

ELC ENHANCING DETECTION: WASHINGTON DC TESTING PLAN

2020 Overarching Jurisdictional SARS-COV-2 Testing Strategy

Jurisdiction:	Washington DC
Population Size:	705,749

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

- How you will maximize the use of testing platforms (with an indication of which ones are high throughput), venues, and expanded workforce across your jurisdiction (e.g. public health labs, private, hospital, commercial, academic, etc.) to rapidly scale testing to accommodate an increased demand for SARS-CoV-2 tests, including utilizing point-of-care or other rapid result testing for local outbreaks?

Comprehensive testing is a key response activity that the District of Columbia has aggressively implemented since March 2020. As of July 9th, approximately 120,884 individuals have been tested in the District of Columbia for COVID-19. The District of Columbia Department of Health (DC Health) has identified immediate (March – August 2020), interim (September – November 2020), and long-term (December 2020 – Onwards) strategies to carry out testing in the community.

DC Health in collaboration with the DC Department of Forensic Sciences Public Health Laboratory (DFS PHL) is supporting COVID-19 testing in a myriad of novel ways. In addition to testing within hospitals, efforts have been directed toward standing up drive-thru testing sites; a mobile testing unit (MTU) that conducts rapid molecular testing onsite with same day results for skilled nursing facilities and group homes; and community mass screenings targeting populations such as the homeless. DC Health has established a hotline (1-855-363-0333) and website (coronavirus.dc.gov) to provide residents with assistance in locating available testing sites.

The District's immediate strategy is to continue offering testing to the community at publicly available sites. The District is currently operating mass community sampling sites including: two drive-through and walk-up sites, five days per week. The footprint of the mass community sampling sites will decrease in the intermediate and the focus of the District's efforts in testing will start to shift to the existing healthcare infrastructure as part of the long-term strategy.

In the immediate state of the sampling and testing strategy, the District is also coordinating neighborhood-specific sampling collection efforts implemented in collaboration with DC Fire and Emergency Medical Services (DC FEMS), Federally Qualified Health Centers (FQHC), and other community groups. The neighborhood sampling helps to expand sampling to different areas in the District that may be seeing higher rates of transmission and/or are in medically underserved areas

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within the District. As part of the long-term strategy, neighborhood-specific sampling efforts will be scaled back as a larger emphasis will be placed on testing within the existing healthcare system.

In the immediate strategy, the District is also working to support congregate living and Licensed Long-term Care Facility sampling efforts by providing these sites with nurses and patient care technician staff who support the sampling efforts at these facilities. These dedicated staff help to rapidly sample patients at high risk of disease. In the interim and long-term stage of this sampling, the District will work closely with these facilities to co-develop a transition plan for self-sustained, in-house provider options. This will help these facilities build a more sustainable infrastructure for the future. Another component of the interim and long-term strategy includes utilizing rapid response teams to focus testing in areas of high incidence in the District, these teams will be available to quickly deploy to sites that require rapid testing of target populations. DC Health has contracted with a team of nurses to serve as strike teams to facilitate mass sampling of skilled nursing facilities and group homes to ensure that this vulnerable population can be tested frequently.

Through July 7, the DFS PHL has conducted 5,006 tests of these skilled nursing facilities and group homes. This testing will continue to be supported moving forward. The DFS PHL continues to provide staffing and sampling supplies to homeless shelters in support of their mass sampling efforts as well. Through July 7, the DFS PHL has supported testing for 1,665 homeless.

The DFS PHL has supported drive-thru, walk-up, clinic sites, and mobile testing using a combination of RT-PCR testing platforms at the laboratory, including the Hologic Panther Fusion, Cepheid GeneXpert, CDC 2019-nCoV, and Abbott ID Now platforms. The Hologic Panther Fusion platform, which went live on March 31, 2020, is the DFS PHL's high throughput testing platform and has increased the laboratory's testing capacity over three-fold from the CDC 2019-nCoV assay, with less staff involvement. Due to the dramatic spike in diagnostic test requests in June, where 16,404 tests were conducted compared to May, where 10,263 tests were conducted and 3,277 in March and April, the DFS PHL has purchased two more Cepheid GeneXpert XVI module units in June and is planning to add an additional Hologic Panther Fusion in July to increase capacity. The Cepheid GeneXpert instruments will be used for high-risk vulnerable populations and high priority specimens that require a more rapid turnaround time, while the Hologic Panther Fusion will continue to be used for drive-thru and congregate setting testing of vulnerable populations. The CDC 2019-nCoV assay will continue to be utilized to test post mortem samples provided by the District's Office of the Chief Medical Examiner (OCME) and be available for surge testing situations, when needed. The current daily capacity of the DFS PHL is 700 samples, which is up from 150 samples per day in March. With additional testing sites being made available across the District, adding laboratory capacity will be key to ensuring timely results are provided. The MTU will continue to be deployed and provide same day test results to vulnerable populations in skilled nursing facilities and group homes in June with a capacity to test up to 50 residents per day.

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DC Health and the DFS PHL are currently in the process of identifying additional staffing needs and the most efficient mechanisms for addressing such needs. However, the DFS PHL has already hired a number of contractors to assist with accessioning of specimens, quality control measures at each of the drive-thru and community and mass sampling events, as well as providing critical infrastructure support for the DFS PHL MTU and internal laboratory testing activities. With the increased testing capacity that is currently being built within the DFS PHL, the main pressure will be the number of samples that the laboratory can accession in a day, which is currently at 500 samples in May.

Through the ELC-funded Laboratory and Epidemiology Coordinator position, both DC Health and DFS PHL have been in routine communications with the District's acute care hospitals to better understand their testing strategies and capacity to test for SARS-CoV-2. The DFS PHL has provided four Cepheid GeneXpert XVI instruments (two each to Howard University Hospital and United Medical Center) and 200 test kits and controls to District hospitals so that these acute care facilities could start to test their own patient populations, something that they were unable to do until the instruments and test kits were provided. The DFS PHL also has discussed the needs for sampling supplies and test kit availability with hospitals as well and plans on continuing this dialog in the future on a routine basis.

For laboratory diagnostics, the District will continue coordinating with DFS PHL and private laboratories to increase diagnostic testing capacity. Future capacity of the Public Health Laboratory will be assessed based on the ratio of positive COVID-19 cases in the District.

- Detail your approach to provide testing at non-traditional laboratory sites (e.g., retail sites, community centers, residential medical facilities, or pharmacies).

The District has coordinated many non-traditional sampling and testing approaches. These approaches include mass sampling sites which serve District residents and those who work in the District. Two mass sampling drive-through and walk-up sites operate by appointment and are open five days per week. The District also operates neighborhood-specific sample collection efforts with the support of the DC Fire and Emergency Medical Services Department (DC FEMS), Federally Qualified Health Centers (FQHCs), and other community groups such as the CORE group to provide testing at non-traditional laboratory sites. These non-traditional sites are open six days per week Monday – Saturday and offer night and weekend testing. Registration is not required at these sampling and testing sites and offers persons more accessible sites at fire stations and community centers where they can walk up and get sampled. These two non-traditional sites allow anyone who needs a test to better access a test in the District.

- Describe your strategy for serology testing, if applicable.

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In the Immediate strategy, starting in May 2020, the District is conducting a sero-prevalence survey with identified high risk groups, including first responders, healthcare workers, residents in long-term care facilities, residence in group homes, and children (0-19). The Districts goal of this sero-prevalence survey is to help inform decisions about prevention and control strategies, as well as mitigation interventions. The District is also supporting two mass serology testing sites which will operate by appointment only from June – July 2020. These sampling events and surveys will give the District a better understanding of the burden of disease in the District.

In addition to molecular based instruments, the DC DFS PHL went live with SARS-CoV-2 serology testing on May 11, 2020 with the DiaSorin LIAISON XL S1/S2 IgG assay. The DC DFS PHL has also purchased an Abbott Alinity I instrument to perform additional serology testing in June. This instrument will supplement the DiaSorin LIAISON XL as part of an orthogonal testing algorithm for reactive IgG results to ensure accuracy of test results in a potentially low prevalence population. This will be important as DC Health is collaborating with the DC DFS PHL to work with health care providers in the area to conduct a citywide sero-prevalence survey to understand the rates of exposure to COVID-19 in the District. The sero-prevalence survey is designed to test 5-10% of the Districts population to provide a clearer picture of the percentage of susceptible residents. The current capacity for serology testing at the DFS PHL is 500 samples per day, with an increase expected in June to handle the citywide sero-prevalence survey that DC Health will undertake.

- Describe how you will communicate, collaborate and coordinate with the broad testing community within your state to ensure alignment in approach and progress toward jurisdictional goals. Plan should include regular outreach

Throughout the testing strategy, the District will communicate, collaborate, and coordinate with the broader testing community. This is done in the immediate, interim, and long-term strategies through conducting provider outreach and measuring the effectiveness of current sampling and testing activities. Specifically, the District is working with the healthcare providers to establish which District healthcare facilities are currently providing testing. This data is being compiled and used to inform residents of healthcare facilities in the District that are offering testing. This also helps to establish appropriate District-wide testing metrics, provide guidance to healthcare facilities on the testing process, and identify providers in the District that are accepting new patients to connect residents with primary care services. These metrics will help the District move to the interim and long-term strategies with confidence. By creating metrics, goals, and communication strategies in the immediate stage, the District will be able to better guide how testing will continue to be conducted to help continue to understand the burden of disease within the District.

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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*	15,000	20,000	24,000	24,000	24,000	24,000	24,000	24,000	179,000
Serology		15,000	6,000	6,000	1,000	1,000	1,000	1,000	31,000
TOTAL	15,000	35,000	30,000	30,000	25,000	25,000	25,000	25,000	

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

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

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
DFS PHL	Public health lab		1,000	500	Testing of all District residents, with focus on nursing homes, group homes, healthcare workers, persons experience homelessness, Department of Corrections, first responders
DFS PHL	Other		50	0	Mobile Testing Unit goes to skilled nursing facilities and group homes to provide rapid same day testing.
LabCorp	Commercial or private lab		1,600	0	All District Residents, psychiatric hospital, Department of Corrections, congregate

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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)
					living facility residents, persons experiencing homelessness

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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.

- Describe how the health departments will directly expand testing capacity through their public health labs, contracts, partnerships, and other arrangements (e.g. adding testing capacity in local health departments, contracting with new labs, partnering with academic and community-based organizations, establishing drive-thru testing sites, etc.). Provide specifics about planned expansions of existing capacity, including procurement of new testing equipment or device platforms.

DC Health's testing strategy focuses on expanding testing in the immediate, interim, and long-term stages. Currently, DC Health is leveraging community partnerships with DC Fire and Emergency Medical Services, various Federally Qualified Health Centers, and other community groups to expand access to testing. These partnerships are focused on augmenting the District's ability to staff additional testing sites and have increased our overall capacity to conduct neighborhood-specific sample collection efforts. The District has contracted with LabCorp to process samples from community testing targeting non-priority populations in order to allow the DC Department of Forensic Sciences Public Health Laboratory (DFS PHL) to focus on testing targeting nursing home and other congregate setting, outbreaks, vulnerable populations, and areas of high incidence as described in the overall testing strategy.

- How testing needs of vulnerable and at-risk populations will be prioritized, including the elderly, disabled, those living in congregate settings including nursing homes and prisons, racial and ethnic minorities, healthcare workers, and among persons experiencing homelessness.

Local public sampling sites support all individuals living and/or working in the District seeking testing, including priority populations such as those living nursing homes, long-term care facilities, or other congregate settings; homeless individuals; individuals with a high risk of exposure; essential employees; and populations with limited access to health care services. The District has contracted approximately 80 medical staff in total to support diagnostic and serological testing across the city, with dedicated strike teams formed to perform targeted surveillance and diagnostic testing. Interim testing strategies include a continued focus on priority populations with a parallel focus on the development and implementation of transition plans for self-sustained, in-house provider options.

The district has heavily prioritized the testing needs of vulnerable and at-risk populations in response to the pandemic. Those living in congregate settings—nursing homes, prisons, shelters, the District's public psychiatric facilities, and the Department of Corrections—have already received visits from testing strike teams to establish a baseline of results, and the District has dedicated rapid response teams to sample

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any of these facilities in response to an outbreak within 24 hours. All 19 acute care facilities in the District and 8 additional long-term care facilities (approximately 4,000 patients in total) have already been fully tested by our strike teams and are undergoing weekly testing under the advice and guidance of our epidemiologists. The District has constantly ensured racial and ethnic minorities have had equal access to testing; the District's first community testing site was piloted in ward 8, a historically disadvantaged area. Additionally, several pop-up testing events have been targeted towards ethnic minority communities; specifically the district's Amharic and Latino communities. Moving forward, the District plans to ensure equal access to testing by debuting a serological testing site in Ward 8, and contracting additional medical staff who will be dedicated to supporting non-healthcare congregate care settings.

- How barriers to efficient testing will be identified and overcome, including those related to underutilization of available assets and supply-chain difficulties, and considerations with end-to-end logistics of testing (from sample collection to reporting to public health and CDC).

In order to identify barriers to testing, the District will monitor established testing and reporting metrics and provide increased provider/facility outreach as needed. Outreach activities will include technical assistance and training; messaging and communication support; standardized guidance and protocol documentation; and the provision of testing supplies as needed. Informed by the ongoing assessment of established testing metrics, the District will implement options to increase DFS PHL and private laboratory testing capacity through the procurement of additional testing platforms; provision of additional staffing support; and identification of novel strategies as needed. Process and outcome measures will be reviewed continually to aid in the identification of potential deficiencies in meeting local sampling and testing targets.

- Describe the strategy for serology testing through the public health labs, if applicable, including specific platforms intended to be used.

Serological testing has been available at the DFS PHL since May 11, 2020 and the laboratory has tested 1,917 serum samples through July 7. The DFS PHL offers serology testing through the use of two platforms, the DiaSorin LIAISON XL and the Abbott Alinity I. These instruments have high specificity when testing samples that are at least 14 days post symptom onset and provide an orthogonal testing algorithm to further ensure that specimens tested do indeed have antibodies to SARS-CoV-2. The data from this algorithm will help to provide useful information for both the District and Centers for Disease Control and Prevention (CDC) to better understand how immunity may be developed in persons exposed to SARS-CoV-2. Most of the samples provided for testing come from DC Health's sero-prevalence survey that is aimed to test 5-10% (35,000-70,000) of the District's population. DC Health has established a modular facility to draw and collect serum samples through an appointment-based registration system that allows for up to 100 people to be sampled twice per week. The frequency of

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this activity will increase for the month of July to 5 days per week, with an estimated 1,500 serum samples tested by the DFS PHL weekly.

- Describe the health department's plan for resource utilization and how the jurisdiction will manage testing and alignment with SARS-COV-2 community mitigation policies, including sentinel surveillance for vulnerable populations.

While the District will continue to provide guidance and resources to support testing efforts as needed, the long-term strategy will encourage private healthcare providers to take greater responsibility for meeting testing targets. DC Health will continue to rely on public health surveillance mechanisms to identify outbreaks of COVID-19 in the District that require increased targeted testing and subsequent transmission prevention and mitigation measures, in addition to core comprehensive contact tracing and case isolation activities.

- Describe the health department's plan to expedite and streamline procurement, hiring, and onboarding of new staff.

The COVID-19 related resource request and procurement processes are currently managed and monitored through the utilization of WebEOC emergency management software. General oversight and coordination is provided by response leadership in collaboration with respective administration/division staff within DC Health. In addition to the utilization of temporary staffing agencies to facilitate the scale up of capacity in essential skill areas, COVID-related staff recruitment and applicant review processes are currently prioritized by the Human Resources Office within DC Health in order to facilitate the timely credentialing and hiring of new personnel. Individual teams associated with local COVID response activities within DC Health have developed structured training materials and processes utilizing multiple modalities to ensure the efficient onboarding of new staff.

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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	28	52	22	20	0	1	0	0	123
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	2	1	0	0	0	0	0	3

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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 swabs needed to meet planned testing levels ⁺⁺	35,000	35,000	15,500	12,500	12,500	12,500	12,500	12,500	148,000
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels ⁺⁺	35,000	35,000	15,500	12,500	12,500	12,500	12,500	12,500	148,000

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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)	30,000/month - Hologic Panther; 4,500/month - Cepheid; 1,000/month - CDC 2019 nCoV	30,000/month - Hologic Panther; 4,500/month - Cepheid; 1,000/month - CDC 2019 nCoV	13,000/month - Hologic Panther; 2,000/month - Cepheid; 500/month - CDC 2019 nCoV	10,000/month - Hologic Panther; 2,000/month - Cepheid; 500/month - CDC 2019 nCoV	10,000/month - Hologic Panther; 2,000/month - Cepheid; 500/month - CDC 2019 nCoV	10,000/month - Hologic Panther; 2,000/month - Cepheid; 500/month - CDC 2019 nCoV	10,000/month - Hologic Panther; 2,000/month - Cepheid; 500/month - CDC 2019 nCoV	10,000/month - Hologic Panther; 2,000/month - Cepheid; 500/month - CDC 2019 nCoV	10,000/month - Hologic Panther; 2,000/month - Cepheid; 500/month - CDC 2019 nCoV	
FOR SEROLOGIC TESTING										
Number of additional* equipment and devices to meet planned testing levels	0	1	1	0	0	1	0	0	3	

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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)	10,000/month - Diasorin	5,000/month - Diasorin Liaison; 5,000/month Abbott Alinity	6,000/month - Diasorin Liaison; 6,000/month Abbott Alinity	6,000/month - Diasorin Liaison; 6,000/month Abbott Alinity	1,000/month - Diasorin Liaison; 1,000/month Abbott Alinity	1,000/month - Diasorin Liaison; 1,000/month Abbott Alinity	1,000/month - Diasorin Liaison; 1,000/month Abbott Alinity	1,000/month - Diasorin Liaison; 1,000/month Abbott Alinity	

* 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.