

# APPLETREE COVID-19 Supplemental Awards

## Virginia Department of Health

### Introduction

In early 2021, ASTHO, with support from CDC's National Center for Environmental Health and the Agency for Toxic Substances and Disease Registry (ATSDR), announced awards to five state health agencies to support their responses to the COVID-19 pandemic. State health agencies in Kentucky, Virginia, Arkansas, Vermont, and Indiana were selected for this opportunity because of their recent application to ATSDR's Partnership to Promote Local Efforts to Reduce Environmental Exposure (APPLETREE) cooperative agreement program. Vermont requested that ASTHO work directly with their partner organization, [Informed Green Solutions \(IGS\)](#), for this project. ASTHO provided funding and assistance to the recipient state health agencies and state health agency partners to support their environmental health-related COVID-19 response activities. This factsheet outlines planned activities and their associated outcomes under these awards for the Virginia Department of Health (VDH).

### Planned Activities

VDH's COVID-19 Community Mitigation Team, supported by the Office of Environmental Health Services, planned to conduct a variety of proposed activities as part of this funding award, including providing guidance on ventilation practices to mitigate COVID-19 transmission. Activities planned as part of this award included:

- Conducting a review of studies and resources from various sources, including other states and partners, on ventilation guidance and best practices during the COVID-19 pandemic.
- Developing guidance and educational materials on specific topics related to COVID-19 mitigation measures and best practices, including ventilation and fogging practices.
- Developing a resource page within VDH's COVID-19 website that includes information on ventilation guidance and best practices.
- Partnering and collaborating with various agencies and organizations, including the Virginia Department of Education, the American Camp Association, and the Virginia Department of Social Services, to incorporate information on ventilation optimization best practices and protocols into public messaging and supporting guidance documents for partner use.

### Project Outcomes

VDH's COVID-19 Community Mitigation Team, supported by the Office of Environmental Health Services, completed several activities as a part of this funding award. The funding was especially helpful in allowing the Community Mitigation Team to maintain an appropriate level of staffing to support various COVID-19 mitigation initiatives during the pandemic.

Throughout their work, the Community Mitigation Team identified a need for ventilation guidance and best practices for businesses, schools, and other settings to effectively mitigate the spread of SARS-CoV-2. The team began a thorough search for existing resources related to ventilation optimization, which led to the creation of a [factsheet](#) on the topic of ventilation and SARS-CoV-2 mitigation. Similarly, the team saw a need to share information with the public about the dangers of using "fogging disinfectants" for surface disinfection. This led to the creation of another [factsheet](#) on the aforementioned topic.

These and other resources were compiled onto VDH's website under the [Schools, Workplaces & Community Locations](#) page within the [COVID-19 in Virginia](#) page.

In addition to linking to these factsheets, the Community Mitigation Team was able to create a [resource tab for businesses](#) on ventilation best practices, as well as a [resource tab for school facilities](#) on the topics of ventilation optimization and safe cleaning and disinfection. Finally, VDH's COVID-19 Community Mitigation Team partnered with outside entities, including the Virginia Department of Education, Virginia Department of Social Services, Virginia Municipal League, and others, to incorporate various COVID-19 mitigation resources and information into these outside entities' messaging and guidance documents. These and other documents and/or web pages supported through this funding award are listed at the end of this document.

## Project Challenges and Barriers

During this project, VDH encountered several challenges and barriers:

- Early in the pandemic, there was a dearth of information related to ventilation optimization as a COVID-19 mitigation measure. The Community Mitigation Team's health risk assessor dug into the literature and research and used that information to inform VDH's [Ventilation Best Practices For Reducing COVID-19 Risk Indoors](#) factsheet.
- Shifting the public's perception of risk can prove difficult. Initially, mitigating transmission focused on cleaning and disinfection of surfaces. As the understanding of transmission evolved, ventilation optimization became an increasingly important mitigation tool.
- Communication to the public regarding constantly changing guidelines, rules, and understanding of COVID-19 science will always remain a challenge.

## Reflections and Final Thoughts

Some final thoughts and lessons learned throughout the project included the following:

- While the Community Mitigation Team was well-prepared to focus on the regulatory and science-related details of the issues, the team worked to establish expertise in developing effective risk communication messages and strategies, as well as increase their focus on behavior change. VDH recognized that focusing risk communication messaging efforts on those individuals who are trusted by the public, such as religious leaders, can be helpful in getting important information into the public's hands.
- The COVID-19 response has been long, and VDH realized some of the systems in place, including remote working technologies and hiring practices, needed to be updated to respond accordingly. In a socially distanced, remote work environment, VDH needed to update systems so that documents could be signed electronically and staff could be rapidly hired and shifted to fill roles in the response.
- Finally, VDH needed to be nimbler and more flexible in their guidance development processes and information collection protocols from environmental health field staff and the public. Executive orders from the governor, reflective of CDC recommendations, were rapidly changing the guidance and rules around COVID-19 mitigation measures for restaurants, bars, schools, businesses, etc. The agency used REDCap, a customizable data collection instrument, which allowed for a high degree of adaptability in collecting data from the public and VDH staff during the rapidly changing situation on the ground. VDH plans to continue using REDCap for several other pandemic-related data collection needs.

## Resources Developed

The resources and information below were developed, updated, and/or supported fully or partially as a part of this project:

- [Ventilation Best Practices for Reducing COVID-19 Risk Indoors](#)
- [Fogging Disinfectants: Maintaining a Healthy Facility and Preventing COVID-19 For Business and Other Establishments](#)
- [VDH COVID-19 Page: Schools, Workplaces & Community Locations](#)
- [VDH COVID-19 Page: Businesses](#)
- [General Recommendations: Maintaining a Healthy Facility and Preventing COVID-19 For Business and Other Establishments](#)
- [Ventilation Terms: Quick Guide to Common Ventilation Terms](#)
- [VDH COVID-19 Page: Facts About COVID-19](#)
- [VDH COVID-19 Page: General FAQ](#)
- [VA Department of Social Services: Revised COVID-19 Guidelines and Information for Child Care Operations](#)
- [VDH Table of COVID-19 Prevention Recommendations for Non-Healthcare Congregate Settings](#)
- [VDH COVID-19 Page: Overnight Camps](#)
- [VDH Webinar on Summer Camps](#)
- [VDH COVID-19 Page: COVID-19 Signage Toolkit](#)