

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

2020 Overarching Jurisdictional SARS-COV-2 Testing Strategy

Jurisdiction:	Philadelphia
Population Size:	1,584,000

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

The Philadelphia Department of Public Health (PDPH) is committed to continued rapid detection and containment of SARS-CoV-2. There are currently over 50 testing sites in Philadelphia, including sites run by health systems, health centers, pharmacies and urgent cares. Since March 2020, PDPH has been working with healthcare partners throughout Philadelphia to increase testing capacity, accessibility, and speed of reporting. Expanded testing are ongoing and will continue through December 2020 to reach a goal of 150,000 tests performed each month by testing sites across the city. PDPH's testing expansion strategy focuses on maximizing its own laboratory capacity, implementation of point-of-care testing platforms at community-based testing sites where rapid resulting can be critical, continuation of testing partnerships with Federally Qualified Health Centers (FQHCs) and long-term care facilities, and development of new community-based testing programs in coordination with partner organizations like urgent care centers and retail pharmacies.

Philadelphia's Public Health Laboratory (PHL) currently operates one Abbott m2000, a high throughput RT-PCR system capable of testing up to 470 patient samples in a 24-hour period. Contingent upon receipt of testing supplies, PHL can also detect SARS-CoV-2 using Hologic's Panther, another high throughput machine with the capacity to run up to 700 tests in 4 hours. Additional machines with lower capacity, including the Cepheid GeneXpert, can also be employed by PHL for SARS-CoV-2 detection as needed once reagents are received (estimated July 2020). PDPH has obtained 14 Abbott ID Now instruments, and utilizing funding previously secured under the ELC CARES grant, has ordered 5 Cepheid GeneXpert Xpress machines intended for distribution to FQHCs to perform rapid point-of-care testing. To address the need for identification of multiple respiratory pathogens, PHL has ordered additional modules for the BioFire FilmArray Torch. This instrument will be particularly useful as other respiratory virus activity levels change moving into the winter months. Additional funding will support acquisition of additional instruments and kits for rapid point-of-care testing as well as the supplies necessary to perform specimen collection and RT-PCR testing by PHL. By ensuring FQHCs and other community testing partners are well supported through adequate training and supply management, we will be positioned to continue to test at a minimum 2% of our population per month.

PDPH has a long-standing relationship with many FQHCs who provide care to marginalized and underserved communities across the city. Since April, we have been assisting FQHCs to expand their testing operations through provision of resources, including testing supplies and personal protective equipment (PPE). We have also leveraged these relationships to support expanded SARS-CoV-2 detection using rapid point-of-care testing. The 14 Abbott ID Now machines provided by Health and Human Services are all intended to be deployed in FQHCs or city-run health centers. PHL has implemented a train-the-trainer model, providing clinic staff with adequate support to execute and

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

expand point-of-care testing within their locations. FQHCs may be testing individuals in a traditional clinical care setting or meeting high-risk populations where they are at (e.g. outdoor testing for people living homeless). Additional funds received will directly support the purchase of Cepheid GeneXpert Xpress machines or other point-of-care platforms as they enter the market for use in these clinical and non-traditional settings by FQHC staff, contingent upon product availability. A limiting factor expressed by community partners is the ability to procure acceptable specimen collection materials. PDPH has utilized internal resources to procure and manage a supply of swabs, media (VTM, saline, PBS), and collection tubes to support expanded testing across the city. Laboratory reagents have also been sourced through International Reagents Resources, as well as ID Now testing kits supplied directly from Abbott. As supply chains and product availability begin to stabilize, PDPH has actively stocked critical items to ensure availability through the remainder of 2020.

To rapidly respond to potential outbreaks, PDPH partners with Long Term Care Facilities (LTCFs) to coordinate SARS-CoV-2 testing at PHL using the Abbott m2000. All specimen collection materials will continue to be provided to these facilities, ensuring timely identification and isolation of confirmed cases. Through the remainder of 2020, LTCFs can expect direct support in the acquisition of testing materials, courier service to PHL, and rapid results reporting in response to a confirmed case or outbreak. Furthermore, PDPH has supported rapid detection of SARS-CoV-2 in other congregate settings including group shelters. We have worked closely with the Philadelphia shelter system to rapidly identify and contain SARS-CoV-2 outbreaks through coordination of testing performed by PHL. As with other community testing partners, we have ensured adequate testing supplies are available to meet growing need by continually ordering materials as they become available. One Abbott ID Now has also been provided to the Philadelphia Prison System to assist in rapid case detection, used in conjuncture with NP swabs sent to a commercial lab for confirmatory testing. Through a Community Testing Request for Proposals (RFP), PDPH has identified partners able to provide testing outside of traditional clinical settings. These relationships can ensure rapid response to emerging and ongoing outbreaks within the community by providing specimen collection services, submission of specimens to commercial laboratories, and counseling patients on appropriate isolation and quarantine procedures.

To accommodate the rapid scaling of testing, PDPH began hiring in May 2020 with further staff increases anticipated throughout 2020 as a result of this additional funding. Thus far talent acquisition has focused on recruiting office-based staff to support the management and coordination of SARS-CoV-2 testing. PDPH recognizes the need to recruit qualified laboratorians to support increased testing capacity at PHL. The PHL has utilized funds to hire one contract Medical Technologist capable of performing necessary assays. PHL will continue to seek qualified Medical Technologist applicants in addition to an informatician/LIS specialist responsible for results reporting and a program coordinator to support administrative functions. An expanded workforce within PHL will directly impact testing capacity as more staff will be available to process and run patient samples. To address the anticipated increased interest in rapid point-of-care testing by FQHCs and other testing partners, PDPH has increased the number of staff capable of training clinicians on proper specimen processing on the Abbot ID Now and in the near future, Cepheid GeneXpert Xpress. The Testing Education Coordinator, hired in July 2020, will

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

continue to support sites offering rapid point-of-care testing and seek to onboard new testing sites as appropriate.

While most of the SARS-CoV-2 testing in Philadelphia has occurred within traditional clinical settings, PDPH has sought out opportunities to promote testing in non-traditional settings. In May 2020, a Request for Proposals was released to local provider organizations in order to fund expanded testing within the community beyond our direct partnership with FQHCs and city-run health centers. Emphasis was placed on organizations' experience with underserved and vulnerable populations to ensure equity in testing availability across the city. This arrangement will allow testing organizations to reach Philadelphians from a wide variety of zip codes who are eligible for testing while moderating the volume of supplies and testing services provided by PDPH. When considering prospective recipients, PDPH will pay special attention to the testing locations as well as the population served to avoid unnecessary duplication of efforts within the testing community. Data provided by the COVID-19 Epidemiology Program will support the direction of the community-based testing strategy, particularly in describing vulnerable populations in Philadelphia and identifying geographic areas with emerging or sustained high rates of disease transmission. Review and approval of RFP applications will continue through December 2020 to allow for consistent expansion of the variety of testing options offered to Philadelphians.

In Philadelphia, serologic testing is unfolding as PDPH establishes testing criteria and develops test result guidance documents. PDPH has begun serological testing in selected congregate settings to better understand the number of individuals who were infected with SARS-CoV-2 and how antibody results match with known molecular testing results. Immediately following identification these outbreaks, RT-PCR testing was performed to identify individuals with active COVID-19 infections to inform infection control practices, however it is possible that some individuals experienced subclinical infection or had been symptomatic prior to the identification of the outbreak. Serologic testing performed by PHL will enhance understanding of COVID-19 transmission within these settings. PDPH seeks to leverage internal resources to identify other populations for serological surveys. Preliminary discussions have included collection of blood from patients visiting the city-run STD Clinic as well as from patients presenting at other city-run clinics for routine bloodwork. These approaches would allow PDPH to understand antibody prevalence across a variety of populations in the city, and potentially match with molecular testing results and other historical clinical data as available. As technologies progress and additional platforms are developed, PDPH would consider collecting capillary blood samples from residents in community settings (e.g. grocery store, parks, libraries) to better understand COVID-19 prevalence in Philadelphia.

To achieve adequate testing coverage, PDPH has utilized existing communication streams to ensure FQHCs and other community partners are aware of testing services as well as the Request for Proposals to expand testing services available to the community. Existing relationships with our Immunizations and Public Health Preparedness programs have also been leveraged to reach healthcare and testing service providers in Philadelphia, highlighting our willingness to support expanded testing activities through acquisition of supplies, funding of testing, and coordination of specimen testing at PHL.

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Additionally, established relationships between PDPH's Acute Communicable Disease and Healthcare Associated Infections programs and LTCFs have been utilized to ensure high-risk settings are receiving adequate support for rapid resident and staff testing. Through the remainder of 2020, the additional funding will secure training for staff on the Abbott ID Now instrument as well as the Cepheid GeneXpert Xpress (pending availability) within FQHCs as well as congregate settings. With this funding PDPH will also have the increased capacity to support FQHCs with inventory management to deliver consistent testing across the city. PDPH will continue to support community organizations in establishing mechanisms for electronic lab reporting and transmission of individual-level data to better characterize COVID-19 infection.

Through a coordinated effort of promotion and education, this additional funding will allow PDPH to continue to support COVID-19 testing amongst Philadelphia's care providers. Current barriers that exist include acquisition of testing equipment and supplies, however PDPH continues to seek out alternative suppliers capable of providing materials needed to continually expand SAR-CoV-2 testing in Philadelphia. To assess needs of community testing partners, PDPH regularly sends surveys to understand current barriers to testing and identify areas where we can support, including provision of test collection supplies and PPE. Community-based testing sites can also easily request supplies from PDPH through a REDCap survey. In July 2020, pediatric providers were asked to describe current testing capacity as well as any perceived challenges in implementing COVID-19 testing for their patients. The results of this survey will directly impact future trainings and outreach efforts to ensure adequate testing accessibility for all residents. This approach can be utilized to address needs within other populations as gaps in testing coverage are identified.

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Table #1a: Number of individuals planned to be tested, by month

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Diagnostics*	40,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,090,000
Serology		500	500	500	500	500	500	500	3,500
TOTAL	40,000	150,500	150,500	150,500	150,500	150,500	150,500	150,500	

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

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

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
AFC Urgent Care (Northwest Phila)	Hospitals or clinical facility	Quest	30		African Americans, uninsured
AFC Urgent Care (Northern Liberties)	Hospitals or clinical facility	Quest	30		
Children's Hospital of Philadelphia (CHOP)	Hospitals or clinical facility	Internal	68		Children, uninsured, healthcare workers, essential workers

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
CVS Pharmacy (6701 Ridge Ave.)	Drug store or pharmacy	Commercial lab	50		
Delaware Valley Community Health - Fairmount Primary Care Center	Federally Qualified Health Center	Quest, LabCorp	25		Uninsured persons, African Americans
Delaware Valley Community Health - Fairmount Primary Care Center at Girard Medical Center	Federally Qualified Health Center	Quest, LabCorp	25		Persons in congregate living settings, persons experiencing homelessness
Delaware Valley Community Health - Maria de Los Santos Health Center	Federally Qualified Health Center	Quest, LabCorp	25		Undocumented immigrants, Spanish speaking persons, uninsured persons
Einstein Mayfair	Hospitals or clinical facility	Internal	20		

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Einstein Physicians Front and Olney	Hospitals or clinical facility	Internal	20		
Esperanza Health Center at Rock Ministries	Federally Qualified Health Center	Quest, LabCorp			Persons experiencing homelessness, Spanish speaking persons
Greater Philadelphia Health Action-Hunting Park Health Center	Federally Qualified Health Center	Quest, LabCorp	25		African Americans, uninsured persons, non-English speaking persons
Greater Philadelphia Health Action-Carl Moore Health Center	Federally Qualified Health Center	Quest, LabCorp	10		African Americans, uninsured persons
Hub of Hope	Federally Qualified Health Center	Quest, LabCorp			Persons experiencing homelessness
Jefferson - Center City	Hospitals or clinical facility	LabCorp, internal	150		Healthcare workers, uninsured

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Jefferson - Navy Yard	Hospitals or clinical facility	LabCorp, internal	50		Healthcare workers, uninsured
Nazareth/Trinity Health	Hospitals or clinical facility	Quest, LabCorp	40		Healthcare workers
Black Doctors COVID-19 Consortium	Community-based	Quest, LabCorp	50		
PDPH Health Centers (Health Center 2)	Federally Qualified Health Center	Philadelphia Public Health Laboratory, Quest, LabCorp	3		Uninsured, undocumented immigrants, Non-English speaking persons
PDPH Health Centers (Health Center 3)	Federally Qualified Health Center	Philadelphia Public Health Laboratory, Quest, LabCorp	10		
PDPH Health Centers (Health Center 4)	Federally Qualified Health Center	Philadelphia Public Health Laboratory, Quest, LabCorp			Uninsured, undocumented immigrants, Non-English speaking persons

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
PDPH Health Centers (Health Center 5)	Federally Qualified Health Center	Philadelphia Public Health Laboratory, Quest, LabCorp	4		Uninsured, undocumented immigrants, Non-English speaking persons
PDPH Health Centers (Health Center 6)	Federally Qualified Health Center	Philadelphia Public Health Laboratory, Quest, LabCorp	1		Uninsured, undocumented immigrants, Non-English speaking persons
PDPH Health Centers (Health Center 9)	Federally Qualified Health Center	Philadelphia Public Health Laboratory, Quest, LabCorp	3		Uninsured, undocumented immigrants, Non-English speaking persons
PDPH Health Centers (Health Center 10)	Federally Qualified Health Center	Philadelphia Public Health Laboratory, Quest, LabCorp	1		Uninsured, undocumented immigrants, Non-English speaking persons
PDPH Health Centers (Strawberry	Federally Qualified Health Center	Philadelphia Public Health Laboratory,	3		Uninsured, undocumented immigrants, Non-English speaking persons

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Mansion Health Center)		Quest, LabCorp			
Penn Presbyterian Medical Center	Hospitals or clinical facility	Quest, LabCorp, internal	200		Children (14 years or older), uninsured, African Americans, healthcare workers
Philadelphia FIGHT-Community Center at Visitation	Federally Qualified Health Center	Quest, LabCorp	20		Persons experiencing homelessness
PHMC - Congreso Health Center	Federally Qualified Health Center	Quest, LabCorp	12		Undocumented immigrants, Spanish speaking persons, uninsured persons
PHMC - Health Connection	Federally Qualified Health Center	Quest, LabCorp	12		Uninsured, African Americans
PHMC - Mary Howard Health Center	Federally Qualified Health Center	Quest, LabCorp	2		Persons experiencing homelessness, uninsured
PHMC - Rising Sun Health Center	Federally Qualified Health Center	Quest, LabCorp	2		Uninsured, undocumented immigrants, non-English speaking persons

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Project HOME- Stephen Klein Wellness Center	Federally Qualified Health Center	Quest, LabCorp	5		Persons experiencing homelessness
Rite Aid (Kensington)	Drug store or pharmacy	Quest, LabCorp	50		
Rite Aid (Northeast Philadelphia)	Drug store or pharmacy	Quest, LabCorp	50		Healthcare workers, uninsured persons, essential workers
Rite Aid (Olney)	Drug store or pharmacy	Quest, LabCorp	275		Healthcare workers, uninsured persons, essential workers
Rite Aid (Southwest Philadelphia)	Drug store or pharmacy	Quest, LabCorp	50		
Sayre Health Center	Federally Qualified Health Center	Quest, LabCorp	150		African Americans, uninsured
Spectrum Health Services	Federally Qualified Health Center	Quest, LabCorp	20		African Americans, uninsured
Temple Health - Jeanes Hospital	Hospitals or clinical facility	Internal	25		Healthcare workers, Uninsured

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Temple Health-Episcopal Hospital	Hospitals or clinical facility	Internal	15		Persons experiencing homelessness, uninsured, Spanish speaking persons
Temple University Hospital	Hospitals or clinical facility	Internal	15		Healthcare workers, uninsured persons
The Family Practice & Counseling Network (FPCN) (11th Street Family Health Services)	Federally Qualified Health Center	Quest, LabCorp	40		
The Family Practice & Counseling Network (FPCN) (Abbottsford Falls Family Practice & Counseling)	Federally Qualified Health Center	Quest, LabCorp	40		Uninsured, African Americans
The Family Practice &	Federally Qualified Health Center	Quest, LabCorp	40		

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Counseling Network (FPCN) (Health Annex)					
Tower Health Urgent Care (Philadelphia)	Hospitals or clinical facility				
Vybe Urgent Care (Fairmount)	Hospitals or clinical facility				
Vybe Urgent Care (Kensington)	Hospitals or clinical facility				
Vybe Urgent Care (Northeast Philadelphia)	Hospitals or clinical facility				
Vybe Urgent Care (Northwest Philadelphia)	Hospitals or clinical facility				
Vybe Urgent Care (South Philadelphia)	Hospitals or clinical facility				

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
Vybe Urgent Care (West Philadelphia)	Hospitals or clinical facility				
Philadelphia Department of Prisons	Other	BioReference			Prisons
Philadelphia long-term care facilities	Other				Elderly, nursing homes

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

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.

Throughout the duration of the COVID-19 response, the Philadelphia Department of Public Health (PDPH) has partnered with the Public Health Laboratory (PHL), Federally Qualified Health Centers (FQHCs), health systems, retail pharmacies, community organizations, skilled nursing facilities, and other congregate settings to expand testing capacity in Philadelphia. At the onset of the pandemic, PHL was operating instruments capable of testing patient specimens for SARS-CoV-2 (Abbott m2000, Cepheid GeneXpert, and Hologic's Panther) and has prioritized test validation to ensure all instruments are available to meet increasing needs. Fourteen Abbott ID Now instruments were received by PHL through Health and Human Services for deployment to selected facilities. Funding received through the ELC CARES grant also supported the purchase of reagents needed for testing and five Cepheid GeneXpert Xpress instruments to perform rapid point-of-care testing. PHL is purchasing a 2 -well Biofire Torch to replace the existing non-supported Film array for COVID testing. In addition, to further expand testing capacity on the Torch, 6 more modules were requested through the grant especially in situations where testing for multiple respiratory pathogens is warranted. Expanded testing capacity at PHL will be possible by utilizing funds for onboarding new staff, purchasing testing supplies, and procuring testing platforms as new technologies become available. PHL can also utilize its current contract with Quest to help support testing during periods of high volume. Contracts with smaller commercial laboratories are under consideration as demand for testing at the larger commercial laboratories exceeds current capacity. PDPH will also engage local Managed Care Organizations to understand how testing at these small laboratories can be covered by patients' insurance policies. Prior to the pandemic, PHL was operating an Abbott Architect for immunoassays. This platform was validated in June 2020 to perform SARS-COV-2 IgG antibody assays and will support current serological testing needs. To expand capacity PHL has also planned for the purchase of a Diasoran Liaison for SARS-CoV-2 IgG antibody detection. PHL has sought to fill two contract Medical Technologists positions dedicated to performing COVID-specific testing, a Rhapsody Interface and LIS Application consultants responsible for results reporting, a Program Coordinator to support administrative functions and a Lab Support Specialist to assist in Point-of-Care testing as well as clerical/data entry functions. An expanded workforce within PHL will directly impact testing capacity as more staff will be available to process and run patient samples. PHL is also considering the use of non-lab staff to handle clerical tasks (e.g. data entry) to free up a technologist to perform COVID-specific testing. PHL has expanded operating hours to include weekend shifts to support high-volume periods. Weekend operations are expected to continue as PHL onboards new staff members and will be critical in ensuring continual operations if local circulating virus levels surge. PDPH staff are working to identify methods to streamline inventory management and accommodate the increase in supplies needed for expanded SARS-CoV-2 testing. By utilizing specialized lab inventory management software, we aim to better manage inventory and backstock of reagents and specimen collection supplies to ensure Philadelphia is prepared for increased testing demand.

Further expansion of testing has been possible by supporting FQHCs in the procurement of testing instruments and supplies. In April 2020, PDPH entered into Memorandums of Agreement with eight

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

FQHCs to assist them in expanding their capacity to provide testing to underserved populations. These FQHCs are now operating a total of 16 testing sites across the city. In May 2020, PDPH began distributing Abbott ID Now point-of-care devices to FQHCs known for providing healthcare and other social services to vulnerable populations, including individuals experiencing homelessness. Staff within PDPH, including the PHL, will continue to partner with FQHCs to promote good testing practices and coordination of testing supplies for expanded testing availability. We have worked with FQHCs to leverage existing reporting mechanisms to streamline results reporting and have continued to work towards electronic reporting of patient-level demographic and clinical data. Additional FQHCs will be identified, with up to 10 sites receiving Abbott ID Now instruments and the necessary testing supplies.

Ensuring equitable and complete testing coverage across the city is a top priority for PDPH. We are working within established communication channels to promote testing of vulnerable and at-risk populations. Rapid response to all testing requests for individuals in congregate settings, including skilled nursing facilities, private personal care homes, and shelters have been prioritized when symptomatic individuals are identified. PDPH has provided the Philadelphia Prison System with an Abbott ID Now to aid in rapid identification of cases upon intake and in response to identification of symptomatic individuals. PDPH will continue to provide the Prison System with test kits over the next six months. If needed, PDPH would support molecular testing for symptomatic or exposed inmates as requested by the Prison. To work toward complete testing coverage in areas of the city where few healthcare options exist, PDPH has liaised with FQHCs and other community-based organizations to coordinate testing support. This support has been in the form of providing rapid point-of-care instruments, testing supplies, as well as PPE to allow for safe, consistent, and expanded testing service in all areas of the city. In May 2020, a COVID-19 Testing Manager was hired to oversee testing activities in collaboration with PHL and will continue to strengthen relationships with community partners. To better visualize testing coverage and identify areas of need, a public-facing testing map was created in May 2020. This map also provides detailed location and service information to promote testing availability. Planned updates to the website include language accessibility, information on pre-registration, and specific populations served (e.g. pediatric testing) to better inform the public as they make decisions on where to seek testing.

Understanding barriers to efficient testing will continue to occur through direct communication with community partners. PDPH has been brokering supplies for some testing sites based on testing volume and need and will continue to do so as long as supply chain difficulties continue. Several staff at PDPH and the Philadelphia Office of Emergency Management (OEM) are systematically searching for testing supplies, and PDPH has also partnered with the Pennsylvania Department of Health (PADOH) to acquire additional VTM, as well as federal assets. A survey was distributed in May 2020 to laboratories and testing sites to assess testing capacity and identify barriers to providing expanded testing services. The results of this survey are under review and will be used to identify areas of support. In June 2020, a Testing and Results Notification Assistant was brought on board to establish methods of cataloguing testing sites' available assets and help troubleshoot supply-chain difficulties. PDPH has also worked with individual sites to leverage established reporting channels and create new reporting mechanisms as needed to ensure efficient reporting.

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

In June 2020 PHL validated their IgG immunoassay and currently accepts specimens from the city-run health centers as well as internally prioritized congregate settings. As PHL rolls out this service, we will refine testing criteria and evaluate capacity for serologic testing in addition to RT-PCR testing. PDPH is exploring best practices for increasing serological testing. Serosurveys within congregate settings known to have experienced an outbreak are ongoing, including LTCFs and homeless shelters. To better understand the prevalence of SARS-CoV-2 in the general population, PDPH is planning to perform serological testing on de-identified serum collected during routine blood work in the city-run health centers. The STD Control Unit has also indicated support of including SARS-CoV-2 IgG testing with their routine syphilis screening bloodwork. As commercial labs are also offering COVID immunoassays, PDPH will work with FQHCs and skilled nursing facilities to understand barriers to offering this testing and offer potential solutions as necessary. It will also be critical for PDPH to develop clear messaging to patients that would accompany receipt of serologic results, and these documents are currently in development.

As social distancing measures are relaxed, PDPH will aggressively ramp up testing to support rapid identification of new cases, contact tracing, and implementation of isolation and quarantine. Implementation of rapid POC testing at FQHCs that serve vulnerable populations is a key component of this strategy as it will allow for immediate results notification and counseling. Rapid identification of cases will increase the speed with which contact tracing can be conducted. With a median incubation period of 4-5 days before symptom onset, early identification of COVID-19 cases will allow for earlier identification of and quarantining of contacts. Providing rapid testing within shelter settings, including two large intake shelters, is under consideration and PDPH is actively working with provider organizations to determine how this service can be implemented.

Rapid procurement of SARS-CoV-2 testing supplies has been a challenge for many jurisdictions, including Philadelphia. However, due to existing relationships with private companies as well as state and federal agencies, PDPH has maintained a mostly steady supply of reagents, test kits, and specimen collection materials. PDPH will continue to utilize staff who will work through existing channels to track down the necessary resources. We will also have staff dedicated to supply procurement and inventory management who proactively address potential shortages before supply levels decrease. To assist in this task through August 2020, we will identify potential lab inventory management software solutions or explore the possibility of developing an in-house database to accurately track inventory requests, deliveries, and orders. PDPH will also seek to develop new relationships with suppliers to maintain a variety of supply streams. PDPH has actively engaged with at least four suppliers with current stock to adequately meet our supply needs for swabs, VTM, and tubes over the next six months, and is working towards finalizing contracts.

Adequate staffing will be necessary to support expanded testing availability, both within PHL and office-based positions at PDPH. We have established relationships with local non-profit public health agencies

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

who are able to rapidly respond to staffing requests for contracted employees. Staffing needs were identified in June 2020, and position postings have been coordinated through the non-profits' Human Resources departments. Upon identification of qualified applicants, key PDPH staff will utilize a standard onboarding checklist and training modules stored within PDPH's Learning Management System. This will ensure new staff are efficiently brought up to speed and have the resources necessary to begin working on their assigned tasks.

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

Table #2: Planned expansion of testing driven by public health departments

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Number of additional* staff to meet planned testing levels	0	0	5	2	1	0	0	0	8
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)			6 Cepheid Xpert Xpress	1 BioFire Torch (comes with 2 additional modules), 6 modules for the BioFire Torch					0

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

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 ⁺⁺		25,000	25,000	25,000	25,000	25,000	25,000	25,000	175,000
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels ⁺⁺		50 L	50 L	50 L	50 L	50 L	50 L	50 L	0

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)		Abbott m2000 - 40 kits/month; Qiagen 10 kits/month	Abbott m2000 - 40 kits/month; Hologic's Panther - 60 kits/month; Cepheid Xpert Xpress 250 tests/month; Qiagen 10 kits/month	Abbott m2000 - 40 kits/month; Hologic's Panther - 60 kits/month; Cepheid Xpert Xpress 250 tests/month; BioFire Torch 10 kits/month; Qiagen 10 kits/month	Abbott m2000 - 40 kits/month; Hologic's Panther - 60 kits/month; Cepheid Xpert Xpress 250 tests/month; BioFire Torch 10 kits/month; Qiagen 10 kits/month	Abbott m2000 - 40 kits/month; Hologic's Panther - 60 kits/month; Cepheid Xpert Xpress 250 tests/month; BioFire Torch 10 kits/month; Qiagen 10 kits/month	Abbott m2000 - 40 kits/month; Hologic's Panther - 60 kits/month; Cepheid Xpert Xpress 250 tests/month; BioFire Torch 10 kits/month; Qiagen 10 kits/month	Abbott m2000 - 40 kits/month; Hologic's Panther - 60 kits/month; Cepheid Xpert Xpress 250 tests/month; BioFire Torch 10 kits/month; Qiagen 10 kits/month	
FOR SEROLOGIC TESTING									
Number of additional* equipment and devices to meet planned testing levels	0	0	0	0	0	0	0	0	0

ELC ENHANCING DETECTION: PHILADELPHIA TESTING PLAN

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)		Abbott IgG - 5 kits/month	Abbott IgG - 5 kits/month	Abbott IgG - 5 kits/month	Abbott IgG - 5 kits/month	Abbott IgG - 7 kits/month	Abbott IgG - 7 kits/month	Abbott IgG - 7 kits/month	

* 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.