

# ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

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

Jurisdiction:	Illinois
Population Size:	12,671,821

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

The Illinois Department of Public Health (IDPH) is involved in all aspects of testing expansion, in partnership with local governments, agencies, hospitals, and private labs. The State's goal of expanding testing significantly by the end of September 2020 will be achieved by:

- Maintaining more than 20,000 tests per day (16,500 private labs and hospitals and 3,500 from enhanced IDPH labs). IDPH labs substantially increased capacity in April 2020 by adding 5 x King Fisher extraction units, 6x EP Motion liquid handlers, feeding 18 x Thermo Fisher DX PCR instruments.. IDPH will continue to provide production level specimen processing, engage hospital and private laboratory partners and play a coordinating role to enable allocation of supplies.
- Adding 10,000-20,000 tests per day increase from hospitals partners who already possess testing equipment that has not been able to be used yet, by assisting with supplies for Hologic and Cepheid processes that have been idled by a persistent lack of equipment specific pipettes and assays.. This supply is anticipated to come from a combination of the federal government and the manufacturer's prioritization of Illinois' laboratories. These machines are ready to be used and only require the needed supplies to be put into action.
- Adding 5,000 tests per day increase through new public/private collection with local government partners including the City of Chicago
- Maximizing additional lab capacity (50,000+ tests a day). The State is exploring partnerships with several labs and hospitals to fully utilize all potential capacity for COVID-19 testing. These discussions are focused on leveraging all available capacity into action through directing specimens to available labs. The State will also explore potential incentives or loan structures needed to add additional equipment capacity if the private market does not scale to sufficiently provide necessary capacity. We believe there is additional existing capacity in Illinois that can be quickly brought on line if a regular flow of specimens can be guaranteed to reach it and we will be testing that proposition over the next 3-4 weeks.

Currently, much of the existing specimen collection is being provided by the private labs, hospitals and other organizations, in addition to the State-run locations, with support of the CDC, National Guard and pharmacies/retailers. Specimen collection needs to be expanded as testing capacity increases and as supplies of swabs, PPE, VTM, reagent become more available. The state plans a two-part approach:

- Part One - direct mobile, facility, and community testing: The State of Illinois has created 10 drive through testing facilities for all Illinois residents and paired these facilities with transportation, lab, and Expansion of temporary drive-through locations and targeted "facility" teams that can mobilize to impacted facilities or outbreak sites (LTCs, correctional facilities, etc) is planned through a private

## ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

vendor contract, with an RFP expected to issue in the first week of June. IDPH will continue to perform a coordinating role connecting specimen collection to available lab capacity. It is anticipated that a private vendor(s) will also assume operation of existing drive-through testing sites as National Guard cycles off its mission in mid-August. This private vendor capacity will allow the State to deploy teams quickly to test/trace/isolate outbreaks as they happen. Vulnerable populations (e.g. Long-term care facilities, essential workers, first responders, and others) can be tested in response to outbreaks in their ranks. As more capacity comes online, target populations can be tested preventitively through a risk/vulnerability/equity lens to discover and surppress outbreaks before they grow. The long-term goal of the system is to incorporate real-time, and then predictive modelling, to test in advance of outbreaks.

- Part Two - The State is working with partners in pharmacies, FQHCs, and other local care delivery to pair front-line testing capacity with back-end lab capacity. This includes "pairing" larger lab testing capacity hospital systems with frontline specimen collection resources, community hospitals, and others that lack back-end lab capacity, as well as facilitating the commercial relationships between commercial labs and frontline resources looking to increase testing.

There are currently over 4,000 serology tests done per day in Illinois. The State is closely monitoring serology testing technology for accuracy and potential for false positives. The State will continue to closely watch the development of serology, antigen, and group-based testing technology. As these technologies become more accurate and precise, the State will review potentially rolling them out through the State's direct testing.

The State is in near-constant communication with our laboratory and testing partners. We provide key supplies to hospital testing partners and the State's direct testing throughout Illinois, including swabs, transport media, and other supplies. We plan to continue these efforts into the future until our supply chains fully stablize for these critical items. We continue to do weekly and bi-weekly calls with critical hospitals, commercial labs, lab equipment, and other manufacturers to find out and head off problems before they start.

## ELC ENHANCING DETECTION: ILLINOIS 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*	600,000	900,000							1,500,000
Serology									0
TOTAL	600,000	900,000	0	0	0	0	0	0	

**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 throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
IDPH Laboratories	Public health lab		5000			All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.

## ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
NorthShore Labs	Hospitals or clinical facility		2000			All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
Reditus	Commercial or private lab		5000			All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.

## ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Carle Foundation	Hospitals or clinical facility		2000			All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
AbbVie	Commercial or private lab		1000			All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.

## ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
University of IL Chicago	Hospitals or clinical facility		1500			All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
Anderson Hospital	Hospitals or clinical facility		500			All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.

## ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Northwestern Medical	Hospitals or clinical facility		1000			All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
University of Chicago	Hospitals or clinical facility		2000			All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.

## ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Additional Commercial Lab partners	Commercial or private lab		100,000			All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.

# ELC ENHANCING DETECTION: ILLINOIS 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.

Illinois 2020 Direct Expansion of SARS-COV-2 Testing by Health Departments (tab 2 narrative)

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

Beyond prioritization and best utilization of existing state, commercial and hospital laboratory partners, Illinois is working with labs to match new mobile specimen collection resources with lab capacity. As mentioned in #1, Illinois operates 10 drive-through centers, and is currently engaged in and RFP for 12 additional mobile teams. As we ramp up our specimen collection efforts, we are pairing this with additional back-end lab capacity we will procure. Any excess lab capacity can be paired with private sector specimen collection efforts to ensure maximum lab capacity usage. As this model successfully expands, Illinois will ramp up specimen collection efforts to meet the lab capacity. The State will also collect insurance information to the maximum extent possible to offset the additional costs of the larger system.

Currently, much of the existing specimen collection is being provided by the private labs, hospitals and other organizations, in addition to the State-run locations, with support of the CDC, National Guard and pharmacies/retailers. Specimen collection need to be expanded as testing capacity increases and as supplies of swabs, PPE, VTM, reagent become more available. Expansion of both drive-through locations and targeted "facility" teams that can mobilize to impacted facilities or outbreak sites (LTCs, correctional facilities, etc.) is planned through a private vendor contract, with an RFP expected to issue in the first week of June. IDPH will continue to perform a coordinating role connecting specimen collection to available lab capacity. It is anticipated that a private vendor(s) will also assume operation of existing drive-through testing sites as National Guard cycles off its mission in late August.

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

## ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

Illinois released an emergency rule on 5/28 which requires all licensed LTC facilities to develop an individual COVID response and testing plan. The facilities may use IDPH, Quest or any other laboratory system of their choosing. Illinois is using this strategy to ensure that LTC facilities take ownership of their testing and infection control policies and plans. However, for LTCs which have not adequately taken ownership of their own testing, the State is deploying mobile teams to their facilities to conduct testing directly. These mobile teams will specifically be prioritized for outbreaks among vulnerable populations and be able to quickly deploy to needs among vulnerable communities.

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

The State plans to systematize its coordinating role, with greater clarity of roles, across IDPH, local health departments, CDC, IEMA, FEMA, health providers, private labs, public labs and others to maximize testing, help allocate resources and help maintain supplies to achieve this goal. So far, IDPH has organized daily calls and frequent follow ups to increase existing capacity utilization, coordinate specimen collection/testing, purchase supplies and help allocate supplies. Capacity utilization has been tracked by IDPH with the help of consultants and used to help inform participants of the potential opportunity for their expansion.

Going forward, IDPH intends to centralize these functions with the assistance of a vendor in each Restore IL region. Vendors will be responsible for tracking metrics and standardized data collection to track daily productivity, turnaround times, client wait times, supplies of each type on hand, etc. This will enable IDPH to help coordinate moving supply or demand to meet the policy requirements, identify improvement opportunities and encourage client participation/compliance. Key to success will be maintaining consistent supply of necessary lab supplies, particularly assays and pipettes, which currently are limiting ability of existing machines to operate at full capacity.

IDPH has identified the various workstreams required for this significant coordination effort and is building out an organization structure with clear roles and responsibilities to optimize utilization of expanded lab capacity through systems of matching specimen collection to laboratories. Several positions have been filled, consultants are filling in some critical gaps and work continues apace. In addition to coordination, the State intends to help with business development where needed and is exploring possible incentives to encourage capital investment and achieve rapid incremental capacity.

In particular, the IDPH intends to have a strong resident “network design and continuous improvement group” of seven people to accomplish the following:

- Coordinate development of private/public network to match up supply and demand

## ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

- Coordinate with IDPH on when and how to ramp up demand (policy), based on supply availability
- Bring business development and operational best practices where needed/requested to expand current capacity by more than 10,000 tests per day
- Recommend metrics and targets at the lab or company level for different entities to achieve IDPH goals

The “laboratory operations group” will coordinate logistics and be available for support by the private and public labs.

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

Serological testing may be important assess immunity, once there is a significant enough portion of the population that perhaps has achieved immunity. IDPH is in the process of exploring the implementation of the Abbott IgG serology assays in the Chicago and Carbondale laboratories. This test will be used to screen approximately 1000 specimens per day per lab for past infections from health care workers, employees of high-risk facilities, correctional and long-term care facilities. We will continue to monitor Serology testing possibilities for future use at a larger scale.

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

By deploying community-based testing sites, mobile "temporary sites", and mobile "facility teams", we are able to cast a wide net across the State to monitor potential outbreaks. The team is working to deploy statistical sampling techniques in the near future to pair our wide testing net with a robust sampling approach that includes women coming to the hospital to deliver and a subset of the larger population. Expanding testing capacity and supplies is the greatest bottleneck currently to having enough surveillance.

2.f. Describe the health department’s plan to expedite and streamline procurement, hiring, and on-boarding of new staff. Should include planned steps and ability for the jurisdiction to acquire supplies, reagents, test kits, collection materials required to expand testing indicated in table #2 (below).

## ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

The State of IL is under an Emergency Declaration which reduces the procurement burdens and allows for expedited purchasing and hiring. IDPH has been able to hire laboratory technologists to conduct testing using individual contracts. Recent college grads have been sought for employment and have been onboarded by IDPH. The State is also bringing on additional human capital for the duration of the crisis to run key parts of the testing effort.

IDPH has set-up a nascent “sourcing” group to help coordinate supply requirements with all major users, IEMA, and FEMA. So far, the group has been successful at increasing supplies, as the State ramped up from 2,500 tests per day to over 20,000 tests per day. This group is developing plans to increase sourcing as the various RFPs come in and as the exact timetable is set.

IDPH has successfully scaled up its three labs, including training over the last 8 weeks for temporary lab workers.

## ELC ENHANCING DETECTION: ILLINOIS 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	6	30							36
FOR DIAGNOSTIC TESTING									
How many additional* testing equipment/devices are needed to meet planned testing levels? (provide an estimated number, and include platform details in narrative above)	0	20							20
Volume of additional swabs needed to meet planned testing levels <sup>++</sup>	750,000	1,000,000							1,750,000
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels <sup>++</sup>	750,000	1,000,000							1,750,000
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)		30K/day Hologic, 25K/day Thermofisher, 10K/day Cepheid							
FOR SEROLOGIC TESTING									

## ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Number of additional* equipment and devices to meet planned testing levels		no current plans for Serologic							0
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)									

\* 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.