

Environmental Health Innovations During the COVID-19 Pandemic

In 2021, ASTHO convened state environmental health directors (SEHDs) and directors of public health preparedness to discuss innovations developed during the COVID-19 pandemic such as virtual inspections. This brief explores how state health and partner agencies developed these methods to support environmental health work and how they are continuing to adapt them moving forward.

Mississippi Prioritizes Safety and Strengthens Relationships

Starting in June 2020, the Mississippi Department of Health's (MSDH) Office of Environmental Health conducted virtual risk-based inspections in food establishments, water systems, and some milk and bottled water facilities. MSDH issued extensions on food facility permits to long-term care facilities and only conducted in-person inspections if there were complaints.

Although MSDH faced challenges with internet bandwidth or poor video quality, they valued having at least some oversight of facilities during the pandemic. Additionally, the regulated community was more willing to ask questions and receive compliance assistance during virtual inspections compared to in-person inspections, which led to more positive relationships with this community. Virtual inspections were especially valuable in long-term care facilities as they limited the risk of COVID-19 exposure.

Alaska Increases Engagement with Rural Communities

Beginning in March 2020, Alaska Department of Environmental Conservation's (DEC) Division of Environmental Health conducted virtual body art establishment, retail food and food service establishments, and some landfill and pesticide inspections. While the number of virtual inspections increased during the pandemic, DEC already conducted some types of inspections virtually to reduce unnecessary travel. Before implementing virtual inspections in body art and retail/food service facilities, DEC's Food Safety and Sanitation (FSS) program developed virtual inspection protocols and provided trainings to environmental health officers.

Although virtual inspections did not provide environmental health officers with the "multi-sensory experiences" that in-person inspections do, they were opportunities to build relationships with facility operators and reinforced FSS program policies and protocols that emphasize a risk-focused approach.

*"One of the most significant benefits of virtual inspections was getting 'face time' with operators—particularly in rural establishments that have not seen a health officer in person in some time."
—DEC's FSS Program*

Conversely, some environmental health officers noted conditions during subsequent in-person inspections that were not apparent during virtual inspections. Overall, virtual inspections were useful for the FSS program's pre-opening and compliance inspections and will continue being utilized. However, limited bandwidth, operator comfort with and availability of technology, and operators' voluntary participation have limited their use for landfill inspections.

South Carolina and Virginia Reflect on Benefits and Challenges of Virtual Inspections¹

The South Carolina Department of Health and Environmental Control's (SCDHEC) food team is [still utilizing virtual inspections](#) for low priority complaint and pre-operational inspections for food establishments. Virtual inspections allowed for continuity of food safety oversight from hundreds of miles away, which SCDHEC recognized can be valuable if there are staff shortages in an area or if natural disasters limit staff travel.

“Virtual inspections can be a useful tool for engaging the facility operator or person in charge as they are actively engaged in taking temperatures, testing sanitizing solutions and looking at their facility through our eyes.” – SCDHEC’s Division of Food and Lead Risk Assessments

Although the Virginia Department of Health's (VDH) Office of Environmental Health Services has transitioned back to conducting in-person food safety inspections, lessons learned from virtual inspections have supported this transition. For example, VDH created guidance on best practices for conducting in-person inspections. SCDHEC and VDH both encountered challenges with technology and limited internet bandwidth, especially in rural areas. SCDHEC asked facility operators to record video of remaining items if an inspection could not be completed due to technology or internet challenges.

New Communication Methods for Environmental Health Messaging

The Missouri Department of Health and Senior Services (DHSS) primarily used social media and other platforms to communicate during the COVID-19 pandemic, making it difficult to promote other public health messages. They started working with a central Missouri radio station in December 2020 to promote [National Radon Action Month](#) and encourage the public to request radon test kits.

DHSS noticed an increase in the number of radon test kits requested following the use of radio advertising. In January 2020 prior to the use of radio advertisements, 433 test kits were requested. By comparison, after the radio advertisements ran in the central and southwest Missouri areas in January 2022, 1,819 test kits were requested. DHSS noted that using radio advertisements also allowed for other voices outside of the public health community to communicate key public health messages.

Looking Beyond the COVID-19 Pandemic

Despite a gradual return to pre-pandemic processes, each of the states above intend to use some of the lessons they learned from implementing these innovations to support their work going forward. MSDH, for example, plans to continue utilizing virtual inspections in long-term care facilities when there are feasibility or safety concerns, and DHSS continues to expand its use of radio advertisements to share messages on radon and other environmental health topics.

This brief is part of ASTHO’s Public Health Transformation series, which explores how state and territorial health departments have adapted during the COVID-19 pandemic.

¹ Hawaii, Virginia, and South Carolina previously provided input on their virtual food safety inspections in a 2020 [ASTHO Brief](#).