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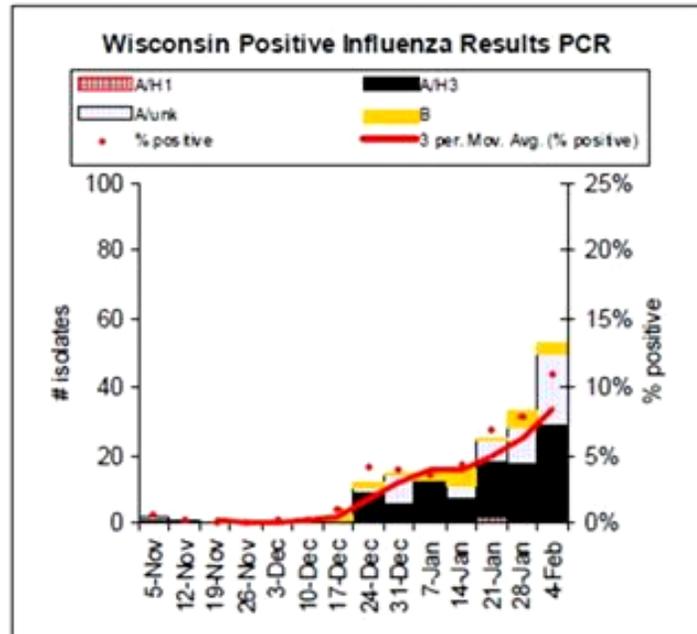
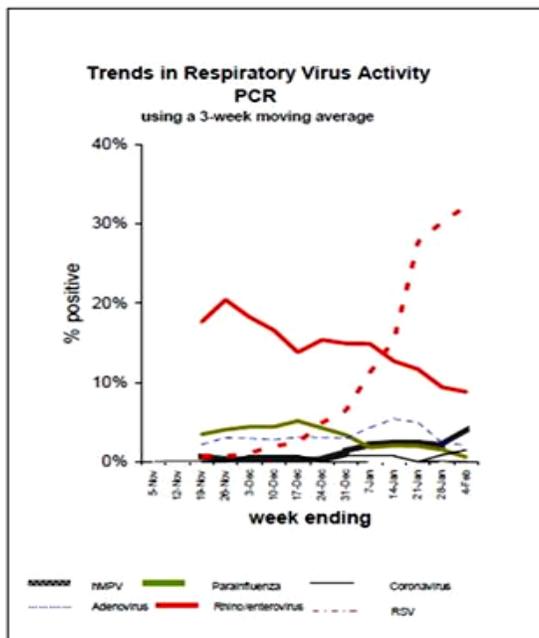
1. Novel Influenza A/H1N1, Wisconsin 2011

On November 30, 2011, a previously healthy adult male experienced acute onset of fever, cough, and congestion. He was seen by a health care provider on December 1, who submitted a nasal swab that tested rt-PCR-positive for influenza A. The patient was treated with oseltamivir and has since recovered from his illness. The specimen was forwarded to the Wisconsin State Laboratory of Hygiene for routine influenza surveillance testing that included subtyping. On December 8, testing indicated an unsubtypable influenza A virus, so the specimen was shipped to the CDC for further characterization. On December 10, genome sequencing confirmed the virus to be a novel influenza A (H1N1) virus with genes of swine, human, and avian lineage.

Upon reinterview, the patient reported multiple close contacts with swine at work during the week before illness onset. No other close contacts or family members were ill before the patient's illness onset. A co-worker who developed signs and symptoms of upper respiratory illness on December 10 was rt-PCR negative for influenza A and B viruses. Surveillance was enhanced by asking area providers to collect and submit specimens for influenza virus testing

Recent influenza and other respiratory virus activity, Wisconsin

Influenza-like illness activity remains low (below baseline limits) statewide and in each of the 5 public health regions. Respiratory syncytial virus (RSV) is now widespread in the State, along with rhinovirus/enterovirus. Recently an increase in adenovirus infections has been noted statewide. Parainfluenza activity is decreasing, while coronavirus and human metapneumovirus (hMPV) infections activity is low. If you wish to receive the Wisconsin DPH Weekly Respiratory Report via email please send an email to Thomas.Haupt@dhs.wi.gov. Reports are posted on the DHS website at www.dhs.wisconsin.gov/communicable/influenza/Tracking.htm



2. Surveillance and Outbreak Support (SOS) Team provides added capacity during disease outbreak investigations

During October 2009 the Wisconsin Division of Public Health received a pilot grant to develop new methods to detect, investigate, respond to and control outbreaks of foodborne diseases, focusing primarily on outbreaks caused by *Salmonella*, Shiga toxin-producing *Escherichia coli* (STEC), and *Listeria*. Some of the funding was used to establish the Surveillance and Outbreak Support Team (SOS Team), staffed by graduate students, to help state and local investigators interview patients, enter and maintain data in WEDSS, and investigate outbreaks. During 2010, CDC expanded the project to four additional sites, and in 2011, the project was renamed FoodCORE (more information about FoodCORE: <http://www.cdc.gov/ncezid/dfwed/orpb/foodcore/>).

SOS Team students work part-time during afternoon and evenings to aid CDES epidemiologists with surveillance and outbreak activities and to support LHDs in reaching and interviewing patients diagnosed with enteric illnesses. The SOS Team is comprised of four UW-Madison Master of Public Health students. In addition to providing direct support for disease surveillance and control activities in Wisconsin it serves as a training ground for those who are interested in epidemiology, infectious disease surveillance, and outbreak investigations. The SOS Team is led by Justin Kohl and Rachel Klos, WI-DPH foodborne disease epidemiologists. At the request of local health departments, the student team will conduct routine enteric interviews, supplemental interviews and outbreak related interviews.

SOS Team in Action

During November and December 2011, the SOS Team helped with six foodborne outbreak investigations that occurred simultaneously in three Wisconsin counties, all while continuing to provide support to other jurisdictions with routine follow-up of enteric illnesses.

Among those outbreaks, the Waukesha County Public Health Division (WCPHD) requested the team's assistance when an outbreak of gastrointestinal illness occurred among attendees of a local wedding. WCPHD staff was already busy with a large number of communicable disease investigations, including 52 cases of pertussis, 9 norovirus outbreaks in long-term care facilities and 4 foodborne outbreaks associated with restaurants. While local public and environmental health officials obtained a list of attendees, coordinated stool specimen collection and submission, and conducted an assessment at the reception facility, the SOS Team...

- Developed the outbreak questionnaire
- Conducted interviews with ill and well wedding attendees
 - 37 interviews were completed within 48 hours of having received the outbreak notification from WCPHD
 - Ill persons were asked about high risk occupations such as healthcare worker, food handler, daycare worker, or daycare attendee so that exclusions could be made as necessary
- Built a line list of attendees, onset dates, records of symptoms and lab results
- Constructed an epidemic curve to describe the timing and magnitude of illnesses
- Created and populated an EpiInfo database of exposure and illness information gathered from interviews
- Performed statistical analyses to assess if any particular exposures (foods, drinks, etc.) were associated with illness
- Collaborated with county officials to draft the outbreak investigation report

How can the SOS Team help you?

3. Legionnaires' Disease Outbreak Linked to Hospital's Decorative Fountain

A 2010 outbreak of Legionnaires' disease in Wisconsin was linked to a decorative fountain in a hospital lobby. A report of the investigation is published in the February 2012 issue of *Infection Control and Hospital Epidemiology*, the journal of the Society for Healthcare Epidemiology of America.

The outbreak was first reported by an alert infection preventionist who noticed an increase of Legionnaires' disease cases within the same health system in southeast Wisconsin. State and local public health officials worked quickly with hospital staff to launch an investigation to determine the source of the outbreak. Legionnaires' disease is a severe and potentially life-threatening form of pneumonia caused by the bacteria *Legionella* and is spread through inhalation or contact with contaminated water sources.

Through active case finding and detailed patient interviews officials identified 8 cases of laboratory-confirmed Legionnaires' disease. All 8 case patients had visited the same hospital during the 10 days prior to their illness onset. Subsequent environmental testing within the hospital detected *Legionella* in high concentration in samples collected from the "water wall" decorative fountain located in the hospital's main lobby.

Six of the eight patients specifically recalled entering or exiting the facility through the main lobby where the fountain is located; 2 patients were uncertain whether they had passed by the fountain. The occurrence of 8 cases during a 3.5 week period, the absence of other common exposures, the timing of exposure in relation to each patient's onset of illness and the degree of *Legionella* contamination in the fountain strongly supported the conclusion that the decorative fountain was the source of the outbreak. Hospital officials quickly shut down the fountain when it was first suspected as a source, and notified staff and approximately 4,000 potentially exposed patients and visitors. Prior to the investigation, the facility staff performed routine cleaning and maintenance of the fountain per facility policies.

All eight of the outbreak case patients recovered from the disease, and no cases occurred following the shutdown of the fountain. The outbreak is notable because none of the patients with Legionnaires' disease was an inpatient at the hospital when exposed, and some patients reported only incidental exposure to the fountain, such as delivering a package or visiting the hospital pharmacy.

At the time of the outbreak there was no published information on the effectiveness of fountain disinfection and maintenance procedures to reduce the risks of *Legionella* contamination. The Wisconsin Division of Public Health developed interim guidelines advising healthcare facilities with decorative fountains to establish strict maintenance procedures and conduct periodic bacteriologic monitoring for *Legionella*. The guidelines stress that until additional data are available that demonstrate effective maintenance procedures for eliminating the risk of *Legionella* transmission from indoor decorative water fountains in healthcare settings, the potential for decorative water fountains of any type to become contaminated with *Legionella* bacteria should be considered.

This outbreak is a reminder of the importance of surveillance systems that can detect unusual clusters of diseases, and of the collaborative response required to investigate and implement control measures. An infection preventionist was the first to suspect the outbreak and notify public health, while local public health authorities conducted the detailed patient interviews that pointed to a common source of exposure. The hospital's decision to immediately shut off the fountain was arguably the most important step taken to prevent further exposures, while state and local environmental health officials responded the same day to inspect the facility and conduct environmental sampling. The Wisconsin State Laboratory of Hygiene played a crucial role in the investigation. Using the most current laboratory methods they were able to test the water and other samples to detect the presence of *Legionella* bacteria and confirm the cause of the outbreak.

4. Upcoming Meetings, Trainings & Important Dates

- March 24, 2012 **World TB Day**
- April 2-8, 2012 **National Public Health Week** <http://www.nphw.org/>
- April 7, 2012 **World Health Day**



- **TB Summit 2012**

- Friday, March 23, 8:00am – 4:30pm in Madison and via webcast.

Public Health Madison-Dane County is sponsoring the all-day event, to be held at the Alliant Center. Two national speakers; Dr. Randall Reves, pulmonologist at the University of Denver and Director of Denver Metro TB Control Program, and Dr. Lisa Armitige, Pediatric Infectious Disease specialist at the University of Texas TB Hospital and Heartland National TB Consulting Center, will be joined by local speakers and a panel of former TB patients to provide updates, data, and discussion of tuberculosis in WI. The event will be webcast live (available the day of the Summit at <http://dhsmedia.wi.gov/main/Viewer/?peid=1d9ce75fbb20440ea340964bce7a4014&autoStart=true>) and archived on the state TB website one week after the presentations.

Registration for attendance in Madison is limited to 175 persons. The Summit and parking are free, but registrants are responsible for their own lunches. The registration form is available at <http://www.publichealthmdc.com/> in the "What's New?" box. Registration deadline is Friday, March 9. No registration is necessary for access to the webcast.

- **LHD Foodborne Outbreak Training**

- Wednesday, April 18 in Madison, WI
- Wednesday, April 25 in Wausau, WI

Contact Traci DeSalvo at 608-267-9009 if you have questions.

- **CDC National Healthcare Safety Network (NHSN) database Training**

The DPH Healthcare-Associated Infections Prevention Program Team will be conducting a series of in-person training sessions on the CDC National Healthcare Safety Network (NHSN) database. There will be a two day, back-to-back session in each public health region (please note: the Milwaukee sessions are within the same week, but are not back-to-back). The first day of training will be for hospitals, covering CMS reporting for 2012/2013, results from the CLABSI data validation, NHSN case studies/protocol Q&A, and analysis. The second day of training is for dialysis centers, including topics like enrollment, the dialysis event surveillance protocol, navigation in NHSN, and the reporting requirements for the CMS program. Facilities can attend sessions in any public health region, but we selected one site in each for convenience.

The training dates include:

- March 6 (hospitals): Eau Claire, Host: Mayo Clinic Health System in Eau Claire (Luther Hospital)
- March 7 (dialysis): Eau Claire, Host: Mayo Clinic Health System in Eau Claire (Luther Hospital)
- March 21 (hospitals): Neenah, Host: Theda Clark Medical Center
- March 22 (dialysis): Neenah, Host: Theda Clark Medical Center
- March 28 (hospitals): Rhinelander, Host: Ministry Saint Mary's Hospital
- March 29 (dialysis): Rhinelander, Host: Ministry Saint Mary's Hospital
- April 3 (hospitals): Madison, Host: Meriter Hospital at the Meriter Business Center
- April 4 (dialysis): Madison, Host: Meriter Hospital at the Meriter Business Center
- April 10 (hospitals): Milwaukee, Host: Wheaton Franciscan - North Market at St. Joseph's Hospital
- April 12 (dialysis): Milwaukee, Host: Wheaton Franciscan - North Market at St. Joseph's Hospital

Please register online for these training sessions at

<http://4.selectsurvey.net/dhs/TakeSurvey.aspx?SurveyID=n60L5133>. Registration will be open until a week before each session. There is no registration fee for the training. The sessions will be hosted at a hospital in the region and lunch is available on your own in the cafeteria or off-site. A big thank you to each of our host hospitals!! The sessions will run from 9:00 a.m. to 3:00 p.m. and specific session agendas will be sent to registrants closer to the date of their session

The *Wisconsin Epi Express* is posted online at <http://www.dhs.wisconsin.gov/communicable/EpiExpress/index.htm> and distributed by email to local, tribal, regional and state public health officials and infection preventionists in Wisconsin. Distribution list removal or addition requests should be sent to: Barb Anderson: Barb.Anderson@wi.gov