

# Communicable Disease & Immunization Update

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## August is National Immunization Awareness Month

National Immunization Awareness Month (NIAM) was created to increase awareness of the importance of vaccinating against dangerous and sometimes deadly diseases. Healthcare providers can help achieve this goal by encouraging their patients to get up-to-date with their vaccines. Healthcare providers can access online NIAM resources to explore, use and apply in their routine practice.<sup>1</sup>

### Heath Department Immunization Web Pages

The Health Department has immunization resources for both healthcare providers and the public:

- **For healthcare providers:** [www.tpchd.org/VFCproviders](http://www.tpchd.org/VFCproviders) provides information about the Vaccine for Children (VFC) Program; vaccines and immunizations; and related documents and links.
- **For the public:** [www.tpchd.org/immunizations](http://www.tpchd.org/immunizations) provides information about children's immunizations, adult Immunizations, and related documents and links.

### Pierce County Immunization Coalition (PCIC)

PCIC is comprised of community partners that advocate for Pierce County residents' immunization needs. PCIC is looking for more members from family practice, faith-based and community-based organizations. For more information, please contact Cindy Smith at [csmith@tpchd.org](mailto:csmith@tpchd.org) or (253) 798-3578.

### Washington State Immunization Information System (WAIIS)

WAIIS (formerly known as Child Profile) is a lifetime immunization registry that tracks immunization records for people of all ages. Healthcare providers can visit [www.waiis.wa.gov](http://www.waiis.wa.gov) or call (800) 325-5599 to register for free to use WAIIS.<sup>2</sup>

### Immunization Action Coalition (IAC)

IAC's web site, [www.immunize.org](http://www.immunize.org), is devoted to providing immunization resources to healthcare providers. The "Ask the Experts" page allows healthcare providers to submit questions to and receive answers from Centers for Disease Control and Prevention (CDC) vaccine experts. The "Diseases and Vaccines" page contains a list of vaccine-preventable diseases (VPD) that healthcare providers can select to view photos and videos to learn more about the impact of each disease.<sup>3</sup>

Immunization Action Coalition of Washington's (IACW's) goal is to minimize the impact of VPD in Washington State. On IACW's web site, [www.withinreachwa.org](http://www.withinreachwa.org), healthcare providers can find information, resources and materials about the administration of vaccines across the lifespan.<sup>4</sup>

### Parents of Kids with Infectious Diseases (PKids)

PKids' web site, [www.pkids.org](http://www.pkids.org), aims to educate the public about VPD. The "Immunizations and Vaccines" page

contains a library of video segments that highlight parents' stories of the lifelong impacts of not vaccinating their children.<sup>5</sup>

#### Sources:

1. Healthfinder.gov. National Immunization Awareness Month. [Online] 2013. [www.healthfinder.gov/NHO/AugustToolkit.aspx](http://www.healthfinder.gov/NHO/AugustToolkit.aspx).
2. Washington State Immunization Information System. [Online] 2013. <https://fortress.wa.gov/doh/cpir/iweb/>.
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5. Parents of Kids with Infectious Diseases. [Online] 2013. [www.pkids.org](http://www.pkids.org).
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# Chronic Hepatitis C Among Baby Boomers

Hepatitis C (HCV) is an increasing cause of morbidity and mortality in the United States. The Centers for Disease Control and Prevention (CDC) estimates that 2.7 to 3.9 million Americans are living with the infection, and people born between 1945 and 1965 account for three-fourths of all HCV cases. CDC estimates that 75% of people with HCV are unaware they are infected. As HCV silently invades the body, it often leads to liver cirrhosis, hepatocellular carcinoma (HCC) and extrahepatic complications decades following onset of infection. CDC recommends people born between 1945 and 1965 get a one-time HCV antibody blood test.<sup>1</sup> Treatment improvements have made it important to test, identify and treat people infected with HCV.

## Background

HCV is a bloodborne infection primarily transmitted through percutaneous exposure. Studies show the highest rates of infection (60-90%) are found among people who inject drugs; recipients of infected blood or blood products; and hemophiliacs. Moderate rates of infection (10-30%) are found among people with frequent percutaneous exposure to small amounts of blood, such as hemodialysis. Lower rates of infection (1-10%) are found among people with unapparent percutaneous or mucosal exposure, such as high-risk sexual behavior or household contacts; or percutaneous exposure among healthcare workers (1-2%).

According to the National Health and Nutrition Examination Survey (NHANES), the prevalence of HCV infection is shown to be highest (3.25%) among people born between 1945 and 1965, which is five times higher among adults born during other years. Another national health survey revealed that 55% of people infected with HCV reported an exposure risk (e.g., injection drug use or blood transfusions before 1992), while the remaining 45% reported no known exposure risk.<sup>1</sup>

Acute HCV is described as having nausea, anorexia, fever, malaise, abdominal pain, jaundice or elevated serum alanine aminotransferase (ALT) levels >400 IU/L.<sup>2</sup> However, most acute HCV cases are asymptomatic. As a result, approximately 75-85% of people with HCV develop chronic infection that can lead to serious liver complications.<sup>1</sup>

## Expansion of Testing Guidelines: Baby Boomers

In August 2012, in *Hepatitis C: Expansion of Testing Guidelines*, CDC revised their guidelines to include a one-time HCV antibody blood test for people born between 1945 and 1965.<sup>3</sup> In June 2013, in *Screening for Hepatitis C Virus in Adults: Clinical Summary*, United States Preventive Service Task Force (USPSTF) summarized this finding as a grade B recommendation.

### Who should be tested for HCV?

#### New, expanded recommendation:

- All people born between 1945 and 1965

#### Existing, risk-based guidelines:

- Anyone who has ever injected illegal drugs
- Recipients of blood transfusions or solid organ transplants before July 1992, or clotting factor concentrates made before 1987
- Patients who have ever received long-term hemodialysis treatment
- People with known exposures to HCV, such as:
  - Healthcare workers after needle sticks involving blood from a patient with HCV
  - Recipients of blood or organs from a donor who later tested positive for HCV
- People living with HIV
- People with signs or symptoms of liver disease (e.g., abnormal liver enzyme tests)
- Children born to mothers who have HCV

## Hepatitis C Testing and Linkage to Care

Past HCV testing guidelines focused on procedures to detect and confirm HCV antibodies. Reactive test results are unable to distinguish between people with resolved past HCV infection and people who are currently infected.<sup>4</sup> A recent study conducted at eight United States sites found that about half of people newly reported with HCV antibody did not receive HCV RNA confirmatory testing to determine active infection.<sup>5</sup>

To improve HCV testing guidelines, CDC published *Interpretation of Results of Tests for Hepatitis C* describing testing outcomes, interpretation and further actions.<sup>6</sup> CDC recommends for people with a reactive HCV antibody, administering a supplemental HCV RNA test to determine if the infection is current.

When HCV RNA is detected, healthcare providers should link people to appropriate counseling, care and treatment. Refer to CDC's *Recommended Testing Sequence for Identifying Current Hepatitis C Virus (HCV) Infection* algorithm for the steps to test for HCV and link infected people to appropriate care.<sup>7</sup>

#### Sources:

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3. NCHHSTP Newsroom Archive. [Online] August 2012. [www.cdc.gov/nchhstp/newsroom/docs/HCV-Testing-Recs.pdf](http://www.cdc.gov/nchhstp/newsroom/docs/HCV-Testing-Recs.pdf).
4. Testing for HCV infection: An update of guidelines for clinicians and laboratorians. CDC. May 7, 2013, MMWR, Vol. 62, pp. 1-4.
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# Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

In September 2012, the Saudi Arabia Ministry of Health announced a new form of coronavirus diagnosed in three people, two of whom died. In April 2012, the virus was linked to an earlier outbreak of severe respiratory illness at a Jordanian hospital that resulted in two deaths.

As of August 12, 2013, 94 cases and 46 deaths have occurred.<sup>1</sup> The majority of these cases (74) occurred in Saudi Arabia, with one to three locally acquired cases (including person-to-person transmission) reported in Jordan, Qatar and the United Arab Emirates. Several imported cases (including reports of person-to-person transmission) have occurred in Germany, the United Kingdom, Tunisia, France and Italy. Currently, nearly one-half of cases have been associated with hospital clusters.<sup>2</sup>

## Background

The novel coronavirus has been named Middle East Respiratory Syndrome Coronavirus (MERS-CoV), which resembles the Severe Acute Respiratory Syndrome coronavirus (SARS-CoV) that emerged in 2003. Coronavirus contains a single-stranded RNA virus that infects a number of different species and is one of the common etiological agents of the common cold in humans. Before the emergence of MERS-CoV, there were five known coronaviruses infecting humans, including SARS-CoV, which caused over 8,000 cases and 900 deaths in 2003-2004. Although the origin of MERS-CoV remains unknown, it appears closely related to a coronavirus that infects bats.

Most confirmed MERS-CoV infections have resulted in severe acute respiratory illness with symptoms including fever, cough and shortness of breath. Some people known to be infected with MERS-CoV have reported mild respiratory illness. Diarrhea, other gastrointestinal symptoms and renal failure have also been reported. Although information on MERS-CoV is limited, the current mortality rate of

50% is highly concerning. SARS-CoV had a mortality rate of 11%.

Currently, no cases have been reported in the United States and the Centers for Disease Control and Prevention (CDC) has not issued any travel warnings.

## MERS-CoV and Muslim Pilgrimages

The Saudi Arabia Health Ministry has posted a warning on their web site for people who are at risk for severe respiratory illness (elderly people, people with chronic illness and pregnant women) to postpone the Hajj and Umrah Muslim pilgrimages. Hajj is the major pilgrimage that takes place once a year and is scheduled to occur in mid-October 2013. The Umrah pilgrimage can be journeyed at any time during the year. The most popular time to take Umrah is during Ramadan, which was underway through August 7, 2013.<sup>3</sup>

On July 25, the World Health Organization (WHO) issued guidance that pilgrims with pre-existing major medical conditions (e.g., chronic diseases such as diabetes, chronic lung disease, immunodeficiency) that can increase the likelihood of illness (including MERS-CoV infection) should consult a healthcare provider before travelling to review the risk and assess whether making the pilgrimage is advisable.<sup>4</sup>

## Testing for and Reporting MERS-CoV

Washington State Department of Health has categorized MERS-CoV as a notifiable condition of "Rare Disease of Public Health Significance."<sup>5</sup> Providers and facilities should immediately report to the Health Department if they suspect MERS-CoV and institute infection control precautions (airborne, droplet, contact and standard precautions).<sup>6</sup>

Please report an acute respiratory infection that may include fever (≥

38°C , 100.4°F), cough, **and all of the following:**

- Suspicion of pulmonary parenchymal disease (e.g., pneumonia or acute respiratory distress syndrome based on clinical or radiological evidence of consolidation); **and**
- Travel from the Arabian Peninsula or adjacent countries\* within 14 days of onset; **and**
- Symptoms not otherwise explained, including negative clinically indicated tests.\*\*

In addition, also consider evaluating for MERS-CoV infection in people with:

- Severe acute lower respiratory illness of known etiology within 14 days after travel from the Arabian Peninsula or neighboring countries\* not responding to therapy; **or**
- Severe acute lower respiratory illness and having close contact\*\*\* with a traveler with fever and acute respiratory illness within 14 days after travel to risk areas.\*

Washington State Public Health Laboratories can test respiratory specimens for MERS-CoV by using a CDC-developed PCR assay. Call the Health Department to coordinate testing at Washington State Public Health Laboratories. CDC can test using either a stool or serum sample. Ideally, collect respiratory specimens from two or more sites, such as a nasopharyngeal swab and a lower respiratory tract sputum, bronchoalveolar lavage, bronchial wash or tracheal aspirate. If possible, collect specimens at different times after onset. Lower respiratory samples are preferred. Refer to CDC's *Interim Guidelines for Collection, Processing and Transport of Clinical Specimens from Patients Under Investigation for Middle Eastern Respiratory Syndrome (MERS)* for more details.<sup>7</sup>

To report a suspected case of MERS-CoV, please call (253) 798-6410.

\* Countries on or neighboring the Arabian Peninsula include Bahrain, Iraq, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Territories, Qatar, Saudi Arabia, Syria, the United Arab Emirates and Yemen

\*\* Examples of respiratory pathogens causing community-acquired pneumonia include influenza A and B, respiratory syncytial virus, *Streptococcus pneumoniae* and *Legionella pneumophila*

\*\*\* Close contact is providing care (including healthcare), similar close physical contact or staying at the same place (e.g., lived with) the patient while the patient was ill

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7. CDC. Coronavirus. [Online] June 2013. [www.cdc.gov/coronavirus/mers/downloads/Interim-Guidelines-MERS-Collection-Processing-Transport.pdf](http://www.cdc.gov/coronavirus/mers/downloads/Interim-Guidelines-MERS-Collection-Processing-Transport.pdf).

## H3N2v Influenza

**Influenza A H3N2 variant (H3N2v) is a swine influenza that was first detected in humans in 2011.**

In 2012, 309 cases of a variant H3N2 influenza A (H3N2v) were detected in humans. Most of these cases reported exposure to pigs. As of July 29, 14 cases of H3N2v have been identified this summer, all but one in Indiana.

H3N2v virus emerged from a reassortment with the matrix (M) gene from the 2009 influenza A-H1N1 pandemic virus. Most of these cases were associated with exposure to pigs from agricultural fairs. Many fairs have swine barns with pigs gathered from different locations, who come into close contact with each other and with humans. Such venues allow the spread of influenza among pigs and between pigs and people. Pigs can spread influenza even without exhibiting respiratory symptoms.<sup>1</sup>

The clinical signs of H3N2v are consistent with seasonal influenza (fever, cough, myalgia and headache). Rare person-to-person transmission of H3N2v has occurred; however, most people who have become ill have reported exposure to pigs.

Providers who suspect H3N2v in people with recent exposure to pigs should contact the Health Department. The Health Department will facilitate the Washington State Public Health Laboratories testing process. Rapid tests for influenza may not detect H3N2v virus. Likewise, a negative rapid test result does not necessarily exclude the diagnosis of H3N2v.

The Centers for Disease Control and Prevention (CDC) recommends that people at high risk for influenza-related complications should avoid exposure to pigs and swine barns at fairs this year. People who have contact with pigs, including visitors to fairs, should follow CDC's precautionary guidelines: wash hands after exposure and avoid eating or drinking in animal areas.<sup>1</sup>

**Source:**

1. CDC. CDC Official Health Advisory CDCHAN-00351. [Online] July 5, 2013. [www.bt.cdc.gov/HAN/han00351.asp](http://www.bt.cdc.gov/HAN/han00351.asp).



**Pigs can spread H3N2v influenza among each other and to humans even without exhibiting respiratory symptoms.**

**People at high-risk for influenza-related complications should avoid exposure to pigs and swine barns at agricultural fairs.**

# Reported Cases of Selected Diseases for June 2013

## Preliminary case counts

ENTERIC DISEASES	June 2013	Jan.-June 2013	Jan.-June 2012
Campylobacter	24	120	93
Cryptosporidium	2	9	7
<i>Giardia lamblia</i>	1	26	29
Hemolytic Uremic Syndrome (HUS)	0	0	0
Salmonella	4	28	35
Shigella	0	1	0
Enterohemorrhagic <i>E. coli</i>	0	7	5
HEPATITIS			
Hepatitis A (Acute)	0	1	1
Hepatitis B (Acute)	1	1	0
Hepatitis C (Acute)	0	2	0
Hepatitis B (Chronic)	18	68	44
Hepatitis C (Chronic)	60	395	397
INVASIVE DISEASES/BACTERIAL			
Meningococcal	0	0	3
Listeriosis	0	0	0
SEXUALLY TRANSMITTED DISEASES			
Chlamydia	320	2,072	2,182
Gonorrhea	69	460	262
Syphilis-Primary, Secondary & Early Latent	0	17	23
Syphilis, Late & Late Latent	0	6	12
TUBERCULOSIS			
Tuberculosis	3	13	13
VACCINE PREVENTABLE DISEASES			
Measles	0	0	0
Mumps	0	1	0
Rubella	0	0	0
Pertussis	9	77	475
OTHER DISEASES			
Botulism (wound)	0	1	0
Carbapenemase-Resistant Enterobacteracea	0	2	0
Dengue Fever	0	0	0
Legionella	0	2	2
Lyme Disease	0	0	2
Malaria	0	2	3
Rabies Prophylaxis	0	5	3
Typhoid Fever	0	0	0
West Nile Virus	0	0	0
Yersiniosis	0	0	2

Please remember to report communicable diseases to the Health Department. Accurate reporting helps stop the spread of communicable diseases and helps us learn more about our community. Provider and laboratory reporting of specific diseases is required by law.

**24-Hour  
Reporting Line**  
(253) 798-6534

**Confidential Fax  
Line for Case  
Reports**  
(253) 798-7666