The Communicable Disease Epidemiology & Immunization **Quarterly**

West Africa Ebola Outbreak Over: A Summary of Public Health's Response

West Africa is now considered free of Ebola virus transmission. On December 29, 2015, the World Health Organization declared Guinea free of Ebola virus transmission, and the country has now entered a 90-day period of heightened surveillance. Travelers from Guinea will continue to enter the United States through one of the designated US airports conducting enhanced entry screening. However, CDC no longer recommends active monitoring for travelers arriving from Guinea. Enhanced entry screening and funneled entry to the United States through designated airports was previously discontinued for travelers coming to the United States from Sierra Leone and Liberia. Since December 2013, worldwide there have been 28,638 cases of Ebola virus disease and 11,316 deaths. In the United States, four cases and one death occurred.

Returning Traveler Monitoring Summary

During October 18, 2014–December 29, 2015, Communicable Disease Epidemiology staff monitored a total of 236 travelers and health care personnel returning from countries in West Africa with widespread Ebola transmission (see Figure, p2). Among the persons who were monitored for symptoms of Ebola, 216 had low risk exposures and 20 had some risk exposures. Depending on risk level, travelers were monitored by phone, video conferencing, or in-person visits for 21 days after departure from West Africa. Three patients were hospitalized for symptoms of illness compatible with early Ebola infection; two were tested and were negative for Ebola. Ultimately, all were found to have another cause of their symptoms. Additionally, a fourth patient who had returned from Liberia soon after the monitoring period for Liberia was over developed serious illness compatible with Ebola. The patient was hospitalized and found to have malaria.

Though returning travelers from West Africa will no longer be actively monitored by Public Health, travelers from Guinea, Liberia, or Sierra Leone are recommended to self-observe until 21 days after departing one of these countries. People who develop fever, diarrhea, vomiting, weakness, fatigue, stomach pain, muscle pain, or unexplained bleeding or bruising should be instructed to begin taking their temperature and notify public health authorities or seek health care at the earliest sign of illness.

Ebola Resources:

Emergency Department Evaluation Guidance

Outpatient and Ambulatory Care Setting Guidance

Additional Resources for US Healthcare Settings

Public Health
Seattle & King County

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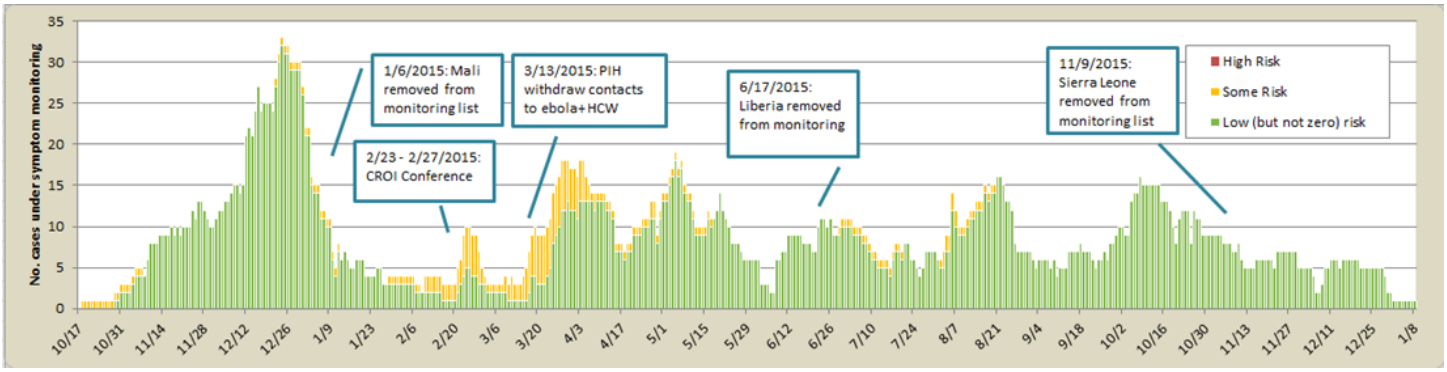
In This Issue:

Figure. Travelers Monitored for Ebola per Day in King County, Oct 2014 – Present, by CDC Risk Designation.



Norovirus Update: A Review of This Season's Reports

Norovirus is a highly contagious gastrointestinal illness commonly occurring in the community during winter months. The virus can remain viable on surfaces for weeks if not cleaned and sanitized appropriately. It is also a disease of high public interest, because of the intensity of its acute symptoms (though fortunately these are generally brief and self-limiting) and its high potential for causing outbreaks. Norovirus is the most common cause of foodborne illness in the United States.[1]

Although individual cases are not reportable to Public Health, we investigate outbreaks of norovirus and use these data to gauge norovirus activity in the community. Like influenza, norovirus transmission peaks during winter months, most likely because of increased time spent indoors in close contact with others. Currently, Public Health is observing increased norovirus activity in King County.

During October –December 2015, Public Health investigated 25 outbreaks of suspected norovirus infection. The majority of norovirus outbreaks reported to Public Health occurred at long-term care facilities (54%), followed by restaurants (13%), and child cares (13%). At least three of these outbreaks resulted in hospitalizations; no deaths were reported. During a typical norovirus season (Sept – March), King County receives between 30 and 50 outbreak reports; many additional norovirus outbreaks likely go unreported.

Recent attention has been directed toward the emergence of the novel GII.17 norovirus strain "Kawasaki 2014." This strain first appeared in Asia during the winter of 2014-15, before being observed in Italy in February 2015. This winter, the Kawasaki strain has been isolated from both sporadic and outbreak-associated cases in Minnesota, suggesting that the strain is now present in the United States.[2] Although there is no evidence at this time that the Kawasaki strain is more infectious or virulent than other strains, its introduction may lead to a greater number of infections because fewer people in the community have immunity.[3] Simple but important measures such as maintaining vigilant handwashing, ensuring proper clean-up of contaminated surfaces with bleach, and limiting interactions with others while ill can help to minimize this risk.

For more information about norovirus, visit: http://www.kingcounty.gov/healthservices/health/communicable/diseases/norovirus.aspx

In Case You Missed It …Zika Virus

Pregnant women who are planning to travel internationally should be counseled to take precautions against Zika virus. Pregnant women should also avoid exposure to semen from someone who has been exposed to Zika virus. Women trying to become pregnant should consult with their healthcare professional if their partner has had exposure to Zika virus. For more information, visit the following resources online:

Public Health - Seattle & King County Health Advisories

Public Health Insider Blog

[1] http://www.cdc.gov/norovirus/about/overview.html

[2] http://www.health.state.mn.us/news/pressrel/2015/norovirus122215.html

[3] Short-term immunity to individual norovirus strains is estimated to be 6 months – 2 years. http://wwwnc.cdc.gov/eid/article/19/8/13-0472_article

Meningococcal Vaccines: Facts and Frequently Asked Questions

Meningococcal disease results from a bacterial infection caused by *Neisseria meningitidis* and is spread through direct contact with large droplet respiratory tract secretions from persons who are ill or asymptomatic carriers. There are 13 serotypes or strains; invasive disease is typically caused by A, B, C, W, and Y strains. The B, C, and Y strains are the most common causes of meningococcal disease in the United States, while the A strain predominates in sub-Saharan Africa. During the past five years, on average, 19 cases of invasive meningococcal disease have been reported in Washington State each year (see Table 1).

Invasive meningococcal disease can cause meningitis, sepsis, and focal disease such as pneumonia and arthritis. Severe illness can occur within hours of disease onset; case fatality rates range from 10-15% in meningococcal meningitis up to 40% in meningococcemia. 20% of survivors experience long-term complications such as limb or digit loss, neurological disability, and hearing loss. Treatment for suspected invasive meningococcal disease includes broad-spectrum antibiotics; penicillin is recommended once *N. meningitidis* has been confirmed. Meningococcal disease is an immediately reportable condition in all US states. **To report in King County, call 206-296-4774**.

Vaccination is the best protection against meningococcal disease. Recommendations vary according to age, health status, and other risk factors. The six meningococcal vaccines licensed in the US are summarized in Table 2.

Table 1. Number of Confirmed Meningococcal Disease Cases by Serogroup, Washington State, 2011-2015

Year	Total cases*	School-aged†	B	C	Y	W135	Other
2011	22	7	10	2	7	1	0
2012	24	8	9	4	8	0	1
2013	20	2	9	2	3	2	0
2014	17	2	4	5	4	1	1
2015	10	2	3	4	1	2	0
Total	93	21	35	17	23	6	2

*A small number of isolates were not available for serogrouping or were unable to be serogrouped.
†Age range 5-23 years

Table 2. Meningococcal Vaccines Licensed for Use in the US

Trade Name	Vaccine Type	Serogroups	Approved Ages
Menactra (MenACWY-D)	Conjugate	A, C, W, Y	9 mos—55 yrs*
Menveo (MenACWY-CRM)	Conjugate	A, C, W, Y	2 mos—55 yrs*
Menomune (MPSV4)	Polysaccharide	A, C, W, Y	2 yrs & older
MenHibrix (Hib-MenCY)	Conjugate	C, Y and Hib	6 wks—18 mos
Trumenba (MenB)	Protein	B	10—25 yrs†
Bexsero (MenB)	Protein	B	10—25 yrs†

*May be given to people age 56 and older (consult ACIP recommendations)
†May be given to people age 26 and older (consult ACIP recommendations)

MenACWY (Menactra or Menveo) is <u>recommended</u> for:

- Persons aged 11 through 18 years (e.g. routine administration to all adolescents)
- Persons < 22 years who are or will be a first-year college student living in a residence hall
- Persons at prolonged increased risk of exposure (e.g. microbiologists routinely working with *N. meningitidis*)
- Military recruits
- Persons aged ≥ 2 months through 55 years* who reside in or travel to certain countries in sub-Saharan Africa as well as other countries for which meningococcal vaccine is recommended (e.g. travel to Mecca, Saudia Arabia for the annual Hajj)
- Persons aged ≥ 2 months through 55 years of age** with functional or anatomic asplenia, including sickle cell disease
- Persons aged ≥ 2 months through 55 years of age** with persistent complement component deficiency

*MenACWY-D is licensed for persons 9 months through 55 years of age; MenACWY-CRM is licensed for persons aged 2 months through 55 years of age.
**May use MenACWY-CRM for persons aged 2 months through 8 months or any MenACWY product for persons aged 9 months and older; Hib-MenCY may also be used for persons aged 2 months through 18 months in these groups and not living in or traveling to countries outside of the U.S.

In contrast, MenB is recommended only for certain persons aged 10 years and older with the following conditions:

- Functional or anatomic asplenia, including sickle cell disease
- Persistent complement component deficiency
- Present during a serogroup B outbreak (consult Public Health to determine if vaccination is recommended)
- Prolonged increased risk for exposure (e.g. microbiologists working routinely with *N. menigitidis*)

MenB vaccines are not *routinely* recommended for all adolescents or college students. This is primarily because of the low number of cases and the uncertainty regarding duration of protection this new vaccine provides. However, ACIP recommends that a MenB vaccine series *may* be administered to persons 16 through 23 years of age, with a preferred age of vaccination of 16 through 18 years. This permissive (Category B) recommendation allows the clinician to make a MenB vaccine recommendation based on the risk and benefit for the individual patient.

MenB is currently not recommended for women who are pregnant or breastfeeding unless clearly needed. Limited available data have not shown that MenB vaccines are harmful to mothers or their fetuses, but additional data are needed.

MenB vaccines are not interchangeable. Bexsero is a 2-dose series and should be administered on a 0 and 1-month schedule; **Trumenba** is a 3-dose series and should be administered on a 0, 2-month and 6-month schedule.

MPSV4 is recommended and preferred for adults ≥ 56 years who are meningococcal-vaccine naïve and who are recommended to receive a single dose of meningococcal vaccine for travel or during an outbreak.

Contraindications to all meningococcal vaccines:

- Severe, life-threatening allergy to a previous dose **or** to a component of the vaccine; consult package inserts for detailed descriptions of vaccine ingredients
- Moderate or severe illness with or without fever

Adverse reactions following MenACWY vaccination tend to be mild and include redness or soreness at the injection site and typically resolve within a few days. These are less common following MPSV4 vaccination. Adverse reactions following MenB vaccination include soreness, redness or swelling at the injection site, fatigue, and headache and typically resolve within 3 to 7 days.

Vaccines for Children (VFC) providers should be aware that MenHibrix, Trumenba, and Bexsero do not appear on any order set; requests should be made via email to vfcinfo@kingcounty.gov. MenACWY vaccines Menveo or Menactra continue to appear on every provider's order set according to your clinic's previously specified preference.

Resources:

ACIP's Meningococcal Vaccination Recommendations (CDC)

Clinical Q & A Regarding Meningococcal Vaccination for Adolescents (CDC)

Ask the Experts on Meningococcal Vaccination Recommendations (IAC)

Meningococcal Vaccination Recommendations by Age and/or Risk Factor (IAC)

Vaccine Information Statements (IAC)

READER SURVEY!

Have you noticed our new name?

This is the sixth quarterly issue since we combined monthly *Epi-Log* and *The VacScene* newsletters into one, newly formatted publication, now minted ***The Communicable Disease Epidemiology & Immunization Quarterly***. We thought this was a good opportunity to complete the transition with a joined name that reflects who we are and what we do.

Our goal all along has been to better serve our professional colleagues, clinicians, researchers, educators, and others who share Public Health's goals of increased understanding, surveillance and prevention of communicable diseases.

How are we doing?

To ensure we continue providing content that's interesting to you and most relevant to your work, we ask that you **please take 5 minutes to respond to a quick reader survey.** Help us reach our goal of 300 survey responses by **March 1st** and we can immediately start to implement your recommendations in our next issue.

Training Opportunities

Someone You Love: the HPV Epidemic is an awarding-winning documentary that takes a look into the lives of five brave women affected by HPV. Their stories portray the misconceptions, stigma, shame, heartbreak, pain, and triumph they experience while battling cervical cancer. The film is available at no charge through the Indiana University School of Medicine and continuing education (CE) credits are available. **To learn more visit:** http://cme.medicine.iu.edu/hpvdocumentary

The National Adult Vaccination Program is offering several 1 1⁄2-day multidisciplinary academies in 2016 for healthcare professionals who are committed to increasing adult vaccination rates, improving their patients' health, and improving quality metrics in their organization. There is no cost to attend the ICAMP Academy. **All travel expenses and fees are covered by the Gerontological Society of America, including coach air travel, hotel, travel-related expenses, and program fees.**

Dates, locations and deadlines for applications are:

- March 28-29, 2016 in Atlanta, GA – Application deadline was Sunday, January 31, 2016
- May 16-17, 2016 in Washington, DC – Application deadline is Sunday, March 31, 2016
- June 20-21, 2016 in Phoenix, AZ – Application deadline is Sunday, April 3, 2016

For additional information, visit http://www.navp.org/champions-what-works

You are the Key to HPV Cancer Prevention is a free hour-long online course for healthcare professionals who work with adolescents and their parents. This course helps providers frame the HPV vaccine conversation, encourages providers to make a strong vaccination recommendation, and offers suggested responses to common questions. CE credit is available. To learn more, visit: http://www.cardeaservices.org/resourcecenter/you-are-the-key-to-hpv-cancer-prevention.

Clinical Immunization Q&A: Concomitant Administration of PCV13 and IIV

Q: *When pneumococcal conjugate vaccine (PCV13) and inactivated influenza vaccine (IIV) are both indicated, should they be administered to a child during the same visit? The IIV Vaccine Information Statement (VIS) states there is an increased risk of febrile seizures among young children if they are given on the same day.*

A: ACIP recommends administering both vaccines at the same visit when they are recommended and due for a particular patient. A CDC study found a small increased chance of febrile seizure in the first 24 hours following simultaneous administration of trivalent influenza vaccine (TIV) and PCV13 among children aged 6 months through 4 years, peaking in incidence at 16 months. There was no evidence of increased risk of febrile seizure if TIV was administered on a different day before or after PCV13. Because febrile seizures are largely benign and the increased risk is small, the Advisory Committee on Immunization Practices (ACIP) determined that the benefits of simultaneous vaccination outweigh the possible risk of febrile seizure following vaccination or risk of infectious disease due to not vaccinating. Some vaccine-preventable diseases such as influenza, varicella, measles and pneumococcal infections can cause febrile seizures, so vaccinating may also prevent some febrile seizures.

Q: *Should PCV13 and IIV be administered to adults ≥ 65 years of age at separate visits? The PCV13 package insert indicates that the antibody response to PCV13 is reduced in this population if given simultaneously with IIV.*

A: ACIP reviewed the study data and determined that decreases in antibody responses to either component when given concomitantly are clinically insignificant. Further, delaying a dose of either vaccine would extend the period of risk for disease exposure. ACIP recommends PCV13 and IIV be given simultaneously when both are indicated and due. PPSV23 and IIV may also be given at the same visit. However, PPSV23 and PCV13 should not be administered simultaneously; for sequence and interval guidance consult ACIP's pneumococcal vaccination recommendations.

Meet Public Health's Immunization Program Team!

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Fond farewells to Celia Thomas, Health Educator, and Rebecca Dubin, Public Health Nurse, who are moving on to new adventures.

Pneumococcal Vaccine Resources:

Pneumococcal Vaccination Recommendations by Age and/or Risk Factor (IAC)

Pneumococcal Vaccines: CDC Answers Your Questions

Vaccine Package Inserts

From the Literature: Primary Care Physicians' Perspectives about HPV Vaccine.

Allison MA, Hurley LP, Markowitz L, et al. Pediatrics. 2016.

Bottom line: More than one-third of physicians are not strongly recommending human papillomavirus (HPV) vaccine at age 11 to 12 years and are less likely to strongly recommend the vaccine for boys. The lack of a strong recommendation may contribute to missed opportunities for HPV vaccination because it is accepted that a strong recommendation for HPV vaccination from a physician is associated with receipt of the vaccine. Many parents may accept the HPV vaccine for their child at 11 to 12 years if their knowledge gaps and concerns are addressed by the physician in conjunction with a strong recommendation for vaccination. Because some physicians could be overestimating the likelihood of parental deferral, they should be encouraged to rethink their assumptions about parental attitudes regarding the HPV vaccine and strongly recommend it at every 11- to 12-year-old well-child visit. Physicians themselves may need a clearer understanding of the reasons to vaccinate against HPV at 11 to 12 years old versus later in adolescence and the reasons to vaccinate boys. In addition, physicians may need guidance on discussing these reasons with parents.

Article summary: The Advisory Committee on Immunization Practices (ACIP) recommends the HPV vaccine for 11- to 12-year-olds because it is most effective if given before initiation of sexual activity and exposure to HPV and because two additional vaccines, MCV4 and TDaP, are also recommended at this age. HPV vaccine coverage has remained lower than coverage for the other recommended adolescent vaccines. National data suggest that 60% of 13- to 17-year-old girls have received at least one dose of HPV vaccine, and 40% have received all three doses. Boys have lower HPV vaccination rates than girls, with 42% coverage for one dose and 22% coverage for all three doses among 13- to 17-year-olds.

Missed opportunities for HPV vaccination at 11 to 12 years of age are common. Because physicians' practices could be modified to reduce missed opportunities and increase HPV vaccine coverage, the goal of the study was to understand perspectives and practices related to HPV vaccination for girls and boys. A national survey among pediatricians and family physicians (FP) was conducted between October 2013 and January 2014. Using multivariable analysis, characteristics associated with not discussing HPV vaccination were examined. Ninety-nine percent of pediatricians and 87% of FP administer the HPV vaccine to 11- to 18-year-old girls in their practices, whereas 98% of pediatricians and 81% of FP administer the vaccine to boys. Physicians were more likely to strongly recommend the HPV vaccine for older age groups, and in every age group, physicians were more likely to strongly recommend the vaccine for girls than for boys.

67% of pediatricians and 50% of FP almost always or always discuss HPV vaccination among 11- to 12-year-olds. The most commonly reported reasons for not discussing the topic were: "I know the patient is not yet sexually active," "I don't have enough time to discuss," "I think the patient is too young," "The patient is already getting other vaccines at that visit," and "I expect the parents to refuse."

In the multivariable analysis, physicians who do not strongly recommend giving the vaccine at 11 – 12 years of age were more likely to disagree with the statement "parents are more likely to accept the HPV vaccine if discussed in context of other vaccines" compared to physicians who make a strong vaccine recommendation. These physicians also report a high proportion of parents who defer the vaccine when offered to their child at 11 – 12 years of age, express concern about waning immunity (girls only), and are more likely to be FP (boys only).

The Quarterly

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Public Health Resources:

Communicable Disease Epidemiology & Immunization Section: kingcounty.gov/health/cd

Our monthly **reportable cases table** has moved online. Visit: kingcounty.gov/communicable

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STDs ..... (206) 744.3954
TB ..... (206) 744.4579

All Other Notifiable Communicable Diseases ..... (206) 296.4774

Automated reporting for conditions not immediately notifiable (24/7) .. (206) 296.4782

Communicable Disease Hotline..... (206) 296.4949

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