Coordinating COVID-19 outbreak prevention and response in K-12 schools with a setting-specific epidemiologist in Washington State



CONTRIBUTOR: Laura Newman, Epidemiologist, Washington State Department of Health

CATEGORY: Epidemiology and Laboratory Capacity (ELC)

CATEGORY: Partnership and Innovation

The Washington State Department of Health (WADOH) recognized schools as a high priority for COVID-19 outbreak response and dedicated a team member to monitoring. They developed school-specific guidance and provided training and a community of practice to support local health jurisdictions during the pandemic. The school outbreak resource has expanded their scope to include additional diseases and provides education and guidance for schools.

The "What"

Early in the COVID-19 pandemic, the Washington State Department of Health (WADOH) used COVID-19 funding to establish an Outbreak Response in Non-healthcare Congregate Settings COVID-19 (NHCS) epidemiology team. WADOH recognized K-12 schools as a high-priority setting for COVID-19 outbreak response. In September 2020, the NHCS team dedicated a full-time, settingspecific epidemiologist to focus on K-12 schools. This epidemiologist has been providing support to local health jurisdictions (LHJs) and education partners since the beginning of the 2020/2021 school year. In the fall of 2020, there was little knowledge of how schools were implementing COVID-19 mitigation strategies, the burden of outbreaks across the state in school settings, or capacity to support local health jurisdictions working directly with schools to prevent and respond to COVID-19 outbreaks. The NHCS team was able to address these challenges with the following projects:



- Designed and implemented the School Outbreak Assessment of Policies and Practices (SOAPP) Survey, which launched in November 2020. The survey consisted of 95 questions to assess how schools were implementing recommendations for COVID-19 mitigation, and how these strategies were impacting outbreaks in the school setting. The data collected from this survey were summarized and used to provide awareness to local health jurisdictions and WADOH leadership.
- Leveraged K-12 school outbreak data to understand trends in these schools by leading the development of a COVID-19 outbreak definition for K-12 schools and communicating that definition and reporting requirements to local health jurisdiction and education partners. The data from outbreak reporting was cleaned and summarized in a public-facing monthly K-12 school outbreak report from December 2020 through January 2023. Currently, the K-12 school outbreak epidemiologist continues to provide K-12 school outbreak reports to LHJs on a quarterly basis, and to other teams within DOH as needed.

- Improved data reporting processes by developing and implementing the Facility Outbreak Notification Tool (FONT). FONT is a REDCap tool that allows schools to securely report outbreaks and case data directly to WADOH and their LHJ for follow up. FONT was piloted in July 2022 and is now used in seven local health jurisdictions for K-12 school and other facility outbreak reporting. FONT allows facilities to request assistance, and to upload case and contact level information as an outbreak evolves.
- Provided ongoing support to local health jurisdictions by developing guidance for K-12 schools and communicating guidance changes, providing individual consultations as needed, and through a regular K-12 School COVID-19 Outbreak Community of Practice (CoP).
- Developed a K-12 school outbreak training module as part of a comprehensive COVID-19 Outbreak Investigation Training that was developed by the NHCS Guidance and Engagement team in collaboration with the DOH training team. This training provides detailed information about investigating and responding to outbreaks in K-12 schools, as part of a larger training that addresses COVID-19 outbreak investigation more broadly.





The "So What"

By partnering with the University of Washington Student Epidemic Action Leadership (SEAL) Team, the SOAPP survey was conducted with 71 schools that experienced outbreaks between November 1, 2020 and March 31, 2021. The survey provided valuable data on how WA State K-12 schools were implementing recommendations for COVID-19 mitigation, and how these strategies were impacting outbreaks in this setting. Understanding which strategies were useful, and the barriers implementation, informed K-12 school requirements and recommendations for the state.

 Through the FONT redcap tool, there have been 92 notifications from K-12 schools of potential outbreaks in their facility. This tool provides a fast and accessible tool for facilities to report outbreaks and request assistance, and the outbreak reports provide visibility to LHJs allowing them to respond quickly to outbreaks in their jurisdiction.



- In December of 2021, during the Omicron surge, the K-12 school-specific epidemiologist coordinated response for a large outbreak associated with wrestling tournaments across the state. Over 250 cases were linked to this outbreak across 15 local health jurisdictions. The K-12 School Outbreak Community of Practice and the relationships with local health jurisdictions were crucial in identifying this outbreak and coordinating a response. Having real-time access to the associated outbreak data allowed the WADOH to rapidly update screening testing guidance for school associated sporting events to prevent further transmission and additional outbreaks.
- The K-12 School Outbreak Community of Practice has had consistent attendance of 70-200 participants across 15-20 local health jurisdictions since October 2020. At this forum, LHJs are able to share their own experiences, receive updates on guidance changes, and ask questions. This forum has also been used to disseminate information about COVID-19 testing resources available for schools, vaccine resources, and changes to federal and state COVID-19 resources and requirements. When surveyed, 97% of respondents reported that their LHJ benefitted from the school CoP.

The K-12 School Outbreak Community of Practice has nearly 200 participants. 97% said their local health jurisdiction has benefitted from participation.

The "Now What"

There is an ongoing need for a setting-specific epidemiologist devoted to K-12 schools. The K-12 school outbreak epidemiologist has taken on coordination of the Infectious Disease Control Guide for School Staff, which covers a wide range of disease specific topics, best practices for schools, and state requirements for reporting, and is published in partnership with the Washington State Office of the Superintendent of Public Instruction (OSPI). The K-12 School CoP has become a valuable resource for LHJs, and a setting specific epidemiologist can continue to facilitate this important forum and ensure meaningful content for local public health partners.

A major success of this work has been to build partnerships both internally across the WADOH, and externally with LHJs and other agencies. These connections have been leveraged to serve the needs of K-12 schools in preventing and responding to COVID-19 outbreaks.

Moving forward, this role can continue to build on these partnerships while using the skills and experience developed during the pandemic to support K-12 schools on COVID-19 specific work, but also to expand to serve schools with other communicable disease and public health needs. One example is a project to improve disease notification from schools to local public health, by expanding the disease scope and state-wide reach of the Facility Outbreak Notification Tool; this partnership includes coordination by the K-12 school epidemiologist, **REDCap** informatics specialists, the Vaccine Preventable Disease and Foodborne/Enteric Programs in the WADOH Office of Communicable Disease Epidemiology, and local health jurisdiction staff. Without an epidemiologist leading the effort to improve communicable disease surveillance and information sharing between schools and local public health, this type of work would not exist.