

ELC ENHANCING DETECTION: WYOMING TESTING PLAN

2020 Overarching Jurisdictional SARS-CoV-2 Testing Strategy

Jurisdiction:	Wyoming
Population Size:	575,000

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

The State of Wyoming faces unique challenges in terms of testing capacity for SARS-CoV-2. There is only one laboratory, the Wyoming Public Health Laboratory (WPHL), that has the capacity, infrastructure, and expertise in performing complex (non-rapid) SARS-CoV-2 testing. As such, the Wyoming Department of Health’s approach to testing 2% of the state’s population monthly through a combination of approaches, including:

- Expansion of testing capacity at the WPHL through procurement of high-throughput instrumentation and hiring of laboratory personnel
- Expansion of rapid testing capacity at laboratories across the state of Wyoming through purchasing of equipment or allocating testing supplies and specimen collection supplies
- Contracting with private reference laboratories to provide testing

Testing services at WPHL will continue to support testing for symptomatic patients and testing for surveillance in outbreak settings. WPHL also supports the testing of symptomatic and asymptomatic individuals at jails. Each healthcare facility laboratory (e.g., hospital laboratories) determines the populations that they test according to the needs of their facility and community. Private reference laboratories will support testing for surveillance testing at long-term care facilities (LTCFs), testing of healthcare workers, and testing of asymptomatic persons at various community locations.

The WPHL is regularly communicating with clinical laboratories across Wyoming to determine their testing capabilities, test supplies, and testing challenges. Given that WPHL is the only in-state laboratory that can provide non-rapid COVID-19 rRT-PCR testing, WPHL is working to ensure local laboratories (with the appropriate CLIA certificates) have access to rapid SARS-CoV-2 tests and specimen collection supplies. WPHL is also working to reestablish courier services, which was discontinued due to the vendor filing bankruptcy, to make delivery of specimens to WPHL more efficient and less reliant on private entities (e.g. UPS and FedEx).

WDH has also released a state-wide testing plan for LTCFs to promote testing of all residents and staff. WDH is supplying the specimen collection and shipping supplies and funding the molecular COVID-19 testing for these sites at a private reference laboratory.

The WDH is also pursuing new pathways to expand capacity to non-traditional laboratory sites for the testing of asymptomatic patients. This may include the purchase of a mobile laboratory and staff to deploy for mass testing or mass specimen collection in communities across the state. It may also include assisting county public health offices in standing up testing “clinics” for the community where specimens could be collected for testing. WDH is partnering with the University of Wyoming and Wyoming community colleges to develop plans for testing faculty, staff, and students.

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WPHL also plans to bring in a serological assay. This capability would support serological testing needs as determined healthcare providers across the state. Serological testing could also be used for surveillance should molecular testing capability not be sufficient to meet the need.

WHD maintains frequent communication with county public health providers and officials, administrators and nurses at LTCFs, the Wyoming Hospital Association and its hospital administrator members, the Wyoming Medical Society and its physician members, hospital laboratory directors, and healthcare providers at clinics and hospitals across the state. These communications have helped and will continue to clarify testing capacity, establish testing plans for specific populations, and monitor access to specimen collection supplies.

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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*	12,000	18,000	24,000	26,000	28,000	30,000	30,000	30,000	198,000
Serology			1,000	5,700	6,300	6,900	7,500	8,700	36,100
TOTAL	12,000	18,000	25,000	31,700	34,300	36,900	37,500	38,700	

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 throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Iverson Memorial Hospital	Hospitals or clinical facility					Symptomatic, elderly, disables, nursing homes, correctional facilities, healthcare workers
Niobrara Community Hospital	Hospitals or clinical facility					Symptomatic, elderly, disables, nursing homes, correctional facilities, healthcare workers
Sheridan Memorial Hospital	Hospitals or clinical facility		64			Symptomatic, elderly, disables, nursing homes, correctional facilities, healthcare workers

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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)
Powell Valley Healthcare	Hospitals or clinical facility		96			Symptomatic, elderly, disables, nursing homes, correctional facilities, healthcare workers
Memorial Hospital of Converse County	Hospitals or clinical facility					Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Memorial Hospital of Sweetwater County	Hospitals or clinical facility		32			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Weston County Health Services	Hospitals or clinical facility		32			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Platte County Memorial Hospital	Hospitals or clinical facility					Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
South Big Horn Hospital	Hospitals or clinical facility					Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers

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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)
Cody Regional Health/West Park Hospital	Hospitals or clinical facility		32			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Community Health Center of Central Wyoming	Hospitals or clinical facility		64			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Memorial Hospital of Carbon County	Hospitals or clinical facility		32			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Johnson County Healthcare Center	Hospitals or clinical facility					Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Cheyenne Veterans Medical Center	Hospitals or clinical facility		64			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Crook County Medical Services District	Hospitals or clinical facility		32			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Washakie Medical Center	Hospitals or clinical facility					Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers

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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)
St. John's Health	Hospitals or clinical facility		120			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Star Valley Health	Hospitals or clinical facility		96			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
South Lincoln Medical Center	Hospitals or clinical facility		32			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Campbell County Health	Hospitals or clinical facility		96			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Torrington Community Hospital	Hospitals or clinical facility		24			Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Castle Rock Hospital District	Hospitals or clinical facility		64			Mine workers

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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)
Wyoming State Hospital Laboratory	Hospitals or clinical facility					Psychiatric live-in hospital (communal living center), Elderly
SageWest Healthcare	Hospitals or clinical facility					Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Cheyenne Regional Medical Center	Hospitals or clinical facility					Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers
Wyoming Medical Center	Hospitals or clinical facility					Symptomatic, elderly, disabled, nursing homes, correctional facilities, healthcare workers

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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.

WPHL is the only clinical laboratory in Wyoming with the expertise and CLIA certificate to perform complex (non-rapid) SARS-CoV-2 testing. As such, we are pursuing expansion of testing capacity in several ways. First, WPHL is purchasing automation systems (Qiagen QIA Symphony for extractions and Eppendorf epMotion liquid handler for PCR setup) and additional PCR instrumentation (ABI 7500 Fast Dx instruments) to increase testing capacity for the CDC 2019-Novel Coronavirus (2019-nCoV) Real-Time RT-PCR Diagnostic Panel. WPHL is also seeking to bring in the Hologic Aptima SARS-CoV-2 assay for the Panther instrument, offering WPHL a high-throughput method for molecular testing. WPHL is also anxious to verify the CDC Influenza-SARS-CoV-2 multiplexed assay that will increase capacity greater than three-fold. The hiring of specimen accessioning and testing personnel is also underway. Additionally, WPHL intends to evaluate and select a serological assay to supplement SARS-CoV-2 testing; this will involve pursuing platforms that offer a high-throughput solution. Finally, WPHL is working with local hospital laboratories and federal partners to secure rapid testing platforms and tests.

WDH is also establishing contracts with private reference laboratories to provide testing capacity for Wyoming residents.

Currently and in the coming months, as staff are hired, supplies are procured, and contracts are established, WDH and WPHL are expanding testing opportunities based on a tiered approach:

- Tier 1: Tribal communities, long term care facilities, and other settings with a higher risk for poor outcomes (group settings who serve disabled populations, large family settings, etc.)
- Tier 2: Communal living locations (prisons, homeless shelters, transitional housing)
- Tier 3: Vulnerable populations based on occupational risk (e.g., healthcare workers)
- Tier 4: Vulnerable based on socioeconomic factors (e.g., migrant health clinics and federally-qualified health centers)

Tier 5: Lower-risk communal living environments (e.g., university and community college dorms) The WDH will continue to investigate all reported cases and actively work to identify potential clusters and outbreaks. Expanded testing among individuals identified to be part of any cluster or outbreak, especially in the above tier groups, will continue to be prioritized to prevent further transmission. Epidemiologic data will be analyzed to identify any groups with an increased risk of infection, transmission, and death. As the pandemic evolves, and further data are analyzed, the WDH will reprioritize testing strategies to best serve Wyoming residents.

Currently, WPHL is frequently communicating with local Wyoming hospital laboratories and has a good handle on the testing platforms with SARS-CoV-2 capability. We continue to distribute federally-allocated tests to laboratories (Abbott ID NOW tests), advocate for increases in Cepheid GeneXpert Xpert Xpress SARS-CoV-2 test for those sites with the relevant instrumentation, and monitor access to

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reagents and supplies for labs with other testing platforms (e.g., BD MAX). WDH is also assisting laboratories, when possible, in securing instrumentation to online testing capacity.

WDH and WPHL continue to communicate with laboratories and healthcare facilities to determine barriers to efficient testing. Access to timely specimen couriers was an issue for clinics in remote tribal locations; a contract was initiated with a courier to make special runs to healthcare facilities to expedite transport to WPHL. Specimen transport issues and the need for a state-wide courier have already been identified as continuing barriers for other clinics. Specimen collection supplies, including viral transport media (VTM), were in very short supply very early in the pandemic; WPHL began and will continue to expand the manufacturing of VTM, pairing it with purchased swabs, and distributing it across Wyoming. To further eliminate the dependency on swabs and VTM for testing, we are looking at tests that can be performed on alternate specimen types (e.g., saliva). Some laboratories are reporting issues with the validation of testing systems, and WPHL is working to overcome issues with access to validation supplies. WDH is also pursuing electronic ordering capabilities (APHL-iConnect LWP) to streamline specimen accessioning and shorten testing turn-around-times. Further, WPHL is evaluating and addressing our internal barriers, such as the need for 24-hour testing capacity, increased capacity for custodial and building maintenance support, office space, and additional licenses for laboratory information systems.

The WDH will continue to identify and work towards efficient data collection and analysis. Electronic lab reporting will be expanded to include laboratories conducting SARS-CoV-2 testing that do not traditionally report to public health authorities. Efficient data transmission will lead to a need to evaluate data management for efficiently and timely data analysis to inform public health decisions. As more individuals are tested, there will be a need to manage large data sets, and expanding data analysis and epidemiology staff will be necessary.

As described previously, the WDH will prioritize resource utilization and testing based on a tiered approach to protect the most vulnerable residents and mitigate large outbreaks to the extent possible. In addition to tiered, ongoing testing and surveillance, the continual analysis of epidemiologic data from individual case follow-up will allow the WDH to monitor mitigations strategies and make immediate adjustments. This may include county-specific or community-specific resource and testing supply allocation and site-specific adjustments to expanded testing and unique prevention and mitigation measures. Based on data, the WDH may expand testing frequency or perform more targeted testing and surveillance within the tier groups (for example increasing the frequency of testing staff at a LTCF). As testing capacity increases, the WDH may utilize existing ILINet providers to collect additional SARS-CoV-2 samples and additional COVID-19 illness data.

WDH already has some streamlined processes for the procurement of goods and contracts. Contracts for services during the pandemic are prioritized and have been moving through the process in a matter of days, not weeks. The Wyoming Department of Health (WDH) has secured a blanket bid waiver with the State of Wyoming up to \$5 million. This enables our agency to procure goods and services while bypassing the typical state-required reviews. Our agency is also preparing the paperwork to extend this to a total of \$55 million in anticipation of these monies. This will facilitate the expedited procurement of equipment, reagents, and supplies needed in this response. We continue to look for gains in efficiencies with our vendors for procurement.

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The WDH had been able to open up 30 temporary positions for immediate hiring. We are able to bring emergency staff into these positions in a matter of hours, once they are identified. For permanent positions, the WPHL has been given contract positions so that we may get individuals hired after a formal search. We continue to work with our agency and administration to advocate for a more expedited process for bringing in new employees for this response.

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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	4	1	1	1	5	2	2	2	18
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)	0	4	1	0	0	0	0	0	5
Volume of additional swabs needed to meet planned testing levels ⁺⁺	8,000	11,000	13,000	15,000	17,000	19,000	21,000	23,000	127,000
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels ⁺⁺	8,000	11,000	13,000	15,000	17,000	19,000	21,000	23,000	127,000
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)	250/day Hologic Pathern; 250/day CDC assay	300/day Hologic; 300/day CDC assay; 64/day Cepheid	300/day Hologic; 400/CDC Assay; 64/day Cepheid	300/day Hologic; 500/day CDC Assay; 128/day Cepheid	300/day Hologic; 600/day CDC Assay; 128/day Cepheid	300/day Hologic; 750/day CDC Assay; 128/day Cepheid	300/day Hologic; 750/day CDC Assay; 128/day Cepheid	300/day Hologic; 750/day CDC Assay; 128/day Cepheid	

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BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
FOR SEROLOGIC TESTING									
Number of additional* equipment and devices to meet planned testing levels	0	2	0	0	0	0	0	0	2
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	200/day for TBD seroloigc assay	250/day for TBD seroloigc assay	300/day for TBD seroloigc assay	400/day for TBD seroloigc assay	500/day for TBD seroloigc assay	500/day for TBD seroloigc assay	500/day for TBD seroloigc assay	

* 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.