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October 31, 2016

The Honorable Senator Peter Courtney, Co-Chair
The Honorable Representative Tina Kotek, Co-Chair
State Emergency Board
900 Court St, NE
H-178 State Capitol
Salem, OR 97301-4048

Re: Oregon Health Authority (OHA) and University of Oregon (UO) plan to fund costs of the Meningitis B vaccination program

Dear Co-Chairpersons:

EXECUTIVE SUMMARY

This letter serves as an update to the letter provided to the Interim Joint Committee on Ways and means on December 7th, 2015 regarding response and costs associated with the Meningitis B outbreak at the University of Oregon. Additional vaccination clinics held in 2016 have been added to the letter. Updated vaccination numbers and rates have been added to reflect vaccines given in 2016. The total number of Bexsero vaccinations increased 44.5% and Trumenba vaccinations increased by 53% over the numbers provided in December. A total of 30,462 vaccinations were given.

Since the end of the outbreak, partner agencies have collected final direct costs associated with responding to the outbreak. Total costs are reflected in the table below.

UO Meningitis B Outbreak Response Costs	Total
Lane Community College	$19,000
Lane County Health Department	$113,866
Oregon Health Authority	$157,187
University of Oregon	$589,806
Grand Total	$879,859

The remainder of this letter is an update to the letter provided in December 2015.

NATURE OF REQUEST

The Oregon Health Authority (OHA) and University of Oregon (UO) requests acknowledgement of this letter on the investments associated with the UO Meningitis B outbreak in response to a budget note included in the agency's 2015-17 biennial budget bill.

AGENCY ACTION

In 2015, OHA, UO, Lane County Health Department, and Lane Community College invested staffing and resources in the investigation and control of a Meningococcal serotype B outbreak at UO. Per a budget note in Senate Bill 5507 (2015), the OHA and UO were required to report to the Joint Interim Committee on Ways and Means in January 2016 on the plan for funding these activities. On December 7, of 2015, agencies submitted an initial report on costs. This letter updates information related to the final outbreak response costs between January 2015 and June 2016.

During the first half of 2015, seven members of the University of Oregon community contracted bacterial meningitis B with one fatality. The outbreak involved incident command coordination among the University of Oregon and state and local public health, and coordination with the Centers for Disease Control and Prevention, Lane Community College and local health system partners. Activities included outbreak investigation, distribution of antibiotics to those who may have been exposed to the disease, risk communications, and vaccination of the at-risk community. Each agency or organization assumed responsibility for their costs associated with the outbreak, with the UO assuming the tasks and financial responsibilities associated with acquiring vaccine for its 22,000 undergraduate community. Lane Community College also assumed the tasks and financial responsibilities associated with acquiring vaccine for at-risk members of its community. We were advised by the Centers for Disease Prevention and Protection that college campus outbreaks of Meningitis B can last up to a year after a case is diagnosed, so this outbreak response remained active until school ended on June 15, 2016.

Background

Meningococcal disease is caused by bacteria that are present in the throats or noses of about 10 percent of the population. It isn't highly contagious and exposed persons usually don't get ill. Meningococcal disease is rare in Oregon and nationwide, generally striking less than one of every 100,000 persons a year. The disease becomes serious when the bacteria cross the protective mucous membrane and enter the bloodstream; in such cases the disease is very rapid and severe. Symptoms of meningococcal meningitis are high fever, headache and a stiff neck. Some patients do not get meningitis but have the organism in their bloodstream; this is called "meningococcemia," a severe disease that causes fever and a rash and may quickly be fatal. Symptoms usually appear about 3 to 4 days after exposure, but may range from 2 to 10 days.

Almost all invasive disease seen in the United States is caused by serogroups B, C, Y and W-135. From 2010 to 2015, Oregon saw 149 cases of meningococcal disease, averaging nine cases of serogroup B per year. Overall, about 13% percent of reported cases in Oregon over the past several years have been fatal. The incidence of meningococcal disease in Oregon has declined 91 percent since 1994 with the advent of preventative vaccines and antibiotic prophylaxis. Currently, people 11-18 years of age are recommended to receive meningococcal vaccine, which prevents disease by four types of meningococci (serogroups A, C, Y, and W-135). It does not protect against serogroup B. Between October 2014 and January 2015, the Food and Drug Administration (FDA) licensed two type B meningococcal vaccines -- Trumenba®, made by Pfizer and Bexsero®, made by Novartis. The vaccines are not interchangeable, only providing full protection after two doses of Bexsero, and three doses of Trumenba.

Outbreak investigation

The epidemiologic investigation of this outbreak began with interviews of the first case and others associated with this individual who may provide important information and continues with each new case and mass vaccination clinic. Through contact investigation, interviews, chart reviews, and laboratory testing, local, state and federal public health investigators continue to gather information that helps to identify the source of the infection and others who may have been exposed. The investigation included interviews with cases and their immediate contacts, 8,482 student surveys, and 3,287 student surveys and nasopharyngeal swabs.

Antibiotic prophylaxis

Meningitis is generally transmitted through direct exchange of respiratory and throat secretions by close personal contact, such as sharing drinks or kissing. Oregon public health officials currently recommend that persons who have had significant exposure to the case during the communicable period receive antibiotic prophylaxis to reduce the risk of developing disease. These include:

- People who have spent at least four hours (cumulatively, within one week of index patient's onset) in close, face-to-face association with the case, thereby increasing the risk of droplet transmission; or
- Anyone directly exposed to the patient's nasopharyngeal secretions (e.g., via kissing, mouth-to-mouth resuscitation, intubation, or nasotracheal suctioning).

Immediately after the first case was reported, the University of Oregon offered prophylaxis antibiotics to students and staff who were at most at risk. Epidemiologists from Lane County Public Health and Oregon Health Authority identified those most at risk by obtaining class records and other information about patients' activities and then interviewing members of the university to determine close contacts.

The University Health Center (UCH) had 1,000 to 1,500 doses of prophylaxis antibiotics on hand in the pharmacy on January 17, 2015.

Risk communications

A joint information system was established to provide a mechanism to organize, integrate, and coordinate communications across the responding agencies. Members of the response team at all three agencies took steps to coordinate messaging in order to ensure its medical accuracy, optimal frequency, consistency across channels and resonance with the intended audiences. In addition, the university engaged a consulting firm that specializes in social media for emergency response during the first mass vaccination clinic. Agencies have issued their own releases with coordinated messaging to ensure consistency. Communications tasks have included responding to student and general public inquiries; internal UO messaging and alert; maintaining timely information on websites; issuing media releases and responding to media requests; monitoring social media; and education campaigns. Seventy-seven percent of students surveyed reported that the public information campaign was effective to very effective.

Collaboration among agency Incident Command

Lane County Public Health worked with both the UO and Lane Community College to provide staff to administer vaccine purchased by the university and college. Lane Community College opted to purchase Bexsero for their clinics, and worked with Lane County Public Health to store that vaccine and administer it to qualified LCC students.

The Oregon Health Authority developed model standing orders for the delivery of all recommended vaccines, relying on the guidance of the Advisory Committee on Immunization Practices (ACIP). Oregon's model standing orders authorized the use of meningococcal B vaccine in the University of Oregon outbreak control for the following individuals: individuals >= 10 years of age who are at increased risk due to the serogroup B meningococcal disease outbreak associated with the University of Oregon:

1. Current and incoming University of Oregon undergraduate students.
2. University of Oregon graduate students, faculty and staff who currently or will live in campus residence halls, fraternities, or sororities.
3. Undergraduate students of any college who lived in the 13th and Olive (Capstone) apartment buildings during Winter of Spring terms 2015, including but not limited to undergraduates from the University of Oregon, Lane Community College, and Northwest Christian University.

Procuring Vaccines

The University of Oregon assumed the tasks and financial responsibility associated with acquiring the vaccines. Accordingly, on February 18, 2015, UO Enterprise Risk Services reached out to both Novartis and Pfizer with a needs statement for the vaccine, administering the vaccine and billing insurance. The goal was to reduce the financial burden on the students and the institution as well as make the vaccine widely accessible to students. Both organizations were invited to make presentations to UO regarding their proposals to assist the UO in meeting the needs of the students and UO. Following careful deliberations on the proposals the Trumenba vaccine was selected and two retailers were invited to participate in the program, Albertsons - Safeway for community and on-campus immunization programs and Walgreens for community immunizations. In addition, Direct Relief,

a California-based organization that provides medical care in emergency situations, donated 1,000 doses of Trumenba for uninsured students.

The private-sector price of Trumenba was approximately $115 per dose, according to the CDC. The vaccine requires a three-dose series, meaning a total cost of $345 per patient. Bexsero, a two-dose series, carried a private-sector price of approximately $161, or $322 per patient.[1] The total cost to vaccinate the University of Oregon's entire 22,000-person population at those prices would be roughly $7.1 to $7.6 million at list price.

Billing Insurers for vaccinations

While details were arranged to fast-track a large-scale vaccination clinic in a 10-day period of time, an advanced surge clinic took place February 23-27, 2015. At the surge clinic, UO billed students for the cost of the vaccine and provided receipts and paperwork necessary for them to file a claim with their insurers. In the subsequent mass vaccination events at Matthew Knight Arena, Albertsons - Safeway administered the insurance billing directly and the university and Albertsons - Safeway worked to inform insurance providers about the newly available vaccines and outbreak status.

Eventually most primary insurers agreed to cover the cost of the vaccine. On August 18, 2015, the DCBS issued a data call regarding vaccination coverage for both student health plans and individual and group health plans. Ten of eleven Oregon health insurers' plans included coverage for students and children of members up to age 26. One insurer provided coverage up to age 23 and after that when "medically indicated." However, upon receiving information regarding the outbreak, that insurer covered vaccinations.

DCBS has statutory authority to assist consumers with complaints against insurance carriers and plans sold in Oregon. The department offered the services of the Oregon Insurance Division's consumer advocates to resolve billing issues from the February 23-27 clinic and subsequent clinics, such as contacting individual carriers regarding vaccination claims that have not been paid to the UO. Although the department does not have jurisdiction over insurance issues from plans sold in other states, they can request insurance regulators to assist the University as needed.

1 http://www.cdc.gov/vaccines/programs/vfc/awardees/vaccine-management/price-list/#f5

Vaccination campaign

In conjunction with Lane County Public Health and the OHA, the UO began planning for the possibility of mass vaccination clinics after the third case was diagnosed in early February 2015. On February 19, two days after a UO student's death, the University of Oregon received a joint recommendation from the CDC, Oregon Health Authority, and Lane County Public Health to implement a to vaccinate nearly 22,000 students at "the earliest opportunity."

The university subsequently entered into agreements with Albertsons-Safeway, and Walgreens to administer the vaccine in pharmacies throughout Eugene. This expanded to statewide and then nationally at the end of March 2015.

The university secured the use of the 420,000-square-foot Matthew Knight Arena for the mass vaccinations due to its location, space, and ability to facilitate optimal crowd management. Safeway agreed to administer insurance billing at the mass vaccination clinics and enter data into the state's ALERT immunization information system, the statewide immunization registry for individuals in Oregon. Safeway representatives attended walkthroughs of the facility before each mass vaccination. Vaccinations occurred on- and off-campus, including the University Health Center and residence halls. Public Health monitors reports of adverse events associated with administration of the vaccine. There were 28 reports of mild reactions associated with vaccination, including fever, chills, rash, headaches and muscle or joint aches.

Mass-vaccination events		
Dates	**Location**	**Event**
2/23/15-2/27/15	Knight Arena	Surge clinic
3/2/15-3/5/15	Knight Arena	Mass Vax I
3/12/15-3/13/15	13th & Olive	Mini clinic
4/7/15-4/9/15	Student Rec Center	Bexsero Dose 2 clinic
4/14/15-4/15/15	Carson, Global Scholars Hall	Mini clinic
5/12/15-5/14/15	Knight Arena	Mass Vax II
6/26/15-8/4/15	Straub Hall	Orientation clinic
10/5/15-10/6/15	Knight Arena	Mass Vax III
2/15/16-2/16/16	Knight Arena	Mass Vax IV

Alternate Vaccination Locations			
University of Oregon	**Pharmacies**	**Private Clinics**	**Public Clinics**
UO Health Center	Safeway[2]	Private medical	Lane County Health
13 & Olive	Albertsons[3]	care providers	Department
(Off-campus	Bi-Mart		
apartment complex)	Fred Meyer		
Earl Hall	Rite Aid		
Barnhart Hall	Walgreens		
(On-campus			
residence hall)			

Doses Reported to ALERT from All Sources through 6/30/2016					
	Dose Number				
Tradename	**0**	**1**	**2**	**3**	**Total**
Bexsero	37	4,489	2,485		7,011
Trumenba	1,514	12,983	6,452	2,455	23,404
Unknown	47				47
Grand Total	**1,598**	**17,472**	**8,937**	**2,455**	**30,462**

A total of 30,462 vaccinations were reported to the ALERT Immunization Information System during the outbreak response, as shown in the table above. UO maintained a price agreement with Trumenba, which requires a three-dose series. Trumenba represents 77 percent of the vaccinations in Oregon and 2,455 individuals with optimal protection from the disease. Lane Community College purchased Bexsero, a two-dose vaccine. A total of 7,011 Bexsero vaccines were delivered, representing 2,485 individuals with optimal protection.

Costs incurred

As directed by the 2015 Legislature, OHA, UO and DCBS worked together on the ongoing outbreak response, ensuring timely insurance coverage of appropriate costs, and developing standards for assessing and funding appropriate costs. It was agreed that the state of Oregon was considered the payer of last resort. The table below details the final costs for agencies responding to the outbreak.

2 By the end of March 2015, this retailer was able to ship vaccine to any of its stores nationwide.
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Final reconciliation

In joint work meetings for the fulfillment of the SB 5507 budget note, senior staff representing the UO, OHA and DCBS jointly agreed with the need to adopt recognized principles to be employed at the time of the incident closure and financial reconciliation.

Proposed Principles for Determination of Allowable Meningitis B Outbreak Expense Reimbursement

In an effort to develop a transparent and rational approach to making final reimbursement determinations, Public Health turned to Federal disaster related principles for project reimbursement employed by FEMA. The joint work group recommends that the following principles, primarily developed by OIG*, be employed in the final consideration of allowable costs. These principles, summarized below, can be found in a guide entitled *Homeland Security: Audit Tips for Managing Disaster-related Project Costs.*

Principles for final cost reimbursement

1. Contracting practices, that were employed in the procurement of outbreak resources will be documented and explained. Federal guidance regarding competitive practices and transparency will be taken into consideration.
2. Costs will be supported by source documentation.
3. Whenever possible, costs will be reported as they were associated with each major intervention with documentation indicating why an expense was necessary.
4. No requests for reimbursement will be made for efforts that are covered by insurance, other private or federal funds, rebates, gifts or any other source.
5. Costs for equipment and supplies will reflect local pricing.

6. Costs for labor will reflect the local market.
7. Only costs directly related to the outbreak will be considered.
8. Only direct expenses will be considered, net of any possible discounts or rebates that were granted.
9. Final reconciliation will take place within 60 days of the CDC recognized conclusion of the outbreak. (non-OIG principle)

The Public Health Division receives $1 million dollars per biennium to support emergency preparedness and response to emerging events. To date the Division has allocated approximately $944,000 of those funds in support of the following events:

- UO outbreak after action report
- Zika early surveillance
- Umpqua Community College response and support
- Metals and emissions response (Safer Air Oregon/Cleaner Air Oregon)
- Healthy school facilities (water quality) response
- Enhancing gun safety, public health response

ACTION REQUESTED
Acknowledge receipt of this letter.

LEGISLATION AFFECTED
None

Sincerely,

Lynne Saxton

Lynne Saxton
Director, Oregon Health Authority

Andre Le Duc
University of Oregon
Chief Resilience Officer
Associate Vice President,
Safety & Risk Services

CC: Linda Ames, Legislative Fiscal Office
Tom MacDonald DAS Chief Financial Office