DBD BULLETIN

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DIRECTOR'S SPOTLIGHT

regards from *Rana..*

Dear Colleagues,

As we wrap up this fiscal year, I would like to thank you for an extremely productive year, showing DBD at its finest! This year has been very eventful, requiring us to pull together all our resources to respond to the public health challenges that faced us and the many new opportunities.

Our staff responded quickly to control the meningococcal B outbreaks at multiple college campuses that caused significant concern among students, their parents, and school and public health officials. Staff also supported the response to global public health such as the MERS outbreak. Our division received funding for 5 important Advanced Molecular Detection Initiative proposals that will dramatically improve understanding of the epidemiology of our diseases and help us better control them. Our laboratory staff spent a lot of time this summer cataloguing their specimens to ensure the highest standards of safety are implemented. Meanwhile, staff worked actively and collaboratively to revise the division's strategic plan, a critical effort that will guide our direction for the next three years.

I cannot express enough how proud I am of the work you are doing. Though it's been a tough year, I call upon you yet again to continue your exemplary commitment by supporting the Ebola response in Africa, the largest international public health response that CDC has been involved in and one that's going to require tons of efforts to control, and to save lives.

-Rana

Photo: MenB vaccine clinic at Princeton University, December 2013. Photo by Amaris Hardy/Princeton University

this issue

MVPDB Responds to Simultaneous MenB Outbreaks in the United States

Outbreaks of meningococcal disease are rare, so having outbreaks at two universities on opposite sides of the country in 2013 made for an exceptional and challenging year for the Meningitis and Vaccine Preventable Diseases Branch (MVPDB).

Meningococcal disease is a serious and life-threatening infection, with 10-15 out of 100 cases dying; survivors will often lose limbs or suffer brain damage. While three serogroups of meningococcal bacteria circulate widely in the United States (B, C, and Y), there are only vaccines available and recommended in the United States to protect against two of those serogroups (C and Y).

According to **DBD director Rana Hajjeh**, "With nearly a third of the 500 annual cases of meningococcal disease in this country caused by serogroup B, the absence of a B vaccine has been a gap in our ability to control this disease."

The first vaccine to protect against a wide variety of serogroup B strains (MenB vaccine) was licensed in Europe in early 2013.*

Not long following this European licensure, Princeton University, along with New Jersey public health officials, alerted CDC that two students and one prospective student tested positive for serogroup B meningococcal disease (MenB). Scientists in MVPDB recognized the importance and challenges of making the European MenB vaccine available in New Jersey to prevent additional cases of this devastating disease.

Laboratory Provides Critical Support
The CDC Meningitis laboratory played a crucial role in confirming the outbreak and ensuring that the vaccine would cover the outbreak strain.

At Princeton University, 8 cases of meningococcal disease occurred over a 9-month period spanning 2 academic years. School-based clusters and outbreaks of meningococcal disease are rare, typically accounting for only 2 to 4 cases annually and cases usually cease during summer breaks when students are no longer in close quarters or contact. It was evident to MVPDB scientists that this outbreak was not typical. The attack rate at Princeton University was over 130 per 100,000 persons, the highest reported for a MenB outbreak in the United States.

"The data related to this outbreak was troublesome," said **Tom Clark, acting branch chief of MVPDB** at the time. "To have cases return after the summer break indicated that transmission had not been interrupted."

Following an Epi-Aid in early October 2013, CDC recommended MenB vaccination for groups identified at increased risk. Because the only currently available MenB vaccine was not licensed in the United States, access to the vaccine required an Expanded Access Investigational New Drug (IND) application with the U.S. Food and Drug Administration (FDA). While the IND process was underway, staff across CDC worked quickly to implement the required actions for expert legal review of all documentation; submit an institutional review board application; develop a logistics plan to import the MenB vaccine from Europe and operational plans for on-site vaccine clinics; design recruitment, communications and patient education materials; and, importantly, plan for adverse event reporting. Many of these activities took place during the lapse in appropriations in October 2013.

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New Funding for Advanced Molecular Detection

In the spring of this year, DBD was awarded $2 million to launch 5 new projects using advanced molecular sequencing tools along with cutting-edge information technologies and bioinformatics. Funded proposals from DBD experts focus on using advanced molecular detection (AMD) to enable faster and more effective infectious disease prevention and control related to *Bordetella pertussis, Legionella, Neisseria meningitidis, Streptococcus pneumoniae,* and unexplained respiratory outbreaks:

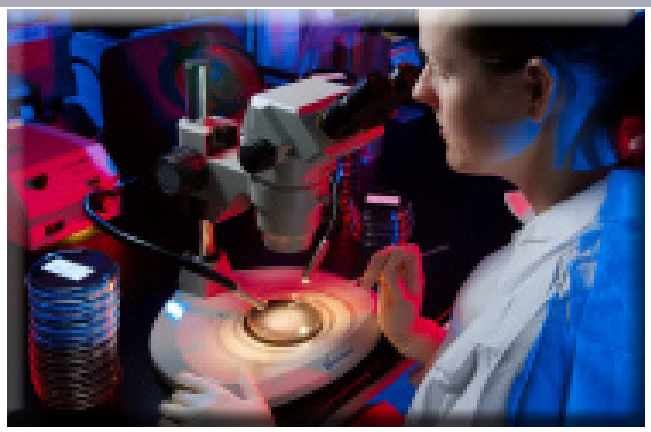


Photo: Former RDB lab scientist Stephanie Mitchell transfers Legionella isolates from BCYE agar plates used to culture the bacteria.

The *Bordetella pertussis* Project will increase the understanding of the reemergence of pertussis in the United States. A recent analysis by CDC's Pertussis and Diphtheria Laboratory showed that one vaccine antigen, pertactin, is now absent in at least 9 out of 10 isolates (specimens) collected in the United States. The lab plans to map the complete genome of historic and currently circulating strains of *Bordetella pertussis* to determine how the vaccine protects against these bacteria when pertactin is lacking and if genetic changes are contributing to the reemergence of pertussis.

CDC's Pneumonia Response and Surveillance Laboratory is creating a database of *Legionella* genomes—a whole genome pipeline—to improve capacity for identifying outbreak-causing *Legionella* strains at a reduced cost. Over time, the pipeline will expand, such that isolating the bacteria from samples may no longer be necessary once a *Legionella* sample is collected. These new laboratory techniques will revolutionize how assessments are made about disease transmission, which is the cornerstone of controlling *Legionella* outbreaks.

CDC's Meningitis Laboratory is conducting whole genome sequencing on African meningococci specimens (mostly serogroups X and Y) to compare these specimens to strains causing sporadic disease and outbreaks worldwide. Scientists will compare how closely related these strains are and determine markers for how likely they are to cause epidemics of disease. Complete genome sequencing will enable better and earlier prediction of meningococcal disease epidemics and provide information on the effectiveness of available vaccines.

CDC's *Streptococcus* Laboratory will take advantage of data mining (searching large stores of data and analyzing for useful information) to learn if serotype replacement is occurring in cases of invasive pneumococcal disease (caused by *Streptococcus pneumoniae*) and if antibiotics remain effective. Investigating the bacteria's whole genome sequence is a faster approach compared to conventional methods and offers higher quality results at reduced costs. This faster approach allows for predictions of promising vaccine candidate components while also detecting emergence of antibiotic-resistant mechanisms.

CDC is developing a new tool to aid **Unexplained Respiratory Disease Outbreaks** laboratory scientists in quickly identifying which pathogen, including novel and rare ones, is causing an outbreak. By using a single and quick analytic tool, scientists will be able to detect a wide variety of bacterial, viral, and fungal respiratory pathogens, as well as determine the specific strain responsible for an outbreak and if the strain is resistant to antibiotics.

Learn more about AMD at www.cdc.gov/AMD.

MenB Outbreaks Continued...

In the midst of these activities, CDC was contacted by the University of California, Santa Barbara (UCSB), who reported 4 confirmed cases of MenB among its students. For the first time ever, there was the occurrence of 2 simultaneous MenB outbreaks in the United States.

CDC staff collaborated with UCSB, along with state and local public health officials, to carefully review current and historical data of meningococcal disease at the university and in the local community. Based on this information, CDC concluded that additional MenB cases were likely to occur. A process was set in motion to gain access to the MenB vaccine for those identified as at increased risk.

Throughout December and the first several months of 2014, MVPDB continued to work closely with the universities in New Jersey and California, along with state and local public health officials in both states to implement first and second-dose MenB vaccination campaigns and conduct extensive safety monitoring. On-site vaccination campaigns garnered significant participation from the targeted population. To date there have been no unusual patterns of adverse events associated with administering the vaccine at either university.

Thousands Vaccinated
Since the 2 universities began offering the MenB vaccine, more 15,000 people have been vaccinated. There have been no cases of MenB in those who have received the vaccine.

"Given the clear public health need for a licensed MenB vaccine in the United States, CDC's response to these outbreaks has increased the visibility of MenB vaccines and may help reduce the time for a vaccine to be licensed for outbreak response or routine immunization in the United States," says Hajjeh.

In June 2014, two manufactures submitted license applications to FDA for their serogroup B meningococcal vaccines.

**The MenB vaccine was licensed in Europe in early 2013, and by Australia and Canada later the same year, under the name Bexsero®.*

RDB Investigates First Stevens-Johnson Syndrome Outbreak in United States

When 8 cases of Stevens-Johnson Syndrome (SJS), a serious blistering disorder of the skin and mucous membranes, were identified at an academic children's hospital outside of Denver, Colorado in November 2013, CDC's Respiratory Diseases Branch (RDB) was asked to investigate what was to become the first documented U.S. outbreak of this very rare immune-mediated condition. It seemed as though *Mycoplasma pneumoniae* (*M. pneumoniae*) might be a factor in this outbreak.

Photo: RDB EIS Officers Alicia Demirjian and Louise Francois Watkins, with fellow EIS Officer, Xia "Michelle" Lin from CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, at the children's hospital outside Denver, Colorado.

M. pneumoniae is a very common cause of pneumonia in children and young adults that classically presents as "walking pneumonia" and is usually managed in an outpatient setting. "While SJS has been associated with *M. pneumoniae* and other infections in children and young adults, it isn't a contagious condition itself," said **Preeta Kutty**, an RDB medical epidemiologist. "This syndrome is most often thought to be triggered by medications. The cluster identified in Colorado was certainly unusual and worthy of further study."

RDB's Epidemic Intelligence Service (EIS) officers first set out to determine if the cases were in fact an outbreak through a manual review of patient charts to learn how many cases of SJS had been reported at this children's hospital in recent years. Many questions needed to be answered. What could explain so many SJS cases occurring in one hospital in a short period of time? Was there a lot of unrecognized *M. pneumoniae* circulating in the community? If so, was there something different or unusual about the circulating strain that made it more likely for people to develop SJS? Thirty-seven SJS cases were identified at the hospital over the previous 5 years, prior to the 9 cases that occurred between August and November 2013. Based on the information gathered, the EIS officers concluded that the cases were indeed an outbreak, and that *M. pneumoniae* was the likely cause.

Louise Francois Watkins, a first-year RDB EIS officer involved in the investigation said, "Laboratory testing isn't performed very often for typical *M. pneumoniae* infections but a number of factors allowed CDC to be fairly confident that there was a heavy burden of this disease in Colorado last fall." Five of the 9 specimens from this outbreak tested positive for *M. pneumoniae* by polymerase chain reaction (PCR) undertaken at CDC's Atlanta-based Pneumonia Response and Surveillance Laboratory.

Further laboratory testing showed that person-to-person transmission was high within affected households, supporting findings from prior *M. pneumoniae* outbreaks. Perhaps of greatest public health interest was subtyping specimens to determine if the strains involved in this outbreak were unique compared to the *M. pneumoniae* strains causing illness in non-SJS patients in Colorado.

"We still have more to learn about the clinical and epidemiological significance of *M. pneumoniae* subtypes. A single, shared strain among SJS patients may have suggested a particularly virulent strain was responsible for this outbreak," said RDB microbiologist **Maureen Diaz** who processed the outbreak specimens. "Instead we found multiple subtypes that are similar to *M. pneumoniae* commonly identified in other investigations. We are definitely interested in exploring the genetics of these strains in more detail."

Nearly all (93%) of the *M. pneumoniae* specimens, including all of those from patients with SJS at this children's hospital, were susceptible to macrolides, a class of antibiotics that is often used to treat this infection. This finding indicated that there is not a lot of resistance to the recommended treatment, azithromycin, in the *M. pneumoniae* circulating in Colorado.

With at least 7 more cases of SJS occurring at this hospital during the first 5 months of 2014, high levels of *M. pneumoniae* infection appear to be ongoing in Colorado. Infectious disease and primary care clinicians at this children's hospital have been alerted to the likelihood of the outbreak, and encouraged to consider *M. pneumoniae* in their differential diagnosis and treatment plans for patients with community-acquired pneumonia. CDC's laboratory analyses, including whole genome sequencing, will continue, allowing RDB to further unravel the mystery behind the first documented outbreak of SJS.

Epi-Aids/Outbreaks

Legionnaires' disease outbreak—Birmingham, Alabama, May 2014. A team was deployed to assist the Alabama Department of Public Health in determining the extent of disease, and identifying, controlling, and mitigating any risks of continued exposure.

Legionnaires' disease outbreak—Rabun County, Georgia, March 2014. A team was deployed to assist the Georgia Department of Public Health in determining the source of the outbreak.

Pertussis vaccine evaluation—Vermont, March-April 2014. A team of 30 CDC-based staff was deployed to work with 45 Vermont Department of Health staff to evaluate the effectiveness of pertussis vaccines in a setting of pertactin-deficient strains.

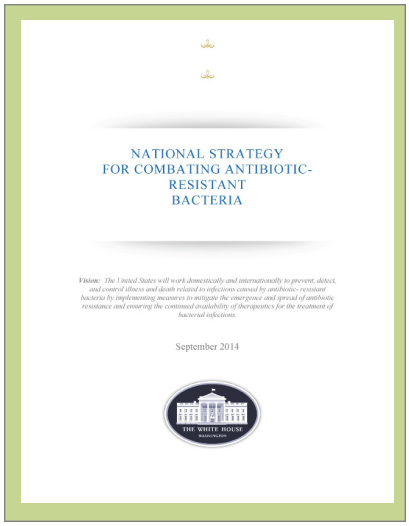
Pneumococcal disease outbreak—Ventura, California, June 2014. A team was deployed to assist the California Department of Public Health and Human Services' Administration for Children and Families, Office of Refugee Resettlement (ACF/ORR) in determining the extent of disease and making vaccination recommendations.

Pneumococcal disease outbreak—Baytown, Texas, June 2014. A team was deployed to assist the Texas Department of Health State Health Services (TDSHS) and ACF/ORR in determining the extent of disease and making vaccination recommendations.

Pneumococcal disease outbreak—Ft. Sill, Oklahoma and Lackland, Texas, June 2014. A team was deployed to assist the Oklahoma State Department of Health, TDSHS, and ACF/ORR in determining the extent of disease and making vaccination recommendations.

Antimicrobial Resistance

Executive Order to Combat Antibiotic Resistance



On September 18, 2014, President Obama signed an Executive Order directing key Federal departments and agencies to take action to combat the rise of antibiotic-resistant bacteria. The Administration also released its National Strategy on Combating Antibiotic-Resistant Bacteria. In addition, the President's Council of Advisors on Science and Technology (PCAST) released a related report on Combating Antibiotic Resistance. The Administration also announced a $20 million prize, co-sponsored by the National Institutes of Health and the Biomedical Advanced Research and Development Authority, to facilitate the development of rapid, point-of-care diagnostic tests for healthcare providers to identify highly resistant bacterial infections.

The Executive Order signed by President Obama directs Federal departments and agencies to implement the National Strategy and address the PCAST report. The National Strategy provides a five-year plan for enhancing domestic and international capacity to: prevent and contain outbreaks of antibiotic-resistant infections; maintain the efficacy of current and new antibiotics; and develop and deploy next-generation diagnostics, antibiotics, vaccines, and other therapeutics. The PCAST report provides actionable recommendations from the President's Council, in consultation with experts from the public and private sectors, for combating antibiotic resistance.

Antimicrobial Resistance Budget Initiative

The FY15 budget proposal includes an increase of $30 million for CDC's Detect and Protect Against Antibiotic Resistance initiative to enhance surveillance and laboratory capacity to detect antibiotic resistance threats and protect patients from imminent danger. Antibiotic resistance is a rapidly growing threat that undermines the successful delivery of most clinical interventions nationally and globally. Without an effective response to this threat, not only are current treatment options for infectious diseases jeopardized, but the effectiveness of new interventions, surgeries, treatments, and effective ICU care are put at risk. For some infections, it is already a post-antibiotic world.

DBD's Get Smart: Know When Antibiotics Work program plays a critical role in CDC's strategy to combat antimicrobial resistance. Additional resources from this funding initiative could amplify the program's research and intervention efforts. Most critically, the initiative will invest in direct action by implementing proven, evidence-based interventions that reduce the emergence and spread of antibiotic-resistant pathogens and improve appropriate antibiotic prescribing.

New Meningitis Surveillance Network in Africa

In October 2013, through the CDC Foundation, the Bill and Melinda Gates Foundation awarded a grant to CDC to establish MenAfriNet—a regional meningitis surveillance network to evaluate the impact of MenAfriVac™ introduction in the African meningitis belt. DBD will lead these efforts in partnership with WHO-AFRO, Agence de Médicine Préventive, Ministries of Health, and other non-governmental agencies with expertise in meningitis surveillance in the region. MenAfriNet will collect and analyze high quality case-based meningitis surveillance data from representative sites across the meningitis belt.

In addition to the launch meeting in February, the division's MVPDB hosted a week-long visit by Berthe-Marie Njanpop-Lafourcade, a leading laboratory quality assurance expert, from Agence de Médecine Préventive in Paris, France. Betty, as she is known, is the Laboratory Working Group Chair for MenAfriNet. She worked with **Xin Wang, Stephanie Schwartz,** and the **Meningitis lab's international team** on plans to stand up the Laboratory Working Group and implement laboratory activities in Burkina Faso, Mali, and Niger—the countries in the first phase of MenAfriNet. During Betty's visit, the group established a set of standard operating procedures for laboratory tests and quality control measures to help ensure continued, high-quality laboratory data from DBD's partner laboratories in Africa's meningitis belt.

Photo: MenAfriNet launch meeting in Burkina Faso in February 2014.

MVPDB hosted several public health practitioners involved with MenAfriNet in early July. Flavien Ake, a regional data manager, based in Burkina Faso, Clement Lingani, a WHO-IST data manager based in Burkina Faso, and Alain Poy, a WHO-AFRO data manager based in Congo, traveled to Atlanta for an Epi Info 7 training. The training focused on anticipated MenAfriNet data management issues, and data management strategy that will can help harmonize MenAfriNet with existing enhanced surveillance activities in the region. While here, they collaborated closely with the MVPDB epidemiology team and Epi Info team and had the opportunity to meet with other DBD staff.

DBD Medical Officer Meets HHS Secretary Burwell

In July, new HHS Secretary Sylvia Burwell visited CDC and was welcomed at an All Hands meeting. During her visit, Secretary Burwell had a roundtable discussion with 15 staff who represented the depth and breadth of the agency across a range of job series and varying levels of experience. One of those 15 staffers invited to "share a piece of advice with the Secretary" was RDB's **Lauri Hicks**. An epidemiologist, Hicks is a subject matter expert on antimicrobial resistance and Legionnaires' disease outbreaks and policy.

When asked about the roundtable discussion, Hicks said, "It was an honor to meet with Secretary Burwell, and I was extremely impressed with her genuine interest in learning more about our work at CDC. She was relatable and down to earth—my kind of role model. I walked away from the meeting with a feeling of great optimism—that we are in very capable hands."

Photo: CDC staff, including RDB's Lauri Hicks, enjoyed a candid conversation with Secretary Burwell. Photo by Jim Gathany

Communications

Seeking More Information on Pertussis

NCIRD's Health Communication Science Office and DBD conducted formative research on knowledge, attitudes, and behaviors regarding pertussis and the ACIP recommendation for receiving Tdap vaccine during each pregnancy. This past summer, surveys were conducted with ob-gyns, nurses, nurse midwives, and pregnant women. Focus groups with pregnant women and in-depth interviews with ob-gyns were also included in this research. Findings will be applied to developing materials to increase Tdap use during pregnancy across the country and those materials will be tested in additional research in the fall of 2014. According to a few CDC studies, current coverage nationally is low, with only about 10–15% of women receiving Tdap while pregnant.

Mobile Technology Helping Prevent Group B Strep (GBS)

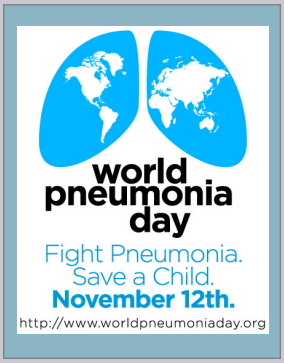
The "Prevent Group B Strep" (GBS app) mobile application technology introduced in 2013 is a standalone application that provides patient-specific and scenario-specific guidance consistent with the 2010 Guidelines for the Prevention of Perinatal GBS Disease for practitioners providing obstetric or neonatal care. Developed in collaboration with and endorsed by the American College of Obstetricians and Gynecologists, American Academy of Pediatrics, American College of Nurse-Midwives, and American Academy of Family Physicians, the GBS app has been downloaded more than 15,000 times. Accessibility using Android devices was recently launched. Learn more about the GBS app and how to download it at www.cdc.gov/groupbstrep/app.

DBD Launches Websites with New Look and Content

In fall 2013, CDC began to require that all web content on CDC.gov use an approved CDC.gov template. Last spring, DBD launched new websites on pneumonia (www.cdc.gov/pneumonia) and *Mycoplasma pneumoniae* (www.cdc.gov/pneumonia/atypical/mycoplasma) in this new template. Other DBD websites will be transitioned to the new required format by May 2016. The new template uses a "responsive" approach to improve viewing experiences by automatically optimizing content design for phones, tablets, laptops, or widescreen computers.

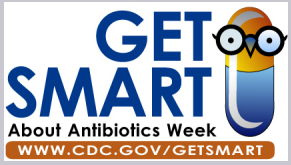
Save the Date!

World Pneumonia Day



World Pneumonia Day is being observed November 12, 2014, to raise awareness about pneumonia's toll and to promote interventions to protect against, treat, and prevent the disease globally. The day will mobilize efforts to fight a neglected disease that kills more than 1 million children younger than 5 years of age worldwide each year.
Learn more at www.worldpneumoniaday.org.

Get Smart About Antibiotics Week



Get Smart About Antibiotics Week is November 17-23, 2014. The event marks an annual observance to raise awareness of the threat of antibiotic resistance and the importance of appropriate antibiotic prescribing and use. The observance is an international collaboration, coinciding with European Antibiotic Awareness Day, Australia's Antibiotic Awareness Week, and Canada's Antibiotic Awareness Week. Learn more at www.cdc.gov/getsmart.

Vaccine News

CAPiTA Trial Complete. ACIP Recommends PCV13 Use in Adults

Pfizer's Community-Acquired Pneumonia Immunization Trial in Adults (CAPiTA) was completed earlier this year. The trial involved approximately 85,000 people and looked at effectiveness of the 13-valent pneumococcal conjugate vaccine (PCV13) at preventing the first episode of vaccine-type community-acquired pneumonia (CAP) in adults 65 years of age and older. Study data from this trial was important in considering new recommendations for PCV13 use in adults as it is the first trial in adults to clearly demonstrate a significant reduction in vaccine-type pneumococcal CAP, and importantly, non-bacteremic/non-invasive vaccine-type pneumococcal CAP.

A recommendation for routine use in adults was considered at a specially called Advisory Committee on Immunization Practices (ACIP) meeting on August 13, 2014. ACIP voted to recommend PCV13 for all adults 65 years of age or older. The recommendation was published on September 19, 2014.

Price Freeze for GAVI Graduating Countries

Countries that graduate away from GAVI Alliance support will be offered a 5-year price freeze on GlaxoSmithKline vaccines. By 2020, some 22 countries with growing economies will graduate from GAVI support. With the graduation of these countries, GAVI can focus its resources on the poorest countries, while enabling country governments to take increasing responsibility and ownership for vaccination programs over time. DBD staff are actively engaged in collaborations with GAVI to share their knowledge and public health expertise to develop, deliver and evaluate public health programs around the globe, including current activities on neonatal sepsis, pneumonia, and meningitis.

Interim Guidance for Use of MenB Vaccines

At the June ACIP meeting, a Meningococcal Outbreak Working Group of experts from CDC, ACIP, and state and local health departments presented interim guidance on the use of serogroup B meningococcal vaccines for outbreaks in organizational settings. The guidance provides information for decision-makers about options in an organization-based outbreak situation, including the use of a serogroup B vaccine not licensed in the United States via the U.S. FDA's expanded access program for investigational products. CDC is the sponsor of this Investigational New Drug application. The guidance has been added to CDC's meningococcal disease website at http://www.cdc.gov/meningococcal/downloads/interim-guidance.pdf.

New MVPDB Branch Chief Selected

In late June, **Conrad Quinn** was selected as the Chief of the Division of Bacterial Diseases' Meningitis and Vaccine Preventable Diseases Branch (MVPDB). Quinn brings a wealth of scientific and team management experience to the branch, having previously held the position of Team Lead in the MVPDB Microbial Pathogenesis and Immune Response (MPIR) Laboratory from 2001 to 2014. He is a world-recognized expert in anthrax diagnostics development and vaccine trials in humans and animal models.

Quinn received his PhD in Microbiology from University of Wales College of Cardiff in 1989, investigating virulence factors and design of in vivo preclinical protection trials for improved vaccines against anthrax. He worked as a National Academies of Science NRC Fellow continuing his work on anthrax, and subsequently from 1991–2001 served sequentially as Unit Head, Project Team leader, and Senior Scientist at the Center for Applied Microbiology and Research in Porton Down, England. While there, he focused his research on molecular biology and protein chemistry for bacterial virulence factors.

In 2001, Quinn joined CDC as Team Lead in the division's MVPDB MPIR Laboratory. In his capacity as MPIR Team Lead, he was engaged in the anthrax bioterrorism response and led the laboratory testing for the Anthrax Vaccine Research Project, the pivotal clinical trials on the anthrax vaccine. While there, his research focused on the immunology and pathogenesis of vaccine-preventable diseases, including anthrax, pertussis, and meningococcal disease. He guided a multidisciplinary team in projects encompassing vaccine research, diagnostics development, assay development, and vaccinology.

Quinn collaborates closely with NIH, FDA, BARDA and multiple CDC CIOs in his research, has authored over 90 peer reviewed publications and received numerous awards, including the CDC Honor Awards for Excellence in Laboratory Research, Leadership, Innovation, and Efficiency.

Photo: Conrad Quinn, PhD, MVPDB branch chief

DBD Welcomes New EIS Officers

During the annual Epidemic Intelligence Service (EIS) Conference in the spring of 2014, DBD recruited 4 new EIS officers. They joined the division for 2-year assignments that started in the summer. Please welcome Temitope (Temi) Folaranmi and Heidi Soeters to MVPDB, and Miwako Kobayashi and Matthew Westercamp to RDB (left to right, top to bottom in photos).

Active Bacterial Core Surveillance (ABCs) Surveillance Officers Meeting at CDC

In June, CDC hosted the annual Active Bacterial Core surveillance (ABCs) Surveillance Officers' Meeting in Atlanta. Over 50 surveillance officers and other staff from each of the 10 ABCs sites, along with staff from two additional sites that conduct special studies attended the two-day meeting.

The meeting included more than 20 presentations which focused on surveillance results and the progress of special studies. Other discussions focused on anticipated changes to laboratory methods, including the use of culture independent diagnostics, and initiatives to better understand social determinants of health and their impact on the incidence of ABCs pathogens. A new pilot study was proposed to improve the capture of antimicrobial susceptibility results from neonatal sepsis surveillance.

Photo: ABCs Surveillance Officers' Meeting in Atlanta, GA

Awards

DBD Director Named Federal Employee of the Year for 2014

Rana Hajjeh, DBD director and former director of the GAVI Hib Initiative, was awarded the Federal Employee of the Year Medal for leading the Hib Initiative, which is estimated to save the lives of millions of children by 2020. The award was presented on September 22 at the thirteenth annual gala of the Samuel J. Heyman Service to America Medals in Washington, D.C. Hajjeh was recognized for leading the global campaign, with partners at the World Health Organization, Johns Hopkins School of Public Health, and the London School of Hygiene and Tropic Medicine. The Hib Initiative provided compelling evidence to convince some of the world's poorest countries to use the Hib vaccine to fight bacterial meningitis, and pneumonia. Learn more at www.servicetoamericamedals.org.

Photo: Rana Hajjeh being photographed for the 2014 Samuel J. Heyman Service to America Medals.

CDC & ATSDR Honor Awards

The 62nd Annual CDC & ATSDR Honor Awards Ceremony was held in May. MVPDB's **Fabien Diomande**, who was a secondee to Burkina Faso at the time, won the Excellence in Frontline Public Health Service award for exemplary commitment and contributions towards the elimination of epidemic meningitis in Africa. The **MenB Outbreak Response Team** won a group award in Excellence in Public Health Protection. This multi-center team was honored for their exemplary leadership and support of CDC's response to MenB outbreaks in 2013. The **Antibiotic Resistance Threat Report Team**, comprised of staff from multiple centers, won the Excellence in Communications group award for its development of the first comprehensive report on antibiotic resistance.

Fellowship in the American Academy of Microbiology

Photo: Bernard Beall, team lead, Streptococcus Laboratory

RBD's **Bernard Beall** was elected to the Fellowship in the American Academy of Microbiology. Fellows of the Academy are elected annually through a highly selective, peer-review process, based on their records of scientific achievement and original contributions that have advanced microbiology. There are over 2,400 Fellows representing all subspecialties of microbiology, including basic and applied research, teaching, public health, industry, and government service. View Beall's profile at http://academy.asm.org/index.php/fellows-info/aam-fellows-elected-in-2014/5145-bernard-beall.

S-Lab Awards for Laboratory Improvement and Innovation

S-Lab (Safe, Successful and Sustainable Laboratories) aims to create more sustainable laboratories, and to raise sustainability awareness among lab-using staff and students. It is a project of the Higher Education Environmental Performance Improvement, which is now based at the Institute of Science and Technology. DBD's **Microbial Pathogenesis and Immune Response (MPIR) Laboratory's** efforts to win CDC's 2012 Freezer Challenge earned the recognition of highly commended for the 2014 S-Lab Awards. Read more about the MPIR Laboratory's Efforts to reduce energy use, cut operating costs, adopt innovative laboratory sustainability practices, and leverage existing storage capacity without the need for new equipment or space at http://www.cdc.gov/ncird/div/DBD/newsletters/2013/spring/news.html.

Charles C. Shepard Science Award

Adam Cohen, a former RDB epidemiologist, won the prestigious 2014 Charles C. Shepard Science Award for a published paper he co-authored: "*Impact of Introduction of the Haemophilus influenzae Type b Conjugate Vaccine into Childhood Immunization on Meningitis in Bangladeshi Infants*." This award recognizes excellence in scientific achievement by CDC and ATSDR authors of outstanding scientific papers and honors the memory of Charles C. Shepard whose career was marked by the pursuit of scientific excellence.

DBD Supports MERS Response

On May 2, 2014, the first U.S. imported case of Middle East Respiratory Syndrome (MERS) was confirmed in a traveler from Saudi Arabia to the United States. On May 11, 2014, a second U.S. imported case of MERS was confirmed in a traveler also from Saudi Arabia. The two U.S. cases are not linked. So far, all MERS cases have been linked to countries in or near the Arabian Peninsula. The infection is caused by a coronavirus called MERS-CoV. Most people confirmed to have MERS-CoV infection have had severe acute respiratory illness. About 30% of people confirmed to have MERS-CoV infection have died. The virus has spread from ill people to others through close contact, such as caring for or living with an infected person. However, there is no evidence of sustained spread in community settings.

CDC continues to closely monitor the MERS situation globally and work with partners to better understand the risks of this virus, including the source, how it spreads, and how infections might be prevented. CDC recognizes the potential for MERS-CoV to spread further and cause more cases globally and in the United States. CDC has provided information for travelers and is working with health departments, hospitals, and other partners to prepare for this. Several staff from DBD recently supported the agency's MERS response effort including **Bernard Wolff, Lindsay Kim, Sarah Meyer,** and **Rana Hajjeh**. In 2013, **Chris Van Beneden, Elizabeth Briere, Gayle Langley, Kathleen Dooling, Manisha Patel,** and **Preeta Kutty** supported the response.

Photo: At King Fahd Med Center, Jeddah, Kingdom of Saudi Arabia during the MERS response. From left to Right: Deborah Hastings (CDC, EIS Officer), Jerome Tokars (Associate Director for Science, CDC's Influenza Division), Rana Hajjeh (Director, CDC's Division of Bacterial Diseases), Imad AlJahdaly (Director, King Fahd Med Center), David Kuhar (Medical Epidemiologist, CDC's Division of Healthcare Quality Promotion) , and Mohammad Garout (Deputy Director, King Fahd Med Center).

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