November 8, 2022
Version 006

Summit County Health Department COVID-19 Response

After-Action Report
Executive Summary
January 2020 – May 2022

Summit County Health Department
COVID-19 After Action Report Executive Summary

"Residents of Summit County should be assured that we are doing everything within our means to protect their health."

~ Thomas C. Fisher, Summit County Manager, Summit County Declaration of Emergency - COVID-19, March 12, 2020.

Summary

The After-Action Report (AAR) was written with the intent to collect and evaluate best practices and lessons learned by Summit County Health Department (SCHD) during the COVID-19 Pandemic response from January 2020 through May 2022. SCHD AAR strategy:

- Record and review key COVID-19 response efforts by the Summit County and the Summit County Health Department.
- Identify achievements, challenges, and gaps in preparedness, response, and recovery actions.
- Strengthen future public health response capabilities in Summit County and the community.

Situation and Timeline

To date there are over 79 million cases of COVID-19 in the United States. Of those cases, more than 969,114 have resulted in death (CDC COVID Data Tracker). Federal, state, and local public health officials continue working tirelessly to promote vaccination and infection mitigation measures as COVID-19 cases decline. This report considers response actions undertaken by Summit County, January 2020 through May 2022.

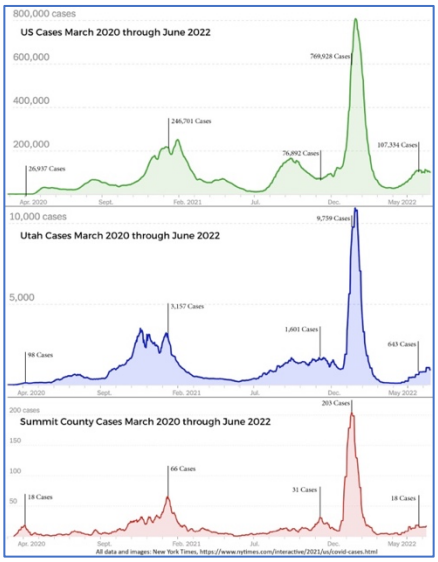
Summit County COVID-19 Statistics

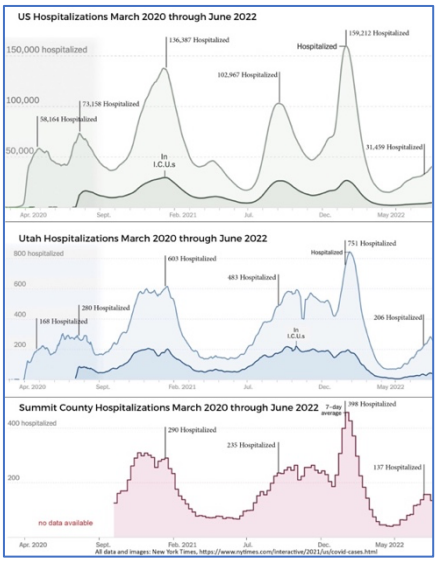
COVID-19 Infection Data, Summit County			**COVID-19 Vaccination Rates, Summit County**	
Total Population	42,647		**Total Summit County Vaccination Rate (5yrs +)**	90%
COVID-19 Cases	14,158		**Senior 65+ (*demand exceeds estimated population*)**	107%
COVID-19 Hospitalizations	332		**Adults 18-64**	94%
COVID-19 Hospitalization, ICU	50		**Adolescents 12-17**	81%
COVID-19 Deaths	26		**Children 5-11**	47%

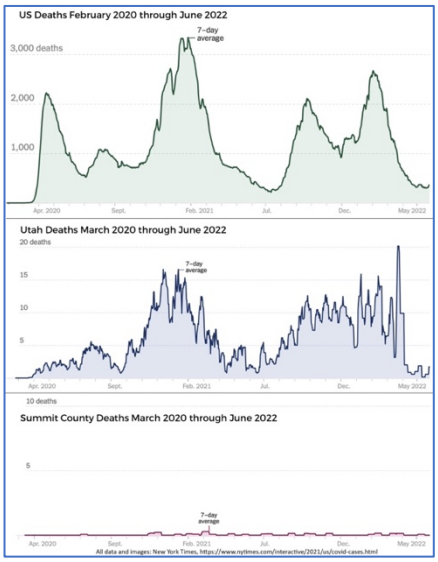
- *Pediatric <5 data incomplete for this time-period.*

Table 1: Summit County COVID-19 Vaccination Rates

COVID-19 Date Comparisons, January 2020 through May 2022





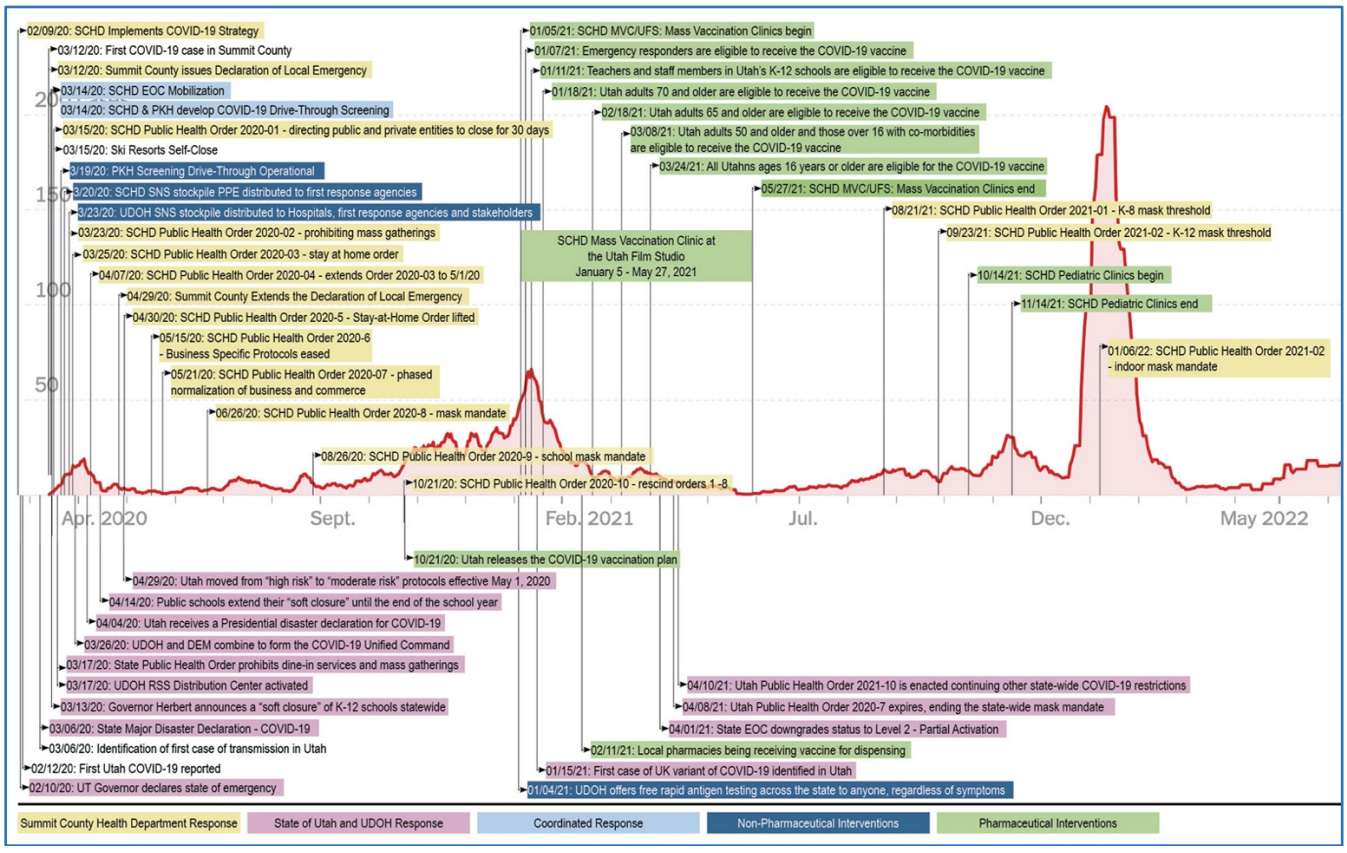


Case rate spikes were flatter and of shorter duration.

COVID-19 related hospitalizations pushed local capacity.

COVID-19 related fatality rates were very low.

COVID-19 Response Timeline and Summit County Case Counts



SCHD COVID-19 Response Analysis

The report and findings are framed around the public health emergency response national standards defined by the Centers for Disease Control and Prevention (CDC) Public Health Emergency Preparedness and Response Capabilities (CDC, 2019) and summarized in Table 2 below.

Domain	Capability
1. Community Resilience	• Community Preparedness • Community Recovery
2. Incident Management	• Emergency Operations Coordination
3. Information Management	• Emergency Public Information and Warning • Information Sharing
4. Countermeasures and Mitigation	• Medical Countermeasure Dispensing and Administration • Medical Materiel Management and Distribution • Nonpharmaceutical Interventions • Responder Safety and Health
5. Surge Management	• Fatality Management • Mass Care • Medical Surge • Volunteer Management
6. Biosurveillance	• Public Health Laboratory Testing • Public Health Surveillance and Epidemiological Investigation

Table 2: CDC Public Health Emergency Preparedness and Response Capabilities: National Standards for State, Local, Tribal and Territorial Public Health (CDC, 2019)

Domain 1: Community Resilience

Community resilience is the ability of a community to use its assets to strengthen public health and healthcare systems, and to improve the community's physical, behavioral, and social health to withstand, adapt to, and recover from adversity (ASPR, 2022; CDC, 2019).

Domain 1: Community Resilience	Key Observations
Capability 1: Community Preparedness *Community preparedness is the ability of communities to prepare for, withstand, and recover from public health incidents in both the short and long term.*	• Public Health Emergency Preparedness (PHEP) Public Health Emergency Manager on staff. • Public health emergency response plans in place but outdated. • Jurisdictional Risk Assessment completed. • Recommend increased community integration. • Clinical Emergency Response: Professionalism, standards of care, and organization rated very high. • Update Medical Reserve Corps (MRC) plans, training, exercises, and recruitment. • Recommend MRC and volunteer management plans and technology support systems.

Capability 2: Community Recovery *Community recovery is the ability of communities to identify critical assets, facilities, and other services within public health, emergency management, health care, human services, mental/behavioral health, and environmental health sectors that can guide and prioritize recovery operations (CDC, 2019).*	• Develop and communicate response strategies, objectives, and actions. • Leverage community assets, programs, and resources. • Develop school public health emergency response plans and policies. • Ensure health equity measures are incorporated. • Continue to build and strengthen Community Partners and Stakeholder Relationships and services. • Integrate community organizations in emergency preparedness planning and communication. • Develop Environmental Health emergency response plans and policies. Review and develop community recovery funding and assistance programs such as grants, services, assistance, and subsidies.

Domain 2: Incident Management

An incident command structure is critical to organize the response within a healthcare facility, agency, or across disciplines to assure common structures, terminology, communications, development of objectives, and management of information and resources (ASPR, 2022; CDC, 2019).

Domain 2: Incident Management	Key Observations
Capability 3: Emergency Operations Coordination *Emergency operations coordination is the ability to coordinate and support an incident by implementing a standardized, scalable system of oversight, organization, and supervision.*	• Emergency Response Activation: SCHD adopted National Incident Management System/Incident Command System (NIMS/ICS), Health Director appointed Incident Commander (IC). • Emergency Operations Center (EOC) early activation (information gathering, stakeholder integration, community support). • EOC confusion at transition to on-scene Mass Vaccination Clinic (MVC) operations; recommend review of EOC role, boundaries, and communication processes. • Policy Group effective and supportive; critical to Health Orders and legal issues, major decision making, vertical communication, and budget management. • Review and update EOC planning and integration: plans, staffing, roles, training, and exercises. • Staff limitations required reassignments, temporary, and volunteer (MRC) staff – rapid recruiting and hiring process required as well as training and exercises. • Review Emergency Support Function# 8 (ESF8): Health and Medical Services Annex of the National Response Plan to validate SCHD roles and responsibilities. • NIMS/ICS and EOC training helpful, however, additional, micro-learning is recommended. • Recommend development of rapid purchasing and hiring policy and processes recommended. • Summit County Personnel Department support lacking; recommend future participation, especially for volunteer management. • Recommend update Mutual Aid Agreements with partners, facilities, and community organizations.

Domain 3: Information Management

Information management involves the gathering and dissemination of timely information and data that is pertinent to the unfolding and ongoing emergency (CDC, 2019).

Domain 3: Information Management	Key Observations
Capability 4: Emergency Public Information and Warning *Emergency public information and warning is the ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management personnel*	• Public information strategy: transparent, immediate, and accurate public information. • Public information, alerts, warnings, social-media, and communications campaigns effective. • Community organizations and stakeholders critical to building communication strategies, programs, and public trust. • Strengthen communication paths with vulnerable populations recommended. • Joint Information Center (JIC) operations in place. • Call-Center critical to public assistance. • Community participation critical to communication.
Capability 6: Information Sharing *Information sharing is the ability to conduct multijurisdictional and multidisciplinary exchange of health-related information and situational awareness data among federal, state, local, tribal, and territorial levels of government and the private sector.*	• Common operations picture developed through NIMS/ICS. • Incident statistics and analysis alignment recommended. • Partners and stakeholders included through EOC and response programs. • Strengthen partner information flow, process, and tools. • Information systems training for staff to assure redundancy.

Domain 4: Countermeasures and Mitigation

Countermeasures and mitigation involves the dispensing and administration of pharmaceutical and non-pharmaceutical countermeasures to prevent, mitigate, or treat the adverse health effects of a public health incident.

This capability focuses on dispensing and administering medical countermeasures, such as vaccines, devices, antiviral drugs, antibiotics, and antitoxins, as well as non-pharmaceutical programs, such as public information, community outreach, and personal protective equipment (PPE) distribution (TN Dept of Health; CDC, 2019).

Domain 4 – Countermeasures & Mitigation	Key Observations
Capability 8: Medical Countermeasure Dispensing and Administration *Medical countermeasure dispensing and administration is the ability to provide medical countermeasures to targeted populations to prevent, mitigate, or treat the adverse health effects of a public health incident.*	• Cities Readiness Initiate (CRI) and Points of Dispensing Site (PODS) plans in place but outdated. Effective implementation, nonetheless. • Contract tracing and case management required many temporary staff and response partner support. Challenging task overall. • Mass Vaccination Clinic Campaigns: closed, community-wide mass vaccination, targeted, specialty, mobile, business, adolescent, pediatric, and partner clinics. • Vaccine-scarcity necessitated multiple MCM and PODS plan changes. • Governor's priority system challenging but achievable.

	• Regional Mass Vaccination Clinic at Utah Film Studio was highly successful. • MRC community volunteers were highly effective and supportive. • Vaccine Administration Management System (VAMS) used for vaccination registration. Effective but sometimes challenging. • Call center critical to public assistance, especially aging populations. Call center support of registration process was imperative. Increasing call volumes required expansion to on-line, call center provider.
Capability 9: Medical Materiel Management and Distribution *Medical materiel management and distribution is the ability to acquire, manage, transport, and track medical materiel during a public health incident or event and the ability to recover and account for unused medical materiel, such as pharmaceuticals, vaccines, gloves, masks, ventilators, or medical equipment after an incident.*	• Cities Readiness Initiate (CRI), Strategic National Stockpile (SNS), and Points of Dispensing Site (PODS) plans in place but outdated. Effective implementation, nonetheless. • Personal protective equipment (PPE) distribution to response partners, community organizations, businesses, and public – free of charge (1.3 million items received, 60% distributed). • Community organizations and governments assisted with PPE distribution. • PPE inventory and distribution technology solution recommended. • Jurisdictional PPE needs assessment recommended.
Capability 11: Non-Pharmaceutical Interventions *Non-pharmaceutical interventions are actions that individuals and communities can take to help slow the spread of illness or reduce the adverse impact of public health emergencies.*	• Cities Readiness Initiate (CRI), Strategic National Stockpile (SNS), and Points of Dispensing Site (PODS) plans in place but outdated. Effective implementation, nonetheless. • Call center critical to public assistance. • Quarantine and isolation facilities effective, though initially unprepared. Relationship with property owners facilitated by Chamber of Commerce. Meals and healthcare were issues. Legal and law enforcement quarantine order support required. • Declaration of Emergency for state/federal support – early adoption critical. • Proactive Health Orders issued to reduce virus spread in community: social-distancing, face coverings, business restrictions, stay-at-home, mass gathering restrictions, and Environmental Health requirements. Significant legal, communication, enforcement, economic, and community impact. • Stakeholder participation in crafting orders, plans, appeals, and enforcement critical. • Recommend policy development, planning, training, and exercises with schools. • Community assistance, support, and subsidies through government and community programs critical. Additional planning and preparedness required.
Capability 14: Responder Health and Safety *Responder health and safety is the ability to protect public health and other emergency responders during pre-deployment, deployment, and post-deployment.*	• Update Closed Points of Dispensing Site (PODS). • Closed PODS opened at SCHD. Effective implementation. • Responder contacts and priority groups to be updated – Personnel Department priority list did not align with state-issued guidance. Technology solution recommended.

Domain 5: Surge Management

Medical surge is the ability to expand care capabilities and to provide medical evaluation and care to the injured or ill during events, natural or man-made, that cause health care facilitates to exceed the limits of their normal medical capacity capabilities in response to a great increase in demand (TN Dept of Health; CDC, 2019).

Domain 5: Surge Management	Key Observations
Capability 5: Fatality Management *Fatality management is the ability to coordinate with partner organizations and agencies to provide fatality management services.*	• Managed by Summit County Sheriff's Office under Emergency Support Function# 8 (ESF8): the Health and Medical Services Annex of the National Response Plan. • Fatality management plans were discussed, but not necessary; issues included: mass fatality cold storage, morgues, funeral homes, refrigerated trucks, ice rinks (*rejected*), resources, and security (secure and shielded from public view).
Capability 7: Mass Care *Mass care is the ability of public health agencies to coordinate with and support partner agencies to address, within a congregate location (excluding shelter-in-place locations), the public health, health care, mental/behavioral health, and human services needs of those impacted by an incident.*	• SCHD acted as lead agency for COVID-19 response efforts in Summit County as directed by Federal, State and local statutes (*Appendix 5: Public Health Legal Authorities*) and under guidance by the CDC Public Health Emergency Preparedness and Response Capabilities: National Standards for State, Local, Tribal, and Territorial Public Health and Emergency Support Function (ESF) #8: Public Health and Medical Services. • Mental and behavioral health services remained active during the pandemic as programs and partnerships were leveraged to meet significantly increasing demand. • Recommend response partner planning and exercises related to ESF8 and other mass-care incidents. • Update Mutual Aid Agreements with partners, facilities, and community organizations recommended.
Capability 10: Medical Surge *Medical surge is the ability to provide adequate medical evaluation and care during events that exceed the limits of the normal medical infrastructure of an affected community*	• SCHD and Park City Hospital (PKH) worked closely to monitor surge indicators such as case counts, infection rates and ED/ICU capacities though SCHD and PKH did not have a formal agreement in place for surge response. • Recommend developing Medical Surge plans, training, and exercises in partnership with PKH and other response partners. • The Regional Emergency Response Coalition (SST) Surge Management Plan was drafted, but not officially adopted to the SCHD Public Health Emergency Response Plan. • Update Mutual Aid Agreements with partners, facilities, and community organizations recommended.
Capability 15: Volunteer Management *Volunteer management is the ability to coordinate with emergency management and partner agencies to identify, recruit, register, verify, train, and engage volunteers.*	• Medical Reserve Corps (MRC) was highly effective during all phases of response successful (volunteers: 500+, 15k hours, $450k). • MRC and volunteer management transferred from People's Health Clinic to SCHD to support expanded SCHD Mass Vaccination Clinic operations. • Summit County Treasurers Office support of MRC volunteer program instrumental to success. • MRC Deployment/Operations Plans in draft; priority development recommended.

	• MRC Volunteer Management Plan development; priority development recommended. • MRC volunteer recruitment, management, and training program using cloud-based, technology solution recommended. • Volunteer agreement, liability waiver, and county policy; priority development recommended. • MRC equipment and supplies stock and readiness. • MRC regional, State MRC, Utah Responds State Registry of Volunteers and national MRC coordination recommended.

Domain 6: Biosurveillance

Biosurveillance primarily focuses on developing effective surveillance, prevention, and operational capabilities for detecting and countering biological threats (DHS, 2022; CDC, 2019).

Domain 6: Biosurveillance	Key Observations
Capability 12: Public Health Laboratory Testing *Public health laboratory testing is the ability to implement and perform methods to detect, characterize, and confirm public health threats.*	• SCHD Clinical Staff conducted COVID-19 antigen sample collecting and rapid test results only. Results were typically provided within 24 hours. • Polymerase Chain Reaction (PCR) testing was provided locally at PKH and through third-party organizations such as NOMI Health Curative. Samples were provided to contracted laboratories for testing and results reporting within one to three days. • Recommend response partner testing program alignment.
Capability 13: Public Health Surveillance and Epidemiological Investigation *Public health surveillance and epidemiological investigation is the ability to create, maintain, support, and strengthen routine surveillance and detection systems and epidemiological investigation processes.*	• Contact Tracing and Case Investigation: SCHD Clinical Staff provided case investigation and contact tracing during the pandemic. As volumes grew, staff reassignments and temporary staff were required to assist with contact tracing and case investigation activities. • Epidemiological Investigation: Once COVID-19 funding became available, Summit County hired an epidemiologist. The epidemiologist provided data tracking, analysis, and forecasting to support clinical staff, public communications, mass vaccinations, and to inform planning and policy decisions. • Recommend planning, training, and exercises to include public health surveillance and epidemiological investigation. • Recommend standardized data collection, analysis, and reporting for response partners and community consumption.

Improvement Plan

Moving forward, SCHD will incorporate these findings to develop emergency response and preparedness strategies, policies, plans, training, exercises, and community integration and participation opportunities. Improvement planning will take place over time, prioritized by need, threats, and community risk. Community needs, demographics, and awareness will help define the evolving, flexible process of community preparedness. Summit County has identified several critical actions necessary to meet CDC and local health capabilities requirements, as well as improved community resilience and collaboration.

SCHD COVID-19 AAR Improvement Plan Recommendations and Critical Actions	
Public Health Emergency Response (PHEP)	• CDC Public Health Preparedness and Response Capabilities • NACCHO Project Public Health Ready (PPHR) • Jurisdictional Risk Assessment
Medical Reserve Corps (MRC)	• ASPR Medical Reserve Corps Deployment Guide and MRC Connect • MRC Volunteer Management Plan and System
SCHD Clinical Staff	• Medical Surge planning and Memorandums of Understanding (MOU) • PHEP planning, training, and exercises • School District planning (school nurses) • Long-term care and home-bound program development
Summit County Health Department	• PHEP planning, training, and exercises • NIMS and ICS training and exercises • Cross-over and redundancy training • Update Memorandums of Understanding (MOU) • Communication and outreach
Summit County	• NIMS and ICS training and exercises • Cross-over and redundancy training • Update Memorandums of Understanding (MOU) • Call-Center planning and exercises
Response Partners	• Local governments, first response agencies, and medical providers integration, communication, and response planning • PHEP planning, training, and exercises
Community Preparedness	• School District integration, planning, and communication (Administration) • Community Public Health Emergency Preparedness • Business Community planning and integration • Community Support Programs development and planning

Utilizing the CDC Capabilities as the foundation, and incorporating other emergency preparedness tools and resources, programs such as plan development, training, and exercises can be developed to address gaps, improve organizational capabilities, and build stronger, more effective response programs. These same guides can be used to align and integrate external organizations such as response partners, the Medical Reserve Corps, community organizations, and individuals, offering a whole-community approach to public health preparedness, response, and recovery.

Improvement Plan Tools and Resources	Description
CDC Public Health Preparedness and Response Capabilities	Public health emergency response guidance. Compliance required as part of PHEP program.
NACCHO Project Public Health Ready (PPHR)	Criteria-based training and recognition program that assesses local health department capacity and capability to plan for, respond to, and recover from public health emergencies.
ASPR Medical Reserve Corps Deployment Guide & MRC Connect	MRC deployment planning and on-line MRC cooperation tool.
Utah Office of Emergency Medical Services and Preparedness	State department for public health emergency planning and PHEP Cooperative Agreement Grant.
ASPR Public Health Preparedness & Response	Administration for Strategic Preparedness and Response guidance and reference.
USHHS, FEMA, CDC, UHHS, NACCHO ASPR, APHA, APHN, IAEM	Organizations and associations related to emergency preparedness planning, guidance, training, and certifications.
FEMA Independent Study, Utrain, ICDP	Training resources related to emergency preparedness.