Reminder: Summit calls are scheduled every Thursday at 3:00 p.m. ET, unless cancelled. Due to the holidays, the next call is scheduled for January 9, 2014. Thank you for your continued participation. Please email LJ Tan or LaDora Woods if you have any updates on activities to provide to the Summit.

HEADLINES

1. Summary of Summit Call – December 12, 2013

   Influenza Surveillance Update – Scott Epperson, CDC

   Scott provided an update on U.S. influenza surveillance data through week 48, ending November 30, 2013. Influenza activity remains concentrated in the south and southeast, but is beginning to spread to other parts of the country, with 2009 H1N1 being the predominant strain. Reported ILI was at 1.19%, just below the baseline of 2.0%. However, ILI was above baseline levels in regions 4 and 6. One new pediatric death was reported during the week, bringing the season total to 3. To ensure these pediatric cases are not identifiable, specific information (such as age, vaccination status, and underlying illness) will not be shared until at least 10 such cases have been reported.

   In response to a question, Scott said that there has not been a spike in hospitalization of pregnant women; however, it is still a little early in the season to note any such trend. Only one hospitalized pregnant woman has been reported, but Scott emphasized that influenza in pregnancy is not nationally notifiable. Therefore, the only lab-confirmed reports received are from the hospital surveillance network covers only about 13% of the overall population. Additional information on this network is available [here](#4).

   Influenza/Pneumococcal News Conference Report – Marla Dalton, NFID

   Marla presented a brief summary of the final media report from NFID’s Influenza/Pneumococcal News Conference held on September 26, 2013, in Washington, DC. This conference serves as the kickoff event for a multi-media campaign at the beginning of the influenza season. This year’s event generated heavy news volume, with >1,100 media placements, including more than 275 print placements, 300 TV segments, and 175 radio spots. Almost all headlines included the call to action for all persons 6 months and older to be vaccinated. In addition, there were more than 370 #fightflu tweets from diverse users, resulting in over 500,000 impressions.

   NFID was highly encouraged by this broad level of pickup. The organization greatly appreciates the work of partners in helping share the important messages discussed at the news conference. It is hoped that this massive level of attention will result in an increase in coverage rates.

   Early 2013–14 Influenza Season Vaccination Coverage Estimates – Jim Singleton, CDC

   Jim presented early season influenza vaccine coverage estimates. This data also had been discussed earlier in the day at a CDC media briefing and during a national NetConference.
Jim began by noting that the Healthy People 2020 influenza vaccination objectives have been consolidated from 10 objectives to 4, covering: children 6 months – 17 years, adults ≥18 years, healthcare personnel, and pregnant women. Although these changes were approved in May, they have not yet been updated on the HP2020 website.

The remainder of Jim’s presentation focused on early season influenza coverage estimates. These data were derived from the National Immunization Survey (NIS) for children 6 months – 17 years, the National Internet Flu Survey (INIFS) for adults 18 years and older, a non-probability internet panel survey for healthcare personnel, and an opt-in web-based panel survey for pregnant women.

The early season estimates indicate that fewer than half of persons had been vaccinated by early November. By age group, 41.1% of children had been vaccinated, which was slightly higher than the percentage who had been vaccinated by this time in the 2012–2013 season. In general, coverage rates were higher in younger children. Adult data indicated 39.0% were immunized, an almost 4% increase over the same time in the previous season. Higher coverage rates corresponded with higher age, with the highest coverage (61.8%) in persons ≥65 years.

Little difference was seen when child coverage rates were segregated by race/ethnicity. However, Hispanic adults had an 8% coverage increase compared to the same period last year. Non-Hispanic white adults also showed higher coverage than non-Hispanic blacks.

Doctor’s offices were the most frequently named location for receipt of influenza vaccine, followed by other medically-related locations. Not surprisingly, pharmacy-based immunizations were much higher for adults than children.

Early season data indicates coverage for HCP was similar to last season. When broken out by occupation type, physicians and pharmacists had highest coverage levels. By location, workers in hospitals had the highest coverage rates, while those in long term care facilities had the lowest rates. Workplace settings with required vaccination policies showed double the coverage rates (88.8%) of settings that did not have such requirements (44.3%).

The internet panel survey indicated pregnant women had similar rates (40.7%) to those seen by this time last season, with non-Hispanic white pregnant women showing the highest coverage. Of high importance, pregnant women were twice as likely to be vaccinated if their provider had both recommended and offered the vaccine during routine visits. The majority of pregnant women received vaccine at an OB/GYN/midwife office.

Jim pointed out some limitations of this data analysis. In particular, the early season estimates are from multiple data sources using different methods, and the survey participants might not be representative of the entire population.

This data review has led to recommendations to: (1) increase influenza vaccination coverage among all groups, (2) reduce disparities in coverage among adults, and (3) implement proven interventions to increase coverage. Additional information is available on FluVaxView.

Call participants discussed the desirability to separate PAs and ANPs in the data analysis. However, Jim noted that the small sample sizes in the opt-in internet panel surveys did not lend themselves to breaking out the data in this way. However, CDC should be able to provide this delineation when the final season coverage rates are released.

Fluzone High-Dose Vaccine Efficacy Trial Results – David Greenberg, sanofi Pasteur

David provided an overview his October ACIP meeting presentation on the results of sanofi’s High Dose (HD) vaccine efficacy trial. Because this data has not yet been reviewed by the FDA, it is not in the PI and currently is considered off label.

By way of background, David noted that older adults bear a disproportionate burden of influenza illness and complications. Although they comprise only 13% of the population, they represent 63% of influenza-related hospitalizations and >90% of influenza-related deaths. Unfortunately, antibody responses in persons ≥65 years of age are consistently lower than in persons 18–64 years of age, and these antibody titers correlate with the likelihood of influenza infection.
Fluzone HD vaccine was formulated to contain 4 times the level of hemagglutinin of each strain as is found in standard dose vaccine. Post-vaccination GMTs were considerably higher for adults receiving HD vaccine, reaching levels that essentially were comparable to those achieved by younger adults. Based on FDA criteria, the study indicated superior responses for A(H1N1) and A(H3N2), and non-inferiority for influenza type B.

Fluzone HD was licensed by the FDA in December 2009 under an accelerated approval process. Thirteen million doses were distributed in the U.S. during the vaccine’s first 3 seasons, and an estimated 8 million doses are projected for distribution this season. Last year an estimated 1 in 5 persons 65 years of age and older received the vaccine. Uptake has been limited while healthcare providers and advisory groups have awaited results of post-licensure efficacy studies.

Over 2 influenza seasons, sanofi conducted a randomized and blinded trial of approximately 32,000 participants in 126 study sites. The primary objective of the trial was to compare clinical efficacy against PCR-confirmed influenza of the HD vaccine with standard vaccine in persons >65 years of age. The results of the trial showed that superior relative efficacy was achieved, with a relative efficacy of 24.2% between HD and standard vaccine. This benefit was demonstrated across study years. A slightly higher benefit was demonstrated for older (75 years +) persons compared to those 65–74 years of age, probably due to the relative decreased efficacy of the standard vaccine.

A review of the rates and relative risk of pneumonia with 30 days of protocol-defined influenza suggested better protection was provided by the HD vaccine, and similar results were obtained against cardio-respiratory conditions. An overview of the safety data indicated fewer AEs were associated with the HD vaccine.

In conclusion, the HD vaccine demonstrated superior efficacy, and the clinical benefit was demonstrated across study years, age groups, clinical illness definitions, influenza types, similarity to vaccine strains, and methods of laboratory confirmation. The data also suggest better protection against complications and reaffirmed the vaccine’s safety. Because the study had no placebo group, it is not possible to provide absolute efficacy data. However, estimates from available data suggest the efficacy of HD vaccine would be almost double the demonstrated relative efficacy.

**FluLaval Quadrivalent Influenza Vaccine Pediatric Study – Catia Ferreira, GSK**

Catia reported that an article just published online in the *New England Journal of Medicine* provides details of the first randomized controlled study on the efficacy of quadrivalent inactivated influenza vaccine for children 3–8 years of age. The primary results of the trial indicated that, for children in this age group, the vaccine demonstrated 55% efficacy for prevention of all influenza, 73% efficacy for prevention of moderate-to-severe disease, good immune responses to all 4 influenza strains in the vaccine, and an acceptable safety and reactogenicity profile. These results are particularly important because the annual attack rate for influenza in children 3–8 years of age is the highest of any age group, resulting in high direct and indirect costs.

The study indicated high immunogenicity 28 days and 6-8 months post the first dose. Vaccine safety data was similar in both the group receiving FluLaval Quadrivalent and the control group receiving only Havrix.

In conclusion, the results showed that prevention of moderate-to-severe influenza due to FluLaval quadrivalent immunization reduced the impact of illness on daily activities, with a 77% reduction in absences from school and a 61% reduction in parental absences from work. The vaccine also reduced hospitalizations by 75% and medical visits by 69%.

**Other Items – L.J Tan, IAC**

L.J announced that the Infectious Disease Society of America (IDSA), the Society of Healthcare Epidemiology of America (SHEA), and the Pediatric Infectious Diseases Society (PIDS) have released a joint policy statement calling for mandatory immunization of healthcare personnel according to the ACIP-recommended vaccine schedule. A press release about this statement may be found here.
2. CDC/Influenza Division Weekly Influenza Surveillance Report and CDC Key Points

The CDC weekly influenza surveillance report for week 49 (ending December 7, 2013) is available [here](#), and region specific data may be found [here](#). During week 49, 6.2% of all deaths reported through the 122 Cities Mortality Reporting System were due to P&I. This percentage was below the epidemic threshold of 6.8% for week 49.

No influenza-associated pediatric deaths were reported to CDC during week 49. A total of three influenza-associated pediatric deaths for the 2013-2014 season have been reported. Additional data can be found [here](#).

Nationwide during week 49, 1.9% of patient visits reported through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI). This percentage is below the national baseline of 2.0%. ILI is defined as fever (temperature of 100°F [37.8°C] or greater), and cough and/or sore throat. An Influenza Summary [Update](#) of the influenza activity reported by state and territorial epidemiologists indicates the geographic spread of influenza viruses, but does not measure the intensity of influenza activity.

During week 49, four states (Alabama, Louisiana, Mississippi and Texas) experienced high ILI activity, and five states (Arkansas, Colorado, Oklahoma, South Carolina, and Utah) and New York City experienced low ILI activity. Forty-one states (Alaska, Arizona, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming) experienced minimal ILI activity. Data were insufficient to calculate an ILI activity level from the District of Columbia.

Archives of previous FluViews are available [here](#), and CDC’s seasonal influenza key points for December 13, 2013 may be found [here](#).

3. More Information from CDC

- **New CDC infographic highlighting benefits of influenza to accompany MMWR article**

  An [infographic](#) highlighting the benefits of influenza vaccine was included in this week’s MMWR, “Estimated Influenza Illnesses and Hospitalizations Averted by Influenza Vaccination — United States, 2012–13 Influenza Season.” A spotlight [article](#) about this MMWR also is available.

ANNOUNCEMENTS

4. Department of Health and Human Services’ Office of the Assistant Secretary for Health (OASH) Announces New Grant Opportunities!

The OASH Grant Program includes Influenza and Adult Immunization Projects and focuses on opportunities to:

- Promote and accelerate partnerships
- Catalyze collaborations to improve health and wellness through access to and use of preventive services across the United States
- Educate and train health workers and the public
- Establish communication programs for all community populations regardless of social and economic barriers or race/ethnicity

[Grant Opportunity OS-PAW-14-001](#) offers funding for “Mobilization for Health: National Prevention Partnership Awards (NPPA) Program.”
5. From GSK Vaccines: An Article on Narcolepsy and Pandemrix®

Scientists Start To Unpick Narcolepsy Link To GSK Flu Vaccine
Reuters News, December 18, 2013
By Kate Kelland

Scientists have found that the sleep disorder narcolepsy can sometimes be triggered by a scientific phenomenon known as "molecular mimicry", offering a possible explanation for its link to a GlaxoSmithKline H1N1 pandemic flu vaccine.

Results from U.S. researchers showed the debilitating disorder, characterized by sudden sleepiness and muscle weakness, can be set off by an immune response to a portion of a protein from the H1N1 virus that is very similar to a region of a protein called hypocretin, which is key to narcolepsy.

This can happen in genetically susceptible people, the researchers said, adding that around 20 percent of the European population have the genetic profile making them vulnerable.

Previous studies in countries where GSK's Pandemrix vaccine was used in the 2009/2010 flu pandemic have found its use was linked to a significant rise in cases of narcolepsy in children.

Studies in Britain, Finland, Sweden and Ireland found such a link, and GSK says at least 900 narcolepsy cases associated with the vaccine have so far been reported in Europe.

Narcolepsy is thought to be brought about by loss of function in "wakefulness" cells called hypocretin cells in one of the brain's sleep centres.

CROSS-REACTIVITY

Emmanuel Mignot, a narcolepsy researcher and director of the Stanford Center for Sleep Sciences and Medicine who has been funded by GSK to look deeper into the link, said the relationship between H1N1 infection, vaccination and narcolepsy gave his team "some very interesting insight into possible causes of the condition".

In particular, he said, it strongly suggested that the defences, or T cells, of the immune system primed to attack H1N1 can occasionally also cross-react with hypocretin and somehow cause the destruction of brain cells that produce hypocretin.

"When we saw that the portion of the hypocretin that seemed to be recognised by the immune system in narcolepsy patients was similar to a part of the pandemic 2009 H1N1 influenza hemagglutinin molecule, we were very hopeful that we were on the right track," said Mignot's co-researcher Elizabeth Mellins, also at the Stanford University School of Medicine.

The Pandemrix vaccine mixed portions of viral proteins with a non-viral "adjuvant", or booster, designed to induce a stronger immune response. The shot was never used in the United States and has been withdrawn from use in Europe since the links to narcolepsy emerged.

The researchers said their study provided compelling evidence of "molecular mimicry" - the idea that because of a similarity between a pathogen protein and a human protein, the normal immune response to a pathogen, such as H1N1 flu, could in some people go awry, triggering the immune system to mistakenly attack healthy components of the body.

Mignot said the findings, published in the journal Science Translational Medicine, could pave the way to a new blood test to diagnose narcolepsy.

They also point towards potential new ways to try to intervene in narcolepsy before the specialised brain cells have been destroyed and led to the worst level of symptoms.

"This study will shape the next decade of research into narcolepsy," Mellins said.

Mignot, Mellins and their team now plan to study how T cell cross-reactivity to hypocretin can destroy the hypocretin cells in the brain, and whether this process could potentially be blocked to potentially prevent narcolepsy.
6. SAVE THE DATE! 2014 Summit Face-to-Face Meeting Information

The 2014 face-to-face annual meeting of the National Adult and Influenza Immunization Summit will be held in Atlanta, Georgia, at the Hyatt Regency hotel on May 13-15, 2014. As details are finalized, we will continue to inform the Summit partners on the agenda, rooming block, etc. Thank you all for your continued support and participation!

7. TFAH and RWJF Release Outbreaks: Protecting Americans from Infectious Diseases

Trust for America's Health (TFAH) and the Robert Wood Johnson Foundation (RWJF) have released a new report, Outbreaks: Protecting Americans from Infectious Diseases. The report finds the nation’s ability to prevent and control infectious disease outbreaks is hampered by outdated systems and limited resources.

From antibiotic-resistant Superbugs to Salmonella to the seasonal flu, infectious diseases disrupt lives and communities. Outbreaks found major gaps in the country's ability to prevent, control and treat routine and emerging threats, leaving Americans at unnecessary risk.

Some key findings include:

- One-third of states do not require healthcare facilities to report healthcare-associated infections (HAI), which will infect one out of every 20 hospitalized patients.
- Only one-quarter of states vaccinated at-least half of their population against the seasonal flu, which impacts 20 percent of Americans each year.
- Only two states and Washington, D.C. meet the U.S. Department of Health and Human Services (HHS) goal of vaccinating at least 90 percent of preschoolers (19- to 35-month olds) against the whooping cough.
- One-third of states do not cover routine HIV screening under their Medicaid program. More than 1.1 million Americans are living with HIV/AIDS, and almost one in five do not know they are infected.
- Two-thirds of states decreased funding for public health from Fiscal Year (FY) 2011-12 to FY 2012-13.

Outbreaks provides a series of recommendations that address many of the major gaps in infectious disease control and prevention, including:

- Strengthening fundamental capabilities - maintaining an expert public health workforce and giving them state-of-the-art tools required to conduct investigations to quickly detect, control and treat disease outbreaks;
- Countering antibiotic resistance and prioritizing research and development of medical countermeasures should be top health and national security priorities;
- Increasing the number of Americans receiving recommended vaccinations and routine screenings for particular diseases, since these are the safest and most effective ways to reduce infectious diseases in the United States;
- Modernizing disease surveillance and ensuring public health laboratories have the equipment and capacity to not only test for routine problems like foodborne illnesses but also for new and large-scale threats like bioterrorism or a pandemic;
- Supporting policies and incentives to reduce the number of healthcare-associated infections, ensuring Americans can receive safe care;
- Improving global coordination to prevent and contain emerging new illnesses like MERS while maintaining defenses against "old-school" threats like malaria and tuberculosis;
- Shoring up the nation’s public health preparedness capabilities to respond to major disease outbreaks or acts of bioterrorism to ensure new threats can be rapidly identified and contained; and
• Countering complacency around HIV/AIDS, hepatitis B and C (HBV and HCV) and tuberculosis-including countering an alarming rise in new HIV infections among young gay men, and screening millions of Baby Boomers who may be infected with HCV and do not know they are at risk for developing serious liver disease as they age.

The full report and state-specific press releases are available on the websites for TFAH and RWJF. If you have any questions or would like a detailed briefing on the report, please contact TFAH’s Senior Government Relations Manager, Dara Lieberman, by email or phone at (202) 223-9870 ext. 20.

In conjunction with the report, RWJF has declared Outbreak Week in New Public Health, which includes daily articles on outbreaks. You also can follow Outbreak Week on twitter at #OutbreakWeek.

8. The Pittsburgh Vaccination Research Group Releases 4 Pillars Standing Orders Program Toolkit to Increase Child Influenza Immunizations

The 4 Pillars Childhood Influenza Immunization Toolkit is an evidence-based collection of techniques for increasing childhood influenza vaccination, grouped into 4 strategic “pillars.” The pillars are: Convenience/Easy Access, Patient Notification, Enhanced Office Systems, and Immunization Champion. This toolkit has been tested in 20 pediatric and family medicine practices as of 2013 and its use in intervention has resulted in substantial increases in promotion and administration of influenza vaccine to children and teens.

9. Update: Avian Influenza A (H7N9) Virus – December 9 (CDC)

Human infections with a new avian influenza A (H7N9) virus continue to be reported in China. The virus has been detected in poultry in China as well. While mild illness in human cases has been seen, most patients have had severe respiratory illness and some people have died. No cases of H7N9 outside of China have been reported.

10. Planning and Preparedness: Health Professionals and Seasonal Flu – (HHS)

Health care providers play an important role during influenza season. HHS has released guidance and information to assist health care providers and service organizations to plan and respond to seasonal flu.


Partnering for Prevention from Sea to Summit is the theme of the 11th National Conference on Immunization and Health Coalitions (NCIHC), which will take place in Seattle, WA from May 21-23, 2014. NCIHC is the only conference solely dedicated to collaboration and partnership as a way to improve the health status of communities. Keynote speakers will include Dr. David Williams, Dr. William Foege, Dr. Wendy Sue Swanson (Seattle Mama Doc), and Sara Rosenbaum, JD.

Participants are invited to submit abstracts for presentation at the conference. Abstracts are welcome from all disciplines, including coalition staff and members, community-based providers, healthcare providers, social workers, researchers, government agencies, health communication specialists, and others. Abstracts are due December 13, 2013.

12. Summit Website Offers Wonderful Resources on Influenza Vaccination!

Remember to visit the Summit website for the latest on influenza immunization resources and to view archived copies of the weekly Updates.