

# ELC ENHANCING DETECTION: WISCONSIN TESTING PLAN

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

Jurisdiction:	Wisconsin
Population Size:	5.8 million

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

Wisconsin’s testing strategy is that all Wisconsinites who need a COVID-19 test should have access to a test. The goal is to establish a sustainable testing infrastructure within all Wisconsin communities, sufficient to ensure that, most urgently, all persons who are symptomatic or who are close contacts of positive cases have timely access to testing. Our strategy also prioritizes testing to prevent the spread of disease in our most vulnerable congregate living settings. It builds and supports local capacity for effective and timely public health investigations and ensures that individuals who test positive have the appropriate supports for safe isolation. Testing needs in Wisconsin are increasing with higher levels of disease activity across the state this summer. We anticipate a higher rate of infection heading into the fall with the return to k-12 and post-secondary education learning.

In addition to individuals experiencing any symptom of COVID-19, even mild symptoms, the Wisconsin Department of Health Services (DHS) encourages testing for individuals without symptoms who are close contacts of a confirmed case, as well as those prioritized by health departments or clinicians, for a number of reasons, including: investigating outbreaks, preventing spread into high risk residential settings, reduce high rates of community spread, and supporting safe healthcare environments.

1a) DHS works with our two public health laboratories (Wisconsin State Laboratory of Hygiene, WSLH, and City of Milwaukee Public Health Laboratory) and the Wisconsin Clinical Laboratory Network, coordinated by WSLH, to increase testing on a variety of platforms. Wisconsin has also partnered with local companies to add high throughput testing capacity. A major focus of our work is to procure point of care testing capacity. To date, the testing capacity of Wisconsin’s laboratories continues to exceed demand and the number of laboratories that provide COVID-19 testing in the state has increased, as has their capacity. DHS plans to continue to support this reliable supply while also increasing testing rates by investing in further testing innovations.

1b) The State of Wisconsin encourages and supports innovative testing strategies that provide access to high quality testing and case management services. These models must use FDA-approved testing supplies and the organizations who conduct testing must report all results into the Wisconsin Electronic Disease Surveillance System to connect individuals to contact tracing and support services.

We launched a variety of testing strategies across the state to support local testing capabilities. We work with health care providers, local public health and their partners, and 25 National Guard teams to conduct testing. This testing includes drive-thru walk-up testing at mobile units, medical trailers, tents,

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community centers, churches, convention centers, pavilions, fairgrounds, schools, and homeless shelters. DHS is also collaborating with the Pharmacy Society of Wisconsin to strengthen our planning to provide testing at pharmacies. Wisconsin is also establishing a pilot grant program to incentivize non-traditional testing solutions to better meet our testing access needs.

Wisconsin is encouraging testing for high-risk individuals who live and work in congregate settings. For example, DHS prioritized testing for all nursing home residents and staff, including routine retesting of staff to prevent the spread of COVID-19 in these vulnerable populations. We plan to continue to support testing in congregate living environments as our testing capacity permits.

1c) The State of Wisconsin is investing in serology testing. Serology testing can help determine whether patients have been infected in the past, identify plasma donors for treatment of others with COVID-19, assess response to vaccine candidates, and determine disease prevalence in communities. The State is partnering with the Survey of the Health of Wisconsin (SHOW) to conduct a representative, population-based serological surveillance project for COVID-19 to determine the proportion of Wisconsin residents with antibodies against SARS-Cov-2.

SHOW serology testing is built on an existing, successful model. SHOW has an existing pool of approximately 5,000 volunteers from all over Wisconsin. Research staff and existing partners coordinate specimen collection. Volunteers will be re-contacted and invited to provide a blood specimen for antibody testing at the Wisconsin State Lab of Hygiene (WSLH). This project proposes conducting 3 waves of specimen collection (June 1, October 1, and February 1), to provide an ongoing assessment of COVID-19 prevalence, analyzed by geographic area and over time. During this early phase of the epidemic, we predict most Wisconsin residents are seronegative and that we will see an increase in prevalence over time. This information will aid in planning and allow us to produce models to try to predict future waves of COVID-19. Antibody testing will provide an opportunity to understand how the virus has spread through the Wisconsin population, identify locations with under-reported cases, and inform on the prospects of herd immunity.

1d) DHS and the State Emergency Operations Center established multiple ongoing strategies to assure effective communication and guidance alignment throughout our public health, laboratory, and health care systems. We host daily calls with local and tribal health officers to discuss testing guidance and other COVID-19 related guidance topics. WSLH hosts a weekly call with the Wisconsin Clinical Laboratory Network to discuss testing guidance, solve problems, and provide access to supplies. DHS Chief Medical Officers host weekly calls with all Wisconsin medical providers to provide testing criteria and guidance updates.

DHS created a testing and lab capacity team to lead the state's coordination, collaboration, and communication for testing across. This team is staffed by DHS employees and with expertise from

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essential testing partners, including WSLH subject matter experts. This team regularly meet with partners in healthcare, including laboratory and clinical services, and local public health. These partners inform the department's decisions, programs, technical assistance, and communication.

DHS and WSLH collaborate to assess and understand the capabilities and needs for labs across the state each day. This includes a live survey of testing capacity in every clinical lab with SARS-CoV-2 testing capabilities, including barriers to the stability or improvement of their capabilities. This relationship and collaboration helps guide and define the state's need for procurements that support testing in our communities and for investments in innovative

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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*	340,000	340,000	440,000	600,000	660,000	720,000	800,000	880,000	4,780,000
Serology	0	0	2,000	2,000	2,000	2,000	2,000	2,000	12,000
<b>TOTAL</b>	340,000	340,000	442,000	602,000	662,000	722,000	802,000	882,000	

\*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)
Lab 1	Public health lab		750	100	Outbreak specimens, and symptomatic patients who are: hospitalized, health care workers or first responders, residents in long-term care facilities/jail/prison/other congregate settings, utility workers, and underserved populations (underinsured, patients at Federally Qualified Health Centers, homeless patients, migrant workers, etc.), and post-mortem testing.
Lab 2	Public health lab		646	50	Outbreak specimens, and symptomatic patients who are: hospitalized, health care workers or first responders, residents in

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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)
					long-term care facilities/jail/prison/other congregate settings, utility workers, and underserved populations (underinsured, patients at Federally Qualified Health Centers, homeless patients, migrant workers, etc.), and post-mortem testing.
Lab 3	Commercial or private lab		8,000	0	Community Testing, Long-term care facilities, large outbreaks
Lab 4	Commercial or private lab		1,000		
Lab 5	Commercial or private lab		150		
Lab 6	Commercial or private lab		50		
Lab 7	Hospitals or clinical facility		2,000		
Lab 8	Hospitals or clinical facility		1,000		
Lab 9	Hospitals or clinical facility		1,000		

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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)
Lab 10	Hospitals or clinical facility		700		
Lab 11	Hospitals or clinical facility		700		
Lab 12	Hospitals or clinical facility		450		
Lab 13	Hospitals or clinical facility		400		
Lab 14	Hospitals or clinical facility		300		
Lab 15	Hospitals or clinical facility		288		
Lab 16	Hospitals or clinical facility		200		
Lab 17	Hospitals or clinical facility		150		
Lab 18	Hospitals or clinical facility		150		
Lab 19	Hospitals or clinical facility		150		

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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)
Lab 20	Hospitals or clinical facility		100		
Lab 21	Hospitals or clinical facility		90		
Lab 22	Hospitals or clinical facility		60		
Lab 23	Hospitals or clinical facility		60		
Lab 24	Hospitals or clinical facility		60		
Lab 25	Hospitals or clinical facility		50		
Lab 26	Hospitals or clinical facility		50		
Lab 27	Hospitals or clinical facility		50		
Lab 28	Hospitals or clinical facility		50		
Lab 29	Hospitals or clinical facility		48		

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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)
Lab 30	Hospitals or clinical facility		35		
Lab 31	Hospitals or clinical facility		30		
Lab 32	Hospitals or clinical facility		20		
Lab 33	Hospitals or clinical facility		20		
Lab 34	Hospitals or clinical facility		20		
Lab 35	Hospitals or clinical facility		20		
Lab 36	Hospitals or clinical facility		20		
Lab 37	Hospitals or clinical facility		20		
Lab 38	Hospitals or clinical facility		20		
Lab 39	Hospitals or clinical facility		18		



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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)
Lab 40	Hospitals or clinical facility		15		
Lab 41	Hospitals or clinical facility		15		
Lab 42	Hospitals or clinical facility		12		
Lab 43	Hospitals or clinical facility		12		
Lab 44	Hospitals or clinical facility		10		
Lab 45	Hospitals or clinical facility		10		
Lab 46	Hospitals or clinical facility		10		
Lab 47	Hospitals or clinical facility		10		
Lab 48	Hospitals or clinical facility		10		
Lab 49	Hospitals or clinical facility		10		

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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)
Lab 50	Other		8		
Lab 51	Other		8		
Lab 52	Other		8		
Lab 53	Other		8		

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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 state partners and contracts to expand its testing capacity. This includes partnering with a Wisconsin diagnostic lab company that devotes a significant capacity and resources to COVID-19 testing. We also work with a Wisconsin company for high demand reagents and equipment for a number of labs in the state. Wisconsin has a strong network of clinical laboratories who can now perform a high volume of combined testing to meet our goals. We are working with these laboratories to prepare for the fall when we anticipate a return of influenza and a need for diagnostic capabilities beyond COVID-19 testing.

We are strengthening our capacity in our public health laboratories to meet demand. We are acquiring additional equipment to enhance and expand testing capabilities in these labs. We are also expanding our capacity to perform whole-genome next-generation sequencing to support our outbreak surveillance role nationally. This way, we can estimate overall prevalence by using virus diversity to estimate the absolute numbers of infections.

2b) At a minimum, the objective of Wisconsin's testing strategy is that all Wisconsinites with any symptom of COVID-19 have access to a test. For the overall population, the state is strengthening the existing health care and laboratory infrastructure to ensure adequate supply of testing materials and capacity, and communicating with partners about state-directed testing opportunities.

For vulnerable populations, the state has proactively eliminated barriers and increased access to testing in communities, high-risk congregate settings, and outbreak settings. The state mobilized 25 specimen collection teams from the National Guard, totaling 600 personnel, to provide free testing to individuals who live in communities that are disproportionately affected by COVID-19 and have limited access to testing. There are more than 11 sites operating statewide and three large-scale sites in Milwaukee and Madison. Through the end of June, Wisconsin tested more than 10% of the state's population and our testing rates continue to increase. The state also worked to ensure that every health system in Milwaukee is provides tests to the community, increasing the testing capacity to more than 3,000 people per day in Milwaukee alone. This represents 75% of the Federal government's goal to test 2% of the state's population.

The state's two public health laboratories provide fee-exempt testing for symptomatic individuals, including those who are uninsured, underinsured, homeless, migrant workers, and patients at Federally Qualified Health Centers. This testing is also available to symptomatic hospitalized patients, those living or working in congregate settings, healthcare workers, and outbreak investigations.

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As part of additional resources provided to local and tribal health departments, we increased assessment of gaps in access for vulnerable and underserved populations for prioritization of additional testing resources.

The state conducted a campaign to test all residents and staff in our 370 nursing homes. We are following up with those facilities to establish routine retesting of staff and select residents. This complements other active efforts to test residents and staff at the state's correctional facilities, mental health facilities, and camps for migrant workers.

Lastly, Wisconsin conducted swift and comprehensive responses to outbreaks identified in high-risk settings, including meatpacking plants and congregate care facilities. Throughout these efforts, the state developed data feedback systems to track disparities and strives to match resources to individuals who are the most vulnerable to severe illness and death.

2c) The state and WSLH collaborate and share resources across our laboratory systems. We identify supply shortages with an ongoing survey of clinical labs and we procure and distribute materials that are in short supply, including specimen collection materials and reagents, when available. Result reporting to public health and to the CDC is facilitated by the electronic lab reporting specialist at WSLH.

To this end, DHS will build upon its strong relationships with organizations, associations, and public health across the state, including expanding its capacity to provide individualized assistance to local communities and with health care organizations. DHS is increasing its staff to provide this individualized assistance and to share best practices in six regions across the state and to healthcare providers to understand the needs and nuances of each community.

This assistance includes end-to-end testing workflow design, systems and process improvements from specimen collection to reporting. Through data analysis, technical assistance, collaborative relationships and systems improvements, DHS develops its understanding and supportive solutions for improving the efficiency and effectiveness for how specimens are collected for populations in communities across the state, the laboratory where those specimens are tested, how individuals who are tested receive their results, and how those results are submitted to public health and the CDC. This work includes traditional health care processes as well as innovative processes and systems that expand that capacity.

The State also provides procurement and supply distribution to health care and public health organizations across the Wisconsin to help diversify and strengthen the supply and laboratory services needed for testing.

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2d) WSLH has implemented and validated the Abbott SARS-CoV-2 IgG assay to run on the current Abbott ARCHITECT or Abbott Alinity i instrument. WSLH will perform approximately 2,000 SARS-CoV-2 IgG assays per month. Patient populations will be chosen in consultation with Wisconsin Division of Public Health epidemiologists. WI public health will partner with SHOW (described previously), Survey of the Health of Wisconsin, to collect serum samples for WI patient population. Private laboratories conducting serology testing will be reporting their results to WSLH and into the Wisconsin Electronic Disease Surveillance System to provide additional input into our population health surveillance.

2e) DHS provided a statewide testing framework and funded local and tribal health departments to work with local partners to establish local testing strategies aligned with the state's testing framework. The state will continue to support these local initiatives as well as to identify opportunities for statewide system improvements that expand access to high quality testing in support of our disease containment strategy. The goal is to support a robust disease detection system that can quickly identify cases and clusters across a set key variables (e.g. occupation and residential setting) using case-based surveillance data, syndromic surveillance data for influenza-like illnesses, and next generation sequencing for cluster identification. Thresholds for initiating a facility-wide or community-based testing strategy may differ based on the setting and the epidemiology of the identified cases, but may be initiated with as little as one confirmed case in a congregate living setting or high-risk workplace. Targeting specific populations for enhanced community-based testing will require hotspot identification through case-based or syndromic surveillance data. Both community-based and facility-wide testing strategies are supported through local partnerships with existing health care providers, community partners, and state and local public health agencies.

2f) Through the state's procurement efforts, COVID-19 specimen collection materials are provided to Wisconsin hospitals, clinics, nursing homes, local public health departments, and others at no cost to ensure that everyone who needs a test receives a test.

The state is providing grants to 96 local and tribal public health departments to update preparedness plans to ensure that Wisconsin communities, schools and businesses are prepared to support testing efforts into the fall. The state will fund local public health departments, occupational health providers, home health agencies, and health systems to conduct COVID-19 testing in congregate, community and occupational settings. This program will incentivize testing by providing eligible providers funding per COVID-19 test administered to a Wisconsin resident and will run through at least October 15th, 2020. The state will also provide funding to local and tribal public health departments to coordinate local testing efforts.

DHS continues to prioritize hiring that builds capacity for our COVID-19 response throughout the state for successful public health pandemic response. This includes ensuring that the full public health

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response has the resources required for its effectiveness: specimen collection in clinical, community and occupational settings, specimen testing, contact tracing, case management, isolation, and to deliver the technical assistance and resources required for individuals to do this work. DHS is pursuing qualified individuals to serve in roles where they can provide immediate assistance and is investing in the local infrastructure to leverage the skills, experience, and availability of individuals in the healthcare field in communities across the State. As an example, DHS and local public health are hiring nearly 1,000 contact tracers.

Our success will require investment in the staffing and supply capabilities at the state's public laboratories. WSLH and MHDL will increase testing capacity, in part, through hiring testing and support staff and through procurement of high throughput instrumentation. WSLH and MHDL will hire microbiologists, data specialists, lab specialists, lab assistants and surveillance coordinator to conduct the increased COVID-19 testing and processing required for the duration of the funding period.

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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		8	5						13
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)		7	3	3					13

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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 <sup>++</sup>	130,000	130,000	340,000	340,000	340,000	340,000	340,000	340,000	2,300,000
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels <sup>++</sup>	230,000	230,000	340,000	340,000	340,000	340,000	340,000	340,000	2,500,000



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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)	7K/day Panther TMA; 2.3K/day GeneXpert	7K/day Panther TMA; 2.3K/day GeneXpert	7K/day Panther TMA; 3.2K/day Thermofisher; 2.3K/day GeneXpert	7K/day Panther TMA; 3.2K/day Thermofisher; 2.3K/day GeneXpert	7K/day Panther TMA; 3.2K/day Thermofisher; 2.3K/day GeneXpert	7K/day Panther TMA; 3.2K/day Thermofisher; 2.3K/day GeneXpert	7K/day Panther TMA; 3.2K/day Thermofisher; 2.3K/day GeneXpert	7K/day Panther TMA; 3.2K/day Thermofisher; 2.3K/day GeneXpert	
FOR SEROLOGIC TESTING									
Number of additional* equipment and devices to meet planned testing levels									0

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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)		100/day Architect	200/day Alinity	200/day Alinity	200/day Alinity	150/day Alinity	150/day Alinity	150/day Alinity	

\* 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.