COVID-19

Washington State Department of Health, Office of Communicable Disease Epidemiology

Shoreline, WA

Assignment Description

The fellow will be placed in the Washington State Department of Health (DOH) in the Office of Communicable Disease Epidemiology (OCDE). OCDE is located in Shoreline WA, just north of Seattle.

OCDE is responsible for the prevention, surveillance, and control of communicable notifiable conditions in Washington State including vaccine preventable diseases, foodborne/enteric diseases, zoonotic and vectorborne diseases, healthcare associated infections, and emerging diseases of public health concern. The refugee health, tuberculosis and syndromic surveillance programs are also housed within this office. The work of OCDE therefore provides a wide range of experiences and a dynamic and challenging work environment that allows a fellow multiple opportunities for career growth in a mentored setting. OCDE staff maintain relationships with local, state, and federal agencies and are able to foster connections with multiple partners.

During the COVID-19 response, Washington State DOH has been in incident command, as have local health jurisdictions and many other agencies. Staff from across DOH have shifted focus to work on COVID-19 at this time. Work done by DOH relating to COVID-19 has included standing up a testing strategy, setting up a system for case interviews and contact tracing including interviews conducted at DOH on behalf of many local health jurisdictions, supporting infection prevention in healthcare settings, data analysis and report generation for decision makers, writing of guidance for audiences ranging from schools to nursing homes to transportation agencies, outbreak investigation and response, and supply chain management for materials such as personal protective equipment and testing supplies. The fellow will have the opportunity to learn about and be involved in many aspects of this diverse set of operational functions.

The fellow’s work will focus on COVID-19, but as the opportunity arises the fellow will be invited to work on other topic areas as well.

Day-to-Day Activities

The fellow will be incorporated into the incident command structure for COVID-19, and will have projects that touch upon a variety of topic areas including surveillance, case and contact tracing, health education, infection prevention and more, based on the fellow’s background and interest and current response needs. It is anticipated that at some point COVID-19 work will fold into the usual work of the Department (vs being coordinated out of IMT). The fellow will be a key player in helping transition the COVID-19 surveillance and response work into normal operations of the Office, alongside other staff.

The fellow will have the opportunity to lead some projects, and will be invited to meetings of decision makers and stakeholders. Our goal will be to ensure that the fellow has an engaging and educational experience that will develop the fellow’s epidemiological skills and assist the fellow in determining a career trajectory. The fellow will work closely with the mentors, as well as with staff from across the Department. As the opportunity arises, the fellow will be able to assist with COVID-19 outbreak investigations onsite in local health jurisdictions, such as
in healthcare settings, schools, workplaces and more. The fellow will also assist with data analysis and reporting, including analyses relating to health equity and the re-opening of society.

At present, many staff in the Department are working remotely due to social distancing guidelines. Some staff within IMT are working onsite. Depending on when the fellow starts and on the work being undertaken, the fellow may be onsite or may spend some time at the OCDE facility in Shoreline WA, with appropriate social distancing measures in place. Day to day, the fellow will be part of the IMT structure, including being a part of operational briefings. The fellow will be included as a full team member and will be invited to meetings with staff from across OCDE and DOH, as well as stakeholder meetings. Day to day work will vary based on the fellow’s interests and current response needs. The mentors will check in regularly to ensure that the fellow is having a positive experience and is learning and growing.

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<th>Potential Projects</th>
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<td><strong>Surveillance Activity</strong></td>
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There is extensive interest in WA in understanding health disparities relating to COVID-19 illness. For example, early analyses suggest that there is a disproportionate burden of COVID-19 illness among people of color. There is a need to dive deeper into the case data to understand the extent to which communities of color have been disproportionately adversely impacted by COVID-19 illness. The goal is to better understand case data so that targeted interventions and education can be provided to communities most impacted. In addition, there is interest in understanding the extent to which illness may be disproportionately impacting persons whose first language is not English and persons who are economically disadvantaged. Such analyses should be conducted for state-wide data as well as by rural/urban coding and by county or region. There are limitations in that language, race/ethnicity and economic status-related data are not uniformly collected.

The fellow will have the opportunity to develop methods for analyzing the existing data, and helping develop procedures and best practices to ensure more complete data are collected going forward.

As well, the fellow will be involved in the “so what” aspects of the project—not only analyzing the data, but helping to develop interventions to reduce illness burden among populations disproportionately impacted.

In addition to understanding the burden of COVID-19 illness, there is an interest in understanding whether COVID-19 testing has been available uniformly to all people in Washington state. The fellow will also be invited to develop methods for this project, and will help develop strategies to correct any inequities in testing availability that are identified.

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<th>Surveillance Evaluation</th>
<th>Evaluation of the Utility of Metrics Used to Loosen Social Distancing Guidelines</th>
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Washington state has had extensive social distancing guidelines in place for several weeks, including closure of all public and private schools through June by order of the governor. In addition, in most areas of the state non-essential businesses are closed or available for curb-side pick up only, among a variety of other related restrictions.

In order to slowly and carefully re-open the state, a variety of data will be utilized. Metrics to be used to gauge the success of a safe re-opening are in development, but include such factors as personal protective equipment supply, availability of testing, counts of cases and outbreaks, hospital bed availability and more.

The fellow, in conjunction with subject matter experts, will be involved in a project to evaluate the utility of various metrics for understanding the success of the staged re-opening of public life in the state. We need to understand what metrics are most meaningful, as well as what the thresholds should be for tightening, loosening and holding steady on a variety of social distancing measures. Using a variety of data sources, the fellow will help determine which metrics are most useful and what thresholds are meaningful as far as determining when the next phase of a staged re-opening can be considered. Such metrics are extremely high priority and high visibility as they are utilized by the governor in decision making. This project will allow the fellow to work closely with top epidemiologists across our state, and will provide a robust example of data to action.

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<th>Major Project</th>
<th>Development of standardized processes for outbreak investigation and response in defined congregate settings</th>
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In collaboration with subject matter experts, the fellow will undertake a project to develop standardized guidance, toolkits and best practices for outbreak investigation and response in defined congregate settings. The first aspect of this project will involve a literature review to determine what guidance may already exist from CDC or other organizations relating to outbreak investigation and response in particular congregate settings (such as factories, farms, schools or other).

The particular congregate settings for this project will depend on the fellow’s interest and the needs of the response. At present in WA, there have been several outbreaks identified in congregate settings such as jails, orchards, factories, meat packing plants and fruit processing facilities. Detailed guidance for how to best investigate, prevent and respond to outbreaks in such settings has not yet been developed and there is a great need for consistent and clear best practice recommendations as informed by the literature and real world experience.

As social distancing limits are loosened, it may be anticipated that outbreaks may be identified in additional congregate settings as well. There is a great interest in developing a standardized toolkit such that each local health jurisdiction is investigating and responding to outbreaks in a consistent manner. There are various materials developed by various bodies including NIOSH, state labor and industry, professional organizations and others, but there is a need for toolkits, data collection instruments, health education materials and guidance documents that can be readily utilized in the field and shared with the impacted communities.

The fellow will have the opportunity to participate onsite with outbreak investigation and response in order to inform a real-world aspect of this project (what may work on paper may not work in the field). The outputs of this project will be shared broadly with local health jurisdiction and other
partners, and will be essential in ensuring that outbreaks are investigated and responded to in a consistent, appropriate and data-driven manner.

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<th>Additional Projects</th>
<th>Assessment of Drug Diversion Among Healthcare Professionals in Washington State</th>
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There are a variety of additional projects that the fellow could undertake based on time and interest. One example of such a project is relating to drug diversion among healthcare workers.

In Washington State the Nursing Commission investigates diversion of controlled substances (instances in which prescription medicines are obtained or used illegally). In this project, the fellow will work with the Washington State Department of Health Healthcare Associated Infections team to determine how many investigations by the Nursing Commission involve diversion of controlled substances, how many include tampering with vials or IV lines, and how many have the potential to expose people to blood borne pathogens, among other factors. In addition, the fellow will assess drug overdose deaths by profession, focusing on healthcare professionals (utilizing death record data). The goal of the project will be to inform drug diversion prevention work.

Additional projects, such as assisting with message mapping for the notifiable conditions system, and working on projects relating to non-communicable conditions such as birth defects, smoking/vaping, or food insecurity, and assisting with case and cluster investigations for a variety of notifiable conditions, may be available based on the fellow’s interests.

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<th>Preparedness Role</th>
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There will be no better opportunity for learning about emergency preparedness than being steeped in an actual ongoing, fast paced, high priority and high visibility response such as is occurring right now with COVID-19.

The fellow will be integrated into the incident command structure currently set up in WA. As COVID-19 work moves more toward a workgroup and then eventually into the daily work of the Department, the fellow will be involved in helping to ensure a smooth transition.

The fellow will learn on the ground about how ICS theories are put into practice, and will part of IMT meetings such as command briefs.

The fellow will learn about ICS terminology, structure and processes as part of day to day activities.

If interested, the fellow will have the opportunity to shadow ICS leaders, such as the operations section chief, branch directors, incident command and others in order to get a window into the bigger picture of the response. The fellow could also spend time onsite at partner agencies or in a local health jurisdiction to see how IMT is implemented in other agencies or for other operational tasks.
Additional Activities (can be unrelated to COVID-19))

The fellow will be involved in the day to day activities of the Office of Communicable Disease Epidemiology as well as the Department of Health.

Day-to-day activities for the CSTE Fellow include attending daily office meetings to discuss current case and outbreak investigations, reviewing reported notifiable condition cases, consulting with local health jurisdictions, learning and maintaining updated guidance for notifiable condition investigation and control, and surveillance and major project activities.

The fellow will be supported by subject matter experts and will be encouraged to utilize access to SAS, Stata, R, LinkPlus, Epilinfo, and a variety of statewide databases for surveillance and analysis projects. Large multi-jurisdiction outbreaks are not uncommon in Washington, and the fellow will be encouraged to lead or participate in investigation and response relating to conditions other than COVID-19 as the need arises.

The fellow will receive the same orientation and training as all new DOH employees. The fellow will be supported in reviewing potential projects including frequent meetings with both mentors as needed. The fellow will assume responsibility for reviewing and classifying electronically reported notifiable conditions cases in order to gain familiarity with disease surveillance and control. After training, the fellow will take calls from local health jurisdictions and provide consultation on the management of reported cases of a variety of notifiable conditions, as time and interest allows.

OCDE is co-located with the Washington State Public Health Laboratory and OCDE staff have many opportunities to interact with the microbiology, molecular, virology, and enterics labs. Collaboration with the Public Health Laboratories is possible depending on the interests of the fellow.

Other projects to be undertaken by the fellow will vary based on the fellow’s interest and the time available. OCDE is a friendly, collaborative office and fellows are made to feel welcome and quickly integrated into the daily operations of the office. We look forward to welcoming a COVID-19 fellow to join our existing fellow and the great team we have here at OCDE and DOH.

Mentors

| Primary | Vivian Hawkins, MS, PhD  
|         | Epidemiologist and Supervisor of Vaccine Preventable Disease Program |
| Secondary | Hanna Oltean, MPH  
|           | Zoonotic Disease Epidemiologist |