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**WISCONSIN 2021  
HEALTH CARE WORKFORCE  
REPORT**



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# A Message from the WHA Council on Workforce Development Chair

As chief executive officer of a Wisconsin hospital and chair of the Wisconsin Hospital Association (WHA) Council on Workforce Development, I have been part of the unprecedented experience the COVID-19 pandemic created for health care in 2020.



*Debra Rudquist*

COVID-19 magnified the issues our health care workforce has faced through the second decade of the 21st century. An aging workforce was caring for an

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*Our Wisconsin health care workforce rose to the challenge of delivering the high-quality, high-value health care that Wisconsin is nationally known for amidst the COVID-19 crisis. As hospital and health system leaders, we saw not only the resilience of our hospital workforce, but also the importance of protecting, promoting and supporting this workforce.*

aging population hit hard by this novel virus, and worker shortages were further exacerbated by a rapidly escalating surge of COVID-19 patients needing care in the closing months of the year. Underlying issues were brought to the forefront, as health care providers became the last line of defense for an overwhelmed public health and social support system fighting the spread of this virus. The health care workforce stepped up not just to provide COVID care, but to ensure that hospitals remained safe places for Wisconsin's health care needs and strong partners for the communities they serve.

WHA has long been recognized as a leader in health care workforce development. This 2021 Wisconsin Health Care Workforce Report is WHA's 17th annual report. These workforce reports utilize national and state data and studies, reports from other associations and findings in the field to provide analysis and offer recommendations for action.

Our Wisconsin health care workforce rose to the challenge of delivering the high-quality, high-value health care that Wisconsin is nationally known for amidst the COVID-19 crisis. As hospital and

health system leaders, we saw not only the resilience of our hospital workforce, but also the importance of protecting, promoting and supporting this workforce.

I am confident my fellow health care leaders, along with Wisconsin's fine educational institutions, dedicated elected officials and policymakers will remain committed to growing, utilizing and supporting the health care workforce needed to meet this current crisis and the challenges that lie ahead.

Debra Rudquist

A handwritten signature in cursive script that reads "Debra Rudquist".

CEO, Amery Hospital & Clinic, Amery  
Chair, WHA Council on Workforce Development

# Executive Summary

2020 was an exceptional year for Wisconsin's health care industry and the professionals who devote their lives to providing health care to the members of their communities. Our health care workers were tested by an indiscriminate global pandemic that has claimed more than 6,000 lives and sickened nearly 600,000 people across the state.

Hospitals and health systems stepped up to fight a protracted surge of COVID-infected patients requiring complex care while also continuing to deliver babies, attend to accident victims and treat chronic disease. We saw first-hand how resilience and imagination among frontline health care workers could expand treatment capabilities, with hospitals and health systems increasing statewide bed availability, creatively utilizing health care teams and leveraging available space to manage a rapidly increasing number of patients even as post-acute care facilities closed to admissions due to cases of COVID in staff and residents. We also learned the very real physical, mental and emotional toll that prolonged stress on our health care system and its overburdened workforce can take.

The extraordinary strain that COVID-19 placed on all aspects of health care in Wisconsin over the past year is impossible to quantify. Still, we must acknowledge and celebrate heroic responses that saved lives and curtailed virus spread, while also recognizing the limitations of available space, people, time, energy and responsibility within hospitals forced to bear the brunt of a public health response to an unprecedented health crisis.

As this report shows, COVID-19 accelerated historic trends that were already stressing Wisconsin's health care workforce—most notably, an increasing demand for health care services by an aging population combined with disproportionate retirements of health care workers relative to new professionals entering the field, a phenomenon referred to as the “Silver Tsunami.”

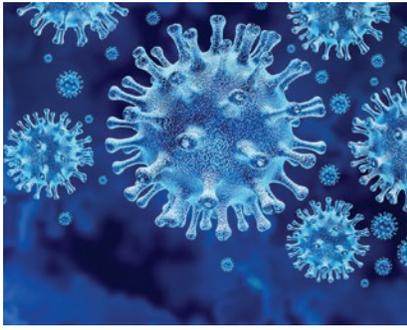
While awaiting a full assessment of the impact of COVID-19 on the state's health care workforce, WHA's workforce recommendations focus on the targeted and sustained growth needed to address known challenges and to increase capacity with a workforce that can't grow fast enough.

Wisconsin must continue to build our health care workforce to match demand and, at the same time, pursue strategies aimed at working more efficiently, leveraging new technologies to create better connections with patients and removing regulatory barriers that impede care delivery.

WHA recommends that health care organizations, educators and policymakers aim for good health care policy that will support the health care workforce and sustain the excellent health care Wisconsin is known for by advancing the following strategies:

- Build public-private partnerships to "Grow Our Own" Wisconsin health care workforce.
- Break down barriers to top-of-skill practice.
- Bolster acceptance and utilization of telemedicine and technology.
- Reduce regulatory burden and increase regulatory flexibility.
- Support care in the best setting—inpatient, outpatient or post-acute.

And while pursuing these solutions, Wisconsin must also take stock of its public health infrastructure shortcomings in preparation for the inevitable next global health emergency.



On Feb. 11, 2020, the World Health Organization announced the official name for the disease causing the 2019 novel coronavirus outbreak, first identified in Wuhan, China: coronavirus disease 2019, abbreviated as COVID-19. In COVID-19, "CO" stands for "corona," "VI" for "virus," and "D" for disease. Formerly, this disease was referred to as "2019 novel coronavirus" or "2019-nCoV." There are many types of human coronaviruses, including some that commonly cause mild upper-respiratory tract illnesses. COVID-19 is a new disease, caused by a novel (or new) coronavirus that has not previously been seen in humans. (1)

## Reckoning with COVID-19

The advent of a novel and devastating virus, COVID-19, highlighted strengths, weaknesses and opportunities in Wisconsin's health care workforce. The fight against COVID-19 would require rapid adaptations in the way care is provided—acknowledging that effective health care doesn't stop at the doctor's door or the hospital bed—as well as modifications to the ways we all live, work, play and learn.

Not all of these changes were embraced as quickly as needed. After stemming an initial surge of coronavirus early in 2020, when the federal government directed hospitals to delay care in preparation for a potential surge, the outbreak swelled in the fall, threatening to overwhelm hospitals in every region of the state. Through it all, hospitals and health systems stood strong as care providers and reliable community partners.

The importance of an adequately staffed and protected workforce was magnified as hospitals implemented surge plans to take care of more patients than they would ever have thought possible. Hospitals additionally took on roles traditionally associated with public health, when an overwhelmed public health system was unable to keep up with the necessary surveillance and tracing of this new, highly infectious disease.

Health care leaders understand that providing high-quality health care and standing up to a public health emergency like the COVID-19 virus is not possible without an engaged and supported workforce. WHA's annual Workforce Report is intended to provide health care leaders and policymakers with data, analysis and recommendations to ensure Wisconsin's health care workforce keeps pace with the demands for medical services in an ever-changing, increasingly complex environment, in a state where the population and the workforce is rapidly aging.

COVID-19 placed an incredible demand on the state's health care system and workforce as frontline workers bore the brunt of unmitigated virus spread, and Wisconsin hospitals rose to this enormous challenge.

# Health Care Workforce Demand

Unlike other industries where product demand is largely determined by economic forces, health care demand is driven primarily by demographics.

## An aging population hit hard by waves of COVID-19

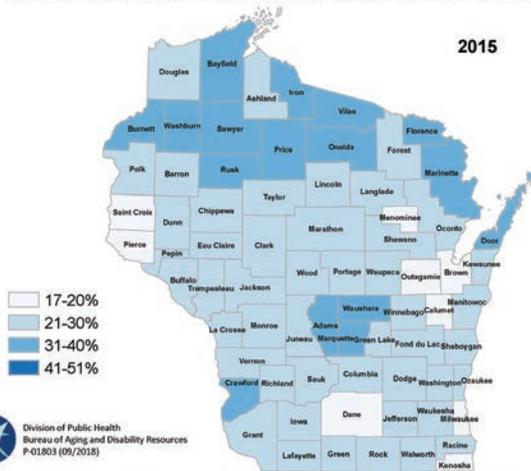
The “Silver Tsunami,” as the aging of the baby boom generation has been called, continued to increase the demand for health care in 2020, with demand rising exponentially as Wisconsin was hit with waves of COVID-19 that preyed heavily on the elderly.

From 2017 to 2032, the U.S. population under age 18 is projected to grow by only 3.5%, while the population aged 65 and over is projected to grow by 48%, and the population aged 75 and older is projected to grow by a staggering 75.3% (2). An aging population places greater demand on the health care system and requires a larger health care workforce. 80% of older people have at least one chronic condition, and 50% have at least two chronic conditions. Chronic diseases account for 75% of health care expenditures in the U.S. every year, and 95% of health care spending for older people is attributed to chronic conditions (3).

## Wisconsin’s aging population

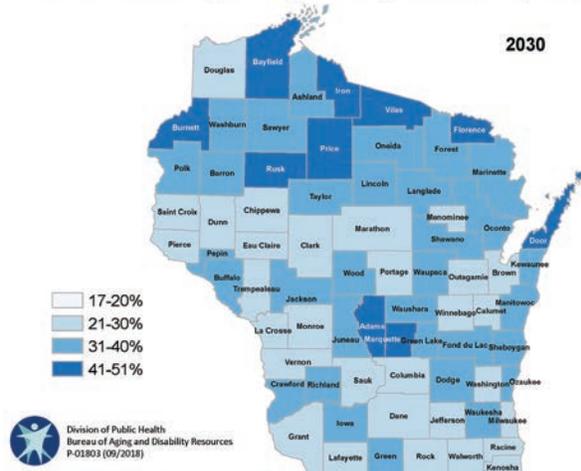
In 2015, Wisconsin had nine counties with populations consisting of 20% or less of people ages 60 and older, and no counties with more than 40% of their population ages 60 and older. By 2030, Wisconsin is projected to have no counties with populations consisting of 20% or less of people ages 60 and older, and 10 counties with more that 40% of their population ages 60 and older. (4).

Percent of the Projected Population Ages 60 and Older, 2015-2040



Source: Wisconsin Department of Administration, Demographic Services, 2010-2040 Population Projections, Vintage 2013

Percent of the Projected Population Ages 60 and Older, 2015-2040



Source: Wisconsin Department of Administration, Demographic Services, 2010-2040 Population Projections, Vintage 2013

COVID-19 is especially cruel to the aged, and its effect on this population is compounded by chronic conditions. The elderly are most prone to require more hospital days and more intense treatment when ill with COVID, and they are most likely to die from the disease. Chronic conditions, mobility issues and obesity are exacerbated by the social distancing necessary to protect those most vulnerable to the virus.

As Wisconsin faced an increasing COVID-19 crisis, public agencies such as the Wisconsin Department of Health Services and Wisconsin Economic Development Corporation, and private entities including health care and employer associations, put forth public education campaigns to encourage safe behaviors designed to curtail virus spread. WHA and a coalition of Wisconsin's leading health care, business and advocacy organizations joined together to urge the public to take preventive measures seriously to reverse a frightening trend of uncontrolled COVID spread in the state. This effort complemented and reinforced state messaging encouraging adoption of mitigation practices by citizens and businesses.



Wisconsin Dept. of Health Services Coalition



WHA-led coalition



Wisconsin Economic Development Corp. Coalition

Safe Practices:



Wear a Mask



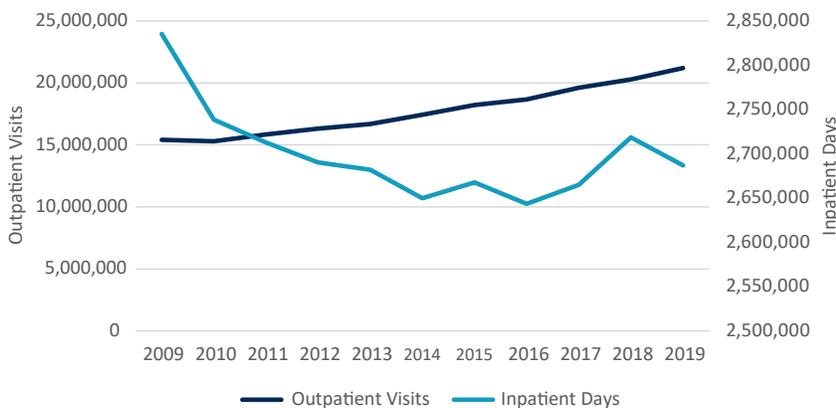
Wash Your Hands



Social Distance

### Hospital Inpatient and Outpatient Activity

Source: WHA Hospital Surveys



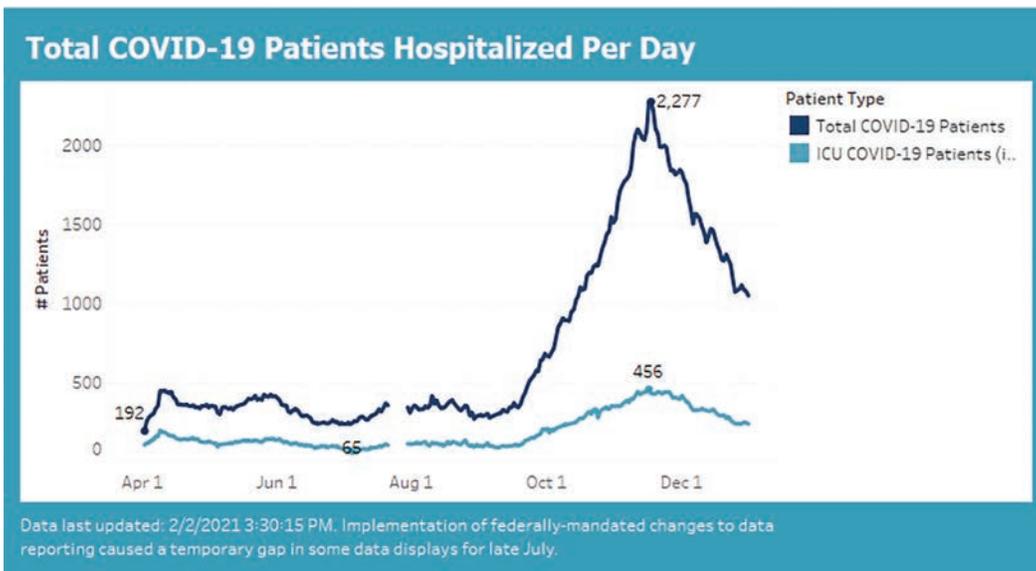
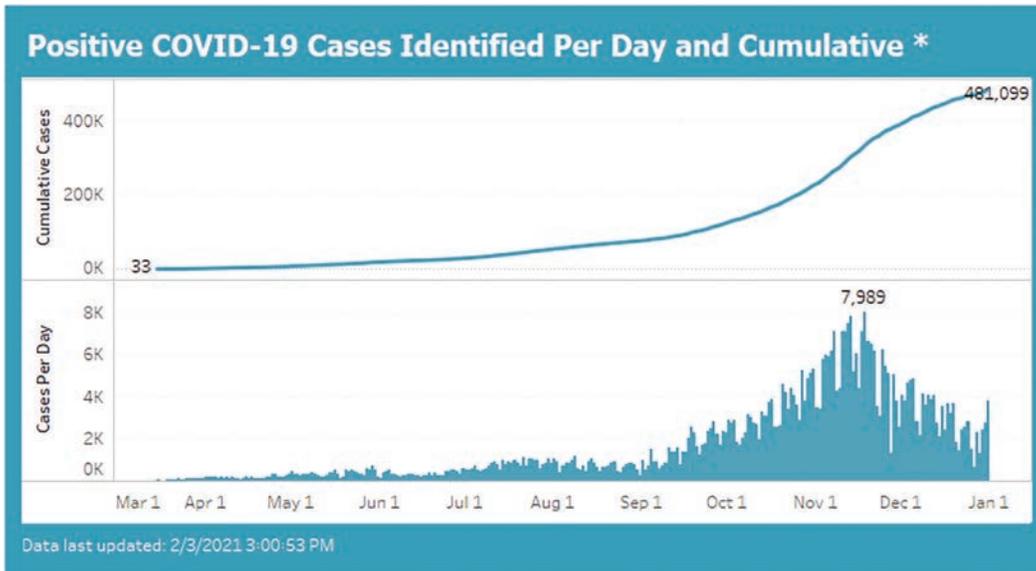
Aging populations increase demand for health care and require a larger health care workforce. Demand for hospital and health system services has steadily increased over the past decade. Volume data from the WHA Information Center annual survey of Wisconsin hospitals provide insight into health care service trends. In 2020, hospitals submitted data from their 2019 fiscal year, prior to the impact of COVID-19. 2019 inpatient and outpatient activity followed earlier trends of increased demand for hospital services.

### Other drivers of health care workforce demand

When successfully implemented, population health improvement initiatives such as curbing obesity, improving blood pressure and cholesterol, blood glucose control and reducing smoking prevalence reduce demand for chronic disease management and acute management of complications and co-morbidities.

COVID-19 highlighted in dramatic fashion the difficulty of changing behavior in the interest of population health. As the coronavirus became a marathon of masking and staying home, "COVID fatigue" set in, and individuals sought a return to normal and a release from restrictions designed to limit the spread. Inevitably, this led to a steep climb in cases and a rapid rise in hospitalizations.

Early in the COVID-19 outbreak, hospitals, at the direction of the U.S. surgeon general, deferred non-urgent and elective care in order to curb exposure to the virus (5). When failure to control the spread of COVID-19 created an unchecked surge, hospitals were forced to delay care due to workforce shortages. COVID-19 created a boomerang effect for the health care workforce. An entire hospital and health system workforce went from low census furloughs early in 2020 to all-hands-on-deck and relentless overtime in the last quarter of the year as cases of the virus and hospitalizations rose sharply before declining in December (6).



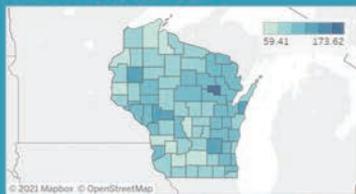
To help policymakers and the public better understand the impact of the COVID-19 pandemic in Wisconsin, the Wisconsin Hospital Association Information Center (WHAIC) created an online data dashboard related to daily COVID-19 hospitalizations, testing, cases, deaths and equipment capacity. In this seven-day-a-week undertaking, WHA staff compile information from Wisconsin's seven Healthcare Emergency Readiness Coalitions (HERCs) along with COVID-19 case data from the Wisconsin Department of Health Services to provide compelling, real-time and trended visualizations of the effects of the virus on the state's health care system. The WHAIC dashboard has logged nearly 1 million page views at the time of this report's publication.

## COVID-19 Situational Awareness Update

Choose your Healthcare Emergency Readiness Coalition region (HERC)

**134**  
total hospitals

### Cases Per 1,000 People \*



Data last updated: 2/22/2021 3:00:45 PM. County population is from the 2019 five-year estimate from the American Community Survey.

### Hospital Admissions

	Current	1 day Δ	7 day Δ
Total COVID-19 Patients	346	-1	-66
ICU COVID-19 Patients (included in total COVID-19 patient count above)	95	12	-23

Data last updated: 2/22/2021 3:30:35 PM

### # Hospitals with Less Than 7 Days PPE

	Current	1 day Δ	7 day Δ
Goggles	9	0	0
N95 Masks	5	0	-1
Gowns	16	0	0
Paper Medical Masks	13	0	2

Data last updated: 2/22/2021 3:30:35 PM  
Dr. Aug. 13, federal changes revised PPE reporting narrowing this metric from "7 days or Less" to "Less than 7 days"

### COVID-19 Tests and Deaths \*

Total Positive Tests	559,998
Total Negative Tests	2,595,614
Total Positive Tests - 24 Hour Δ	423
Total Negative Tests - 24 Hour Δ	3,257
Total Deaths	6,284
Total Deaths - 24 Hour Δ	0

Data last updated: 2/22/2021 3:00:31 PM

### Bed Count

	Beds Immediately Available	Total Beds
ICU	313	1,466
Intermediate Care	162	809
Medical Surgical	1,220	7,040
Neg Flow Isolation	764	1,857

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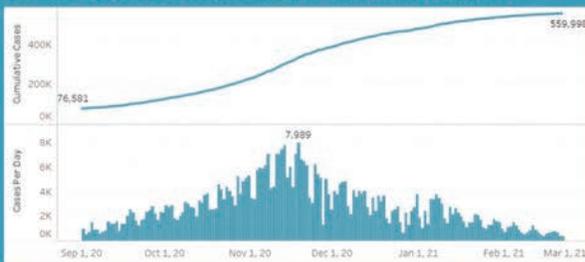
### Ventilator Availability

Total Mechanical Ventilators	2,380
Ventilated Patients (All)	378

Data last updated: 2/22/2021 3:30:35 PM

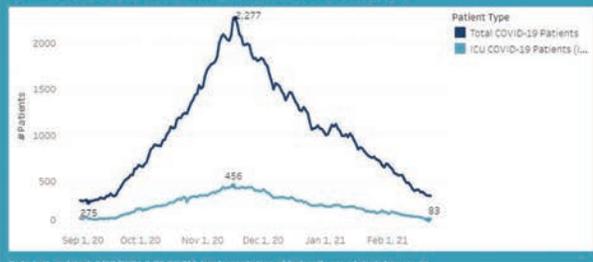
6 mo All

### Positive COVID-19 Cases Identified Per Day and Cumulative \*



Data last updated: 2/22/2021 3:00:31 PM

### Total COVID-19 Patients Hospitalized Per Day



Data last updated: 2/22/2021 3:30:35 PM. Implementation of federally mandated changes to data reporting caused a temporary gap in some data displays for late July.

<https://www.wha.org/Covid-19Update>

# Health Care Workforce Supply

The “Silver Tsunami” is impacting the health care workforce supply as baby boomers retire faster than they can be replaced. Professions with a longer pathway to practice, like physicians, are especially hard hit by these waves of retirements.

## Wisconsin hospital and health system employment

Jobs data from the WHA Information Center annual survey of Wisconsin hospitals provide insight into the pre-COVID picture of Wisconsin hospital and health system employment. In 2020, hospitals submitted data from their 2019 fiscal year.

The full-time equivalent (FTE) count in the annual survey includes employees in all job classifications, ranging from professionals with long career pathways to positions that may be obtained with a high school education (or even by high school students) in departments such as registration, housekeeping and nutrition services.

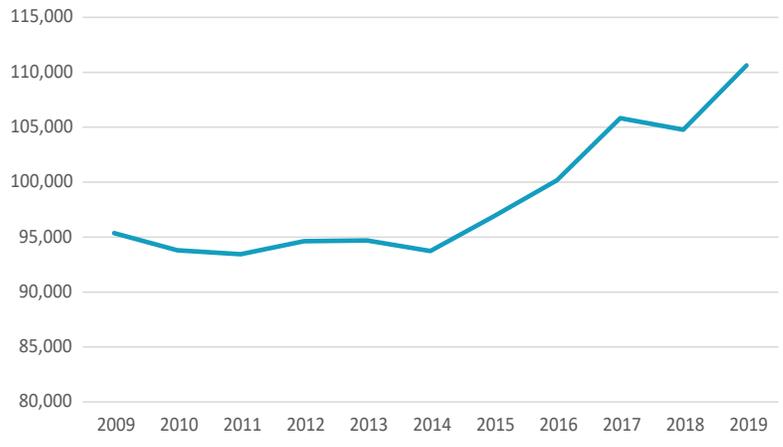
FTE counts remained flat from 2009 to 2013 but have risen from 2015 to 2019 as an aging population demands more intense and complex care from a larger health care workforce.

The Wisconsin health care workforce that faced COVID at the start of 2020 was more than 110,000 strong. The Wisconsin hospital professions tracked in the annual WHA personnel survey make up 70% of that workforce.

Registered nurses continued to comprise more than half of the hospital workforce.

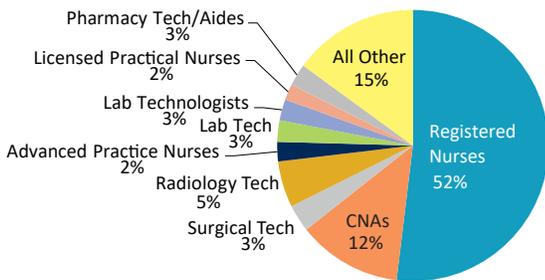
FTEs Employed by Wisconsin Hospitals

Source: WHA Hospital Surveys



Percent of Vacancies for Selected Wisconsin Hospital Professions Statewide

Source: 2019 Hospital Personnel Survey



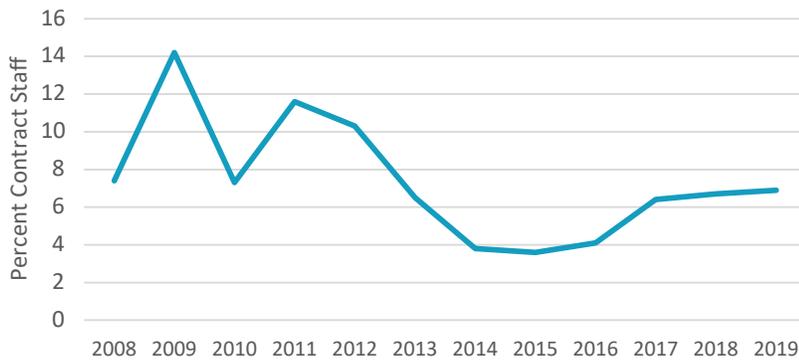
As COVID-19 surged across Wisconsin, hospitals experienced shortages of nurses, nursing assistants and respiratory therapists.

To support bedside care teams, clinicians stepped up to work to the top of their education, training and experience, support staff took on new responsibilities, and administrative and office staff stepped into supporting roles such as transport, delivery and environmental services.

Even with those efforts, the workforce was stretched beyond its limits by COVID-19.

## Contract Staff as a Percent of Total Staff

Source: Annual Hospital Personnel Survey



Wisconsin’s workforce has been able to keep pace with increasing demand with less than 10% use of contract staffing for the clinical professions tracked in the WHA personnel survey, a testament to the ability of educational entities and health care employers to project and respond to the demand for health care professionals.

As increases in health care demand and pressure on the industry’s workforce grew throughout the pandemic, hospitals and health systems increasingly turned to staffing agencies

to supplement their labor pool. The percentage of contract staff may look very different when hospitals submit their fiscal year 2020 personnel survey to WHA.

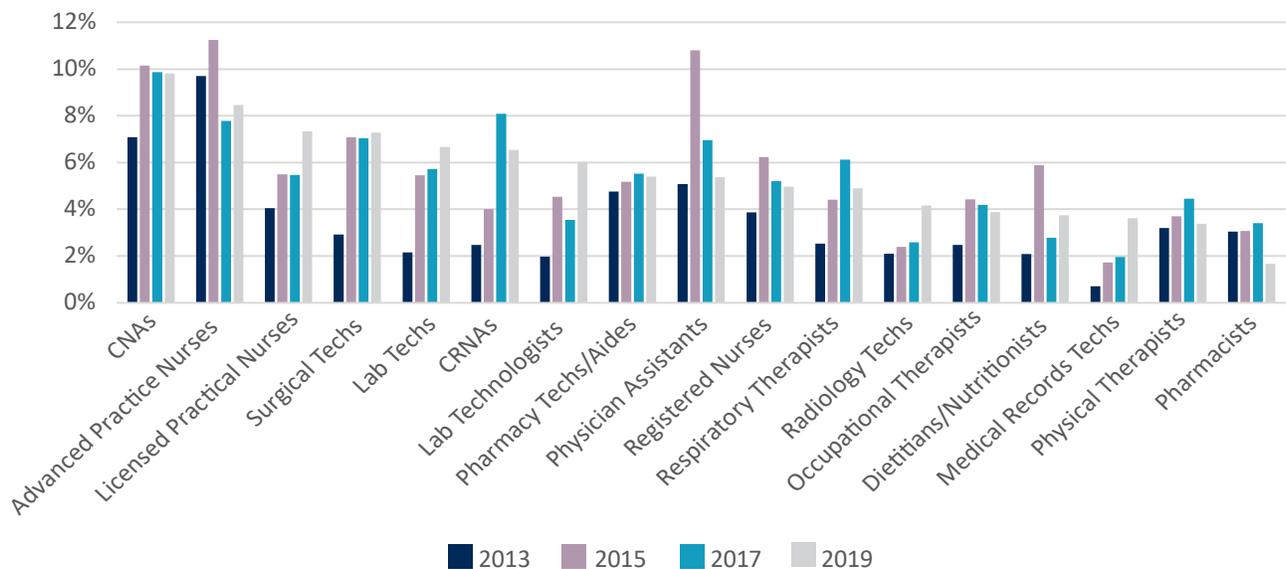
## Wisconsin workforce vacancy rates

The WHA personnel survey tracks employment and vacancy rates for a group of clinical professions to determine the current state of recruitment and retention efforts and to assess and report serious and ongoing shortages of hospital-based health care professionals.

As hospitals represent a large segment of health care employment, shortages here will have a trickle effect on other sectors of the health care industry.

## Vacancy Rates for Selected Wisconsin Hospital Professions

Source: Wisconsin Hospital Personnel Surveys



Vacancy rates dropped below double digits again in 2019. Entry-level positions, like nursing assistants (CNAs), practical nurses and technicians made up all but one of the top-five highest vacancy rates in 2019. Advanced practice nurses remained in the top-five again this year.

*When the wave of COVID-19 recedes, health care employers and educators will need to reassess which shortages should be targeted for sustained growth.*

COVID-19 magnified the impact of existing shortages. Nursing homes struggled to keep beds open for hospital discharges amid outbreaks and the inability to find or retain nursing assistants. This resulted in an already over-taxed hospital workforce being required to care for more patients. As county and state government struggled to provide the surveillance testing needed to contain the virus, hospitals were asked to take on an ever-increasing share of COVID-19 testing, straining their specimen collection and lab workforce. New shortages in nursing staff and respiratory therapy were created as hospitals were leaned on as never before to take on more and more patients while also shoring up local testing and tracing efforts.

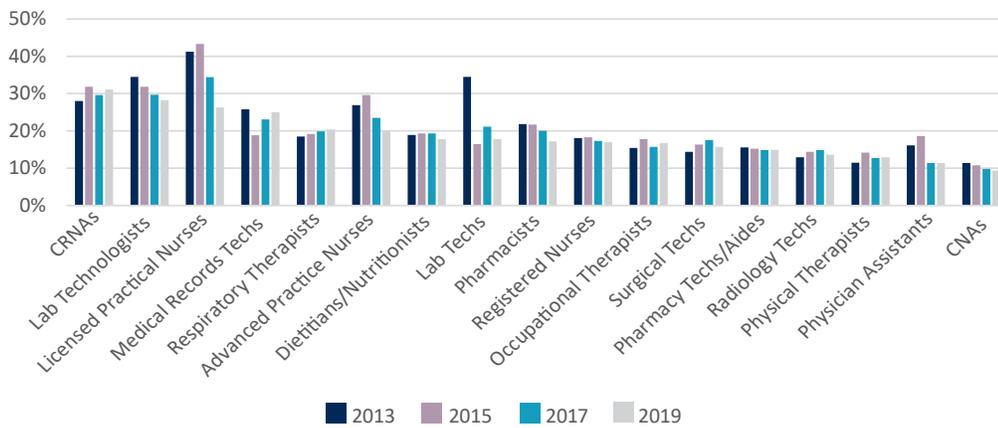
When the wave of COVID-19 recedes, health care employers and educators will need to reassess which shortages should be targeted for sustained growth.

### Wisconsin’s aging workforce

One of the metrics captured in WHA’s annual personnel survey is hospital-employed professionals over the age of 55. Individuals over 55 years of age may be in the workforce for a decade or more, and this benchmark provides employers with lead time to prepare for retirements. Occupations with a higher percentage of health care professions over age 55 will need more individuals entering the workforce to prepare for future retirements.

Wisconsin Hospital Professionals at Least 55 Years Old

Source: Wisconsin Hospital Personnel Surveys



In the annual personnel surveys covering fiscal years 2015 and 2016, just over 20% of the hospital health care workforce was aged 55 or older. As older workers retire and there is a much-needed infusion of younger workers, the percentage of the health care workforce aged 55 and older decreased to 16% in 2019.

There is significant variation in ages among professions. Certified registered nurse anesthetists (CRNAs) are the Wisconsin hospital workforce profession with the highest percentage of individuals aged 55 and over. Lab technologists, licensed practical nurses, respiratory therapists and advanced practice nurses join CRNAs as professions with greater than 20% of the workforce over age 55.

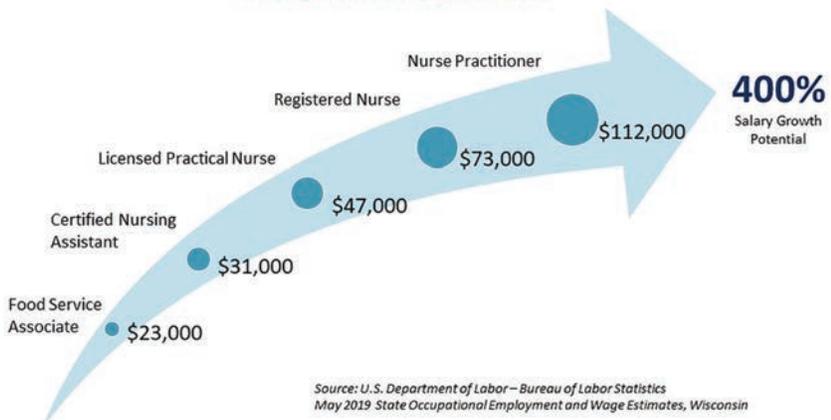
Nursing assistants and physician assistants, meanwhile, register workforces with 90% or more of their practitioners younger than age 55.

## Focus on career pathways

A declining percentage of older individuals can indicate rapid growth in a segment of the workforce like physician assistants (PAs) or high turnover, as certified nursing assistants (CNAs) leave the role to progress on career pathways. Nursing assistants have had the lowest percentage of individuals aged 55 and older since 2013. The percentages of licensed practical nurses (LPNs), CNAs, nurse practitioners (represented as “advanced practice nurses”), and PAs have decreased the most over the past five years.

### THE POWER OF AN ENTRY-LEVEL HEALTH CARE ROLE

Supported Career Pathways Attractive to Entry-Level Workforce:  
Average Salaries by Career Role



Both LPNs and CNAs can climb career pathways in nursing, leaving those roles at a younger age to pursue a registered nurse or advanced practice degree.

COVID-19 has highlighted the importance of the health care workforce, with media and communities conspicuously celebrating the efforts of these “health care heroes” through the pandemic. This spotlight may attract even more essential entry-level workers to health care career pathways. These new entrants will be needed, as COVID-19 may also speed up retirements or

result in members of the workforce leaving health care for other fields. The stress COVID-19 has placed on health care may, conversely, lead some to shy away from a career in the field. These will be important considerations to track as trends emerge in 2021 data.

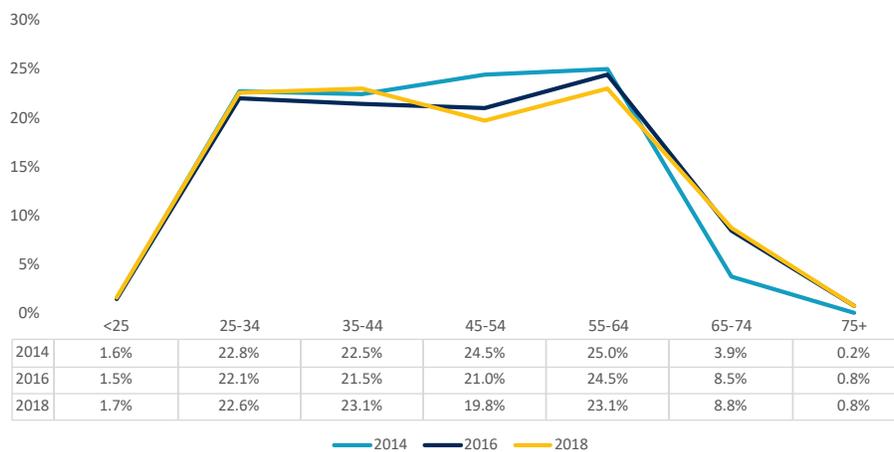
## Nurses continue to “age well”

As demonstrated by registered nurse re-licensure survey responses, the nursing profession in Wisconsin continues to “age well,” with the data showing about half of Wisconsin’s working nurses are younger than 45 years old, and about half the workforce made up of individuals aged 45 and older.

To “age well,” a profession must both gain new members and retain professionals in the workforce. Wisconsin schools of nursing must continue to strive to match enrollments and graduations to demand, and employers must continue to make nursing a job that can and will be done at all ages.

### Percent of Wisconsin Registered Nurses by Age

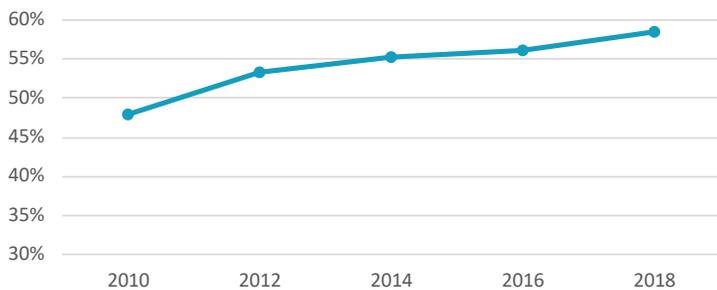
Source: Wisconsin Nursing Workforce Survey



## Bachelor of Science in Nursing degree attainment fosters clinical sites

Percent of Wisconsin Nurses with Bachelor's Degrees

Source: Wisconsin Nursing Workforce Survey



Nursing workforce survey results demonstrate Wisconsin has increased the percentage of nurses with a Bachelor of Science in Nursing (BSN) degree by only 10% since 2010 (7). More BSN-prepared nurses open clinical practice sites for nursing students; for a BSN student, a BSN-prepared registered nurse (RN) is required to act as the preceptor at clinical sites.

Students need clinical sites to complete the required curriculum for graduation and licensure and to have the best chance to succeed in their chosen field. Clinical sites also offer employers an

opportunity to recruit clinicians to their teams. One of the first impacts of the COVID pandemic was the closure of clinical sites to mitigate personal protective equipment (PPE) shortages and protect students from exposure to a virus we did not yet know much about. Closure of clinical sites threatened workforce growth just when it might be needed most.

Educators, licensure boards and the state of Wisconsin rose to the occasion by creating needed flexibility in the percentage of simulation training students could experience, bridging the gap created by the inability of hospitals and nursing homes to offer clinic sites amidst the outbreak of a new and highly contagious infection.

Despite fears that more simulation and less clinical practice would impact graduate performance, U.S. pass rates for the National Council Licensure Exams (NCLEX) for nurses have remained stable at 88% for 2018, 2019 and the first three quarters of 2020 (8). Health care employers are welcoming new registered nurses to their ranks, providing a needed infusion of new workers to the health care workforce.

## Workforce diversity lags population diversity

A diverse health care workforce is crucial to meeting the complex health needs of an increasingly diverse population. The diversity of Wisconsin's nurse workforce is not reflective of the diversity of Wisconsin's population. As a large segment of the health care workforce, trends in the RN workforce can be reflective of workforce trends as a whole.

COVID-19, like heart disease and other chronic conditions, is having a disparate impact on minorities. Racial and ethnic minorities experienced a higher burden of COVID-19 deaths nationally and in Wisconsin (9).

A diverse workforce, reflective of the population it serves, helps improve outcomes and access and is essential if health care disparities are going to be addressed (10).

Health care employers, educators and policymakers must grow a more diverse workforce in health care professions targeted to the needs of all Wisconsin citizens.

### Wisconsin population:



### Wisconsin RNs:



### Wisconsin LPNs:



● White ● Black ● Hispanic ● Asian ● American Indian

Source: Wisconsin Center for Nursing, 2014

## “Growing our Own” to address workforce shortages

No segment of the health care workforce has more of an impact on access to care than the physician workforce. The impact of physician shortages began to be felt by Wisconsin hospitals and health systems early in the 21st century. In 2003, WHA staff began to hear from member hospitals that they were having increasing difficulties recruiting physicians. As noted in the 2004 WHA report *Who Will Care for Our Patients?*, “The statewide nature of these reports created a new urgency and led the WHA Board to establish a Task Force on Wisconsin’s Future Physician Workforce, an advisory group composed of leaders from physician practice groups, the Wisconsin Medical Society, the Wisconsin Academy of Family Physicians, hospitals and health systems, the medical schools in Wisconsin and others.” (12)

### Increasing medical school enrollment

WHA’s 2004 report set Wisconsin on a path to create workforce solutions based on Wisconsin’s specific needs. The Wisconsin Council on Medical Education and Workforce (WCMEW) was formed to raise public awareness and convene experts around Wisconsin’s physician workforce issues.

The advisory group agreed that one of the first necessary steps was to expand enrollment at Wisconsin’s two medical schools: the University of Wisconsin School of Medicine and Public Health (UWSMP) and the Medical College of Wisconsin (MCW). A key component of the expansion was a focus on in-state students and those with ties to Wisconsin who would likely stay to practice in the state. The Wisconsin Academy of Rural Medicine (WARM) and the Training in Urban Medicine and Public Health (TRIUMPH) programs expanded UWSMP enrollment by 17%. MCW created two rural campuses and 50 additional spots targeting rural students with ties to Wisconsin (13).

### Increasing graduate medical education residencies to keep pace with increased enrollments

WHA and WCMEW continued to analyze physician workforce issues, issuing reports in 2008 and 2011. Recognizing the importance of matching increased medical school enrollments with a concomitant increase in graduate medical education (GME) opportunities, WHA’s 2011 report *100 New Physicians a Year: an Imperative for Wisconsin* led to a WHA-crafted public policy solution tailor-made to suit Wisconsin’s need to produce 100 additional physicians a year targeted to primary care, especially in rural settings (14).

#### Residency/Graduate Medical Education (GME):

Medical training that occurs after receiving the M.D. (Doctor of Medicine) or D.O. (Doctor of Osteopathic Medicine) degree, typically three to seven years at teaching hospitals and their associated ambulatory settings.

#### WHA’s 86% equation:

Data show that if you put a Wisconsin student through a Wisconsin medical school and place him or her in a Wisconsin residency, there’s an 86% chance that new physician will stay in Wisconsin to practice. And this “grow our own” strategy is working! As of December 2018, 91% of WARM graduates practice in Wisconsin (11).

### The “Grow Our Own” Equation

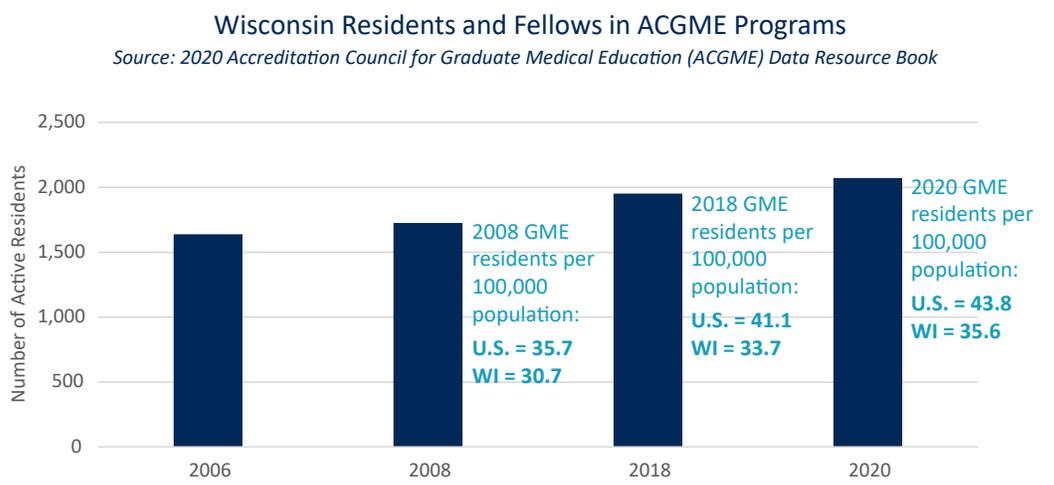


2013 Act 20 created GME grants to establish or expand Wisconsin GME programs to ensure there were enough residencies for the increased enrollment at Wisconsin medical schools so that Wisconsin takes advantage of the additive effect of the 86% equation (14).

In 2019, WHA advocated for an important update to the GME grant program. Under the original 2013 law, only family medicine, pediatrics, psychiatry, general surgery and internal medicine programs were eligible for grant funding. A new law passed by the Legislature in 2019 and signed into law by Governor Tony Evers as part of the biennial budget allows Wisconsin's Department of Health Services (DHS), the agency in charge of implementing the grants, to provide grant funding to any residency specialty with a demonstrated need.

Six grants were awarded in 2020 to create and expand Wisconsin GME programs. Two of those grants, in obstetrics-gynecology and dermatology, were a direct result of the 2019 policy change. Good health care policy is growing our Wisconsin health care workforce (15).

The public-private partnerships created to date by Wisconsin hospitals and clinics receiving WHA-crafted DHS GME grants have expanded GME opportunities to keep pace with Wisconsin's expanded medical school enrollment. There are 10 new GME programs in Wisconsin, and 10 existing Wisconsin GME programs have expanded as a result of this successful health care workforce policy, creating GME opportunities for 125 more Wisconsin physicians.



### ***Growing our own health care teams***

Physician shortages and an aging workforce also create an imperative to grow key segments of the health care workforce to meet the increased demand created by the "Silver Tsunami." With reports from Wisconsin hospitals of increasing difficulty in recruiting surgical techs, lab techs and respiratory therapists, and an increasing need for advanced practice clinicians to fill gaps created by physician shortages, Wisconsin took advantage of the "Grow Our Own" equation for these professions also. In 2017, WHA crafted a policy solution to support career pathways by creating more training opportunities for advanced

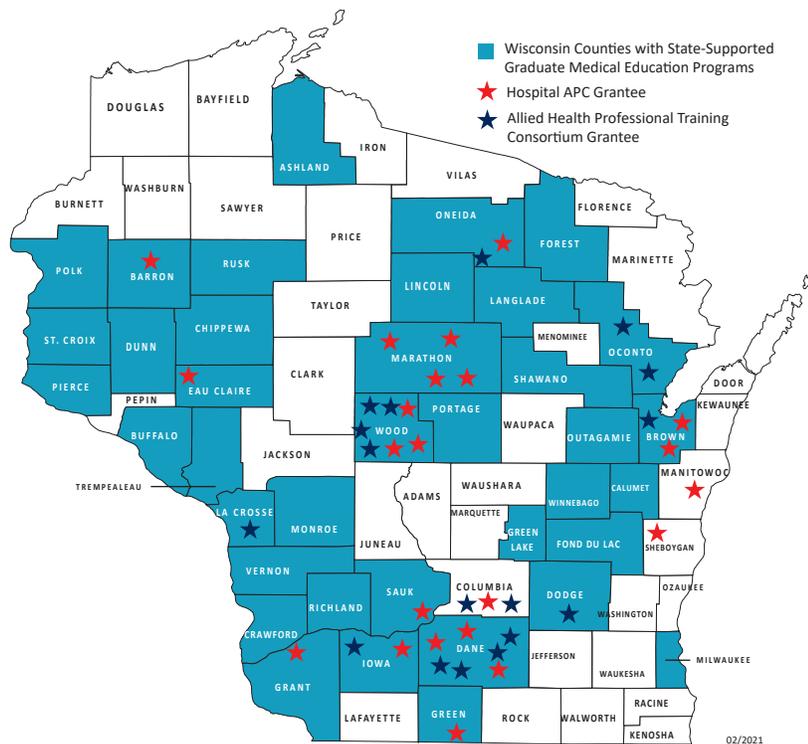


practice clinicians and allied health professionals in Wisconsin. This solution, modeled after the successful DHS GME grants, was advanced as bipartisan legislation under a program called the Rural Wisconsin Initiative and provides \$500,000 a year in matching grants to grow more advanced practice providers (APPs) in Wisconsin and \$500,000 a year in matching grants to grow more allied health professionals.

COVID-19 did not stop Wisconsin hospitals from pursuing these grant opportunities. Four more allied health professional training grants and four more advanced practice clinician training grants were awarded in 2020.

DHS GME, allied health, and advanced practice clinician grant funding has created and expanded training opportunities in every corner of Wisconsin.

# Health Care Workforce Capacity



As patients with COVID-19 surged into clinics, emergency rooms and hospitals, Wisconsin’s health care workforce stepped up to prepare for and care for a growing number of patients. Using flexibilities wisely provided by state and federal government, hospitals and health systems quickly opened additional wings to care for COVID-19 patients, all while continuing to provide necessary care to their communities and trying to catch up on the care deferred earlier in the outbreak.

COVID-19 magnified demand, exacerbated shortages and exhausted the health care workforce. It also highlighted the vital role teams, technology and flexibility play in most effectively utilizing the health care workforce.

## Retention and resilience key factors in capacity

Over the past decade, as the “Silver Tsunami” has created increased demand for a shrinking workforce, health care employers have implemented strategies to keep employees working longer and to pull new generations into their workforce.

When the spread of COVID outpaced COVID-fatigued Wisconsin citizens’ willingness or ability to wear masks, stay home or keep a distance, health care workers were increasingly exposed to COVID in their communities. In October and November 2020, hospitals and health systems were reporting that up to a quarter of their staff were quarantined due to close contact with an individual infected with COVID or were at home in isolation because they were infected with COVID.

The situation brought a new definition and timeline for discussions related to “population health” for the health care workforce. Employers needed to communicate to their staff the importance of healthy choices.

Hospitals and health systems also needed to consider how to best support and sustain a workforce challenged as never

before. They expanded programs to support their employees, including traditional employee assistance programs and peer support (16). Health care employers also provided concierge services such as dry cleaning, shopping and oil changes and support for workers and their families like meals to take home and holiday baking and gift-wrapping.

Not only did the health care workforce have to rally to care for an increasing number of COVID-19 patients, but this same workforce also had to cope with school and childcare closures. Wisconsin's Department of Children and Families (DCF), at WHA's urging, gave priority to health care workers when schools were closed early in the pandemic. DCF and employers took extra measures to provide resources to parents who were now also teachers.

Personal or family exposure to COVID-19 threatened the ability of Wisconsin's health care workforce to work. WHA members spoke up when more-restrictive state guidance about quarantine of workers was issued just as hospitalizations were surging and these team members were needed like never before. At WHA's urging, DHS responded with revised, less restrictive guidance.

The resilience of Wisconsin's health care workforce was also challenged to support a strained public health and pandemic infrastructure.

Testing for COVID-19 was hindered by insufficient community testing options and inadequate supply chains and reagents. Wisconsin's health care workforce provided most of the COVID-19 testing for clinical needs and public health surveillance throughout the pandemic.

Pandemic supplies like personal protective equipment (PPE) were also insufficient. Health care workers needed to change how they used PPE to mitigate shortages, and they needed to rapidly change workflows to protect themselves and their patients from the infection.

COVID-19 forced health care leaders and the health care workforce to rapidly find a way to increase workforce capacity and resilience to care for rapidly increasing numbers of patients. Health care employers, educators and policymakers can use these lessons learned after COVID-19 is tamed, but will also need to monitor and respond to long-term impacts of the pandemic on the health care workforce in 2021 and beyond.

## Factors that increase workforce capacity

COVID-19 brought new challenges for care coordination as patients and providers learned to navigate virtual care and in-person care with COVID-19 precautions. COVID-19 also broke down silos of care as patients and providers discovered that care traditionally provided in hospitals could occur in outpatient settings, drive-through sites or a patient's home.

### *Team-based care at top of skill*

Key to enhancing care for patients and capacity for the workforce is allowing all team members to perform at the top of their skill level. Tasks historically performed by primary care physicians are now being performed by advanced practice clinicians. Entry-level team members safely and effectively deliver services delegated to them by the primary care provider.

COVID-19 created a necessity for teams to function more effectively than ever before. Team members supported each other to maximize their skill sets and minimize consumption of scarce resources like PPE, time and clinician expertise.

Team members working in settings like ambulatory surgery crossed over to help meet the demand for care in hospital emergency departments and inpatient units. Administrative and office staff moved into patient-facing roles to support clinicians.



COVID-19 helped health care teams gain an appreciation for the importance of supporting top-of-skill practice and the difference that support can make in the ability of fewer clinicians to care for more patients.

Current rules can limit providers such as advanced practice clinicians from delegating to other professionals or providing care their license, education, training and experience has prepared them for.

Certification and training requirements can prohibit individuals from seeking caregiver opportunities.

State laws and agency rules must facilitate entry into health care professions and must be modernized to reflect the current practice and capabilities of health care professionals and health care teams.

Waivers and emergency rules implemented to cope with COVID-19 created temporary licensure and setting flexibilities that should be considered to increase the capacity of a workforce that cannot grow fast enough, even after COVID has been vanquished.

### ***Telemedicine works to extend access***

Telemedicine is a technology that is meeting the promise of extending the access to care where the physical presence of a health care professional is not possible or necessary. Telemedicine, the use of technologies to remotely diagnose, monitor and treat patients, is being widely implemented across Wisconsin and the nation, and the advent of COVID-19 fast-tracked this implementation.

One of the most common reasons hospitals use telehealth is to extend access to specialty care. Among the benefits of embracing telehealth are efficient post-surgery follow-up, lower hospital readmission rates, better medication adherence and positive care outcomes. By increasing access points and redistributing expertise where it's needed, telehealth can address disparities and improve health outcomes from pediatric health services to senior care.

Telemedicine has a proven ability to extend access, but its use has been hindered by lagging policy. In Wisconsin's 2019-2020 budget, Governor Evers, the Joint Finance Committee and Wisconsin's Legislature broke down some barriers to telehealth by passing WHA-proposed health care policy to allow for remote patient monitoring and provider-to-provider consultation.

The arrival of COVID-19 heralded rapid, immediate growth and acceptance of telemedicine as patients and providers sought to give and receive care at a safe distance. The use of virtual services among Medicare beneficiaries went up by more than 11,000%. In the initial months of the outbreak, Massachusetts General Hospital in Boston went from 1,500 virtual ambulatory visits per month to 250,000 visits per month, and UPMC in Pittsburgh quickly went from 200 to 7,500 virtual encounters per day (17).

State and federal policymakers made the rapid increase in utilization of telemedicine possible as they created flexibility to help providers and patients complete care at a safe distance and without expending crucial PPE resources.

As the current wave of COVID recedes and the promise of vaccination tames the outbreak, it will be important for providers and policymakers to assess which changes should be sustained beyond COVID-19 to recognize the ability of telemedicine to improve care and access.



## Factors that decrease workforce capacity

As Wisconsin's health care workforce strives to meet the demands of the "Silver Tsunami" and serve as the last line of defense against COVID-19, the energy of workers is being sapped as they struggle to meet inflexible regulatory requirements, all while continuing to care for patients not needing hospital care and propping up an inadequately resourced public health and emergency response.

### **Regulatory requirements add to electronic health record burden**

Electronic health records (EHRs) and billing and data submission requirements have had a profound impact on the workflow of health professionals who are, as a 2017 study published in the *Annals of Family Medicine* noted, "tethered to the EHR." This study reported, "Primary care physicians spend more than one-half of their workday, nearly six hours, interacting with the EHR during and after clinic hours." (18)

A 2018 study published in *Family Medicine* tracked components of patient visits with their primary care physicians and found that family physicians in direct ambulatory patient care spent more time working in the EHR than they spent in face-to-face time with their patients. This study noted, "...the majority of family physicians worked through lunch, stayed late at clinic, or took their work home to complete the day's EHR work." (19)



Contrast this with a study from the U.K., where the face-to-face time general practitioners spent with patients was three times as much as EHR time, and where the entire U.K. visit time was less than the time their U.S. counterparts spend in the EHR (19).

Health care professionals, health systems, hospitals and post-acute care providers confront the daunting task of complying with a growing number of regulations. Regulation is intended to ensure that patients receive safe, high-quality care. Not all the rules improve care, and all of them require time and action by our health care workforce. Patients have less time with their caregivers and must navigate unnecessary hurdles to receive care amidst a growing regulatory morass.

Regulatory compliance is a major drain on the health care workforce. An average-size hospital dedicates 59 FTEs to regulatory compliance, and one in four of those engaged in regulatory compliance is a doctor or nurse, making these clinicians unavailable to patients (20). Perhaps the promise of EHRs to make data more accessible and of technology to lighten the load has even made it seem more acceptable to add regulatory requirements, but the reality is that unnecessary regulation carries a time commitment our health care workforce cannot afford.

COVID-19 magnified these issues as providers struggled to fill out an increasing number of data fields on state testing forms and log COVID-19 information into state and federal databases. Often, data requestors assumed that the information would be automatically plucked from electronic health records. Infection preventionists, quality improvement staff and clinicians across the state spent hours searching for, entering and formatting data to satisfy ever-changing requirements. To satisfy federal requirements alone, the Centers for Medicare & Medicaid Services (CMS) calculated the burden to be an additional two hours per day for each U.S. hospital, a staggering total of 2 million hours for the hospital workforce in just a six-month timeframe (21). The time spent satisfying these requirements was sorely needed at the bedside as COVID surged through Wisconsin and hospitalizations soared in September, October and November of 2020.

Policymakers, proponents of care improvement initiatives and clinicians themselves must not only ensure that the benefit outweighs the additional work required before adding regulations or documentation requirements, they must also actively seek to reduce regulatory burden on health care teams needed to care for patients.

### ***Hospital stays lengthen when post-acute care can't be found***

Many Wisconsin hospital patients, especially those with complex medical needs, experience excessively long inpatient stays because of a lack of access to post-acute care. Many of these “avoidable days,” days in which the patient is medically stable for discharge but there is a barrier that prolongs the patient’s hospital stay, are out of the hospital’s control if post-acute facilities can’t or won’t care for these patients.

Hospitals must continue to provide medically necessary care in these situations because patients are not medically stable to go home without support. Hospitals are not reimbursed for these avoidable days; the beds occupied by these patients cannot be used for patients who need acute care; and a greater number of health care professionals are required to provide continued care in the hospital setting.

Post-acute care beds are unavailable for many reasons—nursing homes may not have sufficient workforce to keep all beds open or the needed expertise to admit complex patients. In late 2018, WHA surveyed its members to determine the scope of this problem. Based on the responses received, the WHA Information Center estimated that patients spent 38,000 “avoidable days” at Wisconsin hospitals in 2017.



COVID-19 magnified the issue. As the outbreak worsened, many, many nursing homes could not take hospitalized patients in need of post-acute care because a nursing home resident or staff member was positive for COVID-19. Hospitals could not free up beds desperately needed for an increasing number of COVID-19 patients. Hospitals opened additional beds, searched for additional staff and utilized swing beds to create needed access to hospital and post-acute care.

COVID-19 highlighted the importance of addressing caregiver shortages. Allowing hospitals to create transitional care units able to provide complex care or allocating a part of nursing home funding increases for a “complex care rate” have the potential of creating more access to post-acute care.

### ***Inadequate infrastructure taxes hospitals and the health care workforce***

Early in the pandemic, it became clear that national and state supply chains and infrastructure were inadequate to care for the high volume of testing, tracing and support needed to contain COVID-19. Testing was initially tightly controlled by a lack of validated testing methods. When testing methodologies became available, it became apparent that there were few options available to collect specimens from Wisconsin citizens and complete lab analysis for mass surveillance testing.

The public health infrastructure did not begin to meet the demands for widescale testing of asymptomatic community members across the state. This demand was exacerbated by state and federal testing goals and the paradigm, “Anyone who wants a test should get one.” Public health became even more overwhelmed with the need to provide notification and tracing for community members desiring the test but unreceptive to tracing and the need for isolation and quarantine of close contacts.



Health care providers became inundated with testing requests from their communities and requests for assistance from their overwhelmed public health partners. The local hospital was often the only source of testing in rural communities and an unfunded source to fulfill requirements for notification and data-gathering that accompany COVID-19 testing.

Hospitals and health systems found themselves pressed to meet clinical needs for testing with an inadequate supply of testing resources and a shrinking supply of personal protective equipment.

The sheer volume of Wisconsin citizens wanting and needing COVID testing overwhelmed Wisconsin's public health infrastructure and demonstrated that the state's medical infrastructure is a finite resource that cannot assume both the health care and public health mantle for the state.

The state's health care workforce is being drained trying to provide care, testing and follow-up for COVID-19. The state must create an infrastructure for public health and emergency preparedness that can stand up to future outbreaks and emergencies we never hope for but must acknowledge can occur. Nearer at hand is the mass vaccination we do all hope for, which provides a chance for Wisconsin to demonstrate an ability to address an important public health challenge.

## Wisconsin Health Care Workforce Recommendations

COVID-19 magnified existing workforce issues and opportunities and highlighted needed changes to sustain the workforce necessary to provide the health care Wisconsin citizens desire and deserve. The surge of patients needing hospitalization exacerbated shortages and fueled a need to grow our health care workforce faster. COVID-19 provided an opportunity to see the positive impact greater regulatory flexibility and reduced regulatory burden can have on workforce capacity when the workforce can't grow fast enough. COVID-19 was also a proving ground for telemedicine and virtual care. Finally, COVID-19 uncovered opportunities to further develop the emergency response and pandemic supply chain and to strengthen Wisconsin's public health and social support structure.

Health care organization leaders and trustees, health care professionals, health care educators, policymakers, community leaders and other key stakeholders must grow and sustain the health care workforce necessary to meet the health care needs of Wisconsin citizens by:

- Providing clear pathways to jobs and careers offering increased wages and responsibility for entry-level in-demand professions;
- Breaking down barriers to increasing the number of professionals that enter the Wisconsin health care workforce;
- Identifying practice, policy and payment reforms that will advance team-based, longitudinally coordinated care and increase workforce capacity;
- Promoting flexibility in workforce policy in recognition of differing organizational and community needs and resources;
- Recognizing the cumulative effect that regulatory burden and documentation have on clinicians' time, which is a finite resource, and working diligently to reduce regulatory burden; and
- Strengthening the public health and emergency preparedness infrastructure to ensure that the hospital and health care workforce can be devoted to providing high-value health care.

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