

# ELC ENHANCING DETECTION: WEST VIRGINIA TESTING PLAN

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

Jurisdiction:	West Virginia
Population Size:	1792147

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

1a) The State of West Virginia Department of Health and Human Resources (DHHR) is already testing a minimum of 2% of West Virginia’s population for SARS-CoV-2 each month, and will maximize the use of testing platforms, particularly those that are high throughput, across the state to reach higher targets by prioritizing target populations. The Office of Laboratory Services (OLS) currently uses CDC - PCR SARS, ABI 7500, Qiagen QIAcube, and EZ1 DNA, RNA, and protein extraction units, and has purchased Cepheid - GeneXpert System and Hologic Panther, which are high throughput. Although West Virginia has a comparatively lower number of positive tests, the state’s socioeconomics, health status, and rural nature increase the risk for individuals testing positive to have poor outcomes, including increased rates of morbidity and mortality. Thus, it is important to test at a higher rate. This will be accomplished by leveraging the State public health lab (OLS), as well as private, hospital, commercial, and academic labs to continue to rapidly scale up testing capacity, with careful consideration for available supplies and workforce (including those who can conduct sampling). DHHR will also utilize point-of-care and other rapid result testing in order to quickly respond to local outbreaks, especially with regard to transient populations such as homeless individuals with limited resources. DHHR currently has contracts in place with LabCorp and QLABS, which are both able to accommodate high-volume testing. Academic and hospital partners such as West Virginia University (WVU) and Charleston Area Medical Center (CAMC) function as overflow lab testing sites based on location. OLS can process 100 tests a day with current available equipment, focusing primarily on the greatest public health priorities such as outbreak related testing. The Office of Epidemiology and Prevention Services (OEPS) notifies labs of outbreaks and the number of tests being submitted, serving as a hub to coordinate labs across the state so that public, academic, and commercial labs are working together efficiently. Because of close relationships with laboratory partners, DHHR is able to increase testing capacity to meet the needs of clinics, drive-through testing, and other non-traditional testing sites. The National Guard (NG) and Local Health Departments (LHDs) are continuing to work to stand up rapid test sites for increased access within communities, which will provide surge capacity for testing needs beyond traditional labs. Due to concerns with specificity levels of the point of care testing options, patients receiving negative test results with rapid testing may receive confirmation testing with utilization of PCR based on potential exposure and risk, determined by the provider’s clinical judgement. Communications between partners will continue to be essential in order to coordinate available capacity both functionally and regionally. The NG has administered tests in a variety of locations, supporting testing carried out by LHDs, hospitals, primary care centers, and urgent care sites.

Labs across the state report capacity back to OLS on both a daily and weekly basis. DHHR estimates that it may have capacity statewide to gradually increase testing to 7,600 tests per day; however, this is largely dependent on availability of supplies, reagents, and staff to conduct sample collection and analysis. The DHHR is currently undertaking a rapid needs assessment of local health departments to further assess anticipated needs as the testing strategy is expanded. Should these testing efforts move forward, up to 228,000 tests could potentially be completed monthly, accounting for testing of up to 1/8

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(12.5%) of the state's population in a one-month period. The aforementioned needs assessment will further inform the capacity and barriers to achieving broader testing goals. In order to account for concerns with supply availability and strategy implementation time, West Virginia will gradually increase testing over the coming months, beginning with universal testing of individuals with symptoms and their contacts. Additionally, the state's governor has already begun leading a variety of mass testing initiatives. These executive orders and recommendations aim to test individuals who are most vulnerable, have the highest opportunity for exposure, and to provide asymptomatic testing for individuals in higher risk areas—with focus on those with increased risk of spread or poor outcomes. Through this strategy the DHHR expects to complete an average of 1,800 tests daily in the month of June or 54,000 tests in total, which accounts for 3% of the state's population.

Additionally, testing capacity will be focused primarily on four groups and prioritized in the following order: diagnostic for symptomatic individuals; contact tracing and outbreak investigation; surveillance of vulnerable populations including congregate settings, high-risk populations, minorities, and high-risk areas. Broader sentinel surveillance of asymptomatic individuals on a volunteer basis is planned for later in the year, with a strategy to incorporate partnerships through Federally Qualified Health Centers (FQHCs) with heavier sampling in dense areas and areas with higher incidence. Out-of-state reference labs can supplement in-state capacity, bringing the potential surge capacity up to 15,000 tests completed daily, assuming adequate supply availability and funding. Daily throughput in the table below totals to over 19,000 tests, which is based off of reported laboratory capacities; however, these figures do not account for currently known limitations in supplies and staffing. Organizational structures and workforce could further limit operational capacity at this level.

1b) To provide testing at nontraditional laboratory sites, DHHR is working with partners to stand up testing at retail sites, community centers, residential medical facilities, and pharmacies, among others. The LHDs have and continue to be a central link in coordination and implementation of local testing, as well as communication through weekly contact with the Bureau for Public Health (BPH). The NG's mobile unit contains 80 guard staff that assist in fulfilling targeted testing outreach. In addition, drive-through testing, hospital-based testing, urgent care sites, and non-traditional testing are in place in many communities and considered for expansion in others. The NG has administered tests in a variety of locations, supporting testing carried out by LHDs, hospitals, and urgent care sites.

DHHR has assisted with managing and confirming testing related to Executive Orders and other priorities designated by the Governor, including nursing homes, assisted living facilities, correctional facilities, and child care centers. To expand access to testing for minorities and others who may have limited access to testing, DHHR has prioritized free testing in high-density population areas. This testing has been offered to minorities and concerned community members regardless of present symptoms. Outside of the recent executive order, inmates and staff are tested on site on an as-needed basis under a protocol which instructs facilities to monitor for signs of illness and separation of populations to limit spread of any infection that may be present. To increase access to testing for minorities, counties with a higher incidence of SARS-CoV-2, and counties with populations at greater risk of infection (due to population density, older population, etc.), further testing focusing on the indicated populations above will also occur through drive-through sites, pharmacies, FQHCs, and other appropriate venues. Health care systems typically require testing of patients for elective surgeries and long-term care facilities prior to patient admission or transfer. DHHR will continue to assess need, frequency, and capacity for surveillance of asymptomatic individuals within congregate and high-risk settings. DHHR will continue

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to work with employers of these settings to test employees and residents, as deemed appropriate. Testing conducted following the month of June is expected to move towards randomized monthly testing for these populations, with special consideration for individuals experiencing greatest risk.

1c) Due to the low incidence of SARS-CoV-2 in West Virginia, serologic testing has not been a priority to capture prevalence estimates compared to other, higher incidence states. However, initial serologic testing has been undertaken by some providers and commercial laboratories. DHHR will explore testing strategies and expansion of serologic testing for further understanding of SARS-CoV-2 prevalence. As more research becomes available regarding acquired immunity and immune response to SARS-CoV-2, serologic testing data will become more necessary for reference. Expanded serologic testing efforts are planned for the late summer and fall months. West Virginia is currently conducting some serologic testing in nursing homes and assisted living facilities in small scale to more fully understand seroconversion after outbreaks and community-based testing can inform further seroprevalence studies to measure and assess past community exposure. In addition, WVU has begun to conduct a serologic study of healthcare workers in high and low-risk settings through random sampling across four different hospitals, using the SARS-CoV-2 Immunoglobulin G (IgG), Qualitative test. WVU is also interested in designing community-based serologic testing in partnership with BPH. Other opportunities for serologic testing include the quantitative Immunoglobulin (IgG) test and neutralizing antibody (NAb) test in the future; this capacity is in development at WVU. Testing goals and daily throughput will vary due to consideration for limited resources and priorities.

1d) OLS communicates, collaborates, and coordinates with labs across the state through weekly calls and regular email communications as needed, which serve to align approaches and address progress toward jurisdictional goals. Call discussions include monitoring test kits, supplies, reagent inventory, and staffing levels at respective facilities. In addition, DHHR's Center for Threat Preparedness (CTP) has established a data dashboard that is updated every Monday, Wednesday, and Friday and reported back to testing partners. Data regarding testing capacity and supply/equipment availability is both collected from and distributed to partners including LabCorp, QLABS, CAMC, WVU, the NG, and LHDs through an Excel spreadsheet; CTP then creates a shared dashboard. Large-scale testing initiatives are handled collaboratively. A current SARS-CoV-2 prison outbreak is an example of this collaborative effort being put into practice with initial testing including over 1,300 prisoners and staff expeditiously tested through careful coordination, utilizing dashboard information. OLS requested assistance from clinical laboratory network colleagues, CAMC and WVU - Ruby; specimens were split between laboratories to achieve a rapid turnaround time. Coordinating the NG to deploy specimen collection supplies (swabs and viral transport media) to the prison health center along with the return transport of the specimens was achieved through the lab group and OLS partnership. Staffing levels for specimen collection remains a concern as testing capacity expands and will be further assessed through a needs assessment driven from local health department responses. Some information regarding daily throughput and testing platforms in table 1b below was unknown, estimates were provided based on laboratory records when possible.

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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*	48,800	54,000							102,800
Serology	4,200	5,200							9,400
TOTAL	53,000	59,200	0	0	0	0	0	0	

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

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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)
West Virginia University Medicine	Hospitals or clinical facility	West Virginia University Medicine	346	2,000		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)
Pharmacies	Drug store or pharmacy	West Virginia University Medicine	346	0		low income, uninsured, elderly, minorities

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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)
National Guard/DHHR Initiatives	Drive-thru testing site	West Virginia University Medicine	346	0		minorities, low income, uninsured

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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)
Local Health Departments	Community-based	West Virginia University Medicine	346	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts

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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)
Congregate Care facilities	Community-based	West Virginia University Medicine	346	0		disabled/elderly, nursing home, healthcare workers, close contacts

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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)
Private Physician Office/FQHCs	Federally Qualified Health Center	West Virginia University Medicine	346	0		low income, uninsured, disabled/elderly
Charleston Area Medical Center	Hospitals or clinical facility	Charleston Area Medical Center	526	0		healthcare workers

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Pharmacies	Drug store or pharmacy	Charleston Area Medical Center	526	0		low income, uninsured, elderly, minorities
National Guard/DHHR Initiatives	Drive-thru testing site	Charleston Area Medical Center	526	0		minorities, low income, uninsured
Local Health Departments	Community-based	Charleston Area Medical Center	526	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts

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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)
Congregate Care facilities	Community-based	Charleston Area Medical Center	526	0		disabled/elderly, nursing home, healthcare workers, close contacts
Private Physician Office/FQHCs	Federally Qualified Health Center	Charleston Area Medical Center	526	0		low income, uninsured, disabled/elderly

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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)
Cabell-Huntington Hospital	Hospitals or clinical facility	Cabell-Huntington Hospital	191	24		healthcare workers, first responders, essential workers, close contacts, low income, medically fragile
Pharmacies	Drug store or pharmacy	Cabell-Huntington Hospital	191	24		low income, uninsured, elderly, minorities

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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)
National Guard/DHHR Initiatives	Drive-thru testing site	Cabell-Huntington Hospital	191	24		minorities, low income, uninsured
Local Health Departments	Community-based	Cabell-Huntington Hospital	191	24		low income, uninsured, healthcare workers, essential workers, minorities, close contacts

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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)
Congregate Care facilities	Community-based	Cabell-Huntington Hospital	191	24		disabled/elderly, nursing home, healthcare workers, close contacts
Private Physician Office/FQHCs	Federally Qualified Health Center	Cabell-Huntington Hospital	191	24		low income, uninsured, disabled/elderly
St. Mary's Medical Center	Hospitals or clinical facility	St. Mary's Medical Center	150	0		healthcare workers, first responders, essential workers, close contacts, low income, medically fragile

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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)
Stonewall Jackson Hospital	Hospitals or clinical facility	Stonewall Jackson Hospital	38	0		minorities, low income, uninsured, disabled/elderly, healthcare workers, close contacts
National Guard/DHHR Initiatives	Drive-thru testing site	Stonewall Jackson Hospital	38	0		minorities, low income, uninsured
Local Health Departments	Community-based	Stonewall Jackson Hospital	38	0		low income, uninsured, healthcare workers, essential workers, minorities, persons experiencing homelessness
Congregate Care facilities	Community-based	Stonewall Jackson Hospital	38	0		disabled/elderly, nursing home, healthcare workers, close contacts
Private Physician Office/FQHCs	Federally Qualified Health Center	Stonewall Jackson Hospital	38	0		low income, uninsured, disabled/elderly
Boone Memorial Hospital	Hospitals or clinical facility	Boone Memorial Hospital	38	16		minorities, low income, uninsured, disabled/elderly, healthcare workers, close contacts

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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)
National Guard/DHHR Initiatives	Drive-thru testing site	Boone Memorial Hospital	38	16		minorities, low income, uninsured
Local Health Departments	Community-based	Boone Memorial Hospital	38	16		low income, uninsured, healthcare workers, essential workers, minorities, persons experiencing homelessness
Congregate Care facilities	Community-based	Boone Memorial Hospital	38	16		disabled/elderly, nursing home, healthcare workers, close contacts
Private Physician Office/FQHCs	Federally Qualified Health Center	Boone Memorial Hospital	38	16		low income, uninsured, disabled/elderly
Monongalia General Hospital (Mon Health)	Hospitals or clinical facility	Monongalia General Hospital (Mon Health)	65	0		healthcare workers, first responders, essential workers, close contacts, low income, medically fragile

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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)
Pharmacies	Drug store or pharmacy	Monongalia General Hospital (Mon Health)	65	0		low income, uninsured, elderly, minorities
National Guard/DHHR Initiatives	Drive-thru testing site	Monongalia General Hospital (Mon Health)	65	0		minorities, low income, uninsured
Local Health Departments	Community-based	Monongalia General Hospital (Mon Health)	65	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts
Congregate Care facilities	Community-based	Monongalia General Hospital (Mon Health)	65	0		disabled/elderly, nursing home, healthcare workers, close contacts

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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)
Private Physician Office/FQHCs	Federally Qualified Health Center	Monongalia General Hospital (Mon Health)	65	0		low income, uninsured, disabled/elderly
Grafton City Hospital	Hospitals or clinical facility	Grafton City Hospital	17	0		minorities, low income, uninsured, disabled/elderly, healthcare workers
National Guard/DHHR Initiatives	Other	Grafton City Hospital	17	0		minorities, low income, uninsured, healthcare workers, persons experiencing homelessness
Logan Regional Medical Center	Hospitals or clinical facility	Logan Regional Medical Center	32	0		healthcare workers, first responders, essential workers, close contacts, low income, medically fragile rs
National Guard/DHHR Initiatives	Drive-thru testing site	Logan Regional Medical Center	32	0		minorities, low income, uninsured

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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)
Local Health Departments	Community-based	Logan Regional Medical Center	32	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts
Montgomery General Hospital	Hospitals or clinical facility	Montgomery General Hospital	80	0		healthcare workers, first responders, essential workers, close contacts, low income, medically fragile rs
Pleasant Valley Hospital	Hospitals or clinical facility	Pleasant Valley Hospital	32	0		minorities, low income, uninsured, disabled/elderly, healthcare workers
National Guard/DHHR Initiatives	Drive-thru testing site	Pleasant Valley Hospital	32	0		minorities, low income, uninsured
Local Health Departments	Community-based	Pleasant Valley Hospital	32	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts
Raleigh General Hospital	Hospitals or clinical facility	Raleigh General Hospital	87	0		healthcare workers, first responders, essential workers, close contacts, low income, medically fragile

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Pharmacies	Drug store or pharmacy	Raleigh General Hospital	87	0		low income, uninsured, elderly, minorities
National Guard/DHHR Initiatives	Drive-thru testing site	Raleigh General Hospital	87	0		minorities, low income, uninsured
Local Health Departments	Community-based	Raleigh General Hospital	87	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts
Congregate Care facilities	Community-based	Raleigh General Hospital	87	0		disabled/elderly, nursing home, healthcare workers, close contacts

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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)
Private Physician Office/FQHCs	Federally Qualified Health Center	Raleigh General Hospital	87	0		low income, uninsured, disabled/elderly
Sistersville General Hospital	Hospitals or clinical facility	Sistersville General Hospital	32	0		minorities, low income, uninsured, disabled/elderly, healthcare workers
National Guard/DHHR Initiatives	Drive-thru testing site	Sistersville General Hospital	32	0		minorities, low income, uninsured
Local Health Departments	Community-based	Sistersville General Hospital	32	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts
Valley Health	Federally Qualified Health Center	Valley Health	48	0		low income, uninsured, disabled/elderly, persons experiencing homelessness
National Guard/DHHR Initiatives	Drive-thru testing site	Valley Health	48	0		minorities, low income, uninsured

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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)
WV Health Right	Community-based	WV Health Right	48	0		minorities, low income, uninsured, disabled/elderly, persons experiencing homelessness
National Guard/DHHR Initiatives	Drive-thru testing site	WV Health Right	48	0		minorities, low income, uninsured
National Guard/DHHR Initiatives	Other	WV National Guard	192	0		elderly, nursing homes, congregate settings, healthcare workers, inmates, persons experiencing homelessness, supply chain, minorities
National Guard/DHHR Initiatives	Drive-thru testing site	WV National Guard	192	0		minorities, low income, uninsured
National Guard/DHHR Initiatives	Public health lab	Office of Laboratory Services	155	15		priority given to Persons Under Investigation within an identified outbreak, supply chain, healthcare workers, elderly, inmates, persons experiencing homelessness

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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)
National Guard/DHHR Initiatives	Drive-thru testing site	Office of Laboratory Services	155	15		minorities, low income, uninsured
Local Health Departments	Community-based	Office of Laboratory Services	155	15		priority given to Persons Under Investigation within an identified outbreak, close contacts, healthcare workers, first responders, supply chain, child care workers

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Congregate Care facilities	Community-based	Office of Laboratory Services	155	15		priority given to Persons Under Investigation within an identified outbreak, healthcare workers, nursing home, elderly, close contacts
Hospital	Hospitals or clinical facility	Office of Laboratory Services	155	15		priority given to Persons Under Investigation within an identified outbreak, healthcare workers, hospital patients

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Private Office/FQHCs/Urgent Care	Federally Qualified Health Center	Office of Laboratory Services	155	15		priority given to Persons Under Investigation within an identified outbreak, healthcare workers, first responders, low income, uninsured, close contacts, supply chain, child care workers
National Guard/DHHR Initiatives	Community-based	Laboratory Corporation of America	508	0		elderly, nursing homes, congregate settings, healthcare workers, inmates, persons experiencing homelessness, supply chain, minorities
Pharmacies	Drug store or pharmacy	Laboratory Corporation of America	508	600		low income, uninsured, elderly, minorities
National Guard/DHHR Initiatives	Drive-thru testing site	Laboratory Corporation of America	508	600		minorities, low income, uninsured

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Local Health Departments	Community-based	Laboratory Corporation of America	508	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts
Congregate Care facilities	Community-based	Laboratory Corporation of America	508	600		disabled/elderly, nursing home, healthcare workers, close contacts
Hospital	Hospitals or clinical facility	Laboratory Corporation of America	508	600		elderly, nursing homes, congregate settings, healthcare workers, inmates, persons experiencing homelessness, supply chain, minorities
Private Office/FQHCs/Urgent Care	Federally Qualified Health Center	Laboratory Corporation of America	508	600		low income, uninsured, disabled/elderly
National Guard/DHHR Initiatives	Community-based	QLabs	200	0		elderly, nursing homes, congregate settings, healthcare workers, inmates, persons experiencing homelessness, supply chain, minorities

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Pharmacies	Drug store or pharmacy	QLabs	200	0		low income, uninsured, elderly, minorities
National Guard/DHHR Initiatives	Drive-thru testing site	QLabs	200	0		minorities, low income, uninsured
Local Health Departments	Community-based	QLabs	200	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts
Congregate Care facilities	Community-based	QLabs	200	0		disabled/elderly, nursing home, healthcare workers, close contacts
Hospital	Hospitals or clinical facility	QLabs	200	0		elderly, nursing homes, congregate settings, healthcare workers, inmates, persons experiencing homelessness, supply chain, minorities

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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)
Private Office/FQHCs/Urgent Care	Federally Qualified Health Center	QLabs	200	0		low income, uninsured, disabled/elderly
National Guard/DHHR Initiatives	Community-based	AIT Labs	300	0		elderly, nursing homes, congregate settings, healthcare workers, inmates, persons experiencing homelessness, supply chain, minorities
Pharmacies	Drug store or pharmacy	AIT Labs	300	0		low income, uninsured, elderly, minorities
National Guard/DHHR Initiatives	Drive-thru testing site	AIT Labs	300	0		minorities, low income, uninsured
Local Health Departments	Community-based	AIT Labs	300	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts
Congregate Care facilities	Community-based	AIT Labs	300	0		disabled/elderly, nursing home, healthcare workers, close contacts
Hospital	Hospitals or clinical facility	AIT Labs	300	0		elderly, nursing homes, congregate settings, healthcare workers, inmates,

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						persons experiencing homelessness, supply chain, minorities
Private Office/FQHCs/Urgent Care	Federally Qualified Health Center	AIT Labs	300	0		low income, uninsured, disabled/elderly
National Guard/DHHR Initiatives	Community-based	Mayo Medical Labs	86	0		elderly, nursing homes, congregate settings, healthcare workers, inmates, persons experiencing homelessness, supply chain, minorities
Pharmacies	Drug store or pharmacy	Mayo Medical Labs	86	80		low income, uninsured, elderly, minorities
National Guard/DHHR Initiatives	Drive-thru testing site	Mayo Medical Labs	86	80		minorities, low income, uninsured
Local Health Departments	Community-based	Mayo Medical Labs	86	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts
Congregate Care facilities	Community-based	Mayo Medical Labs	86	0		disabled/elderly, nursing home, healthcare workers, close contacts

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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)
Hospital	Hospitals or clinical facility	Mayo Medical Labs	86	80		elderly, nursing homes, congregate settings, healthcare workers, inmates, persons experiencing homelessness, supply chain, minorities
Private Office/FQHCs/Urgent Care	Federally Qualified Health Center	Mayo Medical Labs	86	0		low income, uninsured, disabled/elderly
National Guard/DHHR Initiatives	Community-based	Quest Diagnostics	286	0		elderly, nursing homes, congregate settings, healthcare workers, inmates, persons experiencing homelessness, supply chain, minorities
Pharmacies	Drug store or pharmacy	Quest Diagnostics	286	100		low income, uninsured, elderly, minorities
National Guard/DHHR Initiatives	Drive-thru testing site	Quest Diagnostics	286	100		minorities, low income, uninsured
Local Health Departments	Community-based	Quest Diagnostics	286	0		low income, uninsured, healthcare workers, essential workers, minorities, close contacts

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Congregate Care facilities	Community-based	Quest Diagnostics	286	100		disabled/elderly, nursing home, healthcare workers, close contacts
Hospital	Hospitals or clinical facility	Quest Diagnostics	286	100		healthcare workers, first responders, essential workers, close contacts, low income, medically fragile
Private Office/FQHCs/Urgent Care	Federally Qualified Health Center	Quest Diagnostics	286	100		low income, uninsured, disabled/elderly

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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.**

2a) DHHR is expanding testing capacity through contracts, partnerships, and other arrangements, including partnering with academic and community-based organizations, and continuing to use drive-through testing sites. Testing platforms currently used are CDC-PCR SARS COV-2, five ABI 7500's, Qiagen QIAcube and one EZ1 DNA, RNA, and protein extraction units. New units already ordered include two Cepheid-GenXpert System, and three Hologic Panther machines, for clinical testing and one Evolis.BioRad for serologic testing. The new instrumentation will increase the daily volume of tests that OLS is able to perform, and the GeneXpert system—which has a more rapid turnaround time—could be reserved for more urgent testing requiring faster results (e.g. outbreak-associated testing). OLS currently has contracts in place with LabCorp and QLABS, which are both able to handle high-volume testing. In addition to commercial labs, DHHR has its own lab and partners with WVU, CAMC, and others. OLS also placed fourteen Abbott ID NOW PCR Point-of-Care Analyzers in clinical laboratories that did not have testing capacity. Serology testing platforms in use throughout the state such as Abbott Architect and Siemens Centaur are all in need of reagents to build statewide lab network capacity and are included in Table 2. There is constant communication with to stress the importance of testing needs in West Virginia. The volume of additional reagents needed are based on the supply chain deficits. To build public health lab staffing output potential, an additional five scientists are needed with skills dedicated to COVID-19 analysis. For labs throughout the state, there are ten additional positions needed.

Point-of-care tests will be prioritized for transient populations and outbreaks when appropriate (e.g., homeless, transitioning inmates, unstable housing) and due to greater probability of false negative results may be followed by non-rapid PCR testing if a negative result is found and further warranted.

In addition to traditional medical laboratory testing, DHHR has also deployed drive-through sites throughout the state for safer mass testing. The NG and LHDs are regularly operating these testing sites for ease of testing within the community, which provides surge capacity for testing needs beyond traditional labs. The OLS assists with coordination of the NG and LHDs by managing which labs can assist which regions.

At the federal level, the ability to collect specimens and arrange for testing through pharmacies has been established. DHHR has worked with the state Board of Pharmacy (BOP) to coordinate this effort in West Virginia. Nationally, Walgreens and LabCorp have entered into a partnership to provide nasal swab testing at Walgreens patient service center locations, with 20 locations in WV. This approach does include drive-through testing by appointment only for those who have an online eligibility health assessment. In addition to this opportunity, DHHR also has a strong connection with the BOP and is currently developing protocols to improve testing access through pharmacy testing.

2b) To prioritize the needs of vulnerable and at-risk populations, DHHR is prioritizing several vulnerable populations for testing including nursing home residents and staff, assisted living residents and staff, child care center staff, and Department of Correction's inmates and staff. This testing has been implemented as a result of several Executive Orders. The NG has administered tests in a variety of locations, supporting testing carried out through LHDs, hospitals, and urgent care sites. In an effort to

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expand access to testing for minorities and others who may have had limited access, the Governor has also had the NG and DHHR coordinate free testing in high-density populations. This testing has been offered to minorities and concerned community members regardless of present symptoms. Jail inmates and staff are tested on an as-needed basis given a protocol to monitor for signs of illness and separation of populations to limit spread of any infection that may be present. Outbreaks also elicit widespread testing and/or quarantine, especially in congregate settings. Infections must be identified quickly to prevent an outbreak, as outbreaks in these settings would prove especially difficult and would require outside resources to properly isolate and assist individuals who are ill. Therefore, testing will be offered to these vulnerable populations including but not limited to nursing home and assisted living residents and staff, child care center staff, inmates and correctional facility staff, and homeless individuals and associated staff, on an as needed basis, according to infection rates within or near the facility. To increase access to testing in counties with high incidence of SARS-CoV-2, and counties with populations at greater risk of infection (due to population density, disabled, older population, etc.), further testing will also occur at drive-through sites, community health centers, and FQHCs, and will be available to individuals most at risk for exposure or who are high risk for poor outcomes on a voluntary basis. Employers and congregate care sites will receive recommendations to test employees based on epidemiologic guidance and current community-based trends for the initial 2 months of the grant period.

2c) Like other states, West Virginia faces numerous barriers to efficient testing, including supply-chain difficulties. Specifically, current barriers to widespread and efficient testing include lack of staff for collection and analysis, limited reagent supply, and the speed at which new equipment arrives. To address these barriers, OLS discusses and documents these issues during the weekly call with clinical labs across the state. Information is shared with and collected from partners via an Excel spreadsheet which CTP then turns into a shared dashboard. OLS has identified labs in need of equipment and supplies and redistributes resources as needed and as permitted by funding sources. Labs and LHDs submit a paper requisition for supplies, which allows OLS to monitor where supplies have been distributed. Swabs and Viral Transport Media (VTM) have also been shared when possible. For example, Marshall University and some vendors are providing VTM and the Federal Emergency Management Agency (FEMA) is supplying WV with 100,000 swabs. Although supply-chain challenges are difficult to address, this close partnership among labs statewide allows for scarce resource maximization.

2d) To advance serology testing, OLS is at the beginning stages of utilizing the EVOLIS system, which will increase testing volume and capacity. OLS is also expanding the laboratory information system, STARLIMS. WVU labs are able to retrieve and process 2,000 serology tests a day and will use this capacity to first test their healthcare workers, both low and high risk. LabCorp is able to conduct serology testing, and DHHR is working to contract with them for this. At this time, serology testing is on an individual organization basis and not coordinated across labs. Some clinics and medical centers are conducting serology testing if requested by patients.

2e) To manage sentinel surveillance for vulnerable populations, DHHR is targeting healthcare workers, persons without permanent residences, persons with no or inadequate health insurance, inmates, minority populations, nursing home residents and staff, long term care facilities, and child care center staff within high density or high incidence areas of the state. This strategy is being carried out with the assistance of the NG. In collaboration with the Herbert Henderson Office of Minority Affairs and the NG, DHHR is managing several free, drive-through, testing sites across the state. DHHR has planned and

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marketed these sites to increase testing among those without insurance, minority populations, and other vulnerable people residing in high-density population areas. Although the sites target minority and underserved populations, any resident of the county is eligible to receive free testing, including asymptomatic individuals. The NG will provide positive or negative test results to patients of the drive-through testing within 48-72 hours of the event. DHHR has also begun testing at all correctional facilities in WV. At the time this response was drafted, a jail in Randolph county had identified 110 positive cases. The first positive was identified early and led to an executive order for mass testing by the state's governor as a strategy to prevent further spread of this outbreak both in the jail and community, as well as to identify asymptomatic cases that might trigger an outbreak in other correctional locations. Following this initial broader strategy for the inmate population, DHHR will deploy a focused effort to areas of high incidence, as well as for any future positive cases found in any West Virginia prison or jail. Randomized testing prioritized by risk in prisons will lower future costs and help conserve resources.

For the homeless population, rapid tests are used to provide test results immediately and overcome the barrier in traditional testing of having to reach individuals 48-72 hours later. Though rapid tests are less accurate, the clinics serving homeless population have determined rapid tests to be more effective for this population than traditional tests that require more processing time.

2f) DHHR's plan to expedite and streamline procurement, hiring, and onboarding of new staff includes acquisition of supplies, reagents, test kits, and collection materials. Procurement has been streamlined to prioritize and expedite testing supplies that are considered emergency needs, minimizing the levels of approval required. OLS works to expedite hiring, though they still have to follow the Department of Personnel's processes, which remains a barrier. A longer-term strategy includes raising the pay rate, as private sector laboratory microbiologists require a higher salary. OLS has requested an ongoing register to collect potential applicants for microbiologists as there is always a need.

Below are steps DHHR is taking to streamline procurement:

1. Expedite process for emergency purchases - Purchases associated with the response are expedited through incident command structure. In addition, the OLS has the authority to make emergency purchases. If a purchase is considered an emergency, such as for reagents, collection materials, or lab equipment to process SARS-CoV-2 tests, there are fewer levels of approval to make a purchase.
2. Coordination among agencies/groups - Coordinate with other organizations and agencies such as laboratories, LHDs, clinics, hospitals, and universities to share resources while waiting on purchases. Alternatively, coordinate purchases in this highly competitive market to obtain equipment and supplies. There are frequent calls between multiple organizations to share needs and distribute resources among all parties. This team approach has succeeded due to close relationships and frequent contact.
3. Share vendor information – Share supplier insight amongst the different entities (clinics, universities, local health departments, etc.) that are communicating on a regular basis regarding resource needs. This information can help identify reputable suppliers, including new suppliers that DHHR may not have purchased from previously. This sharing of information informs all entities of vendors to avoid and vendors to approve quickly.

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During this crisis, DHHR has expedited hiring and onboarding to allow for new employees to be selected and trained within weeks instead of several months. The barriers to hiring before the COVID-19 pandemic still remain. Below are strategies to have more DHHR employees tasked with SARS-CoV-2 response activities.

1. Reassign current employee duties – In order to very quickly obtain additional human resources, DHHR has begun asking current employees not involved in outbreak investigations or similar public health related functions to learn new job responsibilities. From epidemiologists to project managers, staff within DHHR have assumed new positions or have added responsibilities to help coordinate or fulfill tasks related to the SARS-CoV-2 response.
2. Hire contractors/offer sub-recipient grants to LHDs - Many of the LHDs prefer to hire their own employees to assist with testing or other job duties related to the SARS-CoV-2 response. DHHR plans to hire contractors or offer grants directly to LHDs. Priority will be given to LHDs with the highest incidence of positive cases with consideration for already limited resources.
3. Advocate to raise the salary of selected positions – Microbiologists, laboratory technicians, and epidemiologists are in high demand during this crisis, however the pay rate by state government for such positions is low compared to the private sector. It has been a challenge to recruit and retain employees for these positions, therefore there is a high turnover rate. Often, there are multiple vacancies. During the SARS-CoV-2 crisis, one laboratory technician/microbiologist resigned due to long hours and stress related to testing. DHHR intends to raise the salary for these positions to retain employees and recruit new.

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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	0	15							15
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)	Abbott 15 ID NOW	5							5
Volume of additional swabs needed to meet planned testing levels <sup>++</sup>	3,472	110,000							113,472
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels <sup>++</sup>	NA	100,000							100,000
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)	3,472	56,700 tests using Panther , Cephid							60,172
FOR SEROLOGIC TESTING									
Number of additional* equipment and devices to meet planned testing levels	0	1							1

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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	37160 Architect BioRAAd, Beckman							37,160

\* 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.