicrobial resistance. The draft Interagency Task Force [action plan](#) to combat antimicrobial resistance was posted for public comment in March.
 - Foodborne diseases. CDC responsibilities under the FSMA include enhancing disease surveillance, designating five food safety centers of excellence, and forming a working group of experts and stakeholders to provide advice and oversight (described earlier). CDC has also issued the first comprehensive estimates of foodborne disease in the United States since 1999, published in the [January issue of *Emerging Infectious Diseases* \(EID\)](#).
 - Interagency Anthrax Management Team. This CDC-led team has identified critical gaps in public health preparedness and response planning and identified short-term priorities related to surveillance, diagnostics, communications, regulatory policy, environmental microbiology, and clinical guidance (including anthrax vaccination and post-exposure prophylaxis).
 - Dengue outbreaks. During 2010 and 2011, CDC helped state and territorial health departments respond to the first indigenous cases of dengue in Florida (Key West) in more than 70 years; the first dengue outbreak in Hawaii in 10 years; and the largest reported dengue outbreak in Puerto Rico.
 - Global activities. Ongoing activities include efforts to help reduce cholera in Haiti and the Dominican Republic (which will be described in an *EID* supplement in November); to provide travelers health information related to the earthquake, tsunami, and radiation release in Japan; and to help prevent plague and other vector-borne diseases in Uganda, working in partnership with the Uganda Virus Research Institute.
- *FY 2011 budget.* NCEZID’s FY 2011 budget includes an overall reduction in budget authority of about \$8 million, with the largest cuts affecting budget lines for vector-borne diseases and emerging infections. However, NCEZID will receive PPHF funding in FY 2011 that will support core capacities and help implement electronic laboratory reporting (ELR) in state and local health departments, as well as continue HAI-related activities in the states as ARRA funding ends. Budget challenges include the erosion of the base budget, threats to maintaining core functions such as disease surveillance and reference diagnostic services, and implementation of CDC-led FSMA provisions that are not associated with additional funding.

Follow-up questions from BSC members and other meeting participants along with responses from Dr. Bell are summarized as follows:

- Regarding a CSTE survey on foodborne disease epidemiologic capacity that concluded that states are often unable to secure isolates during foodborne outbreak investigations due to lack of staff and resources, Dr. Bell stated that erosion of CDC’s base budget also affects state programs that receive federal support, such as PulseNet, the national surveillance system for identifying and linking foodborne disease outbreaks. In addition, during his presentation, Dr. Merlin will be discussing the

need for laboratory upgrades, including new diagnostics and improvements in obtaining and analyzing isolates. Suggestions from participants included providing states with specific examples of how to implement cost-effective improvements (e.g., related to PulseNet) and promoting success stories that can be used to illustrate the importance of public health activities.

- Regarding concerns about difficulties in obtaining HAI surveillance data as healthcare is increasingly provided outside of hospitals and clinics, Dr. Bell noted that we recognize that continued HAI reduction efforts need to include a focus on dialysis clinics and other healthcare delivery activities that occur outside of hospitals.
- Regarding the role of the Department of Homeland Security (DHS) in infectious disease detection and diagnostics development, Dr. Bell explained that DHS operates the BioWatch program, which includes “sniffer detectors.” The LRN acts as a back-up for BioWatch (i.e., confirming positive results), and CDC epidemiologists provide technical expertise. When a positive result is confirmed, the investigations involve state and local public health departments and CDC.

NCHHSTP

Dr. Hazel Dean, NCHHSTP Deputy Director, provided updates from the center and its divisions.

- *Staff/organizational changes.*
 - Former BSC member Dr. Gail Bolan joined CDC in early 2011 as Director of DSTDP. Most recently, Dr. Bolan served as chief of the STD Control Branch of the California Department of Public Health.
 - Most of CDC’s Division of Adolescent and School Health (DASH) is moving from the National Center for Chronic Disease Prevention and Health Promotion to NCHHSTP. The transfer is intended to improve coordination between HIV school health and other HIV prevention programs.
- *FY 2011 budget.* NCHHSTP’s FY 2011 budget authority includes an increase of \$27.7 million to support the *National HIV/AIDS Strategy*. However, the overall budget decreased by \$28 million because of reduced funds from the ACA PPHF. The budget for TB programs decreased by \$4 million.
- *NCHHSTP strategic plan.* Issued in February 2010, the plan focuses on several priorities including prevention through healthcare; program collaboration and service integration; health equity; global health protection and health systems strengthening; partnerships; and workforce development and capacity building.
- *FY 2010 NCHHSTP annual report.* Highlights include implementation of the [National HIV/AIDS Strategy](#), declines in TB rates, development of an HHS plan to combat viral hepatitis (see below), and initiatives to mobilize communities and promote health equity.
- The Division of HIV/AIDS Prevention (DHAP) established an online [community blog](#) and a lecture series on the history of the AIDS epidemic.
- The Division of Viral Hepatitis (DVH) worked with other HHS agencies to develop [Combating the Silent Epidemic of Viral Hepatitis: Action Plan for the Prevention, Care & Treatment of Viral Hepatitis](#).
- DSTDP developed a legal/policy toolkit for implementing [Expedited Partner Therapy](#) (EPT) and is supporting a grant program entitled [Community Approaches to Reducing Sexually Transmitted Diseases](#).
- The Division of TB Elimination (DTBE) completed a clinical study that validated a shorter (3 months vs. 9 months) regimen to treat latent TB infections, and implemented a laboratory service for state and local health departments that uses molecular detection to identify drug-resistant strains of TB.

- *Upcoming events.*
 - [National TB Conference](#) in Atlanta, June 15-17
 - Consultation on *Prevention through Healthcare: Enhancing Health Departments' Preparedness and Response* in Atlanta, June 20-21
 - [National HIV Prevention Conference](#) in Atlanta, August 14-17
 - Anticipated release of the *2011 STD Laboratory Guidelines* in late summer.

In response to a question regarding CDC's plan for guiding health departments in light of new data on immediate use of antiretroviral therapy to prevent further transmissions, Dr. Dean stated that CDC may convene a group of experts to make public health recommendations based on the new findings.

ICU

Dr. Steve Redd, ICU Director, noted that ICU had been in the "preparedness mode" since its inception in 2006 until 2009 when it went into the "response mode" during the 2009-2010 H1N1 pandemic. Today, the ICU is moving from "response mode" back to normal operations, while taking stock of lessons learned from these experiences.

Dr. Redd reported that the U.S. public health response to the H1N1 pandemic (including immunization with the H1N1 vaccine and treatment with antiviral drugs) prevented an estimated 5-10 million cases of disease, 30,000 hospitalizations, and 1,500 deaths. During and following the response, influenza awareness increased among the public and the news media, and the public health system acquired new partners in ongoing efforts to promote seasonal influenza vaccination (e.g., the Department of Education). A year after the pandemic (winter 2010-2011), seasonal influenza vaccination coverage increased to 43%—the highest ever achieved, with an estimated 49% of children and 45% of pregnant women vaccinated. Other data showed that 35 states used school clinics for seasonal influenza vaccination, and 18% of vaccinated adults received their vaccines at retail pharmacies.

ICU is currently implementing an improvement plan based on after-action reviews from the 2009 H1N1 pandemic covering issues related to medical countermeasures and antiviral drug distribution, diagnostic tests, modernization of vaccine production, and use of respirators and ventilators. ICU is also engaged with the Office of the Assistant Secretary for Preparedness and Response (ASPR) in a series of reviews across the spectrum of pandemic preparedness to assure alignment of pandemic preparedness efforts across HHS. Last March, CDC held an exercise involving a scenario in which a human strain of H5N1 appeared in Egypt, causing more severe illness than H1N1. ICU used this exercise to examine and help address some of the challenges that arose during the H1N1 pandemic.

Dr. Redd mentioned two upcoming reviews that may be of special interest to BSC members: a review of the U.S. H1N1 response by the U.S. Government Accountability Office (GAO) and a review of the international response by WHO, with special attention to the role of the International Health Regulations (IHR). Dr. Redd also reported that a tentative international agreement on virus-sharing was reached a few weeks ago. Under this agreement, industry will support the activities of the WHO Global Influenza Surveillance Network (formerly the WHO Global Influenza Response Network) and help developing countries participate in it.

Dr. Redd concluded by listing three threats related to influenza:

- *The viral threat.* Influenza virus changes all the time. Two months ago a surveillance project in Dhaka detected mild human cases of H5N1, and other human H5N1 cases continue to appear in Bangladesh, Egypt, and other countries.

- *The budget threat.* Emergency response funding—which states have been allowed to carry over from the H1N1 response—will run out on July 31. Emergency funds provided to CDC by HHS during the H1N1 pandemic (via the HHS Public Health and Social Services Fund) will also run out this year.
- *The complacency threat.* We must always remain vigilant.

Follow-up questions from BSC members and other meeting participants along with responses from Dr. Redd are summarized as follows:

- Regarding whether the CDC budget for influenza activities changed between FY 2010 and FY 2011, Dr. Redd stated that until 2010, the major funds for influenza preparedness and response were supplemental funds that do not show up as reductions in the budget. This money is no longer available.
- Regarding how the decrease in CDC funding will affect the states, Dr. Redd stated that cooperative agreement funds for emergency preparedness will continue to go out to the states through OPHPR, but those funds are expected to be reduced.

NCIRD

Dr. Anne Schuchat, Director, NCIRD, provided updates on organizational changes and recent activities.

- *Staff/organizational updates.*
 - New NCIRD senior staff appointments include Dr. Mark Pallansch, Director, Division of Viral Diseases, and Dr. Jessie Wing, Deputy Director, Immunization Service Division.
 - NCIRD Management Official Ms. Anjella Vargas-Rosales received a Federal 100 Award for her leadership in implementing [VTrckS](#), CDC's web-based system for ordering and tracking vaccines.
 - The Global Immunization Division (GID) will move from NCIRD to CGH in October. The polio and measles laboratories will remain at NCIRD.
 - NCIRD will move to Building 24 this summer, which will be the first time the whole center will be on one campus.
- *Activities and accomplishments.*
 - Estimated return on investment on childhood vaccines. CDC health statisticians report that for each U.S. birth cohort vaccinated against 13 childhood diseases in accordance with Advisory Committee for Immunization Practices (ACIP) recommendations, an estimated 42,000 lives are saved, 20 million cases of disease are prevented, and \$13.6 billion in direct costs are saved (\$68.9 billion, if indirect costs are included). For each dollar invested, \$10.20 is saved. (*See also:* Report by Dr. Lance Rodewald, Director, Immunization Services Division, on modernization and upgrading of the U.S. immunization system, included in panel presentations.)
 - Pertussis outbreak. The preliminary results of a case-control study suggest that the resurgence of pertussis in California was due to moderate waning immunity among children 7-10 years old who were immunized with the acellular pertussis vaccine. The resurgence does not appear to be associated with vaccine refusal or with the emergence of a new bacterial strain. If confirmed, these findings may lead to changes in immunization policy related to use of acellular vaccines.
 - Measles importations. At least nine small outbreaks of measles have occurred in the United States in 2011, mostly due to importations from Europe (especially from France, where thousands of cases have been reported).

- Rotavirus. The introduction of the rotavirus vaccine has had a remarkable impact around the world, as described in a January 2011 supplement to the [Pediatric Infectious Disease Journal](#). GAVI partners plan to help ministries of health introduce the rotavirus vaccine into additional Asian and African countries over the next 5 years.
- Vaccine refusal. Behavioral research suggests that healthcare providers are the key to informing parents about the benefits of vaccines. CDC has produced an online [provider’s guide](#) on these issues.
- Influenza. The production of seasonal influenza vaccine increased after the H1N1 pandemic, and vaccine distribution is occurring earlier in the year. Contrary to expectations, vaccine coverage also increased, instead of returning to pre-pandemic levels (*See also*: ICU update).
- Polio. The Bill Gates annual letter designated polio eradication as the Gates Foundation’s top priority. CDC is continuing to train [Stop Transmission of Polio](#) (STOP) team members to work in affected countries.
- Global pandemic preparedness. An analysis of pandemic preparedness improvements in 36 countries that received bilateral support from the United States indicated significant progress (CDC, unpublished data). Forty countries are currently reporting cases to [FluNet](#) and submitting isolates.
- Meningitis A. Nearly 20 million persons have been immunized with meningitis A conjugate vaccine in Burkina Faso, Niger, and Mali, through a 10-year collaborative project. Only two cases were reported in these countries this season. In June, GAVI will introduce the vaccine in Nigeria and Chad.

Following her presentation, Dr. Schuchat was asked about a recent study indicating that children are more likely to be vaccinated in private settings and that during the H1N1 pandemic private vaccine administration worked better than large-scale delivery by the public sector. Specifically, she was asked whether data from immunization registries could be used to confirm these findings and guide policy on vaccine delivery. Dr. Schuchat stated that vaccine registries are a big priority for NCIRD, and projects funded through ACA include CMS reporting incentives for providers. This is a great opportunity to use registry data to analyze vaccine delivery patterns. Regarding the study findings, Dr. Schuchat cautioned against drawing broad conclusions. If there had been enormous amounts of severe disease during the H1N1 pandemic, large-scale, community-based public-sector vaccination programs might have been necessary, as healthcare providers would have been busy caring for ill patients. As it was, however, there was significant variation from state to state on how the H1N1 vaccine was delivered. Private delivery is typical for children, while adults are frequently immunized in the workplace or at chain stores. Also, many older children—like many adults—do not see doctors on a regular basis but may be vaccinated at school. To ensure good coverage, we need to bridge the public and private sectors.

CGH

Dr. Larry Slutsker, Associate Director for Science, CGH, noted that increasing CDC’s global health impact is one of the five agency priorities identified by CDC Director Dr. Tom Frieden. CDC is a major partner in the U.S. Global Health Initiative, which is co-led by the Directors of CDC, USAID, and the White House Global AIDS Office.

- *Organizational updates.*
 - An external global health workgroup convened by CGH Director Dr. Kevin De Cock recommended that CGH envision its potential to improve global health, develop a strategic plan, emphasize partnerships, and develop a “strategic voice” in setting global goals and priorities.
 - As noted earlier, NCIRD/GID is moving to CGH in October.

- *CGH budget.* Funding for Global HIV/AIDS, including the President's Emergency Plan for AIDS Relief (PEPFAR), makes up 82% of CGH's budget. Current funding is flat, with no major cuts in FY 2011.
- *Activities and accomplishments.*
 - One CDC. CGH is developing a "One CDC" approach to better coordinate global health efforts in each country where CDC staff are working.
 - HIV/AIDS. During its first 5 years, PEPFAR support for programs that prevent mother-to-child HIV transmission resulted in nearly 240,000 babies of HIV-positive mothers being born HIV-free.
 - Malaria. Interventions conducted under the [President's Malaria Initiative](#) and with other global partners have reduced childhood mortality by 23%-36% in seven focus countries.
 - Global Disease Detection (GDD). In 2010, CDC's GDD centers provided rapid response assistance for 156 disease outbreaks and public health emergencies, including outbreaks of Rift Valley fever, viral hemorrhagic fever, and dengue fever in more than 10 countries.
 - Field Epidemiology and Laboratory Training Programs (FELTPs). From 1980 to 2011, FELTPs trained 2,376 epidemiologists in 41 programs in 57 countries.
 - Immunization. International vaccination efforts helped reduce measles deaths in Africa by 92% from 2000 to 2008. Globally, measles deaths declined 78% from 2000 to 2008.
 - Other global health activities related to infectious diseases include efforts to reduce TB (including drug-resistant TB) and neglected tropical diseases (NTDs), to advance safe water projects, and to improve refugee health.
- *Global Winnable Battles.* CDC has established three global infectious-disease-related *Winnable Battles*: reducing mother-to-child HIV transmission and congenital syphilis globally, achieving and sustaining global immunization initiatives (e.g., polio eradication), and eliminating lymphatic filariasis in the Americas.
- *Noncommunicable diseases.* CGH is also addressing global health issues related to chronic diseases (e.g., cardiovascular disease and stroke, obesity and diabetes, chronic respiratory disease, cancer, and injuries) and related disease risk factors.

Following Dr. Slutsker's presentation, one BSC member commented that CGH has a significant role to play in coordinating and adding value to global health efforts and that the development of specific indicators and achievement measures is especially important.

PANEL DISCUSSION: TRANSITIONING INFECTIOUS DISEASE PROGRAMS IN AN ERA OF CHANGE

Following opening presentations, a panel presentation was given that focused on the theme of the meeting, and in particular implications for infectious disease prevention programs from current changes in healthcare and funding. The five CDC panelists were chosen for their expertise in the following areas: prevention through healthcare, immunization in a transformed healthcare system, meaningful use and ELR, core infectious disease public health capacities, and opportunities in infectious disease services delivery.

Prevention through Healthcare

Dr. Chesley Richards, Director, CDC Office of Prevention through Healthcare, described four interagency programs that advance prevention through healthcare:

- *Health risk assessment (HRA).* The goal of the HRA project is designed to develop a standardized way to assess an individual's future health risks. The HRA will become a component of the annual

wellness visit mandated for Medicare beneficiaries under ACA, and may also be used by individuals or insurers to develop personalized prevention plans. Section 4103 of the Act designates CMS as the responsible agency for the HRA project, and CMS has asked CDC to develop a standardized method for conducting an HRA. The development process (which involved extensive input from partners and stakeholders) is nearly complete, and the draft HRA guidance will be published in *MMWR* in late summer.

- *Integration of primary care and public health.* The Health Resources and Services Administration (HRSA) and CDC are funding an Institute of Medicine (IOM) consensus study on integration of primary care and public health that aims to improve population health outcomes, eliminate health disparities, and promote responsible stewardship of public resources. A major aim is to leverage, improve, and support a shared workforce. The IOM workgroup has been charged with developing best practices and examples of effective integration, with reference to accountability, workforce strengthening, governance, financing, and care coordination. The study will address the use of health IT and electronic health records (EHRs; e.g., in care of patients with TB, HIV, and viral hepatitis and in implementing sentinel surveillance for such conditions as autism and birth defects). The study will focus on cardiovascular disease and one or more additional “care areas” related to chronic or infectious diseases or to injuries. Within each care area, the committee will address issues related to scientific questions, finance, governance, health IT, delivery systems and practice, policy, and workforce education and training.
- *Partnership for Patients.* The 2010 Office of the Inspector General report [Adverse Events in Hospitals: National Incidence among Medicare Beneficiaries](#) found that 13.5% of patients experienced adverse events during their hospital stay. The report concluded that the Agency for Healthcare Research and Quality (AHRQ) and CMS should broaden their patient safety efforts to include all types of adverse events. As a result, the CMS Center for Medicare and Medicaid Innovation is awarding up to \$1 billion in new funding to state and community-level organizations and hospital networks to reduce hospital harms, preventable re-admissions, and healthcare costs. CDC is assisting CMS in measuring benchmarks, resolving scientific issues, and reaching out to state health departments to help achieve these goals. Other participating agencies include AHRQ, HRSA, the Office of the National Coordinator for Health IT, the Indian Health Service, the Department of Veterans Affairs, and the Department of Defense.
- *Community health needs assessments/benefits.* To maintain tax-exempt status, the IRS has ruled that each charitable (non-profit) hospital must conduct a community health needs assessment (CHNA) and create an implementation strategy to address unmet needs. Mandatory CHNA reporting will begin in 2012, and a mandatory review of tax-exempt status will be required every 3 years. CHNA reporting must include input from persons who represent the broad interests of the community, including those with public health expertise. CDC is assisting the IRS by coordinating a CHNA development process similar to the one used to develop the HRA (described above). A draft guidance document may be ready for publication by late 2011.

Immunization in a Transformed Healthcare System

Dr. Lance Rodewald, Director, Immunization Services Division, NCIRD, provided an overview of current efforts to modernize and upgrade the U.S. immunization system, in accordance with ACA.

Before 2010, the major tools to advance immunization in the United States were the Vaccines for Children (VFC) and Section 317 programs. VFC provides an entitlement to vaccines for certain financially vulnerable children. As part of VFC, states have the option of using their funding to purchase discounted vaccines, using CDC’s vaccine contracts. Before 2010, most health insurance policies covered childhood vaccination and provided a vaccine administration fee to healthcare providers. Most health insurers and Medicare covered adult vaccines, also with an administration fee.

Although these tools were helpful, they were incomplete. For example, private health insurance coverage for vaccines was voluntary and incomplete, and Medicare Part B included only influenza vaccines and the polysaccharide pneumococcal vaccines, with other vaccines covered in Part D (prescription drug coverage). Also, states did not have authority to use CDC vaccine contracts for adult vaccines.

ACA implementation

- *Tools.* ACA is bringing major changes, including a health insurance mandate for coverage of vaccination of people of all ages, with ACIP setting standards for coverage, and the elimination of cost-sharing and co-payments. Under ACA, states can use CDC's adult vaccine contracts, and the Medicaid/VFC vaccine administration fee (set very low in some states) will be elevated and standardized in 2013 and 2014. In addition, GAO is studying a proposal to include all ACIP-recommended vaccines in Medicare Part B.
- *Implications.*
 - With 13 childhood vaccine-preventable diseases included in the CDC/ACIP schedule, vaccine costs have risen dramatically and underinsurance is a major problem. Full ACA implementation will make a major difference in nationwide access to childhood vaccines. Virtually all children will have access to vaccine, either through VFC or through private insurance.
 - The primary use for Section 317 funds since 1994 has been to fill the VFC underinsurance gap. With full ACA implementation, Section 317 vaccine purchase funding will not be needed for underinsured children, because health insurance vaccine coverage mandates will eliminate underinsurance. Thus, in the future, Section 317 funds may be used for other purposes, such as providing vaccine coverage to uninsured adults (e.g., adults at risk for hepatitis B) and improving outbreak control.
- *Transition.* Because some "grandfathered" insurance plans are not required to implement the new rules about vaccine coverage, some children will remain uninsured. CDC and partners are continuing to provide vaccine to underinsured children in public sector settings and to strengthen health department clinics with Section 317 funding. Other transition actions include
 - Administering PPHF grants to improve immunization infrastructure at public health departments (e.g., develop IT solutions to improve tracking and accountability)
 - Developing partnerships (e.g., with retail pharmacies and workplaces) that make ACIP-recommended vaccines available to adults
 - Monitoring the impact on vaccine coverage of raising vaccine administration fees in 2013 and 2014
 - Using financial incentives to improve rates of influenza vaccination among healthcare workers.

Follow-up questions from BSC members and other meeting participants along with responses from Dr. Rodewald are summarized as follows:

- Regarding whether vaccine coverage has improved for teenagers, Dr. Rodewald stated that vaccine coverage for teens has improved since 2006, but much less than for younger children. The problem of underinsurance as a barrier to vaccination is twice as common for teens as for younger children.
- Regarding implementation of recommendations issued by the National Vaccine Advisory Committee under ACA and the need for documenting and measuring improvements, Dr. Rodewald commented that CDC proposes to use vaccine registry data to document increases in coverage and to determine whether having a uniform vaccine administration fee has an impact on coverage.
- Regarding the need to sustain the ACA-mandated changes, Dr. Rodewald emphasized that this will be a major leadership opportunity for CDC.

Meaningful Use and ELR

Seth Foldy, Director of the Public Health Informatics and Technology Program Office, CDC Office of Surveillance, Epidemiology and Laboratory Services, described the public health implications of the 2009 Health IT for Economic and Clinical Health (HITECH) Act of 2009, which is part of ARRA. The HITECH Act includes incentives to advance the use of health IT (especially EHRs) as a component of a unified national healthcare infrastructure. The Act supports meaningful use of health IT by healthcare providers to improve healthcare quality and safety, reduce costs, eliminate health disparities, and improve public health.

In the future, health IT may improve disease surveillance, prevention, and public health effectiveness and efficacy. By advancing adoption of nationwide standards and protocols for electronic exchange of health information, the HITECH Act will help move the public health system towards the following:

- *Interventional epidemiology.* EHRs and information exchange will enable near real-time reporting of acute public health threats (e.g., through ELR from clinical laboratories to public health departments), electronic immunization registries, and syndromic surveillance reporting. It will also improve interaction between public health departments and providers (e.g., by providing patient-specific alerts related to foodborne outbreaks, as done in a pilot program).
- *Prevention-oriented healthcare.* EHRs and information exchange will enable monitoring of health system performance (e.g., vaccine coverage and HAI reduction), better coordination across the healthcare system, and interaction with patients about preventive care (e.g., by issuing automatic reminders).
- *Public health effectiveness and productivity.* EHRs and information exchange will support interoperable applications of standardized data, digital alerts, and person-centered records that link information across multiple programs.

HITECH's Meaningful Use Incentive Program will take place over three 2-year stages in which providers and hospitals receive Medicare and Medicaid incentives for achieving objectives related to meaningful use of EHRs. Population and public health objectives for Stage 1 include the following:

- *ELR.* ELR from hospitals to health departments is a major priority for Dr. Frieden. About 40% of lab reporting to public health departments is already electronic—though largely from commercial and public health laboratories rather than hospital laboratories—and its utility has been demonstrated in several states. ELR allows faster notification and better case ascertainment and reduces the reporting workload, especially for high-volume tests. The HITECH-related incentives are expected to bring many more hospitals to adopt ELR. However, new ELR standards and short timelines may present challenges to public health departments, because of complex rules, lack of IT expertise among employees, and a need to migrate to new systems and adopt new standardized messages and protocols.
- *Immunization information systems.* Immunization registries are well established in most states, helping providers keep patients up-to-date on immunizations and helping public health agencies and schools assure full vaccination. Interoperability with EHRs increases their usefulness, enabling information exchange among healthcare providers, patients, public health workers, and vaccine suppliers.
- *Public health surveillance of syndromic presentations.* Electronic syndromic surveillance systems are well established in many states and cities, allowing earlier warning of increases in disease syndromes (e.g., diarrheal or respiratory diseases) that might be due to natural or terrorism-related outbreaks. The federal BioSense system is being redesigned to integrate state and local syndromic surveillance systems, which will remain under the control of the state or local jurisdiction.

HITECH Stages 2 and 3. While ELR is clearly useful for hospitals, its usefulness in reporting outpatient laboratory data remains under discussion. Federal advisory panels are considering how best to implement public health case-reporting, which may include both laboratory and non-laboratory information. Stage 2 is likely to involve case-reporting by cancer registries, while Stage 3 may extend similar technology standards to outpatient case-reporting of infectious diseases and other conditions. For Stages 2 and 3, public health departments will need valid, standardized, EHR-ready methods, as well as readiness to receive and use electronic case reports.

Core Infectious Disease Public Health Capacities

Dr. Toby Merlin, Director, DPEI, NCEZID, addressed the impact of current economic and scientific trends on core public health infectious disease capacities, defined as general resources to detect, monitor, respond to, and prevent the spread of infectious diseases. Public health requires coordinated, team action from many people at many levels. Because of the recession which began in 2007, most states (at least 40) have reduced funding to public health agencies, leading to reduced workforce capacity and programs. More than 15,000 state health department jobs have been lost, as well as nearly 30,000 jobs at local health departments. In the future, federal support to state and local health departments (~45% of health department funding) may also decrease. As CDC's budget decreases, the agency will have less funding to pass on to the states.

The ELC program is CDC's flagship capacity-building program for infectious diseases, assembling funds from different CDC groups into a single grant mechanism that provides funds to states and some cities for epidemiologic and laboratory improvements. The basic ELC funding has declined since 2001 (even without accounting for inflation). The program received supplemental funding during the H1N1 pandemic and through ARRA (in 2009) and ACA (2010-2011). Currently, the underlying federal funds from CDC are at risk, and the PPHF funds from ACA, which were supposed to enhance ELC funding, are themselves at risk. CDC and state health departments are challenged to demonstrate the economic value of public health programs and to improve their efficiency and effectiveness wherever possible.

Health and Technology: A Double-Edged Sword. Increasing use of EHRs and molecular diagnostics are generating huge amounts of data for analysis by epidemiologists and laboratorians. Other changes affecting public health practice include increased use of rapid, point-of-care diagnostics and increased delivery of healthcare outside of traditional settings. One negative consequence of these changes is a decrease in the availability of clinical specimens, due to the growing use of culture-independent testing methods and testing performed outside of routine clinical settings. Future changes that may exacerbate this trend away from isolating pathogens from clinical specimens include development of tests that can identify multiple organisms in a single specimen (e.g., the Luminex test kit for respiratory diseases) and affordable whole genome sequencing.

The loss of clinical specimens could negatively impact PulseNet. Dr. Merlin noted that the operating costs of PulseNet are relatively small (a few million dollars per year) while the estimated savings from early detection and control of foodborne disease outbreaks are in the billions (unpublished draft report commissioned by APHL with support from CDC). Public health requires laboratory data to recognize and control outbreaks of foodborne diseases, and these data may soon be unavailable from clinical specimens.

Infectious Disease Services Delivery—Opportunities

Dr. Gail Bolan, Director, DSTDP, NCHHSTP, reviewed ways to “re-think” provision of STD preventive services in a health system transformed by declining public health infrastructure and

competing public health priorities. According to a recent study, a majority (69%) of state/local STD programs experienced funding cuts and reduced services in 2008-2009. These cuts led to salary freezes, furloughs, shutdown days, and layoffs.*

Dr. Bolan noted that in the past most STD prevention services involved individual interventions that were provided through the public sector, especially by specialty STD clinics, community-based organizations (CBOs), and disease intervention specialist prevention programs. STD prevention tools include health education, vaccination of at-risk individuals, and identification and treatment of infected individuals (e.g., via screening and partnership notification, with linkage to treatment).

- *Drivers of change.* Under ACA, individuals will have increased access to health insurance, with no cost-sharing for clinical preventive services recommended by the U.S. Preventive Services Task Force, ACIP, and HRSA. Moreover, community health centers will play an expanded role in providing primary care to populations at risk for HIV, STDs, TB, and viral hepatitis. Finally, there will be increased investments in health IT, while promoting meaningful use of health IT data.
- *Opportunities.*
 - Prevention through healthcare. ACA-enabled opportunities include scale-up of quality STD prevention services, similar to the scale-up of STD prevention services provided at family planning clinics through the [Infertility Prevention Project](#). Moreover, expansion of Medicare to 133% of poverty level and greater use of federally qualified health centers (FQHCs), community health centers, and school-based health centers will increase the number of at-risk individuals who have access to quality prevention services. These activities will advance program collaboration and service integration, as described in the [NCHHSTP strategic plan](#).
 - Strengthening surveillance through health IT. Health services research and public health surveillance have a shared interest in advancing data sources and methods. For example, quality-of-care measures developed for research may also be used as public health measures for quality assurance purposes. Health IT tools may also provide new mechanisms for disease surveillance, assessment, assurance, and quality indicator initiatives. For example, EHRs that provide comprehensive, longitudinal data on well-defined patient populations could dramatically improve infectious disease surveillance.
- *Challenges.*
 - Safety-net issues. Because insurance coverage does not equal access, CDC and partners must continue to assess ongoing need for safety-net STD prevention services and obtain resources, as needed, to sustain them. Other challenges include ensuring ongoing assessment of coverage and quality of STD prevention services (including services provided by FQHCs and Medicaid providers) and overcoming obstacles to the delivery of critical services (e.g., confidential care for sensitive services provided to adolescents and same-day empiric treatment with intramuscular antibiotics for patients with suspected syphilis and their contacts).
 - Barriers to use of health IT. The adoption of health IT tools and meaningful use of data to strengthen disease surveillance must consider the varying resources and IT capacities of state and local health departments. Other obstacles include a lack of interoperability between IT systems, the size and complexity of potential new data sources, and concerns about privacy and confidentiality.
- *Solutions.*
 - Infrastructure approaches to advancing STD prevention through healthcare. Depending on local conditions, safety-net issues may be addressed by including STD prevention services, including

* Wong W, Miller S, Rabins C, Bertrand T, Thompson K, Aubin M, Longfellow L, Bolan G, Leone P, Kerndt P. STD Program Capacity and Preparedness in the United States: Results of a National Survey, 2009. National STD Prevention Conference; Atlanta, GA, March 2010.

specialty clinics, as part of “medical homes”[†]; by designating STD prevention providers such as clinical experts and disease investigation specialists as part of an “essential community providers”[‡] network that serves high-risk and underserved individuals; and/or by fostering collaborations between public health programs and healthcare providers who serve at-risk populations. Other public health actions might include upgrading IT and EHR systems; providing guidance, tools, training, and technical assistance; and identifying reimbursement mechanisms for risk counseling, diagnosis, treatment, and partner services.

- System approaches to advancing STD prevention through healthcare. Public health departments can play an expanded role in assuring the quality of STD prevention services and assessing their impact, in monitoring access to prevention services and identifying safety-net needs, and in developing better metrics to measure health outcomes. These changes will require realignment of public health staff to meet new responsibilities related to disease surveillance, data analysis, evaluation, quality assurance, and policy.
- *Conclusions.* More focus is needed on assessment, assurance, and policy development, with less focus on services delivery, except for safety-net services. More focus is also needed on using health IT to strengthen surveillance, assessment, and assurance activities and on realigning public health staff to meet these new challenges.

Follow-up questions from BSC members and other meeting participants along with responses from panelists are summarized as follows:

- Regarding whether efforts to increase vaccination coverage under ACA will include vaccination of people affected by occupational disease exposures or exposures while traveling, Dr. Rodewald responded that the ACIP recommendations target at-risk groups of children and adults, which may include adults in certain occupations (e.g., healthcare workers exposed to influenza). However, ACIP is unlikely to address travel exposures.
- Regarding whether data showing variability of vaccine administration fees in different states could be used to determine if lower fees lead to less coverage, Dr. Rodewald responded that no such association has been found. A study of vaccination coverage by the University of Rochester found that a fee of 8% or more decreased coverage by only 6%-9%. However, that study compared year-long averages and did not assess effects on day-to-day practice. When we evaluate the effects of higher fees in 2013 and 2014, we will not only measure coverage rates but also determine whether a higher fee helps retain participating providers.
- Regarding whether CDC is considering the needs of rural communities (where access to insurance is low and unemployment high) in the development of CHNA, Dr. Richards responded that CDC is looking at both rural and urban communities to determine how best to make assessments in these environments. The IOM study on integration of primary care and public health will also examine assessment issues specific to rural communities.
- Regarding the progress toward integrating EHRs into healthcare, Dr. Foldy replied that nationwide adoption of EHRs remains a challenge. Although IT provides faster and more secure communications, one downside is the “mass spill” (i.e., security) problem: it is more difficult to steal huge amounts of paper records than to download electronic ones.
- Regarding whether states may drop core activities to address funding shortfalls, Dr. Merlin stated that CDC is working with state partners, monitoring state-based solutions, and learning from states that are experimenting with different approaches to cost-saving (e.g., regionalization of newborn screening by New England states or consolidation of local health departments within a state). Many

[†] A model for organized primary care in which patients receive preventive, acute, and chronic care from a physician-led medical team.

[‡] A state-designated healthcare provider who serves high-risk, special needs, and underserved individuals.

of these efforts are being coordinated by the Laboratory Science, Policy and Practice Program Office (Dr. May Chu, Director) in the Office of Surveillance, Epidemiology and Laboratory Services.

- Regarding the extent to which low vaccine coverage is due to vaccine refusal, Dr. Rodewald replied perhaps 9%-11% is related. A major factor is low vaccination among teenagers, many of whom are underinsured. Cost remains the main barrier, and ACA has provided tools to overcome that barrier.
- Regarding what questions the panelists would like board members to answer, the following responses were provided:
 - Dr. Bolan stated that STD clinics and other specialty clinics have provided a hub for public health research and training, and we need to know how these functions can be replaced in a new safety-net structure. A comment was made that specialty clinics also provide treatment and prevention information to healthcare providers who contact them daily. This service is an unmeasured benefit.
 - Dr. Merlin asked how the impact of epidemiologic and laboratory capacity-building efforts can be measured and reported to policy-makers so that they will understand these accomplishments. Related comments included the following:
 - In addition to furloughs and pay freezes, some health departments are undergoing hiring freezes that have a deleterious effect on core capacities.
 - Although having many small health departments is often inefficient, some states do not have enough local health departments to cover all communities.

BREAKOUT GROUP DISCUSSIONS

During lunch and continuing into the afternoon, BSC members and participants from partner organizations met in two groups to discuss transitioning infectious disease programs in an era of change. Specific topics for the groups were 1) *Identifying opportunities for advancing infectious disease prevention and control through changes in healthcare*; and 2) *Maintaining and strengthening core infectious disease capacities during challenging economic times*.

Group 1: *Identifying opportunities for advancing infectious disease prevention and control through changes in healthcare*

Participants: Joe Anelli, Carol Baker, Jack Bennett, Matt Boulton, Bruce Gellin, John Gittleman, Edward Hook, Harry Keyserling, Steve Ostroff, Christy Phillips, William Schaffner, Ken Scott, Julio Sotelo, Kathy Talkington, Bob Weinstein (group leader), Rich Whitley

Discussion topics and participant comments/suggestions included the following:

- **Ways to help ensure that public health needs are taken into consideration as the U.S. healthcare system evolves and that infectious disease prevention remains a national health priority**
 - Develop article(s) and/or devote an issue of *Emerging Infectious Diseases* to describe the impact of reduced financing to state and local health departments and CDC on the nation's health.
 - Promote the importance of preventing infections among at-risk (and potentially uninsured) groups (e.g., homeless persons, injection drug users) to both improve individual health and reduce disease spread in communities.
 - Analyze the impact of ACA provisions on reducing infectious diseases over time, describing how ACA-driven improvements affect morbidity, mortality, and healthcare costs.
 - Document the continued need for specialty clinics to provide preventive and treatment services for HIV, STDs, and other illnesses in at-risk groups.

- **Ways to strengthen public health partnerships**
 - Foster partnerships with medical and nursing schools, because implementation of ACA depends on a paradigm shift in medical education and care. Examples include strengthening clinical education in preventive medicine and public health, ensuring that clinicians understand the public health importance of collection and testing of clinical specimens, and assigning preventive medicine residents to community health clinics.
 - Create a cadre of public health workers assigned to hospitals and other healthcare venues to serve as liaisons to state and local health departments and oversee demonstration projects that evaluate ways to better integrate public health and healthcare. *Related comments:* This goal might be accomplished through a fellowship program modeled on the Epidemic Intelligence Service. A CDC assignee to the Cook County Hospital has served as a liaison to CDC over a number of years.
 - Build on existing partnerships with healthcare providers that were established to implement pediatric vaccination programs.
 - Offer incentives to primary care providers to encourage participation in public health activities and help transform the provider/public health relationship into a partnership that benefits both parties. HAI reporting through NHSN—accomplished by providing incentives to hospitals—might be a useful model.
 - Implement demonstration projects to prove the utility of public/private partnerships in reducing disease and healthcare costs.
 - Provide private-sector partners with data that demonstrate the value of public health efforts to detect, prevent, and control infectious diseases.
 - Identify activities where integration and collaboration among U.S. agencies would decrease healthcare costs. One example is interagency investigation of potential bioterror events; another involves disease prevention efforts in jails and prisons.

- **Ways to help advance meaningful use of EHRs**
 - Support longitudinal analysis to document the benefits of EHRs.
 - Provide healthcare partners with financial incentives for adopting EHRs.
 - Clarify how EHR data can be used in accordance with HIPAA provisions.
 - Establish a mechanism for integrating medical data on a single individual while avoiding duplication.
 - Build into EHRs an application that provides “ticklers” to remind providers about recommendations and guidelines and appropriate times for vaccinations and follow-up visits.
 - Build additional public health functions into EHRs, keeping in mind that EHRs were developed for billing purposes, not for health reasons.

Additional discussion and comments on EHRs included the following:

 - Immunization programs that employ electronic registries can use EHRs to generate vaccination reminders and summary statistics to demonstrate progress in achieving better coverage.
 - Pilot studies in New York City are underway to evaluate the quality of EHR data and use of these data in monitoring the provision of infectious disease preventive services.
 - HRSA and CDC are co-sponsoring an IOM study on integration of primary care and public health that addresses joint uses of EHRs (described earlier).

- **Ideas for leveraging opportunities to improve clinical and preventive care for infectious diseases**
 - Use social media to reach different, broader groups (e.g., building on the success of [text4baby](#)).

- Seek advice on public health use of social media from current users (e.g., teenagers, advocacy groups, industry, and lobbyists).
- Change provider behaviors by raising consumer expectations.
- Use shopper-card-type targeted messaging (i.e., similar to consumer-targeted coupons) directed at items the consumer is interested in).

Group 2: *Maintaining and strengthening core infectious disease capacities during challenging economic times*

Participants: Ruth Berkelman, Frank Cockerill (group leader), Rainer Engelhardt, Jim Hadler, Duane Hospenhal, Linda Lambert, Ruth Lynfield, Pat McConnon, Elissa Passiment, Paul Spearman, Jill Taylor, Bob Tesh, Mary Wilson

Discussion topics and participant comments/suggestions included the following:

- **Communications:** Ways to effectively characterize and communicate the benefits of core public health functions—in terms of health, lives, and dollars—and the societal costs if the U.S. public health system is unable to perform these functions
 - Our public health community needs to communicate who we are, what our core competencies are, and what value we provide. These ideas can best be conveyed through examples.
 - The audiences we need to reach include the general public, healthcare providers, state and local politicians, members of Congress, and other funders and policy-makers.
 - Mechanisms for reaching these audiences and maintaining public awareness of public health issues (i.e., not just during outbreaks) include
 - Engaging children through school programs, and engaging adolescents/adults through social marketing (e.g., Facebook), comic books, podcasts, consumer surveys, and “wiki-type” phone-texting applications (also described below)
 - Using lessons learned from advertising/marketing fields (e.g., branding and “elevator speeches”)
 - Using celebrity spokespersons, and creating high-profile partnerships and synergies.
 - Public health messages should emphasize the following:
 - How public health saves lives and dollars (e.g., promote high-impact statistics like the ones on immunization successes presented by Dr. Schuchat). This information must be accurate and clear and should be linked to stories about individuals and families.
 - How individuals can use public health information to protect their children and take charge of their health and lives.
 - How public health is essential to safety. The benefits of preventing infectious disease include better health and fewer deaths, as well improved economic productivity and savings in healthcare costs (e.g., how HAI prevention improves overall health outcomes for patients).
 - What Americans lose in terms of health and safety when public health programs are cut.
- **Cost-reduction strategies:** New, creative, and cost-saving ways of performing core public health functions, taking full advantage of new partnerships and opportunities
 - The public health community should identify and define core functions and what they cost.
 - Examples of mechanisms that could reduce costs at state and local public health departments include the following:
 - “Outsourcing” specific public health functions (e.g., STD preventive services) to private partners while assuming a greater role in providing guidance, monitoring health outcomes, and providing quality assurance.

- Leveraging public/private partnerships to improve disease surveillance or other core functions. An example would be CDC's receiving disease surveillance information from healthcare organizations.
- Regionalizing some laboratory and/or epidemiological functions. Regionalization may require some legal changes, because public health laws differ in states and localities. An example could be regionalization for laboratory testing for botulism.
- Consolidating small local public health departments into larger ones.
- Identifying best practices and creative solutions for reducing costs pioneered by U.S. states or cities, or by other countries (including resource-poor countries). For instance, the Massachusetts Department of Public Health could provide lessons learned from its experience in outsourcing STD clinics.
- Engaging members of the public in disease surveillance by developing a "wiki-type" phone-texting application that allows individuals to report notifiable diseases to their state health department and CDC.
- Identifying IT applications which have resulted in demonstrated cost-savings, e.g.,
 - Demonstrating to hospitals that the upfront costs of joining NHSN will result in cost-savings over the long term
 - Demonstrating to clinicians that the upfront costs of adopting EHRs will result in cost-savings over the long term.
- Exploring non-government sources of funding for infectious disease prevention activities at public health departments or CDC (e.g., endowments and foundations).
- CDC should provide tools and guidance to help state and local health departments transition smoothly into their expanded role in healthcare quality assurance, assessment, and policy development, in accordance with ACA goals.

CONCLUDING REMARKS

Following reports from the breakout groups and related discussions, Dr. Whitley stated that he and Dr. Khabbaz would be meeting with Dr. Frieden immediately following the BSC meeting. He asked members and partner representatives whether they had any questions or comments that they would like presented to Dr. Frieden. Questions/comments and responses are summarized as follows:

- **Are CDC's other advisory boards providing input to Dr. Frieden on issues similar to the ones discussed at today's meeting (e.g., changes in healthcare and funding constraints)?** Dr. Khabbaz replied that the CDC Director receives recommendations from several advisory boards (e.g., on global health issues and on improving public health capacities in states, localities, tribes, and territories), but that she does not recall discussions similar to those at today's BSC meeting; however, perhaps CDC's National Biosurveillance Advisory Subcommittee (NBAS) had addressed them. Dr. Schuchat added that NBAS has commented on how CDC might help states and localities with flexible funding and other assistance, but, unlike today's discussion, the NBAS discussions and comments were not focused on actions that health departments can take to change. However, it is very helpful to hear from all angles. Dr. Khabbaz added that NCHHSTP is sponsoring a consultation on prevention through healthcare in late June to discuss with medical partners, insurers, and other private sector groups ways to help states and localities. In addition, ASTHO and HRSA are holding a webinar tomorrow (5/19/2011) on the role of HRSA in supporting the state public health safety net.
- **What progress is being made regarding hospital infection control and reducing HAIs? What CDC offices are working on those issues?** Dr. Khabbaz replied that HAI reduction is the focus of DHQP/NCEZID. HAIs are also being addressed through the Partnerships for Patients project overseen by the Office of Prevention through Healthcare. Dr. Bell added that many of our

traditional activities also address HAIs (e.g., outbreak investigations, guidance and recommendations, and meetings of the Healthcare Infection Control Practices Advisory Committee [HICPAC]). Hospital infection control has a much higher profile than ever before—with initiatives undertaken beyond CDC because of ACA and interest from the White House. CDC has new connections and partnerships toward reducing HAIs, which the Office of Prevention through Healthcare helps to coordinate. Significant progress has been made toward HAI reduction in the last decade. This would be a good topic for a future BSC meeting.

- **A final comment concerned the importance of leveraging environmental and animal health resources (e.g., laboratory collaborations between the U.S. Department of Agriculture and CDC).** This topic is part of the “One Health” concept for preventing disease—the current theme for IDSA and another good topic for future BSC discussions.

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I hereby certify that to the best of my knowledge, the foregoing minutes of the proceedings of the meeting of the Board of Scientific Counselors, Office of Infectious Diseases, on May 18, 2011, are accurate and complete.

Richard J. Whitley, M.D., Chair

Date