

ELC ENHANCING DETECTION: NEW HAMPSHIRE TESTING PLAN

2020 Overarching Jurisdictional SARS-COV-2 Testing Strategy

Jurisdiction:	New Hampshire
Population Size:	1.36 million

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

a. The State of New Hampshire currently has two sites performing high throughput testing, the New Hampshire State Public Health Laboratories (PHL) and Dartmouth Hitchcock Medical Center (DHMC). PHL: Since early March 2020, the PHL has been verifying RNA extraction platforms, PCR Kits and PCR instruments to increase its testing capacity. Currently, the PHL has one each of MagNA Pure 24, Qiagen EZ1 and King Fisher Flex instrument for RNA extraction and six ABI7500 instruments running CDC EUA assay with the capacity to test ~500 samples/day. The PHL is expecting to receive and verify a Hologic Panther Fusion instrument in early August. The Panther Fusion will allow the PHL to perform an additional ~500 tests/day beginning in August 2020. The PHL has a Bio-Rad Evolis system for automated serology testing. We will be verifying the Bio-Rad's SARS-CoV-2 Total Ab test using the Evolis system in the middle of June. Beginning in July 2020, we will be able to perform the serology assay with the capacity of ~400 tests/day. DHMC: Current state as of 05/20/2020: two Abbott m2000's (high throughput) with capacity to perform 500 - 700 test/day, three AB7500 running the Atila assay with the capacity to perform 500 - 700 tests/day, and finally three Diasorin Focus instruments with capacity to perform 300 tests/day. By end of June 2020, DHMC will add one additional Abbott m2000 and one Hologic Panther. By the end of June 2020 DHMC will have capacity to perform ~1600 tests/day. DHMC has validated the Roche assay for serology testing that will go live next week on the 5/26/20. This is a high throughput system capable of doing >7000 test/day. b.) Tab 2 (Direct PHD Expansion) includes information on non-traditional laboratory sites where testing is currently occurring and considerations for future site development. NH's Metropolitan Medical Response Systems (MMRS) teams have been deployed and are available to assist health departments, hospitals, fire departments and other entities in developing mobile testing sites. MMRS staff some of these sites, other sites have clinical teams that provide the staffing. In addition to MMRS and as described in Tab 2, mobile testing teams have been deployed to businesses, long term care, residential and congregate care settings, homeless shelters and encampments and other non-traditional testing sites. Conversations with pharmacies have occurred with CVS bringing on testing sites at some of their pharmacy locations c.) Serology testing strategy-The PHL has a Bio-Rad Evolis system for automated serology testing. Recently, a Bio-Rad's SARS-CoV-2 (COVID-19) serology test has been granted Emergency Use Authorization from the FDA. The PHL discussed with the Bio-Rad, and testing kits are scheduled to be shipped to the PHL in early June. Upon the arrival of the reagents, the PHL will verify the test and offer the testing service. The daily throughput of the testing using the Evolis system could be 400 per day. The PHL will work with the NH Bureau of Infectious Disease Control to conduct laboratory surveillance in communities and settings such as healthcare facilities, schools, nursing homes or long-term care facilities, prisons etc. To expand the testing, more laboratory scientist and microbiologist positions are need to perform serology testing for COVID-19 and Laboratory Assistant positions are needed for specimen receiving data entry and follow up login. Contracts with ClearChoice and ConvenientMD are in place to support testing. ClearChoice contract is for PCR and/or antibody tests. ConvenientnetMD is contracted for additional PCR testing.

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d. The Department of Health and Human Services has regular contact with the New Hampshire Hospital Association and its hospital members (including hospital laboratories), NH Healthcare Association and its organizational members (representing long-term care facilities). Weekly calls with these organizations and their members are held with Dr. Benjamin Chan, State Epidemiologist, Dr. Elizabeth Talbot, State Deputy Epidemiologist and Dr. Elizabeth Daly, Chief of Infectious Disease Control. In addition to these weekly calls, calls with other groups such as child care providers, residential care providers (youth and adult), and others are held. Close relationships, which include contact with the only two locally based city health departments (Manchester and Nashua), occur daily as well as weekly calls with New Hampshire's thirteen community based public health networks. The Commissioner of Health and Human Services who oversees NH's response in conjunction with the Assistant Commissioner of Safety, Adjutant General of the NH National Guard and the Governor have daily contact with external partners.

In order to expand testing in communities, MMRS provides training and assistance when external partners wish to implement drive-through testing clinics in their own communities. This training/assistance has occurred in hospitals, fire departments, and at the Manchester and Nashua Health Departments.

Test kits are generally supplied to community partners by the Public Health Laboratories. Supply levels and limiting factors are monitored daily. The Public Health Laboratories staff have daily contact with hospital systems, facilities, health departments to distribute test kits as well as to determine testing capacity (including staffing needs). Strategies for mitigating limiting factors are developed and implemented. Laboratories such as Quest and other commercial laboratories who have contracts with the state of NH, or with hospitals and LTC facilities may provide test kits and test processing services directly to these entities.

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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*	20,000	20,000							40,000
Serology	0	4,000							4,000
TOTAL	20,000	24,000	0	0	0	0	0	0	

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

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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)
Fixed Site-Tamworth	Drive-thru testing site	Quest Diagnostics	125	0		Community Based covid-19 testing program. Testing available to people with any symptoms of Covid-19 and risk factors including underlying health conditions, over the age of 60, and health care workers.
Fixed Site-Lancaster	Drive-thru testing site	Quest Diagnostics	125	0		"
Fixed Site-Plymouth	Drive-thru testing site	Quest Diagnostics	125	0		"

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Fixed Site-Rochester	Drive-thru testing site	Quest Diagnostics	125	0		"
Fixed Site-Concord	Drive-thru testing site	Quest Diagnostics	125	0		"
Fixed Site-Claremont	Drive-thru testing site	Quest Diagnostics	125	0		"
Fixed Site-Milford	Drive-thru testing site	Quest Diagnostics	200	0		"
Fixed Site-Keene	Drive-thru testing site	Quest Diagnostics	125	0		"
Fixed Site-Londonderry	Drive-thru testing site	Quest Diagnostics	125	0		"

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LTC Surveillance (Nursing Homes)	Hospitals or clinical facility	Mako Medical	1,500	0		Nursing home surveillance testing targeting 10% of all nursing home residents and 100% of nursing home staff every 10 days.
DHMC	Hospitals or clinical facility		1,700	7,000		All. DHMC does not limit testing to any at risk population.

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NH PHL	Public health lab		1,000	4,000		All symptomatic individuals and contacts of confirmed or suspected COVID-19 cases; LTC facility residents and staff; Healthcare workers; Elderly population; School and daycare children and staff; Department of Correction officers and inmates; Homeless population
NH Hospitals	Hospitals or clinical facility					6 of the 26 Nh Hospital Clinical Laboratories have Cepheid instruments with limited supplies for testing. Throughput is variable.
NH Hospitals	Hospitals or clinical facility		150			14 of the 26 NH Hospital Clinical Laboratories have Abbott ID Now instruments that the NH PHL supplies with test kits.
MMRS Mobile Go Teams	Community-based	NH PHL and/or Quest				Outbreak response at LTC facilities
Civil Support Team (CST) Mobile Testing Unit	Other		30			CST Mobile Unit is deployed to outbreaks at LTC facilities to assist with rapid testing

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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.

a. In order to ensure access to COVID-19 testing for ALL NH citizens, the following data driven strategies have been implemented: nine drive-through fixed testing sites in population centers, rural areas of the state where access is limited and where "hot spots" exist (higher rates of COVID positive individuals). Fixed sites continue to be added as needed. To date, fixed site testing criteria has included anyone with symptoms, older adults, health care workers and individuals with pre-existing conditions. As of May 25th, asymptomatic individuals were added with the goal of anyone who wants to be tested can be tested. "Go teams" that exist within each testing site are deployed across the state to accommodate testing when individual(s) test positive in businesses, organizations, institutional facilities and more recently, for employers whose employees have frequent contact with the public. Outreach for hard to reach, home bound, individuals unable to access transportation, can access home based testing through local home health agencies and through the National Guard Civil Support Team Mobile Laboratory. Additionally, three MMRS mobile teams, provide testing for LTC, residential, jails/prisons, homeless shelters/encampments and other facility outbreaks. The state of NH has contracted with urgent care organizations and commercial laboratories to assist with individual and large-scale testing needs (including antibody testing). New or expanded contracts with these entities are underway. Discussions with hospital systems regarding enhancing their capacity for testing has been ongoing. The state of NH continues to review data to determine the need for additional testing sites, mobile teams" and hyper-local testing sites to ensure access to vulnerable populations.

b. The development of fixed testing sites noted in (a), when possible, were placed in areas of the state where access is within walking distance to town/city centers. Understanding that this was not possible at each fixed site location, and that there are individuals who do not have access to a vehicle, are homeless, isolated and/or not comfortable accessing these locations, the state of NH has contracted with local home health agencies. These agencies provide outreach to homes or community settings where individuals are comfortable accessing testing.

The state of NH has provided outreach to facilities (LTC and others) as positive cases are reported. One of the state's goals is to expand testing to facilities with asymptomatic residents/individuals such as homeless unsheltered individuals, homeless shelters, and congregate living.

All test sites, mobile teams and MMRS are trained in and have access to Language Line. Testing fliers and brochures have been translated into eight languages and there is access to an ASL video posted on the state of NH COVID website <https://www.nh.gov/covid19/>. Testing information is also located on "Welcoming NH" website <https://welcomingnh.org/covid-19-resources/>. We acknowledge the need to do more. Goals have been established to provide "hyper-local" testing in trusted, established places to increase access for vulnerable populations. Through enhanced staffing (ex: recruiting bi-lingual, bi-

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cultural staff), the state of NH will provide outreach to vulnerable populations (to determine where best to place testing sites) and to understand barriers to testing. Additional outreach will be provided to health care and test site workers to provide cultural competency training. Other goals include enhancing race, ethnicity data collection in health care practices/testing sites and to ensure the presence of an equity subject matter expert in response activities.

c. It is only recent that testing supplies and PPE have been consistently available to the public health laboratories and the NH emergency operations center (EOC). These supplies are centrally received and distributed throughout the state of NH to hospitals, LTC facilities and health care providers. Until recently, the limitation of supplies has delayed large-scale testing capabilities. Our laboratory and EOC staff are hyper focused on ordering testing supplies and PPE. Although, these supplies are now being delivered regularly, there continues to be concern, as there is not yet a regular, consistent delivery schedule. We can only hope the supplies will be delivered in time to meet our state testing needs. The public health laboratory is in daily contact with suppliers, including CDC-IRR to determine delivery dates. Additionally, the public health laboratory staff are in daily contact with NH hospital laboratories to determine supply needs and testing capabilities. The state is contracting with Dartmouth Hitchcock Medical Center to ensure rapid turnaround of test results.

The Abbott ID instruments are now in use by hospitals across NH, and by the National Guard Civil Support Team (CST). In addition to Abbot ID, many of the hospitals have Cepheid instruments with little success in acquiring test cartridges.

Utilizing the spreadsheet of laboratory instruments supplied to NH by CDC, The public health laboratories have determined that many of these instruments are used specifically for research and academic purposes. The state of NH continues to explore use of these instruments to assist in processing specimens.

d. Serology Testing Strategy: c.) Serology testing strategy-The PHL has a Bio-Rad Evolis system for automated serology testing. Recently, a Bio-Rad's SARS-CoV-2 (COVID-19) serology test has been granted Emergency Use Authorization from the FDA. The PHL discussed with the Bio-Rad, and testing kits are scheduled to be shipped to the PHL in early June. Upon the arrival of the reagents, the PHL will verify the test and offer the testing service. The daily throughput of the testing using the Evolis system could be 400 per day. The PHL will work with the NH Bureau of Infectious Disease Control to conduct laboratory surveillance in communities and settings such as healthcare facilities, schools, nursing homes or long-term care facilities, prisons etc. To expand the testing, more laboratory scientist and microbiologist positions are need to perform serology testing for COVID-19 and Laboratory Assistant positions are needed for specimen receiving data entry and follow up login. Contracts with ClearChoice and ConvenientMD are in place to support testing. ClearChoice contract is for PCR and/or antibody tests. ConvenitnetMD is contracted for additional PCR testing. e. The Department of Health and Human Services has regular contact with the New Hampshire Hospital Association and its hospital members (including hospital laboratories), NH Healthcare Association and its organizational members (representing long-term care facilities). Weekly calls with these organizations and their members are held with Dr. Benjamin Chan, State Epidemiologist, Dr. Elizabeth Talbot, State Deputy Epidemiologist and Dr. Elizabeth Daly, Chief of Infectious Disease Control. In addition to these weekly calls, calls with other groups such as child care providers, residential care providers (youth and adult), and others are

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e. The public health laboratories working under the structure of the incident management team and it's commander, the Chief of Infectious Disease and infectious diseases staff, work hand in hand with the COVID-19 testing coordinating unit and the testing planning team with a goal of effective and efficient communication to ensure rapid access to needed testing.

A long-term care (LTC) point prevalence and surveillance-testing program is underway. To date, point prevalence testing for all NH LTC facilities is complete (staff and residents). Surveillance testing begins on May 25, 2020; all LTC staff will be tested every 10 days and 10% of all residents will be tested every 10 days over the next year.

f. Over 350 National Guard members have been deployed to assist with contact tracing, laboratory functions, and testing since the declared state of emergency. Additionally, contracts with staffing agencies have been utilized to ensure staffing capacity. The NH Department of Health and Human Services (DHHS) and other departments within the state of NH have reassigned staff (part time and full time) to assist with response activities. DHHS continues to explore long term, sustainable staffing options by hiring skilled staff, re-hiring staff who have previously retired from state service, and contracting with staffing agencies. Additionally, the CDC Foundation is in the process of hiring six subject matter experts in the field of epidemiology, contact tracing and management to assist our efforts.

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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	0	9							9
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	2							3
Volume of additional swabs needed to meet planned testing levels ⁺⁺	0	25,000 nasal swabs							0
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels ⁺⁺	0	15,000 VTM							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)	0	6,000 test reagents King Fisher Extraction reagents and CDC PCR kits							0

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BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
FOR SEROLOGIC TESTING									
Number of additional* equipment and devices to meet planned testing levels	0	0							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)		4000 test reagents for Evolis							

* 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.