2020 Overarching Jurisdictional SARS-COV-2 Testing Strategy

Jurisdiction:	Connecticut
Population Size:	3,565,000

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

The State of Connecticut has developed an adaptive, phased strategy to scale and implement testing to safeguard our community and fight COVID-19 in 4 phases. Each phase will coincide with our plans for progressive reopening of the state. Each phase has distinct goals and critical populations we aim to address as we ramp-up capacity. We will complement this widespread and ongoing COVID-19 RT-PCR testing with point prevalence testing in nursing homes, assisted living and other congregate settings.

The recent resurgence of COVID-19 in the southern and western states is of great concern. Shortages of test kits and reagents and personal protective equipment (PPE) have been reported. It is likely that these shortages will soon affect every state in the country and that the proposed testing metrics in this plan may need to be revised downward as a result.

On July 6, 2020, Governor Ned Lamont delayed Phase 3 of the state's reopening because of the resurgence of COVID-19 in other parts of the country. Governor Lamont has joined with the other tristate governors to invoke a regional travel advisory, which requires people traveling from high-risk areas to self-quarantine for 14 days. This week the Office of the Governor established a working group to review status of the testing and PPE supplies and to reexamine our testing priorities in anticipation of shortages. The CT State Public Health Laboratory (SPHL) estimates that it has enough supplies today for 30,000 RT-PCR tests. Since the SPHL has the capacity to do about 150 tests a day, the lab would be able to run about 4,500 tests per month for 7 months with existing supplies. Testing supplies are being assessed at the eight laboratories that under contract to provide RT-PCR for SARS-CoV-2 for the state.

Before July 1, 2020, the Connecticut Department of Public Health (CT DPH) received laboratory test results for PCR-based SARS-CoV-2 tests for 379,435 people. In June 2020, 193,792 Connecticut residents were tested for SARS-CoV-2 by RT-PCR, many more than minimum threshold of 2% of our population or 7,100 residents.

As of July 09, 2020, at 8:30 PM, the total of laboratory-confirmed and probable COVID-19 cases reported among Connecticut residents is 47,287, including 45,308 laboratory-confirmed and 1,979 probable cases. Seventy-seven patients are currently hospitalized with laboratory-confirmed COVID-19. There have been 4,347 COVID-19-associated deaths.

- Among 25,540 PCR tests for COVID-19 with specimen collection date in the past 7 days, 323 test results were positive. There were 221 people who tested positive for the first time or had onset of symptoms in the past 7 days. Of these 221 people, 213 (96%) cases were among people who reside in community settings and 8 (4%) were among people who reside in congregate settings, including nursing homes, assisted living facilities, or correctional facilities.
- Among 25,540 PCR tests for COVID-19 with specimen collection date in the past 7 days, 23,890 (94%) tests were conducted among people who did not reside in congregate settings (including nursing homes, assisted living, and correctional facilities). Of the 23,890 tests, 304 (1%) were positive.

The Nursing Home Point Prevalence Survey (PPS) Initiative began in early May. The initiative was designed to help contain outbreaks, and not to establish the burden of COVID-19 in nursing homes. For this initiative, nursing homes were urged to test all residents who had not previously tested positive for COVID-19. Of the 214 nursing homes in Connecticut, PPS data are available from 196 nursing homes, 1,733 (14%) of 12,336 residents tested were found to be COVID-19-positive. Most residents who tested positive did not have symptoms of COVID-19 disease at the time of testing. Since mid-June, the NH "Care Partners" have tested 19,262 nursing home staff and 6,475 residents (0.12% and 0.37% test positivity, respectively).

The Connecticut Department of Correction has completed the first round of mass testing of its staff and the offenders they supervise. Testing began on May 13, 2020 and concluded on June 25. With 9,504 offenders tested across 14 facilities, there were 832 positive results for an overall positive test rate of 9%. Not counting the Osborn facility, the overall percentage rate of offenders opting to be tested, was in the high 90's. All but two of the offenders who tested positive as part of the mass testing were asymptomatic. The remainder of the offenders who tested positive stayed asymptomatic throughout the 14-day isolation and monitoring period. The mass testing results do not include the 510 offenders who had previously contracted the virus before the start of the mass testing.

Recently, CDC provided the CT DPH with preliminary results from a seroprevalence project conducted in Connecticut using blood samples collected from 4/26 - 5/3, 2020. Overall, 4.94% (95% CI 3.61-6.52%) of the population was positive for antibodies, after age- and sex-standardizing to state census data and after accounting for the sensitivity and specificity of the CDC assay used.

TESTING STRATEGY

The State of Connecticut testing strategy is based on three guiding principles. These principles inform our goals by phase and allow corresponding focus populations for prioritized testing: 1) monitor transmission and safeguard the health of the community, 2) protect our vulnerable residents, and 3) inform better decision-making on ongoing reopen strategies and protocols.

PHASE 0 (MAY 1 – MAY 19, 2020)

- Target capacity: ~42,000 tests/week
- Goals: Test all symptomatic individuals
- Focus populations: All symptomatic individuals

PHASE 1 (MAY 20 - JUNE 16, 2020)

- Target capacity: Build to ~140,000 tests/week by June 20
- Goals: Goal from Phase 0, plus 1) Monitor transmission and safeguard the health of the community 2) Protect critical and vulnerable residents 3) Inform better decision-making on ongoing reopen strategies and protocols
- Focus populations (symptomatic & asymptomatic individuals): Populations from Phase 0, plus 1)

 Nursing home and Assisted Living Facility workers and residents 2) Corrections facility staff and incarcerated individuals 3) Members of high-risk communities through Federally-Qualified Health

 Centers, homeless shelters/lodgings 4) Health care workers 5) First responders

Phase 2 (June 17 – present)

- Target capacity: Build to 243,847 tests/week
- Goals: Goals from Phase 1, plus 1) Expand efforts to protect healthcare and other essential workers 2) Expand efforts to protect vulnerable populations
- Focus populations (symptomatic & asymptomatic individuals): Populations from Phase 1, plus 1) Expanded testing for nursing home & assisted living workers 2) Expanded testing for members of highrisk communities through Federally Qualified Health Centers, homeless shelters/lodgings

PHASE 3 (TO BE ANNOUNCED – ONWARD)

- Target capacity: 243,877 tests/week plus additional capacity for public educational institutions
- Goals: Goals from Phase 2, plus provide broad testing to enable full reopening and reduce the probability of future outbreaks
- Focus populations (symptomatic & asymptomatic individuals): Populations from Phase 2, plus 1) Expanded testing for health care workers, 2) Expanded testing for nursing home residents, 3) Expanded testing for incarcerated individuals, 4) Faculty, staff, students of state universities and schools, and 5) Expand community base testing by neighborhood (focus informed by Phase 1-2)

a. TESTING PLATFORMS AND VENUES

In Connecticut, diseases are reportable to both the DPH and Local Health Departments and Districts (LHDs) in a "dual reporting" system that is unique among states. LHDs in Connecticut currently have access to any reports of disease (except for HIV) and accompanying laboratory tests for persons living in their jurisdictions in the integrated surveillance systems based on Maven, i.e., CTEDSS (reportable diseases and conditions) and CTSITE (blood lead). These Maven systems allow for case management, identification of clusters of disease in the community, and outbreak follow up at an individual or facility level. The systems have the capacity to generate some data reports or line lists for immediate needs, but these systems are not intended to support more complex data analysis and visualization, nor be able to present data to all stakeholders. For the COVID-19 response, DPH and LHD staff are using CTEDSS to pull initial line lists of positive cases and to update cases with additional information.

As part of Unified Command, Connecticut has created a Testing Implementation Subgroup. This subgroup has created an online dashboard that includes daily updates on available testing capacity by laboratory as well as laboratory supplies and reagents. Testing across the state is orchestrated through a variety of venues to both ensure scalability and coverage in testing availability. Principally, Connecticut is partnering with six commercial and academic laboratories across the state to secure high-throughput capacity to test all required individuals by phase. All labs use high-throughput technology and will be able to process samples retrieved through NPS, OPS, or saliva-based methods (pending validation). Beyond this guaranteed capacity in state-coordinated venues, we continue to partner with our health systems and academic partners to ensure maximal testing coverage through their own in-house testing.

b. TESTING AT NON-TRADITIONAL LABORATORY SITES

To ensure testing coverage across the state, we are coordinating and promoting testing at a diversity of sites outside of the traditional healthcare and laboratory settings, including: pharmacies, federally-

qualified health centers (FQHCs), first responder outposts (i.e., fire stations), corrections facilities, nursing homes, assisted living facilities, alternative residential facilities for homeless individuals, and varied sites through mobile testing units (vans). The state's level of coordination and involvement at each of these sites depends on the existing footprint and capabilities. For example: At FQHCs, the state provides the sampling supplies (e.g., swabs and transport media), and samples are collected by FQHC staff. In select nursing homes or other residential facilities, the CT DPH and National Guard coordinate the supplies, along with the safe sampling and training of facility staff to ensure a sustainable model can be implemented.

The state has contracts with eight "Clinical Care Partners" that are providing sample collection services for nursing homes, assisted living facilities, and other congregate settings. This has replaced the need for the state to provide mobile testing units.

Of note, many of the National Guard soldiers will no longer be involved in the COVID-19 response by the end of July. The logistical support for testing that they have provided will be transferred to the CT DPH. This process has already led to the retirement of the two mobile testing units provided by the National Guard that used the Abbott ID NOW Rapid technology to provide point-of-care testing to under-served regions throughout the state.

c. STRATEGY FOR SEROLOGY TESTING

At the present time, serological testing is widely available in Connecticut through either hospital or commercial laboratories. Based on electronic laboratory reporting, there have been 51,591people who have had SARS-CoV-2 serological testing done in Connecticut. Of these, 22,204 people were tested in June.

Given concerns about the current generation of serology test, our focus has been on funding a statewide seroprevalence study for SARS-CoV-2 among adults aged 18 and older in Connecticut including specific seroprevalence among high risk subgroups. This public health practice activity is being conducted by the Yale School of Medicine and funded through the ELC Cooperative Agreement.

It is understanding that revisions to the CDC guidelines for the use of serology tests are being considered, including the use of these tests for low-risk public health decisions. If this occurs, we will expand the use of serology testing for public health purposes. We are particularly interested in serology testing for nursing home patients who have not previously tested positive using the RT-PCR test.

d. COMMUNICATION AND COLLABORATION AMONG THE BROAD TESTING COMMUNITY

As part of Unified Command and for every focus population listed above, we have established a dedicated testing workstream with single accountable leads from the State to coordinate with contractors, local providers, and non-government coordinators, who will be facilitating testing. Communications to the public regarding availability and guidance for testing will be developed from the Governor's office, in coordination with these stakeholders. We have further established a robust process and central data repository to collect information daily from the network of sample collection sites and test processing laboratories to ensure the statewide effort is coordinated and any bottlenecks are resolved. Our partners complete a required daily survey using a CT DPH portal, and all information is securely managed at the CT Emergency Operations Center by a dedicated team. In this way, we can support our partners with supplies or guidance, as needed to ensure testing is not interrupted.

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*	141,996	230,208	400,000	400,000	500,000	700,000	700,000	1,000,000	4,072,204
Serology	24,054	22,204	50,000	50,000	200,000	200,500	300,000	500,000	1,346,758
TOTAL	166,050	252,412	450,000	450,000	700,000	900,500	1,000,000	1,500,000	

^{*}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)
40 FQHCs state- wide	Federally Qualified Health Center	State- contracted commercial labs	4,300		Racial and ethnic minorities, persons experiencing homelessness
~215 nursing homes	Other	State- contracted commercial labs	4,000		The elderly; nursing homes
21 Corrections facilities	Other	State- contracted	1,300		Prisons; incarcerated individuals

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)
		commercial labs			
Hospital systems	Hospitals or clinical facility	Hospital / clinical labs, commercial labs	7,600	1,000	Racial and ethnic minorities, healthcare workers, persons experiencing homelessness
First responder sites	Community-based	State- contracted commercial labs	1,860		First responders
20 retail pharmacy sites	Commercial or private lab	Commercial labs	2,000		First responders, healthcare workers
111 Assisted Living Facilities	Other	Sate- contracted comercial labs	4,000		The elderly, other congregate living centers
Statewide seroprevalence survey conducted by Yale School of Medicine	Commercial or private lab		40,000	50,000	Includes representative sampling of racial and ethnic minorities and by age

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)
State PHL	Public health lab		1,000	1,000	Racial and ethnic minorities, persons experincing homelessness, elderly, prisons, first responders

2020 Direct Expansion of SARS-COV-2 Testing by Health Departments

2. Describe your public health department's direct impact on testing expansion in your jurisdiction.

The State of Connecticut strategy for expanding testing capacity is based enhancing the testing already being done at the Connecticut State Public Laboratory (SPHL) and enabling our local commercial partners to leverage existing infrastructure to scale and provide multiple redundant options for test execution.

The SPHL has consolidated all its personnel with molecular experience to respond a surge capacity resource to the SARS-CoV-2 molecular testing. Until mid-April, the SPHL provided COVID-19 PCR testing for all 30 of the acute care hospitals in Connecticut. Testing is being done 7 days a week with a turn-around-time between 24 and 48 hours. The SPHL plans to hire two (2) microbiologists and one (1) Public Health Laboratory Research Specialist using ELC funding.

Connecticut has engaged partners across the state to establish sampling sites with a broad geographic footprint to ensure access for all CT residents. For example, testing is available at more than 12 pharmacy locations, 20 FQHCs, 215 nursing homes, 20 correctional facilities, many local fire houses or other first responder outposts, and conventional testing locations across our health systems. The State of Connecticut has contracts with seven local commercial and academic laboratories throughout the state: The Jackson Laboratory, Yale Laboratories, Genesys Diagnostics, Sema4, Quest, Hartford Hospital, and the State PHL. Our other partner organizations, such as hospital, academic, and regional commercial labs serve as additional important sources of RT-PCR testing capacity. We will continue to encourage partners conducting local community outreach, such as community testing in churches, shelters, and other community sites to reach as many residents as possible.

A core priority of the state-wide testing strategy is to provide widespread access to testing for persons and populations at high risk for serious illness and death from COVI-19. As our testing capacity expands, we will ensure wider coverage and more frequent testing for individuals in these settings, including regular monitoring (~1x weekly) of health care workers and other staff in nursing homes, assisted living facilities, and correctional facilities and broader surveillance in some of Connecticut's hardest-hit and most vulnerable urban centers. Testing will be accomplished through a combination of state-facilitated initiatives in congregate settings, especially those that are licensed or operated by the state, together with widespread testing in high-risk communities and other congregate settings through FQHCs and community organizations.

We have developed a comprehensive issue identification and resolution framework and accompanying process to ensure roadblocks are removed such that both capacity and uptake of testing meet planned expectations. A single-point-accountable lead from the state has been identified for each step of the testing journey and is responsible for identifying and resolving issues to drive to this common goal. Daily mandatory surveys are completed by our sample collection site and lab partners to provide information about potential supply and capacity constraints, but also identify where capacity may be better utilized. These data are integrated with a central dashboard that allows the DPH and the State to assess several overarching metrics (such as time from symptom onset to result and contact tracing) to better understand effectiveness of our interventions.

The SPHL will purchase the Evolis (Bio-Rad) serology platform to implement seroprevalence testing. The State PHL intends to lead an effort to develop a neutralization assay for SARS-CoV2. This effort will be a partnership between the State PHL, industry, academia, and other stakeholders. The intent is to develop a neutralization assay protocol that can be shared and distributed to all State and Federal partners.

Connecticut will maintain broad testing surveillance among our most vulnerable populations, including regular, recurring testing of nursing homes, correctional institutions, and expanded sampling of asymptomatic and symptomatic individuals in high-risk communities and urban centers. To enable appropriate and timely intervention, testing will be complemented with surveillance, automated contact tracing, and self-quarantine and isolation guidance, supported by over 700 public health professionals and trained volunteers. Throughout the notification and contact tracing process, we will embed health and wellness examinations, to guide residents to community supports (such as safe housing, food, and family supports) that will enable individuals to safely self-isolate. In this way, Connecticut will ensure adequate testing to detect future outbreaks, and complement this surveillance with rapid action to prevent widespread transmission among our most vulnerable residents.

All estimates contained in Table #2 were generated with reference to state contracted lab capacities. If the labs fail to meet their contracted targets by 20%, these estimates approximate what the state would need to procure to resolve those capability gaps. These estimates do not reflect the procurement needs of the state if the labs successfully meet their contracted capacities, nor do the estimates reflect the procurement needs if the labs fail to meet their demands by 100%. As a drafted template however, these estimates can be used to generate those figures.

Personnel expansion is based upon a minimum requirement of 5 personnel certified to run real-time reverse transcriptase PCR procedures for the qualitative detection of SARS-CoV2 from assorted respiratory samples. The overarching CT testing strategy primarily depends upon high throughput laboratory workflows to meet increasing testing demand thresholds per month. The average PCR workflow used in the biopharmaceutical laboratories contracted by the state possesses a structural organization that is multi-step and separated into distinct locations. At a minimum, there are three stations through which samples are moved in a unidirectional flow: reagent preparation, sample preparation, and amplification/analysis. Due to the numerous risks of cross-contamination posed in each one of these stations, it is necessary that they maintain both dedicated equipment and dedicated staffing. As testing demands increase each month, so does the volume of incoming samples into these labs, creating a workload bottleneck in receipt and processing tasks throughout. As a result, the 5 personnel accounts for the need for additional staffing in each of these 3 stations with placement of the final 2 personnel subject to structural variations that each of the contracted labs may possess. The numbers that appear in row 8 were calculated using this baseline 5-personnel requirement multiplied by 6, which is the current quantity of the state's largest contracted labs (Yale, Genesys, Quest, Sema4, Jackson Labs, Hartford Health Care) to result in 30, with 60 reflecting each lab receiving two 5-personnel units.

Equipment expansion estimates are subject to a typical RT-PCR workflow, where the rate limiting equipment includes the nucleic acid extractor and the PCR analyzer, referencing common Thermo Fisher models utilized by our labs. Figures that appear in row 9 were calculated to address the need for this equipment exclusively, where for every additional extractor that is procured so is another analyzer. This was decided for two reasons: 1.) the extractor and the analyzer were identified as the rate-limiting

instruments; 2.) the extractor and the analyzer are high-value. Laboratory inventories will typically include over 50 line-items, and though most of these items are consumable, there are still a handful of large pieces of equipment that are needed to perform the procedure. Unlike the extractor and the analyzer, these pieces of equipment are not rate-limiting because they receive limited volume in the workflow and are subject to limited automation. This is also why we propose that the extractor and analyzer be procured together; if only one were procured, then the workflow would remain unaffected as samples would stack at the opposite machine. By procuring 1 of each at any given time, that lab has effectively doubled its capacity limit.

Reagent estimates are based on the Thermo Fisher TaqPath Combo kit, which includes enough primers, probes, and controls to run 1000 reactions. The Thermo Fisher MVPII nucleic acid extraction kit is also included in these estimates, and since these kits are each sufficient to run 2000 reactions, the ratio of needed reagents is 1: 2

Serology equipment estimates reference the ELISA plate reader and the ELISA plate washer as the rate-limiting equipment for the serology diagnostic workflow, using the BioTek model. Like the extractor and analyzer of the PCR workflow, these instruments are automated devices that rely on a strict allotment of time to perform its functions rather than personnel to amplify its usage.

Serology reagent estimates consider the four reagents needed to perform a standard ELISA immunoassay. For the ELISA TMB, the referenced product is the 1-Step™ Ultra TMB-ELISA Substrate Solution (250 mL). For the ELISA Stop solution, this estimate uses a hydrochloric acid solution (1000 mL). For the spike antigen and HRP (Horseradish Peroxidase) reagents, this estimate uses a vial of 1 mL each, which are the standard packaged quantities for purchasing.

Approved lab participants have initiated saliva sample validation studies with the intent to introduce a supplementary category of sample collection material into the state supply chain that is unaffected by constrained supplies of swabs and VTM vials. If this alternate sample collection method can be extended into the overall CT testing strategy, then responding agencies can be afforded greater freedom to modify their sample collection practices according to the needs of the state and the limitations imposed by applicable focus populations. In such circumstances, it is reasonable to anticipate that there will be facilities where a lack of qualified staffing to perform swabbing or blood collection will impede a lab's ability to meet contracted test capacities. In these cases, instituting saliva collection devices (such as the DNA Genotek OMNIGene OM505 Saliva Collection device which is the current model being validated) will abolish any requirement for skilled patient administration personnel. Additionally, unused OM505 saliva collection devices can be stored at room temperature with a shelf-life of 24 months, which far exceeds the shelf-life of some commonly procured VTMs.

A partnership between the State PHL, industry and academia has been initiated to explore the possibility of sample pooling. This strategy could be employed in populations where the expected prevalence of the virus is 5% or less. CT has approximately 150K college age students that attend school in the State. Pooling could be effective in this population, the results of which would preserve testing capacity for other populations.

Yale and the CT PHL are working on extractionless sample preparation techniques for PCR sample preparation. This extractionless method will reduce the cost of PCR analysis and not have an effect on limit of detection.

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	60	0	0	60	0	0	30	150
				FOR DIAGNO	STIC 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	6	6	0	6	6	0	0	24

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**	50,000	379,500	761,900	767,100	1,268,400	1,368,400	1,368,400	1,412,600	7,376,300
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels**	50,000	200,000	761,900	767,100	1,268,400	1,368,400	1,368,400	1,412,600	7,196,800

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 - Thermofish er)	0	380 - Thermofish er (tpCombo) 190 - TF MVPII	762 - Thermofish er (tpCombo) 381 - TF MVPII	768 - Thermofish er (tpCombo) 384 - TF MVPII	1269 - Thermofish er (tpCombo) 635 - TF MVPII	1369 - Thermofish er (tpCombo) 685 - TF MVPII	1369 - Thermofish er (tpCombo) 685 - TF MVPII	1413 - Thermofish er (tpCombo) 707 - TF MVPII	7380 - Thermofish er (tpCombo) 3667 - TF MVPII
				FOR SEROLO	GIC TESTING				
Number of additional* equipment and devices to meet planned testing levels	0	10	10	0	0	0	0	0	20

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 - Thermofish er)	0	50 kits per day (1 x ELISA Stop 3 x ELISA TMB 118 x HRP 118 x Spike Antigen)	1 x ELISA Stop 3 x ELISA TMB 127 x HRP 127 x Spike Antigen	1 x ELISA Stop 3 x ELISA TMB 76 x HRP 76 x Spike Antigen	1 x ELISA Stop 3 x ELISA TMB 121 x HRP 121 x Spike Antigen	1 x ELISA Stop 3 x ELISA TMB 121 x HRP 121 x Spike Antigen	1 x ELISA Stop 3 x ELISA TMB 121 x HRP 121 x Spike Antigen	1 x ELISA Stop 3 x ELISA TMB 127 x HRP 127 x Spike Antigen	7 x ELISA Stop 21 x ELISA TMB 811 x HRP 811 x Spike Antigen

^{*} 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.