



# Summit County COVID-19 Testing Concept Plan

Testing Strategies and Tactics for Summit County, Ohio

**I. Purpose and Scope**

The purpose of this concept plan is to identify testing strategies and tactics associated with COVID-19 and support the identification of mitigation, prevention, response, and recovery strategies to COVID-19 within Summit County, Ohio.

The overall objectives of this plan include but are not limited to:

- Support the early identification of communicable disease intervention strategies
- To use data to make informed decisions and take feasible public health interventions.

**II. Types of COVID-19 Testing**

**Tests for SARS-CoV-2/COVID-19 and Potential Uses**

Type of Test	Measure	Value	Beneficiary
 <p><b>Nucleic acid amplification test for viral RNA</b> <i>(nasopharyngeal swab, oropharyngeal swab, sputum, bronchoalveolar lavage fluid, others)</i></p>	Current infection with SARS-CoV-2	<ul style="list-style-type: none"> <li>• Inform individual of infection status so they can anticipate course of illness and take action to prevent transmission</li> <li>• Inform patient management and actions needed to prevent transmission</li> <li>• Inform actions needed to prevent transmission</li> </ul>	<ul style="list-style-type: none"> <li>• Individual</li> <li>• Healthcare or long-term care facility</li> <li>• Public health</li> </ul>
 <p><b>Antibody detection</b></p>	Past exposure to SARS-CoV-2	<ul style="list-style-type: none"> <li>• Detect susceptible individuals (antibody negative) and those previously infected</li> <li>• Identify individuals with neutralizing antibodies</li> <li>• Facilitate contact tracing and surveillance</li> </ul>	<ul style="list-style-type: none"> <li>• Identify those potentially immune to SARS-CoV-2 (if tests can detect protective immunity, individuals could be returned to work)</li> <li>• Healthcare facilities: Experimental therapy</li> <li>• Public health</li> </ul>

At present there are two (2) types of tests that have been Food and Drug Administration (FDA) approved for the detection of COVID-19.

Viral Testing (Nucleic Acid Test)

Viral testing requires respiratory samples from the patient (SARS-CoV-2 is a respiratory virus). Nasopharyngeal swabs are most commonly used. Samples are then processed and tested for SARS-CoV-2 RNA. The test includes extraction of RNA from the patient specimen, conversion to DNA and PCR amplification with SARS-CoV-2 specific primers.

This test will identify if the patient is *ACTIVELY* infected with SARS-CoV-2. If the viral RNA is detected, it suggests that the virus might be present. This test can yield false negative results if the level of viral RNA

in a particular sample is too low for detection, and results can be skewed if steps are not taken to ensure that the tests are being performed properly.

### Antibody Testing (Serology)

Antibody tests measure the amount of antibodies produced in response to SARS-CoV-2 infection and does not test for the presence of the virus itself. Therefore, it does not indicate if a person is currently infected. Antibody testing reveals if a patient has been exposed to the virus but does not tell whether an active infection occurred, or whether the antibodies produced are the kind that can prevent another infection. It typically takes 1 to 3 weeks for a patient to develop antibodies to SARS-CoV-2, therefore antibody tests are not currently recommended for the diagnosis of acute cases of COVID-19. This test can yield a false negative result if the test is conducted too early and antibodies have not yet developed. It can also yield false positives if antibodies to coronaviruses other than COVID-19 are present.

### III. Ohio Testing Prioritization

The Center for Disease Control and Prevention (CDC) has established priority groups<sup>1</sup> for testing effective May 5<sup>th</sup>, 2020. Ohio has modified these groups to meet the specific needs of the state considering changes in testing availability and evolving knowledge of COVID-19 and its impact on Ohioans.

Testing must be first available to individuals described in Priorities 1, 2 and 3. Priority 4 became available on June 2<sup>nd</sup> and Priority 5 on June 12<sup>th</sup>. The purpose of this prioritization is to assure access to testing for the most ill and vulnerable Ohioans and those who care for them in order to limit the risk of spread in a congregate living environment and communities. The prioritization also recognizes the appropriate use and preservation of Personal Protection Equipment (PPE) across all healthcare and community settings to ensure safety.

**Priority 1** is to ensure optimal and safe care for all hospitalized patients, lessen the risk of hospital-acquired infections, and ensure staff safety. Testing for Priority 1 includes:

- Hospitalized patients with symptoms.
- Healthcare personnel with symptoms. This includes behavioral health providers, home health workers, nursing facility and assisted living employees, emergency medical technicians (EMTs), housekeepers and other who work in healthcare and congregate living settings<sup>2</sup>.

**Priority 2** is to ensure that people at highest risk of complications from COVID-19 and those who provide essential public services. Testing for Priority 2 includes:

- Residents of long-term care facilities and other congregate living settings who are symptomatic.

---

<sup>1</sup> <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-criteria.html>

<sup>2</sup> Congregate living settings are those where more than 6 persons reside with a propensity for rapid person-to-person spread, including but not limited to: assisted living, nursing facilities, Veteran Homes, residential mental health and substance use treatment facilities, psychiatric hospitals and group home settings, developmental centers, intermediate care facilities and group homes for individuals with home settings, correctional facilities, homeless and domestic violence shelters, and jails.

- Residents and staff of long-term care facilities and congregate living settings who are asymptomatic with known exposure to COVID-19 in the context of an outbreak (e.g., two or more cases in the same area, wing or building). The purpose of testing individuals who are exposed and asymptomatic is to facilitate more specific isolation and quarantine within congregate living settings to reduce the risk of virus transmission to other residents.
- Patients 65 years of age or older with symptoms.
- Patients with underlying conditions with symptoms. Consideration should be given for testing racial and ethnic minority groups with underlying illness who are disproportionately affected by adverse COVID-19 outcomes – currently African Americans, Hispanics and Latinos, some American Indian tribes.
- First responders, public health workers, and critical infrastructure<sup>3</sup> workers with symptoms.
- Other individuals or groups designated by public health authorities to evaluate and manage community outbreaks, including those within workplaces and other large gatherings.

**Priority 3** is to test individuals with and without symptoms to implement healthcare services across all healthcare settings, as outlined in the Stay Safe Ohio Order<sup>4</sup> and Governors DeWine’s Responsible Re-Start Ohio Guide for Health Care<sup>5</sup>. The purpose of Priority 3 testing is to minimize risk of post-procedure complications and transmission of COVID-19. Testing for Priority 3 includes:

- Individuals receiving essential surgeries and procedures, including those that were reassessed after a delay.
- Individuals receiving all other medical necessary procedures that do not require an overnight stay or an inpatient hospital admission.

**Priority 4** is to test individuals in the community to decrease community spread, including individuals with symptoms who do not meet any of the above categories.

**Priority 5** is to test asymptomatic individuals not mentioned above.

#### IV. Summit County Testing Strategies

##### A. Congregate Living Settings

Summit County will prioritize testing at Congregate Living Settings where the risk of virus transmission to other residents and providers within such settings is considered high. Testing will be aimed at reducing transmission within congregate living settings through transmission based limitations strategies. In addition, testing will support facility surveillance and contact tracing initiatives. Testing may be allocated based on risk targeting specific sections of a facility for conducted as a whole to support facility wide testing.

---

<sup>3</sup> Critical Infrastructure Personnel includes public health, healthcare, first responders, 911 call center employees, fusion center employees, hazardous material responders, janitorial staff and other custodial staff, workers / contractors in food and agricultural, critical manufacturing, information technology, transportation, energy, and government.

<sup>4</sup> <https://coronavirus.ohio.gov/static/publicorders/Directors-Stay-Safe-Ohio-Order.pdf>

<sup>5</sup> <https://coronavirus.ohio.gov/static/responsible/RestartOhio-Health-Care-Guide.pdf>

B. Community Outbreaks

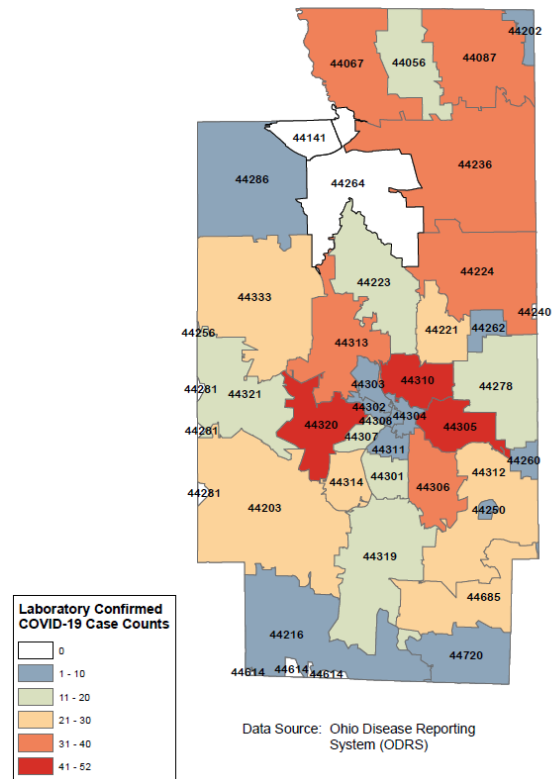
Summit County will prioritize testing in support of community outbreaks not affiliated with a congregate living setting occurring within Summit County. Testing will be aimed at mitigating disease transmission associated with community outbreaks. Outbreaks may occur in workplaces, impact critical infrastructure personnel, or other criteria associated with Priority 2 testing.

C. At Risk Populations / Community Testing

Summit County will prioritize testing of at risk populations. These populations include front-line staff, minority populations, and those with limited English proficiency (LEP).

Summit County Public Health Epidemiology has used GIS mapping of current cases to identify areas of highest need. These zip codes include 44310, 44305, and 44320. Summit County Public Health will utilize existing partnerships to target testing in those areas. SCPH will engage LTC staff for priority testing. This will help prevent future outbreaks in congregate living by proactively identifying those who are positive so isolation and quarantine measures can be taken. SCPH has also identified a need in the refugee and immigrant populations. SCPH will work with Asian Services in Action, Inc. to get testing into this community.

Non-LTC COVID-19 cases in Summit County by Zip Code, May 11, 2020



The following community based testing sites are in the development phase:

- **Summit County Public Health**  
1867 W. Market Akron 44313
- **The House of the Lord**  
1650 Diagonal Road Akron 44320
- **AxessPointe FQHC**  
1400 S. Arlington St Akron 44306
- **AMHA Senior High Rises**  
Belcher, Saferstein Tower I & II, Lauer and Marian Hall
- **Alpha Phi Alpha Homes**  
TBD

**D. Critical Infrastructure Personnel**

Summit County, to support the sustainment and continuity of our community will prioritize testing to critical infrastructure personnel who are exhibiting symptoms of COVID-19. Testing will be provided to support the enactment of transmission limitations strategies and mitigate the potential impact to critical infrastructure operations.

**E. Hospitalization / Healthcare Services**

Hospitalization / Healthcare Service Testing is conducted to minimize the risk of post-procedure complications and transmission of COVID-19 within a hospital setting. Testing will be targeted at individuals receiving medical necessary procedures and individuals receiving essential surgeries / procedures within a healthcare setting. Testing will occur through the affiliated hospital system in which the patient is receiving care.

**V. Summit County Testing Modalities****VI. Curbside Testing**

Curbside Testing will occur by appointment only at Summit County Public Health located at 1867 West Market Street, Akron Ohio 44223. Testing will be coordinated by Summit County Public Health and conducted by appointment to the priority groups. This testing modality will conserve Personal Protective Equipment (PPE) usage based on appointment scheduling. Walk In will be accommodated.

**VII. Drive Thru**

Drive Thru Testing may occur to support targeted based testing or as or if available in the future, community wide testing through a Drive Thru modality. Drive thru testing can accommodate field testing where a pre-existing facility does not exist or when volume testing is required. This testing modality will conserve Personal Protective Equipment (PPE) usage based on repeated usage of PPE. Walk In will be accommodated.

**VIII. Field Testing**

Field Testing will be targeted at designated operating facilities or location that fall within or caters to the priority groups (i.e., nursing homes, residential care, work sites, etc.). This testing modality will utilize either a deployable team to support testing. The operations within this modality will be logistically demanding but will provide mobile testing services as required. This type of service may be augmented by external providers (e.g., Hospitals, Asia Inc., Physician Groups, Healthcare Facilities, etc.) to support testing operations.

**IX. Hospital Testing Sites**

Hospital Services Testing Sites are operated within a hospital facility or venue and directly associated with the delivery of healthcare in a hospital setting. These locations are aimed at supporting testing services to Priority 3 individuals.

**VI. Mass Testing Budget & Budget Justification:****I. Testing Teams - Total Budget \$1,040,000**


- Equipment - \$60,000
- Materials & Supplies - \$30,000
- Personnel - \$250,000
  - Testers: 1-4 teams (2 per team)
  - Registration 2-4 personnel, surge up to 8
  - Regional Prep Team 2-8 personnel
  - Data/Support 2 Personnel
- Contracts/ Vendors - \$700,000
  - Law Enforcement
  - EMS
  - Interpreters/ translation
  - Lab analysis fees

**II. Lab Capacity – Total Budget \$285,741**

Expanded testing will only be productive if lab capacity is also expanded. In order to increase capacity from 200 tests/ day to 400-450 tests/day and expand testing in Summit County, the following budget is being requested.

- Equipment - \$115,141
  - a. QIAcube HT/QIAxtractor system - \$115,141
- Materials & Supplies - \$77,000
  - a. Reagents to validate instrument and testing - \$20,000
  - b. IT network - \$3,000
  - c. Physical alterations/utilities, electrical and plumbing - \$30,000
  - d. Shipping expenses - \$1,000
  - e. LIS interface expense - \$20,000
  - f. Viral HEPA filter for BSC in Immunology - \$3,000
- Personnel - \$93,600
  - a. 3 FTEs through December 2020

**Total Request: \$1,325,741**

<div style="text-align: center;">  <p><b>COVID-19 Testing in Ohio</b> Help prevent the spread of COVID-19</p> </div>	
<b>Priority 1</b>	<p><b>Ohioans with symptoms who are:</b></p> <ul style="list-style-type: none"> <li>• Hospitalized.</li> <li>• Healthcare workers. This includes behavioral health providers, home health workers, nursing facility and assisted living employees, emergency medical technicians (EMTs), housekeepers and others who work in healthcare and congregate living settings.*</li> </ul>
<b>Priority 2</b>	<p><b>Ohioans with symptoms who are:</b></p> <ul style="list-style-type: none"> <li>• Residents of long-term care/congregate living settings.</li> <li>• First responders/public health workers/critical infrastructure workers.</li> <li>• 65 and older.</li> <li>• Living with underlying conditions.                             <ul style="list-style-type: none"> <li>◦ Consideration should be given for testing racial and ethnic minorities with underlying illness, as they are at increased risk for COVID-19 and more severe illness.</li> </ul> </li> </ul> <p><b>Ohioans without symptoms who are:</b></p> <ul style="list-style-type: none"> <li>• Residents or staff directly exposed during an outbreak in long-term care/congregate living settings.</li> </ul> <p><b>Other Ohioans who are:</b></p> <ul style="list-style-type: none"> <li>• Designated by public health officials to evaluate/manage community outbreaks (such as in workplaces, other large gatherings).</li> </ul>
<b>Priority 3</b>	<p><b>Ohioans with and without symptoms who are:</b></p> <ul style="list-style-type: none"> <li>• Receiving essential surgeries/procedures, including those that were reassessed after a delay.</li> <li>• Receiving other medically necessary procedures not requiring an overnight stay/inpatient hospital admission, as defined by their providers' process for COVID-19 testing.</li> </ul>
<b>Priority 4</b>	<p><b>Individuals in the community to decrease community spread, including individuals with symptoms who do not meet any of the above categories.</b></p>
<b>Priority 5</b>	<p><b>Asymptomatic individuals not mentioned above.</b></p>
<p>*Congregate living settings are those where more than six people live and where there is a propensity for rapid person-to-person spread of infectious disease. (Some examples are assisted living/nursing centers; Ohio Veterans Homes; residential facilities for mental health/substance use treatment; psychiatric hospitals/group homes; centers/facilities/group homes for people with intellectual disabilities; homeless and domestic violence shelters; youth detention centers; prisons; and jails.)</p>	
