



Robert N. Golden, MD



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It's Not Enough

Jonathan Temte, MD, PhD; Robert N. Golden, MD

As 2020 dawned, we were greeted with fair skies and unseasonably warm (18°F) temperatures across southern Wisconsin,¹ along with the promise of a new year. According to the Chinese Zodiac, it was to be the Year of the Rat. In traditional Chinese culture, rats are seen as a sign of wealth and surplus. Due to their high reproduction rate, married couples pray to them for children. Little did we know or suspect, however, that this high reproductive rate would apply to a novel virus.

A Brief History

The first documented case of SARS-CoV-2 in the United States was recorded in Washington state on January 19, 2020.² Seventeen days later, Wisconsin reported its first case—arriving by airline from Beijing—on February 5. By late February, non-travel-related, person-to-person transmission had been confirmed in the United States.³ In response to rising cases in Wisconsin, Governor Tony Evers issued Executive Order #72, declaring a public health emergency on March 12, followed the next day

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by a mandate for closure of all public and private schools in Wisconsin no later than March 18.⁴ At that time, Wisconsin had recorded 10 cases. In addition, on March 13, University of Wisconsin (UW) System President Ray Cross

announced that in-person instruction would not resume after spring break to help protect the health and safety of UW students, their families, UW employees, and communities.⁵ Our state is currently ranked 11th in terms of cases across the United States. Looking back across 10 months at the cumulative curve of SARS-CoV-2 cases, one sees a perfect example of exponential growth, with

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On March 25, Governor Evers issued the “Safer at Home” order with a planned expiration on April 25. Due to a growing case burden, on April 16 this order was extended to May 26, prompting the Wisconsin Legislature to file legal action against the “Safer at Home” order in the Wisconsin Supreme Court on April 21. In a 4-3 ruling on May 13, the Court blocked the “Safer at Home” extension, essentially lifting caps on the size of gatherings, allowing people to travel as they please, and businesses—including bars and restaurants—to reopen.⁶

As of December 21, 2020, Wisconsin has accumulated 457,177 cases and nearly 4,417

occasional deviations. One can pick out the end of “Safer at Home” and Memorial Day weekend, as well as the Fourth of July holiday, as “flash points” fueling accelerated growth. In general, however, Wisconsin has experienced a persistent doubling of cases every 16.3 days.

What Have We Done to Combat This?

The UW School of Medicine and Public Health has been at the forefront in fighting SARS-CoV-2. On January 29, during a seminar slot made available by the sudden cancellation of a planned visit by Centers for Disease Control and Prevention (CDC) Director Robert Redfield, MD, we brought together eight experts from across the school and campus for one of the nation’s first symposia on the novel coronavirus. From early on, our faculty and graduates have taken leadership and consultative roles in

the Wisconsin Department of Health Services, UW-System, UW-Madison campus, and UW Health, as well as with national vaccine advisory committees. But, it's not been enough. Our physicians and their teams have placed themselves in harm's way to provide vital and innovative patient care. Our researchers have been on the cutting edge of developing care pathways, recommending infection control practices, evaluating therapeutics, and testing candidate vaccines. But, it's not been enough. Our public health faculty have contributed to modeling the outbreak, highlighting health disparities, and advising best practices. Across our school and through collaborative efforts with other partners, we have provided countless hours of teaching, media interviews, and outreach—all aimed at encouraging the statewide adoption of public health mitigation strategies. But, it's not been enough.

A testament to Wisconsin's heritage, the "Swiss cheese" model of SARS-CoV-2 mitigation efforts has emerged as a useful metaphor.⁸ The model shows how multiple layers of protection—even though each layer has "holes"—reduce disease transmission. The composite of multiple interventions is necessary. Applied a different way, however, every single COVID-19 death is a failure of our tertiary health care system, our therapeutics, and our supportive care. Every hospitalization reflects the limitations of our primary care system, our inconsistent access to care, and our lack of health equity. Every single new case is a failure of our public health infrastructure, our lack of adequate testing and contact tracing, and our lack of community outreach and engagement. And even if we had it all, it would not be enough. Every single case, every hospitalization, and every death is the direct consequence of an initial acquisition of SARS-CoV-2 virus from another person.

It's On Us

With the advent of highly effective vaccines, multiple therapeutics, and a plethora of testing modalities, we now find cause for hope. But no single intervention is going to save us or return us to normalcy. In his assessment of the 1918 influenza pandemic, historian Alfred Crosby wrote:

"Studying the record of the American people

in 1918 and 1919 is like standing on a high hill and watching a fleet of many vessels sailing across a current of terrible power to which the sailors pay little attention. They grip their tillers firmly, peer at their compasses, and hold faithfully to courses, which, from their vantage, seem to be straight, but we can see that the secret current is sweeping them far downstream. The immense flow swamps many of the ships, and their sailors drown, but the others take little notice. The others are intent on maintaining their own unwavering courses."⁹

The words of a 74-year-old, semiretired family doctor from a small town in South Dakota could not be more profound at this time.¹⁰ Dr Tom Dean is one of three physicians in the county where he has devoted his career. He has experienced the devastation of the pandemic, recently losing both parents at the nursing home that he directs:

"My parents lived a good life, and they were at the end of their road. They got married 76 years ago during World War II once they'd finally saved up enough of their sugar rations to bake a proper wedding cake. They loved telling that story. Everybody was sacrificing for the war. It was a national effort. They were proud of it. The country had bigger problems, and their wedding cake could wait.

"How can we get back to that? What happened to us? My hope now that this election is over is maybe we can take a break from tearing each other apart. The virus is still raging, and there's no magic solution. It doesn't just go away unless we stop it."

From nearly the beginning of this pandemic, the secret to transiting and surviving COVID-19 has been known and repeatedly made

available to everyone. The secret involves the oft-repeated mantra of distancing, masking, maintaining hand hygiene, staying home while ill, isolating if infected, and quarantining if exposed. We all know this. But, it's not enough. *It's on each of us to live this.*

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