

**SOLANO COUNTY
CIVIL GRAND JURY**

2020-2021

**SECURING HEALTH SAFETY
IN COUNTY BUILDINGS**

Securing Health Safety in County Buildings

Solano County Civil Grand Jury 2020-2021

I. SUMMARY

COVID-19 (Coronavirus) swept the globe at an alarming speed that had world leaders and health care professionals scrambling to find solutions. Solano County has been responsive in following protocols mandated by both federal and state governments. It must step up its efforts in finding and funding additional ways of ensuring public health safety in county buildings in anticipation of future pandemics.

II. INTRODUCTION

The 2020-2021 Solano County Civil Grand Jury found that the county has adhered to COVID-19 protocols prescribed by federal and state governments. Established protocols for fighting the virus include:

- washing hands frequently
- wearing face masks
- keeping at least six feet from one another (social distancing)
- setting up barriers between service agents and customers
- limiting the number of people in a building
- sanitizing surfaces
- locking down whole communities

Despite these precautions, the number of COVID-19 cases continues to rise. Throughout the country, a portion of the population questions and refuses to follow established protocols. They question their validity and effectiveness.

The Solano County Civil Grand Jury recognizes the need to do as much as possible to mitigate the current virus. It is also essential to prepare for future, possibly more lethal, pathogens. The Sheriff's Department and two dental clinics have taken proactive steps to find additional ways to disinfect public buildings.

III. METHODOLOGY

Interviewed

Solano County Sheriff's Administration
Solano County General Services Administration

Reviewed

Solano County Health and Social Services Administration
<https://www.solanocounty.com/depts/hss/>

Solano County General Services Administration -

<https://www.solanocounty.com/depts/genserv/mission.asp>

Solano County Sheriff's Administration -

<https://www.solanocounty.com/depts/sheriff/default.asp>

Safety data sheets for various sanitizing products

What You Need to Know About Pathogens, Adrienne Santos-Longhurst, Healthline, April 3, 2019

UV Disinfection: Nine Decision Points, Al Uszynski, Inside.Lighting, February 2020

Ultraviolet-C (UVC) Germicidal Devices: What Consumers Need To Know, Position Paper produced as a collaboration between Underwriters Lab (UL), the American Lighting Association (ALA), and the National Electrical Manufacturer's Association (NEMA), 2020

Interest in Germicidal Lighting Spreads, Tom Zind, Electrical Construction and Management, July 2020

Letter from U.S. Congressmen Mark Takano and Juan Vargas, *RE: Freedom for Immigrants and Inland Coalition for Immigrant Justice concerning improper use of disinfectant spray led to illness*, June 15, 2020

USAfacts.org: Solano County, California Coronavirus Cases and Deaths

County of Solano, Coronavirus Aid Relief and Economic Security Act (CARES) Proposed Expenditure Plan – Updated, 12/20/20

Center for Disease Control and Prevention:

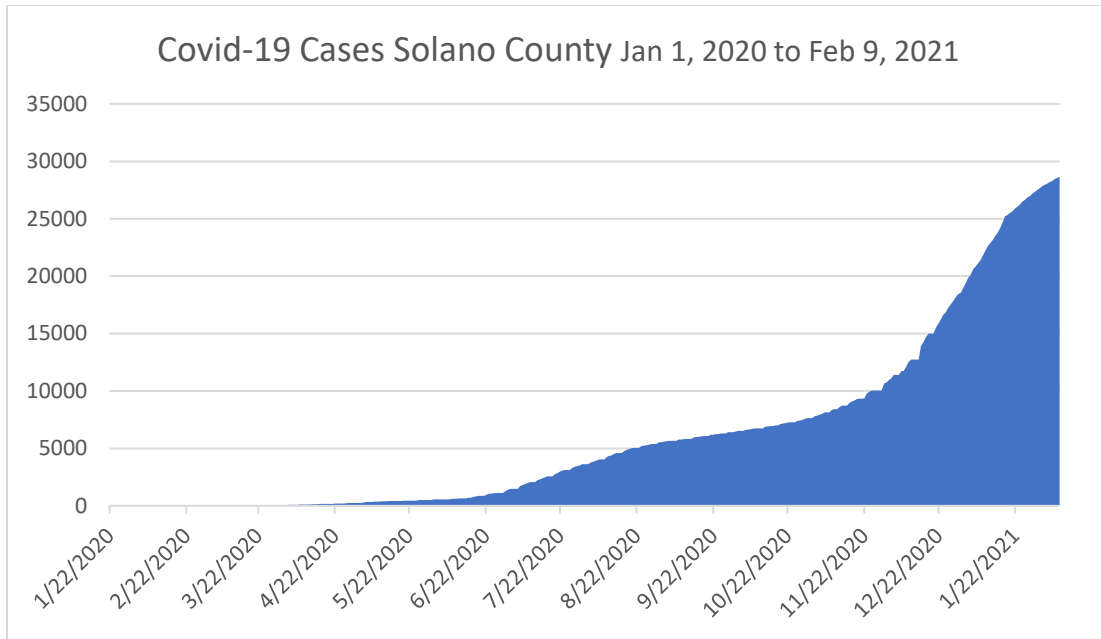
<https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/variant-surveillance/variant-info.html>

COVID-19 Rarely Infects Through Surfaces. So Why Are We Still Deep Cleaning? Dyani Lewis, Nature, v. 590, February 4, 2021

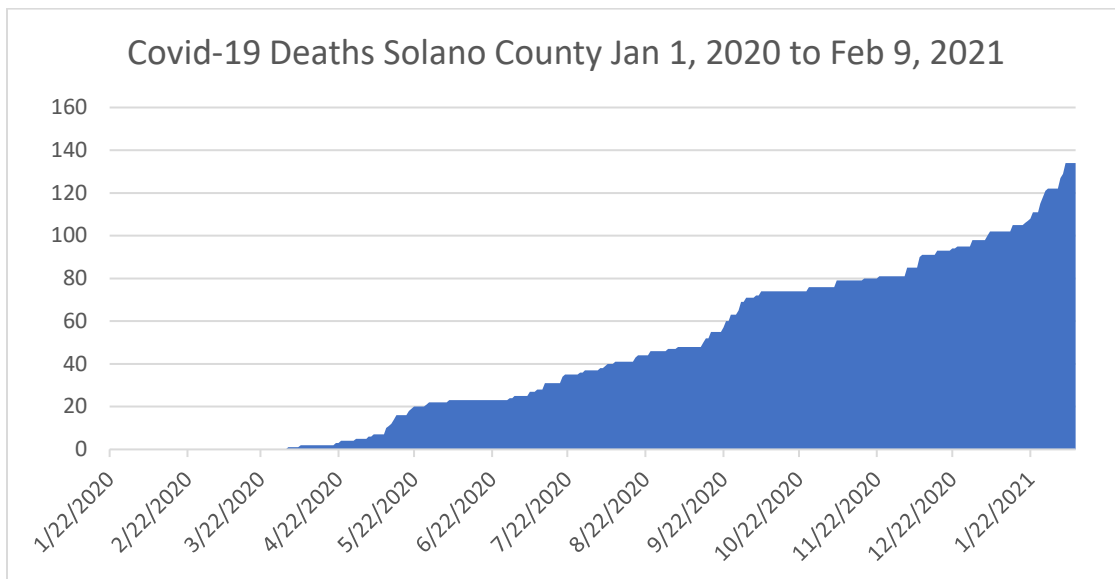
IV. STATEMENT OF FACTS

Solano County's General Services Department (GSD) is responsible for managing 2 million square feet of space within 59 county buildings and support facilities. Since the COVID-19 outbreak began, the County has followed the established health safety protocols, including social distancing, sheltering in place, and wearing masks. As the virus continues, more people are challenging these protocols. Understanding how COVID-19 spreads is continuously changing and has created confusion as to the most effective way of containing the disease. Initially, health care professionals concluded that contact with contaminated surfaces could contribute to the spread of the disease. More recently, scientists have found that the virus' spread has been almost exclusively from person-to-person contact and not from surfaces.

While existing COVID-19 protocols have been in place since March 2020, cases and deaths related to COVID-19 continue to rise. From January 1, 2020 to February 9, 2021, Solano County reported 28,644 cases of COVID-19 (6.22% of the population) and 134 COVID-19-related deaths (.03% of the population).



Source: USAfacts.org: Solano County, California Coronavirus Cases and Deaths



Source: USAfacts.org: Solano County, California Coronavirus Cases and Deaths

There are existing and emerging technologies that may provide safe and effective alternatives for disinfecting the atmosphere and surfaces in large areas such as office buildings. However, due diligence is required when researching these alternatives. As in all innovations, there are products on the market that might not meet safety standards or that require stringent safety training for proper use.

Two U.S. Congressmen reported that the improper use of disinfectant spray, HDQ Neutral, at the Adelanto ICE Processing Center led to nine people becoming severely ill. The HDQ Neutral manufacturer, Spartan Chemical Company, issued strict warnings about the chemical's use and potential dangers of vapors inhaled or chemical contact with eyes or skin. The application

directions call for the product to completely dry before allowing human contact. Several detainees at the facility showed an array of adverse effects linked to exposure, including nose bleeds, fainting, headaches, bleeding, eye damage, and skin rashes. Multiple accounts indicate guards at the facility continuously sprayed HDQ Neutral as many as 20 times daily without allowing the chemical to completely dry. HDQ Neutral is one of the disinfectants used in Solano County buildings.

The configuration of office spaces within county buildings became one of the biggest challenges to meet social distancing requirements. The County Administrator, Risk Management, Public Health and General Service Departments adopted standard mitigation protocols including:

- providing personal protection equipment (PPE) for all staff
- screening procedures for contract workers and staff
- conducting temperature scans
- setting up work-at-home procedures
- complying with stay-at-home orders
- discontinuing rental of county building space
- augmenting hand spraying/wiping down method with air-dry molecular atomizers to sanitize rooms
- reconfiguring office space to accommodate social distancing

In addition to the steps taken by the GSD, the Solano County Sheriff's Department rose to the challenge by:

- redesigning its jail facilities
- consolidating booking to a single downtown facility
- reducing the number of transfers accepted from other correctional facilities (some COVID-19 infected inmates came from other counties)
- barring uncontrolled deliveries
- releasing inmates to reduce the jail population
- isolating and quarantining COVID-19 inmates testing positive
- assigning dedicated staff to quarantined areas
- initiating COVID-19 testing before jail intake
- initiating COVID-19 testing before court appearances
- initiating fourteen-day quarantine for all new inmates
- providing virtual visitations only

The courts also initiated a zero-bail rule that reduced the inmate population and continued protecting those conducting court business by offering virtual court sessions.

In addition to the standard protocols, the county did the following:

- Repurposed Merv-13 filters, initially used to protect against particulates from fires, to help protect against COVID-19 (The County was replacing filters twice a year but has changed to three times a year at the cost of \$95,000 each time)
- Purchased three atomizers (at a cost of \$22,000 each) for disinfecting, sanitizing solution (\$8,000 total cost)
- Contracted with an environmental insurance company to provide 120 air scrubbers
- Discontinued renting space to the public

- Reconfigured the design within county buildings to allow for social distancing
- Installed 150 sneeze guards in 52 buildings
- Hired professional cleaners to "COVID-19 clean" county vehicles
- Deep cleaned buildings as needed six times in addition to three hours to conduct spraying and high touch area wipe downs
- Increased cleaning and sanitizing in high traffic areas
- Required employees to take COVID protocol training through HR and Risk Assessment

The GSD manages 2 million square feet of building space. Approximately 33% of general services employees are custodial and maintenance. The department reported the primary challenge of 2020 was learning how to continue to conduct business in a COVID-19 environment. Staff refusal to adhere to pandemic protocols was one issue, especially when directives changed as more was learned about the virus. Some employees were reluctant to work outside of the home because of the pandemic. Evacuations due to local wildfires also tested staff scheduling. Supply expenditures for PPE included an additional \$2.5 million from the Federal Disaster Relief Fund. County shelter-in-place restrictions resulted in supply issues for several months at the beginning of the pandemic. The County budgeted \$150,000 for overtime but expended \$450,000 to meet COVID-related labor costs.

The Solano County Sheriff's Department reported that establishing safety protocols with the staff was more challenging than with inmates. Employees and inmates could choose not to be COVID-19 tested. There was fear among some workers of bringing COVID-19 home. The department implemented contact tracing to identify and isolate those who were in the presence of a COVID-positive person.

Combatting COVID-19 and preventing the future emergence and spread of lethal viruses has stimulated the development of technologies that provide additional public health safety in commercial, industrial, institutional, and governmental facilities. A principal at Inside Lighting Consultancy, states that "future buildings will be held to a higher standard of being healthy buildings...occupants will demand and expect certain building systems that raise the bar on healthy environment expectations."

One of several technologies receiving increased attention is germicidal ultraviolet (GUV). Medical, chemical, industrial, and tanning GUV applications have been in use since the early 1900s. Heating, ventilation, and air conditioning (HVAC) companies are familiar with integrating UV disinfection systems into building ventilation systems. The rapid emergence of COVID-19 and its variants has led to more efficient light-emitting diode (LED) devices for sanitizing indoor air and surfaces.

There are three types of ultra violet (UV) lighting: UV-A, UV-B, and UV-C. All UV products require special handling and training. If not used as directed, overexposure to UV light can present health risks to humans based on wavelength, intensity, duration, and proximity to the light source. UV-C lighting, the safest for humans, has sanitizing and germicidal effects and effectively deactivates COVID-19.

Solano County's Health and Social Services (H&SS) department utilizes air purifiers with UV lighting as a disinfectant tool in two dental clinics. Both GSD and the Sheriff's Department stated that they are considering UV as a supplement to current safety protocols.

While GSD is considering UV sanitation, three hurdles deter adoption: safety, effectiveness, and cost. As manufacturers increase UV research and development to meet growing demand, there are concerns that manufacturers' health and safety claims do not always match performance and create a health risk.

Research on the safety and effectiveness of UV to deactivate or kill COVID-19 and its variants is ongoing. Consumers need to rigorously evaluate and question manufacturers of UV and other disinfection products regarding their safety and effectiveness.

Solano County's CARES Act Proposed Expenditure Plan exceeded \$45 million for the period March 1 to December 30, 2020, divided between the following programs:

- Medical Response \$ 5,980,555
- Public Health \$16,095,132
- Compliance Measures \$12,498,128
- Economic Support \$10,439,515
- Emergency Sheltering \$ 29,528

Solano County will continue to utilize current mitigation strategies, as recommended by the Center for Disease Control (CDC) which include:

1. Promote behaviors that prevent the spread of the disease
2. Maintain healthy environments
3. Maintain healthy operations
4. Prepare for when someone becomes sick

V. FINDINGS AND RECOMMENDATIONS

Finding 1 – Addressing COVID-19 and future public health safety threats in county buildings will require additional investment in strategies that mitigate and prevent future infections.

Recommendation 1a - Solano County lobby state and federal governments for funding to research, identify, and implement proactive health safety strategies in county buildings.

Recommendation 1b – Solano County Departments network to research, identify, and recommend strategies that promote, improve, and enhance public health safety in county buildings.

Finding 2 – HDQ Neutral is a spray and air-dry surface sanitizer that can be harmful to public health if applied and not allowed to dry completely before coming into contact with humans.

Recommendation 2 – Train all county employees who prepare and spray HDQ Neutral on its proper dilution, use, and required drying time before allowing public contact with any treated surfaces.

COMMENTS

County Departments should be commended for being able to continue the business of operating county government as effectively as possible during the pandemic.

REQUIRED RESPONSES

Solano County Health and Social Services (all findings)
Solano County General Services Department (all findings)
Solano County Sheriff’s Department (all findings)

COURTESY COPIES

Solano County Board of Supervisors
Solano County Human Resources
Solano County Risk Assessment