

# ELC ENHANCING DETECTION: IDAHO TESTING PLAN

## 2020 Overarching Jurisdictional SARS-COV-2 Testing Strategy

Jurisdiction:	Idaho
Population Size:	1,766,862

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

In April, the Governor of Idaho established a Testing Taskforce to determine the current testing capacity in the state and to set goals for testing over the next several months. The Taskforce has just released its recommendations, which are posted at <https://rebound.idaho.gov/wp-content/uploads/testing-recommendations.pdf>. The Taskforce documented significant gaps in testing capacity in the state and noted specific areas of the state with little testing. The Taskforce also noted that a key to the success of reopening Idaho's economy is increasing testing significantly. This will include a distributed network of local clinical testing laboratories to supplement the testing provided by reference laboratories. Local accurate and timely testing using only FDA Emergency Use Authorization methods in the appropriate setting is necessary to provide rapid SARS-CoV-2 testing for symptomatic persons in the community, healthcare workers, hospitalized patients, long-term care residents and staff, and other high priority populations. To improve situational awareness in Idaho, the Idaho Bureau of Laboratories (IBL) will survey Idaho moderate and high complexity CLIA laboratories and those waived laboratories that have the necessary instrumentation to perform SARS-CoV-2 molecular testing, weekly. This weekly survey will provide updated tactical information about Idaho's readiness to respond at the local level while at the same time assessing if laboratories are using high quality methods approved for their clinical setting. Additionally, these survey data will allow Idaho to more accurately identify testing barriers and provide needed information for the deployment of laboratory materials supplied by the federal government. Additional laboratories will be added to the survey as testing capacity grows. The weekly survey collects data about the number of test collection kits on hand, the quantity needed to meet demand, testing instrumentation available, tests performed in-house, tests sent to reference laboratories, current turnaround times, and barriers to testing. It is expected the survey will require only a few minutes for participating laboratories to complete. Survey data will inform decisions about the distribution of collection kits and provide insight about what vendors the state may contact for testing materials. Baseline capacity of the 47 laboratories surveyed as of May 9, 2020, indicated that there is some local testing capacity in each of Idaho's seven local public health districts, eighteen of the 47 (38.2%) labs surveyed reported no access to local testing because of a lack of appropriate instrumentation or testing materials, and all laboratories reported having access to sample collection kits; however, most requested more than they had on hand.

Moving forward, the IBL Data Scientist will work with IBL Lab Improvement Section staff, survey respondents, and others in the Idaho Division of Public Health (DPH) to provide weekly updates in a visually intuitive dashboard. This data dashboard will be hosted on a secure DHW server. Access will be through secure login identification and password.

IBL recently received 15 Abbott instruments from HHS, and with the assistance of DPH and the public health district directors distributed them to clinics throughout the state. Many are rural critical access hospitals without local testing available. Going forward, each site receiving an Abbott instrument will be

## ELC ENHANCING DETECTION: IDAHO TESTING PLAN

contacted to ensure that all positive tests are reported to the local health department or DPH, ideally via electronic laboratory reporting, but faxed reports will be accepted if necessary. Other resources for the state include the following out-of-state reference laboratories, which offer testing to Idaho residents: ARUP, Quest, Bioreference, Interpath, Labcorp, Mayo, Oregon Health and Sciences University laboratory, Poplar Healthcare, and the University of Washington Department of Virology. While these laboratories significantly contribute to current testing capacity in Idaho, they are all out-of-state resources and capacity is not assured for the future, if demand increased from other states.

To increase capacity further, communities with limited or no testing capacity will be identified by the local public health districts. The local public health districts will identify possible partners (eg, hospitals, clinics) interested in providing testing, and a plan will be developed on how to increase testing in those areas. There will be a focus on improving testing access for underserved populations, and working closely with the tribes to ensure testing and services for their populations.

In addition to increasing capacity, an increase in employer-based or healthcare-based testing will be needed. This is the result of increasing need to screen and test essential workers; in addition, mandatory viral molecular testing for elective surgical and medical procedures in health systems and hospitals will increase the viral molecular test volumes by several-fold.

Idaho's critical priorities for COVID-19 response are to rapidly diagnose persons with SARS-CoV-2-related illnesses, including healthcare workers, vulnerable populations, critical infrastructure employees, and employees in essential services, and to identify asymptomatic infections to reduce spread of SARS-CoV-2, particularly in high risk populations and in the community. Recommended testing strategies and test prioritization take into consideration federal testing principles and guidelines from the White House, the Centers for Disease Control and Prevention, and the Food and Drug Administration, and employee risk exposure levels as described by the United States Department of Labor and the Occupational Safety and Health Administration. In addition, access should be compliant with Americans with Disabilities Act guidelines. Continued shortages of laboratory reagents preclude simultaneous adoption of all components of these recommendations, and recommendations may need to be adapted to local conditions and supplies. These recommendations focus on PCR and antigen-based testing. Recommendations may evolve as more information becomes available; for example, if IgG antibody presence is determined to confer protective immunity to COVID-19, antibody test utility would be significantly different and recommendations for antibody testing would change. In addition, as new testing platforms become available that make testing more affordable and accessible, these guidelines will be updated.

### Non-traditional sites

Multiple retail sites already offer testing in the state. In addition, pharmacists are authorized in Idaho to test patients without a physician's prescription. Pharmacies have already approached DPH about offering walk-up or drive-through testing. It is anticipated that this testing capability will grow over time. The DPH will work with pharmacies offering testing to ensure they are successful, and that positive results are reported to local health departments or DPH.

### Serology

## ELC ENHANCING DETECTION: IDAHO TESTING PLAN

While serology testing holds promise, it should not currently be used to determine immunity to the SARS-CoV-2 virus for individuals, as science is lacking as to whether the presence of antibodies confers protective immunity, and, if so, the duration of that immunity. The sensitivity and specificity of serology tests vary by manufacturer. In addition, the positive predictive value will vary depending on the pre-test probability of having been infected; persons at low risk of prior infection who test positive are more likely to have a false positive result. In Idaho, a single published study reported a seroprevalence of about 1.7% in the Boise area, suggesting that exposure to the SARS-CoV-2 virus in Idaho may be very low.

Serology testing can be clinically useful if ordered on a case-by-case basis for specific circumstances, e.g. as an adjunctive tool for diagnosis of patients who present late in the course of illness, or for whom molecular testing is not practical, but for whom the suspicion of SARS-CoV-2 infection is high. Another potential use is testing patients who believe they are immune to the virus and are therefore not following social distancing guidelines, in order to help document evidence of continued susceptibility and provide an opportunity for discussion about the importance of social distancing, independent of their results

Serology may be considered by employers for the following purposes: serial antibody testing to document whether seroconversion is occurring in employees (e.g., high-risk healthcare workers), when included as part of a quality program (note this is not currently a proven strategy); as part of a response to a case or outbreak in a facility, to determine if undetected exposure and infection has occurred among employees (e.g., long-term care facility). Despite promise for its use in monitoring of special populations such as essential workers outside the healthcare setting, there is not enough evidence yet to make a recommendation regarding this use. As new assays are developed, and evaluated, they will be routinely reviewed, and recommendations updated as needed. We will also learn more over time about whether seroconversion confers immunity and, if so, for how long. Sources will include the medical literature, and websites such as <https://covidtestingproject.org> and <https://www.finddx.org/covid-19/dx-data/>. Serology testing will not be used to alter employee work responsibilities, and employers should offer the same level of protection to all employees regardless of test results. Lastly, community serosurveys offered by public or private entities may provide valuable information for public health planning and will be developed to provide useful information for the COVID-19 response, while also serving individual participant interests in learning of their test results in a timely manner if feasible. When antibody testing is done on a larger population and demographic and exposure information is also collected, serosurveys can help identify groups at higher risk of infection. Public health officials, healthcare agencies, and the private sector will continue to partner to investigate and determine the best use of serologic testing in Idaho, as it evolves over time. Providers should select serology tests with performance features based on independent evaluations such as those published on the FDA site EUA Authorized Serology Test Performance. Providers may consider serial testing, using two different serology tests that detect antibodies against a different viral antigen or epitope, to improve the utility of serology testing. Currently, no specific recommendations are available, but this will continue to be reviewed, and recommendations made when the science is clearer.

Hospital-based SARS-CoV-2 testing will be leveraged meet testing demands and accessibility. Large hospital systems are already testing their own patients with symptoms and have just begun testing asymptomatic persons prior to routine procedures and elective surgeries.

# ELC ENHANCING DETECTION: IDAHO TESTING PLAN

## Plans to increase testing by the fall of 2020

The state testing plan, “COVID-19 testing recommendations: State of Idaho Testing Task Force” was finalized May 20th. This plan defines five priority groups to help guide the focus of the state in ensuring testing is available for those at highest priority. Priority 1 groups include hospitalized patients; healthcare workers; first responders; residents in long-term care facilities with symptoms, or who are close contacts of a case; patients over the age of 65; and essential workers. Priority 2 groups include symptomatic people with frequent and close contact with international travelers or large numbers of the general public; asymptomatic critical infrastructure employees; and others. Lower priority groups will also be accommodated once capacity increases. According to the plan, as testing increases in the state, most of testing demand is expected to come from the healthcare sector, requiring approximately 8,000 tests per week (testing of hospitalized patients; healthcare workers; and persons undergoing procedures), and for business needs (employers doing routine screenings of workers), which will also increase to approximately 7,700 tests/week. In addition, if there is a second wave of illness in early fall, testing needs will increase significantly for ill persons. Local public health districts will identify areas in which persons have difficulty accessing testing, and make recommendations on how to ensure access for underserved populations, including older individuals, lower-income Idahoans, racial and ethnic minorities, and Native Americans. Testing will be increased by contract with testing agencies, including testing employer sites when there has been a case in a facility. Testing will also be increasing at the Boise VA Medical Center (VAMC), which has the capacity to test 1,000 persons per day. The VAMC will support routine long-term care facility testing and testing for the Idaho Department of Corrections. The local public health districts will significantly increase their capacity to offer testing in response to cases (eg, worksites, households). Point of care diagnostics, including PCR and antigen tests, will be purchased if at all possible. By June, 2020, 2% of the population will be tested per month, if Idaho is able to continue to access regional reference laboratory services that are currently serving the state.

## ELC ENHANCING DETECTION: IDAHO 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*	23,000	35,377							58,377
Serology	400	400							800
TOTAL	23,400	35,777	0	0	0	0	0	0	

**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	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Adams County Health Center	Federally Qualified Health Center		30	0		Healthcare workers, Hospitalized patients, Rural populations
Bear Lake Memorial Hospital	Hospitals or clinical facility		30	0		Healthcare workers, Hospitalized patients, Rural populations
Benewah Community Hospital	Hospitals or clinical facility		30	0		Healthcare workers, Hospitalized patients, Rural populations

## ELC ENHANCING DETECTION: IDAHO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Bingham Memorial Hospital	Hospitals or clinical facility		100	0		Healthcare workers, Hospitalized patients, Rural populations, Congregate Living Settings
Blackfoot Medical Center	Hospitals or clinical facility	TBD				
Boise VA Medical Center	Hospitals or clinical facility		1,000	0		Vastaff and patients, Long-term Care Facilites, Cor
Bonner General Health	Hospitals or clinical facility		110	0		Healthcare workers, Hospitalized patients, Rural populations
Boundary Community Hospital	Hospitals or clinical facility		30	0		Healthcare workers, Hospitalized patients, Rural populations
Caribou Memorial Hospital	Hospitals or clinical facility		30	0		Healthcare workers, Hospitalized patients, Rural populations
Cascade Medical Center	Hospitals or clinical facility		30	0		Rural populations

## ELC ENHANCING DETECTION: IDAHO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Challis Area Health Center	Federally Qualified Health Center		50	0		Rural populations
Clearwater Valley Hospital	Hospitals or clinical facility		50	0		Healthcare workers, Hospitalized patients, Rural populations
Crush the Curve Idaho	Community-based	Poplar Labs		0		Manufacturing facilities
Desert Sage Health Center	Federally Qualified Health Center		30	0		Rural populations
Eastern Idaho Regional Medical Center	Hospitals or clinical facility		200	0		Healthcare workers, Hospitalized patients, Rural populations
Elmore Medical Center	Hospitals or clinical facility	TBD		0		Rural populations

## ELC ENHANCING DETECTION: IDAHO 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	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Family Health Services Jerome	Federally Qualified Health Center		30	0		Rural populations
Family Health Services Twin Falls	Hospitals or clinical facility		30	0		Rural populations
Fort Hall Clinic	Other		30	0		Native Americans
Franklin County Medical Center	Hospitals or clinical facility		30	0		Healthcare workers, Hospitalized patients, Rural populations
Grand Peaks Medical Center	Federally Qualified Health Center		30	0		Rural populations
Gritman Medical Center	Hospitals or clinical facility			0		Healthcare workers, Hospitalized patients, Rural populations
Idaho Bureau of Laboratories	Public health lab		200	0		Healthcare workers, First Responders, Long Term Care Facilites, Symptomatic Public Healt Priorties

## ELC ENHANCING DETECTION: IDAHO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Idaho Department of Correction	Other		30	0		Symptomatic Corections staff and inmates
Idaho Express Labs	Commercial or private lab			0		
Kootenai Health	Hospitals or clinical facility			0		Healthcare workers, Hospitalized patients, Rural populations
Lost River Medical Center	Hospitals or clinical facility		50	0		Rural populations
Madison Memorial Hospital	Hospitals or clinical facility		140	0		Healthcare workers, Hospitalized patients, Rural populations
Marimn Health	Other		30	0		Native Americans
Minidoka Memorial Hospital	Hospitals or clinical facility		60	90		Healthcare workers, Hospitalized patients, Rural populations

## ELC ENHANCING DETECTION: IDAHO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Mountain View Hospital	Hospitals or clinical facility		140	0		Healthcare workers, Hospitalized patients, Rural populations
Nell J Redfield Memorial Hospital	Hospitals or clinical facility		30	0		Healthcare workers, Hospitalized patients, Rural populations
Nimiipuu Health Nez Perce Tribal Health	Other		30	0		Native Americans
North Canyon Medical Center	Hospitals or clinical facility		30	0		Healthcare workers, Hospitalized patients, Rural populations
Portneuf Medical Center	Hospitals or clinical facility		140	0		Healthcare workers, Hospitalized patients, Rural populations
Power County Hospital District	Hospitals or clinical facility	TBD				
Rite Aid	Drug store or pharmacy	TBD				

## ELC ENHANCING DETECTION: IDAHO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Salmon River Medical Clinic	Hospitals or clinical facility		30	0		Rural populations
Shoshone Medical Center	Hospitals or clinical facility		30	0		Rural populations
St. Alphonsus Health System	Hospitals or clinical facility		800	0		Healthcare workers, Hospitalized patients, Rural populations
St. Joseph Regional Medical Center	Hospitals or clinical facility		50	0		Healthcare workers, Hospitalized patients, Rural populations
St. Luke's Health System	Hospitals or clinical facility		1,200	0		Healthcare workers, Hospitalized patients, Rural populations
St. Mary's Hospital	Hospitals or clinical facility		50	0		Healthcare workers, Hospitalized patients, Rural populations

## ELC ENHANCING DETECTION: IDAHO TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Steele Memorial Center	Hospitals or clinical facility		30	0		Healthcare workers, Hospitalized patients, Rural populations
Syringa Hospital and Clinics	Hospitals or clinical facility	TBD				
Teton Valley Hospital	Hospitals or clinical facility		30	0		Healthcare workers, Hospitalized patients, Rural populations
Valor Health	Hospitals or clinical facility		30	0		
<a href="#">Walmart</a>	Drive-thru testing site	TBD				
Weiser Memorial	Hospitals or clinical facility		30	0		Healthcare workers, Hospitalized patients, Rural populations
West Valley Medical Center	Hospitals or clinical facility		1	0		Healthcare workers, Hospitalized patients, Rural populations

## 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.**

The Idaho Division of Public Health (DPH) is working to increase testing capacity both within the public health laboratory and through partnerships with outside agencies. The Idaho Bureau of Laboratories (IBL) is the state's only public health laboratory and was the first laboratory in Idaho to provide testing for COVID-19 in February. IBL has provided statewide testing services for high priority specimens (hospitalized patients and symptomatic healthcare workers, first responders, residents in congregate living, and other public health high priority specimens) with fast turnaround times.

In February, IBL had the capacity to process about 20 specimens per day. By April, that number had increased to 200 specimens per day. During the months of May and June, IBL is utilizing newly appropriated federal funds to increase testing capacity to be able to test at least 500 specimens per day while still maintaining other key public health laboratory operations. To reach this level of throughput IBL, will need to increase automation and improve data management practices for sample accessioning. The primary challenges to be addressed include expanding capacity and diversifying nucleic acid extraction platforms; verifying the Perkin Elmer multiplexed RT-PCR assay available through the IRR; automating PCR plate set up; and implementing electronic test ordering and pre-login of samples from our clients. In April and May, IBL started working to expand on our current automated extraction platforms (Roche MagNa Pure LC; MagNa Pure Compact; QiaCube) by adding a QiaCube Advance instrument. We are currently in the process of purchasing a Tecan liquid handling instrument that will add 96-nucleic acid extraction capability combined with automated PCR plate set up capacity, as well as, adding 2 new QiaCube EZ-1 instruments. Over the course of the next 8 months IBL plans to purchase a ThermoFisher KingFisher extraction instrument (available in 3-5 months) and evaluate the TaqPath testing system. This combination of automated extraction instruments will maximize our resiliency if extraction chemistry supply chain issues continue during the pandemic response. As automated extraction capacity builds, we will transition to using the Tecan liquid handling instrument more for automated PCR Plate set up than nucleic acid extraction. By using a multiplexed RT-PCR assay we will triple the number of samples run per plate, which will allow us to increase output from our existing ABI 7500 Fast Dx and QuantStudio instruments. IBL is currently upgrading our Horizon LIMS software and transitioning from our current WebPortal to LabOnline. LabOnline is web-based application that allows secure access for IBL clients to electronically order, pre-login samples, and receive reports as soon as they are released. Training plans for LabOnline end users are currently being developed. In addition, we are working with our DHW IT Contractor to evaluate a single client, large sampling event, pre-login protocol to improve IBLs capacity to manage testing data and reporting. The Horizon LIMS system is fully configured to deliver electronic lab reports to WebPortal clients, the state and CDC so no additional updates are for the aspect of the data management process. IBL will continue to enhance front-end data management to improve throughput and enhance our ability to nimbly respond to surge events.

Currently, the state Coronavirus Testing Taskforce is recommending a limited role for serology testing at this phase of the pandemic response. As additional understanding of the immunological response to the virus grows, IBL will look toward adding antibody testing to support epidemiologic investigations or other public health needs.

## ELC ENHANCING DETECTION: IDAHO TESTING PLAN

IBL works in concert with state and local officials to provide testing that supports public health testing priorities. As additional capacity builds for healthcare (through expansion of clinical lab testing), employer (through contracted reference lab testing), and the general public (through, self-collected mail-in, retail pharmacy based, and other point of care testing), IBL will be in a key position to provide expanded testing for vulnerable and at-risk populations.

DPH has been a key contributor in the statewide effort to help facilitate expansion of testing capacity across multiple sectors by providing critically needed guidance, data for policy development, and receipt and delivery of federal assets to support the pandemic response. IBL received and deployed 15 Abbott ID instruments and is currently receiving federal allocations of Abbott testing materials and distributing them to rural and frontier testing sites across the state. Additionally, IBL is receiving federal allocations of swabs and VTM and sending them to Idaho public health districts for distribution statewide based on testing needs at the local level. IBL will continue in this role as long as federal resources are allocated to Idaho. DPH also plans to continue that partnership with our federal, state, and local colleagues to address the ongoing supply chain management challenges. As manufacturing capacity improves DPH will assist as possible with partners across all sectors. During the state's response, the governor has temporarily relaxed regulations to allow expedited hiring and procurement in support of the pandemic response. This will continue to allow state responders to adapt to the supply chain barriers encountered during this response.

## ELC ENHANCING DETECTION: IDAHO 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	0							0
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)	1	3							4
Volume of additional swabs needed to meet planned testing levels <sup>++</sup>	0	0							0
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels <sup>++</sup>	0	0							0
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							
FOR SEROLOGIC TESTING									
Number of additional* equipment and devices to meet planned testing levels	0	0							0

# ELC ENHANCING DETECTION: IDAHO 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							

\* 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.