2020 Overarching Jurisdictional SARS-COV-2 Testing Strategy

Jurisdiction:	Idaho
Population Size:	1,754,198

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 released its recommendations on May 20, 2020. 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 Food and Drug Administration (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, underserved, minority, and other high priority populations. To improve situational awareness in Idaho, the Idaho Bureau of Laboratories (IBL) surveys 52 Idaho CLIA certified laboratories that have the necessary instrumentation to perform SARS-CoV-2 molecular testing, weekly. This weekly survey provides information about Idaho's readiness to respond at the local level. 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, testing instrumentation available, tests performed in-house, tests sent to reference laboratories, current turnaround times, and barriers to testing. Survey data informs decisions about the distribution of collection kits and provides insight about what vendor product availability in the state is. The IBL Data Scientist provides weekly updates in a data dashboard. The data dashboard is for official use only and will not be available to the public because the self-reported testing numbers differ from official counts based on the fluctuating number of survey responses. IBL, with the assistance of Division of Public Health (DPH) and the public health district directors distributed 15 HHS provided Abbott IDNow instruments to clinics throughout the state. Most are rural critical access hospitals that could not provide local COVID-19 testing. Each site receiving an Abbott IDNow instrument has been contacted to ensure that all positive tests are reported to the local health department or DPH, ideally via electronic laboratory reporting, but faxed reports are accepted if necessary. IBL continues to receive a weekly federal allocation of 50 IDNow test kits that are distributed (based on demand) to 25 locations throughout rural Idaho to support the testing needs in these communities. 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 (e.g., 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. 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 (CDC), and the FDA, and employee risk exposure levels as described by the United States Department of Labor and the Occupational Safety and Health Administration (OSHA). In addition, access should be compliant with Americans with Disabilities Act (ADA) 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. As new testing platforms become available that make testing more affordable and accessible, these guidelines will be updated.

Multiple retail sites already offer testing in the state. Pharmacists are authorized in Idaho to order tests. Pharmacies have approached DPH about offering walk-up or drive-through testing. It is anticipated that this testing capability will grow over time, particularly as more point of care testing options become available. DPH is working with the Idaho Pharmacy Leadership Council to increase the number of pharmacies offering testing and to ensure that positive results are reported to local health departments or DPH. DPH is supporting increased use of reference laboratories that offer home collection under their EUA. This provides a more convenient way for symptomatic people to get tested while limiting their exposure to others.

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); or 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 should 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, serology testing of certain populations can be a useful public health tool to determine the extent of exposure in the population. Community serosurveys offered by public or private entities may provide valuable information for public health planning and should 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 should 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. Currently, no specific recommendations are available, but this will continue to be reviewed, and recommendations made when the science is clearer. DPH will continue collecting all serology results for later use when the science around their interpretation is more settled.

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. The state testing task force is reconvening in July to develop supplementary and specific guidance for healthcare, community, public health, business/private sector, and other testing populations. Efforts are underway to develop high throughput PCR testing in each region of the state to improve access to testing statewide. Public-private and non-traditional partnerships will be critical to developing needed statewide capacity. Steady efforts are being made to develop these partnerships. DPH and clinical laboratories are exploring multiple options for contracting with regional and national reference laboratories. DPH has established a contract with a local non-profit organization, Crush the Curve Idaho (CTCI), to provide supplementary response testing. CTCI has provided testing for several Idaho employers. DHW and the Boise VA Medical Center (VAMC) have established a partnership utilizing VA research equipment deployed in and under the direction of their CLIA certified clinical laboratory. This DHW-VA partnership has the capacity to test up to 800 non-VA associated persons per day to assist the state with their testing needs. The VAMC is currently providing support for long-term care facilities, the Idaho Department of Corrections, and the Idaho Department of Juvenile Corrections. With some technical assistance from IBL, the

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University of Idaho (U of I) and Gritman Medical Center have entered into a collaboration to move U of I high throughput instrumentation and staff to operate under Gritman's CLIA license. IBL was able to coordinate with FEMA to supply the U of I-Gritman collaboration with 30,000 Fisher TaqPath test reagents. Additional discussions are underway between Express Laboratories and Idaho State University in Eastern Idaho. The local public health districts will significantly increase their capacity to offer testing in response to cases (e.g., worksites, households). Point of care diagnostics, including PCR and antigen tests, will be purchased as needed an. By the fall of 2020, and least 40,000 persons will be tested per month.

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	40,000	40,000	40,000	40,000	40,000	40,000	298,377
Serology	400	400	500	500	500	500	500	500	3,800
TOTAL	23,400	35,777	40,500	40,500	40,500	40,500	40,500	40,500	

*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)
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

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)
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		500	0	VA staff and patients, Long-term Care Facilites, Correctional facility residents
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
Challis Area Health Center	Federally Qualified Health Center		50	0	Rural populations

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)
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		80	0	Healthcare workers, Hospitalized patients, Rural populations
Elmore Medical Center	Hospitals or clinical facility	TBD		0	Rural populations
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

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)
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 Health Priorties
Idaho Department of Corrections	Other		30	0	Symptomatic Corrections staff and inmates
Idaho Express Labs	Commercial or private lab		200	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

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)
Minidoka Memorial Hospital	Hospitals or clinical facility		60	0	Healthcare workers, Hospitalized patients, Rural populations
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			

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)
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		500	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		1,000	0	Healthcare workers, Hospitalized patients, Rural populations
St. Mary's Hospital	Hospitals or clinical facility		50	0	Healthcare workers, Hospitalized patients, Rural populations
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

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)
Valor Health	Hospitals or clinical facility		30	0	
Walmart	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		100	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 500-600 specimens per day while still maintaining other key public health laboratory operations. To reach this level of throughput IBL will increase laboratory automation, improve data management practices for sample accessioning, and hire additional temporary data entry staff. The primary challenges to be addressed include expanding capacity and diversifying nucleic acid extraction platforms; verifying Fisher TaqPath multiplexed RT-PCR assay; automating PCR plate set up; and implementing electronic test ordering and pre-login of samples from our clients. 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 in May. A Tecan liquid handling instrument that will add 96-nucleic acid extraction capability combined with automated PCR plate set up capacity will be installed in July, as well as, adding 2 new QiaCube EZ-1 instruments in August. In July, IBL received a demo model KingFisher nucleic acid extraction instrument to bridge the gap until a new instrument is available. 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 to provide automated PCR plate set up to improve throughput and reduce staff hands on time. By using a multiplexed RT-PCR assays 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, our DHW IT Contractor has developed 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/LabOnline clients, the state, and CDC so no additional updates are needed for that aspect of the data management process. IBL will continue to enhance front-end data management by hiring temporary data entry staff 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 in 2021.

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, at-risk, and underserved 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 IDNow testing materials and distributing them to 25 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 throughout 2020. DPH also plans to continue fostering partnerships 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. IBL has diversified the number of vendors we can receive supplies from. We have secured 30,000 ThermoFisher TaqPath test reagents and established at standing order with Fisher to ensure that we have a steady supply of TaqPath reagent and consumables to supplement the CDC Flu SC2 regents we are receiving from the IRR. IBL conducts weekly inventory of all testing materials and PPE to ensure that we have a steady supply of testing materials.

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	3	1	0	0	0	0	4
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	1	2	2	0	0	0	0	6

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[++]	0	0	2,000	2,000	2,000	2,000	2,000	2,000	12,000
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels[++]	0	0	2,000	2,000	2,000	2,000	2,000	2,000	12,000

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	0	0	0	10K/mo ThermoFisher	10K/mo ThermoFisher	10K/mo ThermoFisher	30000
FOR SEROLOGIC TESTING									
Number of additional* equipment and devices to meet planned testing levels	0	0	0	0	0	0	0	0	0

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	0	0	0	0	0	0	Serology planned for 2021

* 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.