

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 all persons who are symptomatic have timely access to testing. It should build and support local capacity to ensure effective and timely public health investigations and ensure that individuals who test positive have the appropriate supports for safe isolation. Particularly as Wisconsin reopens, we anticipate a higher rate of infection and project a demand for more testing. This will allow individuals who are infected and contagious to isolate. Testing is provided free of charge to all individuals.

In addition to individuals experiencing any symptom of COVID-19, even mild symptoms, DHS encourages testing for some individuals without symptoms who are prioritized by health departments or clinicians, for any reason, including: public health monitoring, sentinel surveillance, or screening of other asymptomatic individuals according to state and local plans.

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 new high throughput testing capacity. We continue to work to build access point of care testing in Wisconsin. 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. 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 have launched a variety of testing strategies across the state. We work with 25 National Guard teams to conduct testing at collection sites and outbreak response. Several individual pharmacy locations are providing testing, and DHS collaborated with the Pharmacy Society of Wisconsin to strengthen our planning in this area. Wisconsin is also establishing a pilot grant program to incentivize non-traditional testing solutions to better meet our testing access needs.

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Wisconsin is also 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. Other long term care facilities are expressing interest, which the state intends to support.

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 population based serological surveillance project for COVID-19 to determine the proportion of Wisconsin residents who have been infected during the first 4 months of the epidemic.

SHOW serology testing is built on an existing, successful model. SHOW has an existing pool of ~5,000 research volunteers from all over Wisconsin whose staff and existing partners to coordinate all aspects of surveillance project. 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 - February 1).

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 healthcare 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 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 solutions that support and advance the goal to build sustainable testing capabilities.

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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	340,000	340,000	340,000	340,000	340,000	340,000	2,720,000
Serology	0	2,000	2,000	2,000	2,000	2,000	2,000	2,000	14,000
TOTAL	340,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	

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)
Wisconsin State Laboratory of Hygiene	Public health lab		500	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.

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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)
Milwaukee Health Department Laboratory	Public health lab		50			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.
Exact Sciences	Commercial or private lab		8,000	0		Community Testing, Long-term care facilities, large outbreaks
Coppe Laboratories	Commercial or private lab		50	0		
Midwest Respiratory Virus Program	Commercial or private lab		150			

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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)
Wisconsin Diagnostic Laboratories	Hospitals or clinical facility		1,000			
University of Wisconsin Hospital and Clinics	Hospitals or clinical facility		700			
Childrens Hospital of Wisconsin	Hospitals or clinical facility		150			
Marshfield Clinic Research Foundation	Hospitals or clinical facility		400			
ACL Laboratories - WI Central Lab	Hospitals or clinical facility		400			

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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)
Ascension All Saints Hospital	Hospitals or clinical facility		288			
Bellin Hospital	Hospitals or clinical facility		200			
Door County Medical Center	Hospitals or clinical facility		150			
Marshfield Clinic - Marshfield	Hospitals or clinical facility		150			
Gundersen Medical Foundation molecular diagnostics laboratory	Hospitals or clinical facility		150			
Midwest Respiratory Virus Program Laboratory	Hospitals or clinical facility		150			
Clement J. Zablocki VAMC	Hospitals or clinical facility		60			

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Ascension St. Elizabeth Hospital	Hospitals or clinical facility		60			
SSM Health St. Mary's Hospital - Madison	Hospitals or clinical facility		60			
Aspirus Wausau Hospital/Aspirus Reference Lab	Hospitals or clinical facility		50			
Ascension St. Francis Hospital	Hospitals or clinical facility		50			
ThedaCare Regional Medical Center - Neenah	Hospitals or clinical facility		50			
Milwaukee Health Department Laboratory	Hospitals or clinical facility		50			

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Gundersen Health System	Hospitals or clinical facility		48			
Ascension Columbia St. Mary's Hospital Milwaukee	Hospitals or clinical facility		35			
Aurora St. Lukes Medical Center (ACL)	Hospitals or clinical facility		30			
Marshfield Medical Center - Eau Claire	Hospitals or clinical facility		20			
Marshfield Medical Center -Rice Lake	Hospitals or clinical facility		20			
Marshfield Medical Center - Wausau	Hospitals or clinical facility		20			
Consultants Laboratory of Wisconsin	Hospitals or clinical facility		20			

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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)
Aurora Medical Center- Grafton (ACL)	Hospitals or clinical facility		20			
Aurora Sinai Medical Center (ACL)	Hospitals or clinical facility		20			
Aurora St. Luke's South Shore (ACL)	Hospitals or clinical facility		20			
Unity Point Health-Meriter Hospital	Hospitals or clinical facility		16			
Beloit Memorial Hospital	Hospitals or clinical facility		15			
Fort HealthCare, Inc.	Hospitals or clinical facility		10			
Ascension St. Micheal's Hospital	Hospitals or clinical facility		10			

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Aurora Lakeland Medical Center - ACL	Hospitals or clinical facility		10			
Aurora Medical Center - Bay Area (ACL)	Hospitals or clinical facility		10			
Aurora Medical Center - Manitowoc Co (ACL)	Hospitals or clinical facility		10			
Aurora Medical Center - Washington Co (ACL)	Hospitals or clinical facility		10			
Aurora Medical Center - Kenosha (ACL)	Hospitals or clinical facility		10			
Aurora Medical Center - Oshkosh(ACL)	Hospitals or clinical facility		10			
Aurora Medical Center - Summit (ACL)	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 throughput	Daily serologic throughput	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Aurora Memorial Hospital of Burlington (ACL)	Hospitals or clinical facility		10			
Aurora Sheboygan Memorial Medical Center (ACL)	Hospitals or clinical facility		10			
Freodtert South-Kenosha Medical Center	Hospitals or clinical facility		10			
Tomah VA Medical Center	Hospitals or clinical facility		8			
Richland Hospital	Hospitals or clinical facility		5			
William S. Memorial Middleton Memorial VA Hospital	Hospitals or clinical facility		4			
HSHS - Sacred Heart Hospital	Hospitals or clinical facility		2			

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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)
Holy family memorial	Hospitals or clinical facility		2			
Prarie Ridge Health	Hospitals or clinical facility		2			

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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 and expanding our capacity to perform whole-genome next-generation sequencing to support our outbreak surveillance role nationally. As an orthogonal way to estimate overall prevalence by using virus diversity to estimate the absolute numbers of infections. We are acquiring additional equipment to enhance and expand testing capabilities at our public health labs.

2b) 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. More than 20,000 people have been tested at the two Milwaukee sites. The state also worked to ensure that every health system in Milwaukee 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 also launched a campaign to test all residents and staff in our 370 nursing homes by the end of May. This complements other efforts to test residents and staff at the state's correctional facilities, mental health facilities, and camps for migrant workers. The state is developing plans to expand testing to residents and staff in the 4,600 assisted living facilities in Wisconsin and for individuals receiving home and community based services and supports.

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 healthcare 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.

2d) WSLH will implement and validate the Abbott SARS-CoV-2 IgG assay to run on the current Abbott ARCHITECT or Abbott Alinity i instrument. It is anticipated that 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.

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2e) DHS is quickly expanding testing capacity across the state, given the speed at which Wisconsin communities are reopening. The goal is to support a robust disease surveillance 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 August 31, 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 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. Equipment and instrumentation will also be needed to maintain and increase COVID-19 PCR and antibody testing at Wisconsin's public labs.

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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
Volume of additional swabs needed to meet planned testing levels ⁺⁺	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,	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
saline, etc.) needed to meet planned testing levels**									
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
Volume of additional reagents needed to meet planned testing levels, by testing unit and		100/day Architect	200/day Alinity	200/day Alinity	200/day Alinity	150/day Alinity	150/day Alinity	150/day Alinity	

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BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
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.