

ELC ENHANCING DETECTION: NEW JERSEY TESTING PLAN

2020 Overarching Jurisdictional SARS-COV-2 Testing Strategy

Jurisdiction:	New Jersey
Population Size:	8,882,190

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

The goals of New Jersey’s testing program revolve around saving lives, ensuring safety, continuing vigilance, and maintaining commitment to readiness as part of The Road Back to re-opening society and the economy. To accomplish these goals, the DOH is dedicated to creating a robust foundation that supports testing, contact tracing, and safe places for isolation and quarantine.

Presently, New Jersey’s testing throughput has been on pace for 500K+ tests per month or 5%+ of the state’s population per month. A high-level estimate for testing potentially required across the population is ~1M-2.5M tests per month, depending on a number of factors including understanding community prevalence, evolving scientific evidence on re-testing, and the growth of innovation in serological tests. This estimate reflects New Jersey’s testing approach, which consists of specific strategies for different subpopulations, understanding the higher burden that the State has faced. These strategies were in turn informed by guidance from the White House, the CDC, and NJDOH Communicable Disease Service (CDS). The strategy prioritizes vulnerable population groups (including long-term care, correctional facilities, behavioral health homes, migrant populations, etc.), frontline populations (including healthcare workers, essential workers, etc.), and the general population (starting with symptomatic, extending to asymptomatic contacts, and other asymptomatic persons presenting for voluntary testing). New Jersey has taken actions such as Executive Orders (e.g., for long-term care) and standing orders (for the general public) to promote testing across these various populations.

1a) To achieve our monthly testing goals, the State will require a daily testing throughput of up to 50,000-70,000 tests / day at steady state. To accomplish this, the State is making investments to expand capacity in local laboratories, investing in new equipment for the public health laboratory, and securing capacity with large, national laboratories. For example, the State is finalizing a \$6M investment in scaling Rutgers University’s breakthrough saliva testing capacity to 50,000 tests / day. In May, the public health laboratory is installing its first Hologic Panther system which will give the lab greater capacity (up to 1,000 tests / day). At the same time, the state of New Jersey is also creating master contracts with large laboratories (BioReference, Quest, LabCorp) to secure capacity for the State. The State has also identified machines currently not used for clinical testing representing ~50,000 tests / day, along with a plan for utilizing them if the need arises.

1b) New Jersey plans to use non-traditional laboratory sites extensively for both vulnerable populations and the general population. For vulnerable populations, the specific testing location will vary. For instance, those in long-term care facilities or congregate living situations (e.g., nursing homes, prisons, psychiatric hospitals, group homes), will receive testing on site on a weekly basis, whenever possible.

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For vulnerable populations that are not facility based (e.g., inner-city populations, migrant/seasonal farm workers, persons experiencing homelessness), the approach is to provide both fixed and mobile testing sites to serve them where they are. In particular, Federally Qualified Health Centers (FQHCs) who already work with many of these vulnerable groups and have established relationships, will play a key role in community outreach, testing, and connecting people to services. Other examples include testing sites at homeless shelters for that population, as well as mobile test sites at settlements, fields, and farms for migrant workers.

For the broader general population, testing will be steadily made available through multiple ways beyond the 30+ County-run sites that are currently available. First, the State will focus on making additional testing available through community center-based and mobile test sites. The State is imminently entering into a contract with an end-to-end testing vendor to establish 12 additional testing sites within our largest cities, with potential to quickly scale capacity as need arises. These testing locations will allow easy access to those who live in the neighborhood or frequent these locations for services. Second, the State is working with our private sector to utilize their footprint to increase testing sites. Partnerships with Walmart, Rite Aid, and CVS have already been established, and the State expects to see 100+ more sites open through urgent cares, pharmacies, and other retail locations. Lastly, the State will work to increase home self-sampling for both diagnostic and serological testing. As these new innovations are developed and perfected, they may serve as a critical tool to further enable testing of our State's 9 million residents.

1c) CDS continues to evaluate evolving information regarding the utility of serology testing for public health surveillance activities. CDS's Communicable Disease Reporting and Surveillance System (CDRSS) is set up to receive positive and negative serology results. While there are limitations to these data, evaluation of the data could help inform planning for how to use serology more broadly in the future. CDS will explore possible options to include:

- Serology assessment of results being performed and reported to CDRSS
- Testing expansion at some county sites to include serology tests to obtain random samples of additional seroprevalence (e.g., existing Hudson County model)

PHEL is coordinating the implementation of both manual and automated serology testing. This effort is part of an implementation strategy for integrating serologic, molecular and lateral flow technologies. Manual testing is intended to evaluate new antibody sources, novel equipment or new molecular techniques and probes. The automated platforms are intended to provide sufficient testing capabilities to support targeted surveillance efforts in multiple vulnerable populations, in near real time, to gain a better understanding of 1) the balance between infection and immunity in multiple vulnerable populations, 2) how to prioritize testing for these populations in near real time, and 3) how to derive data on the use of Lateral flow technologies as a component of a comprehensive model of laboratory testing.

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1d) For coordination and communication, the DOH has established a testing taskforce comprised of our State's public health experts, policy makers, and leads from departments who care for vulnerable populations. The taskforce meets multiple times a week to make sure best practices, new innovations, and operational plans are shared across departments to ensure seamless execution and to address challenges as they arise. Guidance from the DOH has informed the testing implementation plans created by each group or coalition of groups responsible for leading testing for the sub-population. In addition to the Task Force, the DOH has also established recurring meetings that bring in the States' county/city elected officials, local public health officers, and local Offices of Emergency Management to focus on tailoring strategies and guidance to community-specific needs. These groups can communicate needs for supplies or other support through either these standing meetings or an internal online portal set up to support testing.

The NJ Communicable Disease Service (CDS) has also created (and continues to evolve) evidence-based guidelines for different population groups to inform testing strategy, re-testing strategy, infection control guidelines, and more. This information is actively communicated to the relevant groups (e.g., professional associations, private employers, trade groups) to ensure they understand and stay up to date with the latest developments in testing. Also, CDS's Communicable Disease Reporting and Surveillance System (CDRSS) is set up to receive positive and negative serology results, and while there are limitations to these data, evaluation of the data could help inform planning for how to use serology more broadly in the future. CDS will explore possible options to include:

- Serology assessment of results being performed and reported to CDRSS
- Testing expansion at some county sites to include serology tests to obtain random samples of additional seroprevalence. (e.g., existing Hudson County model)

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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*	~400,000	~750,000	1,000,000	1,500,000	2,000,000	2,000,000	2,000,000	2,000,000	10,500,000
Serology	600	600	600	600	600	600	600	600	4,800
TOTAL	600	600	1,000,600	1,500,600	2,000,600	2,000,600	2,000,600	2,000,600	

*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)
FQHCs	Federally Qualified Health Center	LabCorp	6,650	300	Homeless; Urban / racial and ethnic minorities; migrant workers (four FQHCs)
LTCs	Hospitals or clinical facility	Varied (75% are AcuLab)	22,963	300	Elderly, nursing homes, congregate living
IDD - facilities	Hospitals or clinical facility	Varied	580	Unknown	Congregate living, disabled
IDD - group homes	Community-based	Varied	2,850	Unknown	Congregate living, disabled
Group homes - mental health	Community-based	Varied	163	Unknown	Congregate living, disabled

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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)
Psychiatric hospitals	Hospitals or clinical facility	Quest	710	Unknown	Congregate living, disabled
Veterans homes	Hospitals or clinical facility	VA lab	155	Unknown	Elderly, nursing homes, congregate living
Correctional/juvenile centers	Other	Accurate Diagnostics	2,726	50	Correctional population, congregate living
DCF	Community-based	Varied	105	Unknown	Congregate living
Major labs	Commercial or private lab	Varied	83,000	Unknown	
NJPHEL	Public health lab	PHEL	10,000	Unknown	
Retail sites (Rite Aid, Walmart, CVS)	Drug store or pharmacy	BioReference (Rite Aid), Quest (Walmart)	6,000	0	
Hospital systems	Hospitals or clinical facility	Varied	1,350	1,000	
Physicians offices	Hospitals or clinical facility	Varied	2,600	3,700	
Urgent care centers	Hospitals or clinical facility	Varied	1,730	900	

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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)
County sites and other drive-thru centers	Drive-thru testing site	Varied	5,700	200	Essential workers
Home-testing (saliva)	Other	Accurate Diagnostics	10,000	0	Essential workers

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

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

2a) The DOH has a multi-pronged strategy for testing across the State of New Jersey. These strategies are operationalized through a variety of mechanisms:

- i. Increasing capacity in public health labs: Increase on-site molecular and serologic testing capacity in support of testing programs for vulnerable populations, uninsured individuals and public employees. Following the implementation of multiple testing platforms (3 Panther, 2 Thermo-Fisher, 2 automated serologic platforms), we aim to have the capacity to perform 5,000 molecular tests per day and up to 2,600 serologic tests per day. Part of this capacity will also include provision for multiplex testing for simultaneous detection of Influenza A/B and other respiratory viruses in addition to Sars-CoV-2. We plan to also develop mobile testing capacity; A total of 6 pre-configured mobile Public Health vans (three for testing utilizing point of care molecular, serologic and, if appropriate, antigen-based tests and one for deploying clinical/specimen collection teams) will be implemented. This will provide for a broad range, scope, and depth of rapid emergency response & targeted surveillance/testing capability for at risk populations and under privileged communities.
- ii. Partnerships: The State has established or is currently pursuing partnerships with a range of private and public sector organizations across a series of testing-related activities.

For sample collection, the State has been collaborating with hospital systems such as Cooper University Health and Hackensack Meridian Health to ensure Long Term Care facilities are tested and are continuing to identify and expand such partnerships. We have partnered with Salem Medical Center for the testing and care of migrant workers in the more rural parts of the State. The State is also imminently signing a contract with a vendor to procure 12 or more testing sites in the State's urban areas. We continue to collaborate with pharmacies, urgent cares, and large retailers to expand testing access points.

We are also collaborating with Rutgers University on an enhanced serology surveillance project. Plan is to sample residents and staff at approximately 12 long-term care facilities scattered through the state and representing a variety of facility types. A total of ~6000 specimens would be collected by Rutgers and analyzed by the State public health lab. We expect this project to be completed in calendar year 2020, and results will help clarify the impact that COVID-19 had on these facilities and should help guide recommendations around infection control going forward.

From a lab standpoint, the State is imminently signing a \$6M contract with Rutgers to rapidly expand their saliva tests across the State – to the expectation of 50,000 tests / day. The State is also working with labs contracted by private entities such as long-term care facilities to ensure that there is enough

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capacity to meet expanded needs, particularly in the setting of an executive order mandating testing in LTCs – many of the larger labs have already assured they will be able to tap into their national network as needed. We will also enhance regional testing capacity through administration of grants to hospital clinical laboratories to increase current combined hospital laboratory molecular testing capacity to support testing for inpatients, affiliated/regional LTCFs, surgical centers and others. We expect the combined capacity to provide approximately 30,000 molecular tests/day as well as development and implementation of serologic and antigen-based testing where appropriate. From a logistics perspective, the State is embarking on a \$20M partnership with Uber Freight to help manage logistics and provide point-to-point shipping services related to supplies deemed critical to the crisis response.

2b) The State has identified 15+ (evolving over time) groups that have been identified as particularly vulnerable or needing direct support or guidance to ensure appropriate testing. These groups cumulatively account for over 1 million residents in the State of New Jersey. The residents and staff of congregate living facilities (e.g., long-term care, group homes, Veterans homes, psychiatric hospitals, jails and prisons), as well as some non-facility based groups (e.g., uninsured individuals, state employees, migrant workers, urban populations, persons experiencing homelessness, frontline workers) were identified to be at higher risk of adverse outcomes and transmission. The support from the State extends from supplies, personnel and programmatic help for testing, the availability of isolation facilities post-testing, and scientific guidance for best practices. Some examples are below (non-exhaustive):

i. LTCs: The residents and staff at long-term care facilities were identified early as a particularly vulnerable group. The mortality rate is high among residents of LTCs given the pre-existing risk factors such as age, and comorbidities, as well as the congregate living situation. The State has mandated testing in all LTCs for both residents and staff and is supporting the LTCs with swabs, testing kits, and PPE as needed. The State has also provided guidance on actions associated with weekly retesting to prevent future outbreaks. There is a task force dedicated to LTC testing which monitors the situation on a daily basis and responds to any evolving needs.

ii. State institutions including those with IDD and psychiatric hospitals: Near universal testing has occurred in these settings. The DOH is closely coordinating with individual departments to support with testing kits, PPE, and staffing as needed. Other group living situations such as Veterans homes have been tested in partnership with other public sector entities such as the VA and the National guard. The DOH has provided guidance on weekly retesting to prevent future outbreaks.

iii. State correctional facilities: Corrections are well on their way towards completing universal testing of their inmates, starting by prioritizing those that were symptomatic, about to be paroled, etc. Staff at correctional facilities are also being offered testing using the novel saliva method. The DOH has provided guidance on weekly retesting to prevent future outbreaks.

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iv. Migrant workers: A multi-department collaboration, including representatives from the DOH, Labor, and Agriculture, was created to improve testing, contact tracing and isolation / quarantine in the migrant worker population of New Jersey. The State is leveraging existing relationships FQHCs to test all migrant workers and are reviewing a proposal from Salem Hospital to provide mobile testing capacities. Furthermore, the DOH has also been regularly meeting with the various growers' associations and other stakeholders to make sure their insight and concerns are integrated. The State has made provisions for safe isolation / quarantine facilities if COVID-19 positive migrant workers need it.

v. Persons experiencing homelessness (PEH): The State is utilizing a variety of approaches to reach this population. This includes scaling up testing capacity in homeless shelters and FQHCs that have been identified as working with the PEH population, engaging an end-to-end vendor to provide pop-up sites in 6 cities with a focus on areas with unstable housing, and using existing mobile vans etc. in the department for testing (e.g., from HIV or harm reduction programs). Multiple shelters in the state have been turned into COVID-19 only shelters where those experiencing homelessness are safety able to isolate / quarantine. Additionally, hotels and dorms have been earmarked for providing services for these individuals.

vi. Urban populations including racial and ethnic minorities: In addition to the 17+ FQHCs that were flagged as serving underserved groups in urban centers, an end-to-end testing vendor is being contracted to focus on this population. The testing vendor will set up 2 sites each in 6 large urban cities (Newark, Paterson, Trenton, Camden, Atlantic City, Elizabeth), with walk-in access to provide convenience and cater to those without access to a personal vehicle. Partnerships with retail sites (e.g., pharmacies) will further support geographic coverage.

2c) The State is strategizing for testing for both supply and demand considerations. On the supply side, the State is focused on quickly identifying and resolving barriers through:

- i. Established two-way communication channels between the State and stakeholders in the testing ecosystem;
- ii. Recurring collaborative taskforce and multi-stakeholder coordination meetings;
- iii. Clear accountability for each step of the end-to-end process; and
- iv. Increased and near real-time data visibility.

In particular, data and reporting for each major step in the testing process are being strengthened, including but not limited to warehouse inventory quantity and quality, turnaround time delivery, testing site requests for demand, testing site sample collection throughput, and test result reporting. Regular review of operational metrics by accountable leaders will enable rapid problem-solving.

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On the demand side, the State will be coordinating multifaceted awareness campaigns that ensure the population understands the importance of testing and where they can go to get tested. These start with the Governor's press conferences announcing critical updates, traditional and social media campaigns, all the way to grassroots efforts that amplify the message. In particular, emphasis will be placed on engaging community and faith-based leaders to mobilize their neighborhoods and lead by example. In addition, targeted communication is crafted for specific subgroup by individuals / departments with experience working with these groups (e.g., Department of Minority and Multicultural Health and migrant workers).

2d) Serologic testing is seen as a component of a comprehensive model for Public Health laboratory testing which includes Lateral Flow, ELISA, PCR, Sequencing and advanced information management. Manual serologic testing will be reserved for cross validation or verification of novel methods/material currently available as either RUO or under an existing FDA EUA. Automated testing on the two existing (enhanced with incubators) DSX2 platforms will set the stage for higher volume testing utilizing the Dynex Agility platforms. In conjunction with this additional volume of serologic testing will be realized with simultaneous implementation of the bioMerieux test running on the Vidas 30 testing platforms.

2e) Testing is only one element of a broad-based plan to prevent, identify, trace, and isolate COVID-19 cases in order to keep NJ communities safe. Prevention measures include continued social distancing measures with phased re-opening only as epidemiological and health system readiness trends remain stable. Even as the state begins to reopen and people return to work and resume other activities, structural changes will be implemented to reduce person-to-person transmission. These measures may include lower density workspaces, staggered start and break/lunch times, continued policies to permit work from home to the greatest extent possible, physical barriers, universal masking, and more.

Once testing identifies a positive case, the local and state public health department will follow-up to perform contact tracing and ensure safe isolation in the home or a publicly provided shelter for isolation. There is significant effort underway to strengthen both contact tracing and safe spaces for isolation. The State currently has ~900 contact tracers and plans to ramp up to 2,000 or more within the next few weeks. It has entered into a contract with CommCare for a contact tracing platform, but may continue to explore additional partnerships to expand contact tracing capabilities. From a safe space perspective, the State estimates it will need to hold up to 5,000 beds to accommodate COVID-19 positive patients who do not have a safe space to isolate.

The NJDOH Communicable Disease Service has a robust influenza and viral respiratory disease surveillance program which will be leveraged directly for COVID-19 response and modified to meet the evolving needs of the response. Data from community partners, such as retail testing sites and contracted vendors will also be used for surveillance.

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2f) For large-scale hiring that needs to occur, the state is working with staffing agencies to assist with screening and hiring qualified individuals within the state of NJ. We are working with implementing partners and academic centers to build standardized training modules to quickly onboard new staff. These longer-term staffing positions will gradually replace the short-term staffing solutions currently in place (volunteers, National Guard, etc.) In addition, the state will leverage the public exigency waiver process permitted pursuant to N.J.S.A. 52:34-10(b) and State Circular Letter 18-14-DPP. This process will allow for expedited procurement of critical goods and services to support the enhancement of the State's public health infrastructure, testing, and contact tracing efforts. In addition, N.J.S.A. 52:34-10(a) grants the State the authority to utilize federal General Services Administration (GSA) price schedules as the basis for a State contract. This streamlined process reduces the length of the procurement lifecycle and allows for the State to leverage the economies of scale provided through federal pricing.

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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	1,661	726	1,453	1,453	0	0	0	0	5,293
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)	1	1	2	0	0	0	0	0	4

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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 ⁺⁺	185,000	435,000	935,000	1,435,000	1,435,000	1,435,000	1,435,000	1,435,000	8,730,000
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels ⁺⁺	185,000	435,000	935,000	1,435,000	1,435,000	1,435,000	1,435,000	1,435,000	8,730,000

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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)	1000	2000	5000	5000	5000	5000	5000	5000	33000
FOR SEROLOGIC TESTING									
Number of additional* equipment and devices to meet planned testing levels	0	1	1	0	0	0	0	0	2

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Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)	0	600	600	600	600	600	600	600	4200

* 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.