

ELC ENHANCING DETECTION: OHIO TESTING PLAN

2020 Overarching Jurisdictional SARS-COV-2 Testing Strategy

Jurisdiction:	Ohio
Population Size:	11.7 Million

1. Describe the overarching testing strategy in your state or jurisdiction.

1. OVERARCHING STRATEGY NARRATIVE:

Through the leadership of Governor Mike DeWine, the Ohio Department of Health (ODH) and the work of the State of Ohio Testing Strike Force, Ohio has worked to maximize the use of testing platforms by establishing a statewide network of laboratories, linking state and private laboratories, under a single effort. Recognizing the value of our local partners and science experts, the state utilized the existing infrastructure of sophisticated hospital and academic medical center laboratories throughout the state, as well as the existing Ohio Department of Health lab.

This growing coalition of ten cooperating laboratories was created to expand testing capacity and increase collaboration in scientific, supply-chain, communication, and strategy efforts. By establishing a statewide network, laboratories have been able to streamline by creating uniform forms and processes, have improved workflow for hospitals and medical centers by using both rapid point-of-care testing, such as those produced by Ohio-based Abbott Laboratories, as well as more accurate and high-throughput platforms.

To accommodate the increasing demand for COVID-19 testing, Ohio engaged Thermo Fisher Scientific (Thermo Fisher). The partnership between Ohio and Thermo Fisher was solidified in mid-April, when Governor DeWine and Thermo Fisher CEO Marc Casper agreed to an order for one million tests for COVID-19. Through this collaboration, Ohio is able to execute a comprehensive testing strategy by having consistent, reliable access to testing supplies, equipment, and reagents.

Ohio's testing strategy is grounded in four pillars. First, Ohio's efforts must seek to preserve life by flattening the curve in communities and facilities. Second, resulting strategies and guidance must be based on clinical recommendations and Centers for Disease Control and Prevention (CDC) guidance. Third, local partners must be empowered with information and resources to mitigate and control outbreaks. And finally, for a sustainable response, Ohio must leverage private sector partnerships for best practices, innovations, and solutions. From these pillars, four corresponding strategies emerged to focus Ohio's COVID-19 testing efforts. These strategies include:

- The establishment of three state emergency preparedness zones to coordinate testing, outbreak and infection mitigation responses efforts, and strengthen local capabilities.

ELC ENHANCING DETECTION: OHIO TESTING PLAN

- The creation of tiered priority groups, using clinical recommendations and guidance the CDC, to manage testing capacity across the state.
- Testing prioritization in congregate care settings to preserve life and flatten the curve in communities and facilities.
- Testing capacity and testing site expansion by leveraging private sector resources and partnerships.

Early in the disease response, Ohio divided the state into three zones and zone leaders that would act as coordinating points for clinical issues, surge capacity, and testing capacity to ensure a coordinated response across local jurisdictions, alignment on goals, and collaboration on strategies. In early May, the ODH put together a set of guidelines to provide oversight for communication and accountability for testing. These roles were divided up based on zone leaders, laboratory, and hospital administrators, testing site directors and administrators, and ODH. This document outlines general guidelines for COVID-19 testing logistics and communication with zone and testing sites across the state to ensure appropriate communication, collaboration, and coordination. The goals of this guidance were to:

1. Identify roles and responsibilities for ODH staff.
2. Identify roles and responsibilities for each zone leader to ensure that citizens in all of Ohio's 88 counties have equivalent access to testing, whether in rural or urban settings, based on the established priority groups for testing as established by CDC and as organized by the ODH.
3. Requirement for workflow from all testing sites.
4. Create a distribution plan for viral collection kit components, viral extraction. and amplification equipment and reagent, and designation of testing populations for each zone.
5. Provide guidance for emergent situations that might disproportionately impact a specific zone .

Ohio has established priorities for testing, based on the CDC priority groups. The state emphasizes testing of patients who are most severely ill, patients who are moderately ill with a high risk of complications – such as those who are elderly and those with serious medical issues — and individuals who are critical to providing care and service to those who are ill. On June 11, 2020, Governor DeWine expanded the state's testing guidance to allow testing for all five priority levels, including those who are asymptomatic. Expanded test availability will allow individuals in lower-risk tiers to be tested and help to further contain and respond to COVID-19 in Ohio.

While testing is only one component of Ohio's response to COVID-19, it is essential to identify individuals infected with COVID-19, promptly isolate them, and trace and quarantine any contacts to minimize spread of the virus to others, including spread to those at highest risk of complications and death. The impact and effectiveness of expanded testing is dependent on close collaboration among health departments, hospitals, other healthcare providers and the communities across the state.

ELC ENHANCING DETECTION: OHIO TESTING PLAN

The state has identified a number of targeted sites for testing to ensure that we are protecting the populations most vulnerable to COVID-19. This targeted testing includes nursing homes and other long-term care facilities, veterans homes, developmental centers, psychiatric hospitals, university dorms, prisons, minority and underserved communities, front-line workers, domestic violence shelters, public transportation workers, home health workers, and testing for local surges and spikes. Recognizing that the state has a particular role in safeguarding these populations, identification of these targeted sites plays a defining role in the state's overall testing strategy.

At the beginning of June, Governor DeWine announced an initiative to utilize the Ohio National Guard to conduct pop-up testing sites in underserved communities throughout the state. These communities have included both dense urban populations with large minority and immigrant communities, as well as larger rural areas that have historically struggled with access to health care. These pop-up sites have primarily been operated as partnerships between the state – utilizing the National Guard as a testing resource – as well as the state's communication networks to raise awareness of the locations – and local partners, primarily Federally Qualified Health Centers (FQHCs) and local health districts. The initial objective for these pop-up sites was to conduct take samples at a minimum of 20 sites and administer 12,000 tests by mid-July. As of July 3, 31 sites have been open to take samples (including some sites that have operated multiple days) and 11,825 tests have been conducted.

To date, the majority of state-initiated testing has utilized nasopharyngeal (NP) swabs due to the increased reliability of these tests. However, we continue to closely monitor developments in swab and other testing technology. We have begun utilizing a less-invasive swab which is still administered by trained health care and submitted to a certified lab for processing.

The State of Ohio and the ODH has worked to create a strategy that utilizes a host of entities to manage COVID testing. While the majority of testing is performed at one of the ten testing laboratories (including the ODH lab), the state in June contracted with Labcorp and Quest to provide additional lab capacity for state testing initiatives, including nursing facility testing. In addition, a number of Ohio hospital systems, other provider networks, and private labs are providing testing capacity for the citizens of Ohio. For these networks, the state serves a collaboration function, including communicating about the state's testing priorities, assisting with supply chains where needed, and utilizing the private labs in the event that additional testing capacity is needed. Additional community-based testing – primarily consisting of swabbing stations – is provided at retail locations throughout the state and through FQHCs. These testing sites generally utilize private supply chains and partnerships with one of the laboratories not included in the state network.

Ohio's efforts to expand the testing priorities, build lab capacity, increase availability of testing throughout the state, and target testing of priority populations has led to significant increases in testing.

ELC ENHANCING DETECTION: OHIO TESTING PLAN

At the beginning of May, the state was conducting fewer than 6,000 tests per day (seven-day average). By June 1, that number had increased to nearly 9,500 tests per day, and by July 1 testing had increased to nearly 18,000 per day. These increases have helped provide additional data and opportunity for interventions to prevent the spread of COVID-19, but as discussed in the next section, increased testing creates additional challenges related to additional lab capacity, outbreak response, utilization of new testing technologies, and funding options.

Ohio has established a number of mechanisms for communicating its testing strategy and testing progress – as well as other elements of the pandemic – to the public. Governor DeWine and Lt. Governor Jon Husted hold regular press briefings that are broadcast on www.ohiochannel.org as well as many local television networks. The state has set up a web site – coronavirus.ohio.gov – that provides access to data, trends, health orders, testing locations, and other information related to testing and to pandemic response and recovery. Governor DeWine, Lt. Governor Husted, Director of Health Lance Himes, Health Policy Advisor Amy Acton, M.D., MPH, and other key administration staff are in frequent contact with stakeholders and community leaders to understand needs, evaluate priorities, communicate strategies, and coordinate implementation.

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Table #1a: Number of individuals planned to be tested, by month

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Diagnostics*	255,000	317,670	600,000	750,000	800,000	930,000	1,050,000	1,050,000	5,752,670
Serology	1,000	15,000	30,000	60,000	120,000	300,000	450,000	450,000	1,426,000
TOTAL	256,000	332,670	630,000	810,000	920,000	1,230,000	1,500,000	1,500,000	

*Each jurisdiction is expected to expand testing to reach a minimum of 2% of the jurisdictional population.

Table #1b: Planned expansion of testing jurisdiction-wide

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Ohio Dept of Health Laboratory	Public health lab		500		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
					<p>3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay</p>
Ohio State University	Hospitals or clinical facility		900	2,000	<p>all Ohio public health testing tiers</p> <ol style="list-style-type: none"> 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks 3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay <p>Serology - has validated multiple methods (looking at even more platforms). Is investing in more staff, and procuring equipment and supplies</p>

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Battelle Memorial Laboratories	Commercial or private lab		600	2,000	<p>all Ohio public health testing tiers</p> <ol style="list-style-type: none"> 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicitons (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks 3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay <p>Serology - will bring up testing in August 2020. Standing up staff, equipment, supplies</p>
Cleveland Clinic Foundation	Hospitals or clinical facility		1,250		<p>all Ohio public health testing tiers</p> <ol style="list-style-type: none"> 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicitons (special consideration for racial and ethic

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
					<p>minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks</p> <p>3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay</p>
University Hospitals Cleveland	Hospitals or clinical facility		650		<p>all Ohio public health testing tiers</p> <p>1. hospitalized patients / healthcare workers</p> <p>2. symptomatic LTC, First Responders, 65 and older, living with underlying conditions (special consideration for racial and ethnic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks</p> <p>3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay</p>

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
MetroHealth	Hospitals or clinical facility		220		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks 3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
University of Toledo	Hospitals or clinical facility		200		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
					3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
University of Cincinnati	Hospitals or clinical facility		500		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying conditions (special consideration for racial and ethnic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks 3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
Dayton Children's Hospital	Hospitals or clinical facility		500		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying conditions (special consideration for racial and ethnic

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
					<p>minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks</p> <p>3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay</p>
Cincinnati Children's Hospital	Hospitals or clinical facility		500		<p>all Ohio public health testing tiers</p> <p>1. hospitalized patients / healthcare workers</p> <p>2. symptomatic LTC, First Responders, 65 and older, living with underlying conditions (special consideration for racial and ethnic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks</p> <p>3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay</p>

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Akron Children's Hospital	Hospitals or clinical facility		83		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicitons (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks 3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
Lake Health	Hospitals or clinical facility		23		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicitons (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
					3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
Magruder Hospital	Hospitals or clinical facility		2		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks 3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
Marietta Memorial Hospital	Hospitals or clinical facility		14		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
					<p>minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks</p> <p>3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay</p>
Mercy Canton	Hospitals or clinical facility		18		<p>all Ohio public health testing tiers</p> <p>1. hospitalized patients / healthcare workers</p> <p>2. symptomatic LTC, First Responders, 65 and older, living with underlying conditions (special consideration for racial and ethnic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks</p> <p>3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay</p>

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Mercy Health Cincinnati	Hospitals or clinical facility		119		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks 3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
Mercy Clermont	Hospitals or clinical facility		6		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
					3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
Mercy Health Lorain	Hospitals or clinical facility		29		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks 3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
Mercy Health Toledo Hospitals	Hospitals or clinical facility		112		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
					<p>minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks</p> <p>3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay</p>
Mercy Health Youngstown	Hospitals or clinical facility		68		<p>all Ohio public health testing tiers</p> <p>1. hospitalized patients / healthcare workers</p> <p>2. symptomatic LTC, First Responders, 65 and older, living with underlying conditions (special consideration for racial and ethnic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks</p> <p>3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay</p>

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Adena Health	Hospitals or clinical facility		12		<p>all Ohio public health testing tiers</p> <ol style="list-style-type: none"> 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks 3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
Morrow County Hospital	Hospitals or clinical facility		6		<p>all Ohio public health testing tiers</p> <ol style="list-style-type: none"> 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
					3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
Nationwide Children's	Hospitals or clinical facility		99		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks 3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
New Vision Medical Laboratories	Hospitals or clinical facility		26		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
					<p>minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks</p> <p>3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay</p>
OhioHealth	Hospitals or clinical facility		1,051		<p>all Ohio public health testing tiers</p> <p>1. hospitalized patients / healthcare workers</p> <p>2. symptomatic LTC, First Responders, 65 and older, living with underlying conditions (special consideration for racial and ethnic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemed by public health professionals to manage outbreaks</p> <p>3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay</p>

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
OhioHealth Berger Hospital	Hospitals or clinical facility		13		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks 3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
TriHealth	Hospitals or clinical facility		52		all Ohio public health testing tiers 1. hospitalized patients / healthcare workers 2. symptomatic LTC, First Responders, 65 and older, living with underlying condicions (special consideration for racial and ethic minorities), residents or staff directly exposed during an outbreak in a congregate facility, other populations deemd by public health professionals to manage outbreaks

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
					3. Ohioans without symptoms but are a) receiving essential surgeries, b) receiving other medically necessary procedures but not require an overnight stay
AIT Laboratories	Commercial or private lab		76		Private Laboratories were asked to adhere to the Ohio testing priorities when conducting testing on Ohio residents
ARUP+	Commercial or private lab		217		Private Laboratories were asked to adhere to the Ohio testing priorities when conducting testing on Ohio residents
BioReference*	Commercial or private lab		547		Private Laboratories were asked to adhere to the Ohio testing priorities when conducting testing on Ohio residents
CompuNet Clinical Labs	Commercial or private lab		402		Private Laboratories were asked to adhere to the Ohio testing priorities when conducting testing on Ohio residents
Gravity Diagnostics	Commercial or private lab		225		Private Laboratories were asked to adhere to the Ohio testing priorities when conducting testing on Ohio residents

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
LabCorp	Commercial or private lab		1,213		Private Laboratories were asked to adhere to the Ohio testing priorities when conducting testing on Ohio residents
Mayo Laboratories*	Commercial or private lab		32		Private Laboratories were asked to adhere to the Ohio testing priorities when conducting testing on Ohio residents
Quest Diagnostics Laboratories*	Commercial or private lab		318		Private Laboratories were asked to adhere to the Ohio testing priorities when conducting testing on Ohio residents
Viracor+	Commercial or private lab		6		Private Laboratories were asked to adhere to the Ohio testing priorities when conducting testing on Ohio residents

ELC ENHANCING DETECTION: OHIO TESTING PLAN

2020 Direct Expansion of SARS-COV-2 Testing by Health Departments

2. Describe your public health department's direct impact on testing expansion in your jurisdiction.

2. DIRECT PHD EXPANSION:

Ohio has significantly increased testing since the start of the pandemic, testing nearly 18,000 samples per day (seven-day average) as of July 1. However, the state recognizes the need to further expand testing to continue to protect Ohioans from COVID-19, and reduce spread in congregate care settings local communities. The state's plan for the fall includes expanding access to testing throughout the state, expanding the range of active testing technologies, and expanding laboratory capacity. These infrastructure expansions will be necessary to meet the coming challenges of increased demand for testing, continued limitations in supply chains, and the expected resurgence of COVID-19 corresponding to the traditional flu season.

Ohio's efforts to expand testing in the fall will meet our strategic objectives. Working with a consulting team and utilizing the ODH's clinical expertise, the state has mapped a demand model based on the ideal frequency of testing across a comprehensive range of populations, and then applied adherence expectations to those frequencies. Utilizing this model helps develop data-driven targets for testing frequency, and informs the approach to testing that will be most effective and appropriate for each population type. This roadmap provides a framework for decision-making about the state's role in each testing scenario. In some cases, such as community testing, outbreak response, and state institution management – the state has a direct role in procuring and administering the tests. In other cases, the state's role may be to provide testing guidance, raise awareness about the need for testing, and support the private sector testing infrastructure.

For those scenarios where the state has a direct role in testing, such as nursing facilities, targeted community testing in minority and underserved communities, and in response to outbreaks; the state is currently utilizing Ohio National Guard teams to conduct testing. The continued federal funding of National Guard activities beyond the planned expiration in August is critical.

As demand for testing increases and the congregate testing expands beyond nursing facilities, additional testing options are necessary. We continue to explore all testing technologies, particularly those that require fewer swabbing personnel to administer. For example, we are currently pursuing the use of saliva tests in some of our congregate settings, and pursuing opportunities to use recently-approved home-based testing to meet the needs of certain targeted populations.

ELC ENHANCING DETECTION: OHIO TESTING PLAN

In addition, we are expanding our partnerships with other entities who are able to administer testing. After completing baseline testing of nursing facility staff, we intend to allow the facilities to administer their own tests of residents, while recognizing the state will likely need to continue to provide some support in the form of testing kits and lab capacity. Similarly, in the case of outbreaks, we are utilizing local health districts, hospital systems, and other partners to provide front-line testing while supporting them with state resources.

Ohio has limited serological testing capabilities currently, but has included in the Ohio testing plan purchases of equipment, investment in staffing, and laboratory supplies to increase testing capabilities significantly in a short period of time. Ohio sees the addition of serological testing as a compliment to diagnostic PCR testing. Ohio has learned important lessons from the diagnostic PCR experience that having greater control over the daily testing volumes, supplies, and how samples move around the state to be tested are critical components to a successful testing plan. Ohio is looking at a serological testing strategy that will be centralized in a smaller number of facilities to ensure testing capabilities are targeted to state priorities, achieve better data collection, and that information from both diagnostic and serological testing is helping inform better policy decisions on interventions to address COVID-19. In addition to antibody serological testing, Ohio will continue to investigate antigen testing and when this testing is more developed assessments of this testing will also be conducted. The budget included in the testing plan outlines the needed materials to ensure Ohio has robust serological testing.

Ohio understands the importance at this stage of COVID-19 transmission that utilizing both diagnostic and serological testing are important. Serological testing adds new information to clinicians, local health departments (prevalence), and the state. Serology tests look for antibodies in blood. If antibodies are found, that means there has been a previous infection. These antibodies can be found in the blood of people previously infected whether or not they had signs or symptoms of illness. It can take 1–3 weeks after the first symptoms appear for antibodies to develop in the body. This is why a combination of both diagnostic testing and serological testing are important at this time. Both types of testing are critical tools to help address COVID-19. As with PCR based testing, Ohio is asking serological vendors if they are developing respiratory panels for multiplexing capabilities as the flu season approaches.

To scale up testing in the fall, the state continues to explore all testing technologies. As discussed earlier, serology testing will become an increasingly important element of Ohio's testing strategy and, while tracked separately from diagnostic testing, serology will serve an important role in reopening the economy and identifying communities that are vulnerable to COVID-19 outbreaks. In addition, the state continues to closely monitor advances in saliva testing, rapid point-of-care testing, antigen tests, and home-based tests. We recognize that in addition to advances in these technologies, the state can utilize other methods in different situations. PCR tests remain the most accurate form of testing, but the lag in receiving results is not ideal for all situations, especially as testing demand increases and lab capacity is stretched. Rapid tests are more appropriate for scenarios where an immediate result is critical, and where false negatives are less significant concerns. Home-based tests offer greater convenience and, if scalable, could be used in back-to-work and back-to-school situations, and potentially in some

ELC ENHANCING DETECTION: OHIO TESTING PLAN

congregate settings. In all cases, the state is seeking to utilize less invasive testing in order to remove the barrier to testing caused by the NP swabbing process.

Similarly, the need to test for other respiratory viruses will become very important in the fall when other viruses start to circulate. Recognizing the recent approval of tests that address both the seasonal flu and COVID-19, Ohio will be evaluating the appropriate use case – and the Ohio Department of Health Laboratory will verify this option – for multiplex testing in the fall in order to expand both the volume and the effectiveness of testing.

The increased demand for testing is also placing a strain on testing capacity. As described earlier, the state has partnered with ten laboratories for priority testing and has provided equipment and reagent to seven of these laboratories. The federal supplies of reagent and testing supplies have been critical in Ohio's ability to meet demand on both the test collection and lab processing sides. In addition, the state has conducted a survey of the ten state laboratories to identify total capacity, staffing levels, and bottlenecks. It is our intention to turn this survey into a recurring tool that will allow us to have a dashboard to track lab capacity and potential obstacles in real time.

As new technologies emerge, additional equipment arrives and utilized in Ohio's network of laboratories expanding capacity to meet the demand for COVID-19 testing. For example, the Ohio State/Battelle partner laboratory site launched the Panther platform and the state has purchased multiple Hamilton platforms that have helped increase capacity as well as reduced manual work through automation to decrease personnel bottlenecks and human error. As outlined in prior sections, this has been a collaboration led by ODH that includes private labs, university laboratories, non-for-profit teams, hospitals, and academic medical centers. Installation of this new equipment is ongoing and should continue to help increase Ohio's testing capacity.

The state has implemented a universal electronic intake form to reduce administrative time and increase consistency between labs. Ohio continues working closely with the ten state-sponsored labs to drive increased staffing to keep up with the testing demand in the state.

Included in Ohio's strategic approach to expand testing has been an increased focus on partnerships. Ohio has authorized licensed pharmacists to order and oversee administration of COVID-19 testing. The state will continue to drive increased testing through collaboration with pharmacists and pharmacies. Ohio has also expanded its work with other retailers, with FQHCs, and with other partners to meet the demand for testing collection. Special emphasis has been given to collaboration with partners who are able to help increase access to testing in underserved communities, and the state will continue to seek innovative partnerships to support and incentivize private sector efforts, and to remove any regulatory barriers to their safe and effective operation.

ELC ENHANCING DETECTION: OHIO TESTING PLAN

As much of Ohio and the country sees increased COVID-19 case numbers, the ability to provide surge testing that is both timely and epidemiologically appropriate will be critical. Like much of the country, Ohio has seen a surge in testing that corresponds to increases in cases, as well as to our aggressive attempts to expand access to testing. As this demand has increased, the need for epidemiological expertise to inform decisions about when and where testing should occur, how testing should be administered, and how follow-up services are provided is critical to battling the virus. From the beginning, the epidemiological team at the Ohio Department of Health has been intimately involved in executing the strategic testing in nursing and other congregate care facilities. This team helped inform decisions around cohorting, testing frequency, and the number of residents and staff to test. More recently, the epidemiological team has been incorporated into the planning around community testing, both for the minority health testing sites and for the pop-up testing being conducted in response to outbreaks. We recognize that testing is not treatment but is a tool that allows us to stay ahead of the virus, prevent spread, and intervene early in vulnerable communities. Continuing to incorporate the epidemiological information into our testing strategy will help ensure that Ohio achieves our objectives.

To help meet our testing needs, Ohio is currently in the process of building a testing organization to help implement the state's testing strategy. The testing organization will include individuals with expertise in central planning and procurement, as well as laboratory operations, communications, and coordination of the state's testing zones, priority populations, and testing partners. The testing organization will collaborate with the epidemiological resources within the ODH to inform the overall testing strategy (including approaches to testing in nursing homes and other congregate care settings), as well as to inform key operational decisions, particularly around responses to outbreaks and other spikes in COVID-19 cases. The testing organization will also collaborate with the ODH Data Team to ensure that appropriate and actionable data is being collected, used to inform decisions about testing and follow-up strategies, and made available to the public. In the short term, the state is utilizing contracted resources to help keep the testing organization moving forward at the current pace and will supplant the team with state resources in the coming weeks.

ELC ENHANCING DETECTION: OHIO TESTING PLAN

Table #2: Planned expansion of testing driven by public health departments

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Number of additional* staff to meet planned testing levels	0	11	10	10					31
FOR DIAGNOSTIC TESTING									
How many additional* testing equipment/ devices are needed to meet planned testing levels? (provide an estimated number, and include platform details in narrative above)	13 7500DXs (Thermo) 5 King Fishers (Thermo) 8 Hamilton Star (Hamilton & Thermo)	1 Hologic Panther 1 Hamilton Starlet 6 Thermo Fisher 7500 FAST Dx							0

ELC ENHANCING DETECTION: OHIO TESTING PLAN

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Volume of additional swabs needed to meet planned testing levels ⁺⁺	64,400	0	525,000	750,000	800,000	930,000	1,050,000	1,050,000	5,169,400
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels ⁺⁺	164,082	37,370	525,000	750,000	800,000	930,000	1,050,000	1,050,000	5,306,452

ELC ENHANCING DETECTION: OHIO TESTING PLAN

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)	purchased 1 million tests (Thermo) 2 months		purchased 1 million tests (Thermo) 2 months		purchased 1 million tests (Thermo) 1 months	purchased 1 million tests (Thermo) 1 months	purchased 1 million tests (Thermo) 1 months	purchased 1 million tests (Thermo) 1 months	
FOR SEROLOGIC TESTING									
Number of additional* equipment and devices to meet planned testing levels	0	2	2	2	4	1	1		12

ELC ENHANCING DETECTION: OHIO TESTING PLAN

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)	0	0	Staff (OSU 10) ELISA - EuroImmune IgG assay (500/day) DiaSorin S antigen IgG tests (500/day)	Staff (10 Battelle) ELISA - EuroImmune IgG assay (1000/day) DiaSorin S antigen IgG tests (1000/day) Roche?	ELISA - EuroImmune IgG assay (1000/day) DiaSorin S antigen IgG tests (3000/Day) Roche?	ELISA - EuroImmune IgG assay (2000/day) DiaSorin S antigen IgG tests (6000/day) Roche (2000/day)	ELISA - EuroImmune IgG assay (2000/day) DiaSorin S antigen IgG tests (6000/day) Roche (7000/day)	ELISA - EuroImmune IgG assay (2000/day) DiaSorin S antigen IgG tests (6000/day) Roche (7000/day)	

* Report new monthly additions only, not cumulative levels

++ For May and June, only include needs beyond the supplies provided by FEMA. Report new monthly additions only, not cumulative levels.