

Health, Illness, and Death IN THE TIME OF COVID-19

Bradley Steffens



Understanding the
COVID-19 Pandemic



About the Author

Bradley Steffens is a novelist, a poet, and an award-winning author of more than sixty nonfiction books for children and young adults.

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For more information, contact:

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The COVID-19 Pandemic: The First Nine Months of 2020

January

- ⑪ China reports first known death from mysterious virus that infected dozens in Wuhan in December.
- ⑳ WHO reports that Japan, South Korea, and Thailand have first confirmed virus cases outside of mainland China.
- ⑳ WHO declares global health emergency.
- ⑳ US restricts travel from China.

February

- ② Philippines reports first coronavirus death outside of China.
- ⑤ Japan quarantines *Diamond Princess* cruise ship; within 2 weeks the ship has more than 600 infections.
- ⑪ WHO names the disease caused by the new coronavirus COVID-19 (for *coronavirus disease 2019*).
- ⑳ Europe's first major outbreak occurs in Italy.
- ⑳ Brazil has Latin America's first known case of coronavirus.

March

- ⑬ US president Donald Trump officially declares national emergency.
- ⑱ California becomes first US state to enact statewide shutdown.
- ⑳ Officials announce 1-year postponement of 2020 Tokyo Summer Olympics.
- ⑳ US becomes world leader in confirmed coronavirus infections.
- ⑳ President Trump signs \$2 trillion economic stimulus bill sent to him by Congress.

April

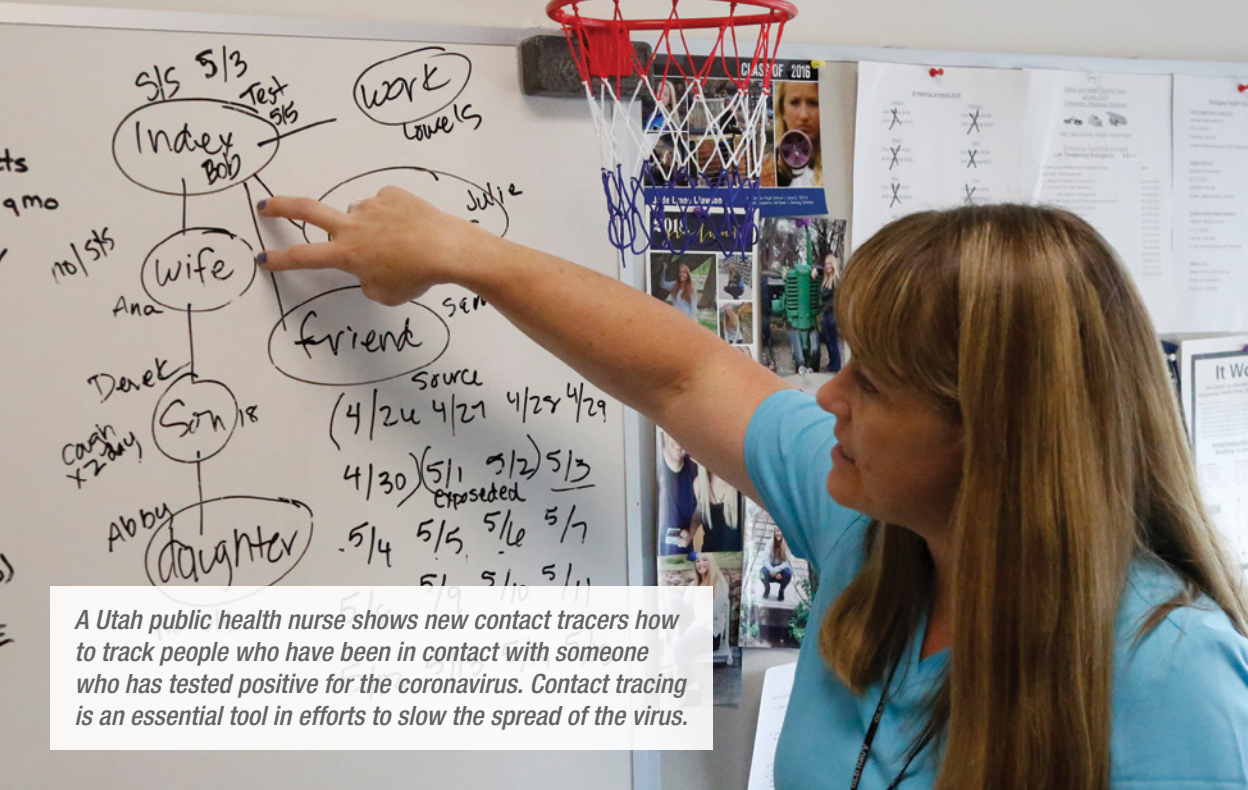
- ② Pandemic shutdowns have cost nearly 10 million Americans their jobs.
- ⑩ Coronavirus cases surge in Russia.
- ⑭ IMF warns of worst global downturn since Great Depression.
- ⑰ President Trump encourages protests of social distancing restrictions.
- ⑳ Pandemic has killed more than 200,000 and sickened more than 2.8 million worldwide.
- ⑳ Several major airlines begin requiring face masks.

How COVID-19 Can Be Slowed

As scientists and medical professionals became aware of COVID-19, they tried to prevent the disease from spreading. Understanding that the disease was caused by a virus similar to SARS and MERS, they attempted to use the same techniques that controlled those outbreaks in 2002 and 2012, respectively. Those techniques—mainly, identifying the infected patients and isolating them from others—did not work as well for COVID-19. The rapid spread of COVID-19 has forced governments to adopt a wider array of containment measures. One of these measures is known as contact tracing.

Contact Tracing

On July 1, 2020, Maggie Prosser, a senior at Ohio University in Athens, Ohio, was contacted by a state health department employee. Prosser says she was notified that a person with whom she had “a brief, non-socially distanced encounter”²⁷ at a friend’s house had tested positive for COVID-19. The health official was doing contact tracing; that is, identifying and notifying everyone who has come in close contact with a person known to have a contagious and potentially deadly virus. The health department worker advised Prosser to isolate herself from others, or self-quarantine, for fourteen days. “Within two hours, I zoomed down U.S. Route 33 toward Athens, Ohio and away from my parents’ house in downtown Columbus,” Prosser remembers. “A two-week



A Utah public health nurse shows new contact tracers how to track people who have been in contact with someone who has tested positive for the coronavirus. Contact tracing is an essential tool in efforts to slow the spread of the virus.

stock of groceries in tow, I was going to carry out my mandated quarantine in my dormant college apartment.”²⁸

Naturally, Prosser wanted to know whether she had the virus. That night she called her family doctor. He told her it was too soon for a test. If she had contracted the virus, it would take at least three days for the virus to multiply enough to be detected by the nasal swab test. Like the health department worker, the doctor told Prosser to watch for COVID-19 symptoms. Every day, a county health worker called to check on Prosser. Symptom-free for several days, Prosser asked the health worker if she could get a test before returning home. “The representative chastised me for considering returning home and plainly said the test was inaccurate and could produce false results,” says Prosser. “After hanging up, I feverishly searched for nearby testing locations, all of which were backlogged and booked-up.”²⁹

Not knowing whether she had COVID-19 began to wear on Prosser. “Every snuffle and irregular heartbeat was anxiety producing, and sent me frantically searching for COVID-19 testing sites,”

she recalls. “Each relentless search turned up empty.” When she finally spoke with a doctor via video call on the thirteenth day of her quarantine, Prosser was out of patience. “Saturday morning was filled with sorrowful tears as I sat in my stuffy, three-bedroom apartment pleading with a doctor to refer me for a test,”³⁰ she recalls. Because she had no symptoms, the doctor counseled against being tested. Later, Prosser spoke out about her experience. A journalism student, she wrote a commentary for the Ohio Capital Journal, criticizing the COVID-19 testing process:

It is unrealistic for government officials to expect people to quarantine for 14 days every time they are exposed to COVID-19 without adequate and effective testing. It is unrealistic to expect people to live with the crippling and debilitating anxiety of not knowing whether or not you are sick. It is unrealistic for employees to feel safe returning to work without knowing if they could become symptomatic or not. But it is especially unrealistic for our state government to assume that we can slow the spread of this virus with our current diminutive and futile testing.³¹

Public health and infectious disease experts say that contact tracing and testing are vital to containing a pandemic. Unlike broad public measures, contact tracing focuses on those who are at immediate risk of the disease and are most likely to spread it. “The thing that’s incredibly valuable about contact tracing at this point is the literal intelligence—the knowledge and understanding—that it gives decision-makers,” says Danielle Allen, director of the Edmond J. Safra Center for Ethics at Harvard University and a coauthor of a handbook of COVID-19 policy. “If you can work out that you have a whole cluster coming from one specific kind

“Every sniffle and irregular heartbeat was anxiety producing, and sent me frantically searching for COVID-19 testing sites.”³⁰

—Maggie Prosser, an Ohio University student

of activity, then that's what you shut down—you don't have to shut down everything.”³²

Contact tracing can dramatically reduce the coronavirus infection rate, but only if the practice is widespread. Researchers at Stanford University found that contact tracing programs combined with effective testing and quarantining can reduce overall transmission rates by almost half. However, such programs can only work if detection of cases in the community and successful outreach to contacts both exceed 50 percent. A survey conducted by the Johns Hopkins Center for Health Security in collaboration with NPR found that the United States has only about half of the contact tracers needed to curb the pandemic. According to the survey, the total number of contact tracers was 53,116 in October 2020. That number was four times greater than the number of contact tracers working in April, but it was still far short of the 100,000 experts said were needed nationwide. Only two states—Vermont and Oregon—and the District of Columbia had enough contact tracers to meet the needs of the population. Four other states—Hawaii, Maine, Montana, and New York—had enough contact tracers when the state's reserve staff was included. The other forty-four states did not have enough contact tracers available.

Social Distancing

Without sufficient contact tracing, public health officials have no choice but to call for the entire population to take steps to curb the spread of the virus. Understanding that many of the people who had contracted the virus might not know they have it, either because the disease was in the incubation period or the person was asymptomatic, public health officials called for people to remain at least 6 feet (1.8 m) apart when in public. This practice is known as social distancing. The idea is that an infected person shedding the virus through speaking, coughing, or sneezing would not project droplets or aerosols in great enough numbers to infect another person beyond a 4- to 5-foot (1.2 to 1.5 m) radius.

COVID-Sniffing Dogs

Passengers leaving the baggage area of Helsinki Airport in Finland are given a disposable wipe and asked to wipe their neck for a voluntary COVID-19 test. Health workers take the box containing the perspiration sample behind a nearby wall, where a trainer waits with a dog. If the person has COVID-19—even if he or she has no symptoms—the dog will pick the sample out of a lineup within ten seconds. According to researchers, the dogs are right 94 percent of the time. Passengers who test positive for COVID-19 are directed to a medical office in the airport. The entire process takes a minute or less.

Dogs, which possess a sense of smell estimated to be ten thousand to one hundred thousand times keener than that of humans, have been used for years to detect hypoglycemia in diabetics and some kinds of cancer. COVID-sniffing dogs are also being used to screen passengers at airports in the United Arab Emirates. Virpi Perala, a representative of Evidensia, a company that funded the Helsinki research, believes dogs could be used to screen for the virus in retirement homes, schools, and malls, but seven hundred to one thousand disease-sniffing dogs would be needed. “We could keep our country open if we had enough dogs,” Perala says.

Quoted in Elian Peltier, “The Nose Needed for This Coronavirus Test Isn’t Yours. It’s a Dog’s,” *New York Times*, September 23, 2020. www.nytimes.com.

Businesses and government offices quickly adopted the policy, often marking their floors with tape or stickers located 6 feet (1.8 m) apart to show people where to stand when they lined up at a cash register or other point of service. People were encouraged to practice social distancing at all times and situations—while on walks, pumping gas at the gas station, or even meeting friends socially. Hugs, handshakes, and air kisses became a thing of the past.

Face Masks

After the superspreading event at the Skagit Valley Chorale in March 2020, epidemiologists understood that the COVID-19 virus

can spread easily through the air. As a result, they began to call for people not only to practice social distancing but also to wear a face mask when in public. The idea of a mask is not that it will protect the wearer from aerosol-borne viruses but that it might prevent infected individuals from shedding large amounts of virus through their nose and mouth, thereby reducing the likelihood of further spread.

Eager to play their part in reducing the spread of COVID-19, most people went along with the mask requirements, despite the lack of comfort in wearing them, the difficulty of breathing through them, and the inconvenience of having to repeat things they said because the mask muffled their speech. Some turned their masks into fashion statements, buying and wearing masks imprinted with cartoon character designs, animal snouts, monster mouths, or funny sayings. Some posted cartoons and memes about COVID-19 masks in social media.



At the urging of public health officials, many people have worn masks when social distancing was not possible. Despite evidence that masks help to prevent the virus's spread, some people have refused to comply.

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6. Quoted in Sarah Gibbens, "Here's What COVID-19 Does to a Child's Body," National Geographic, July 24, 2020. www.nationalgeographic.com.

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12. Quoted in Aubrey, "Who's Hit Hardest by COVID-19?"
13. Quoted in Tiffany Wong, "Little Noticed, Filipino Americans Are Dying of COVID-19 at an Alarming Rate," *Los Angeles Times*, July 21, 2020. www.latimes.com.

FIND CURRENT AND ACCURATE INFO

Centers for Disease Control and Prevention (CDC)

www.cdc.gov/coronavirus/2019-ncov

The CDC is the nation's premier public health protection agency. The agency's website devotes significant space to coronavirus and COVID-19 facts and statistics. The site also has extensive information on who is at risk, protective measures, contact tracing, community response, schools and youth, and more.

Johns Hopkins Coronavirus Resource Center (CRC)

<https://coronavirus.jhu.edu>

The CRC, created and run by Johns Hopkins University & Medicine, is a continuously updated source of COVID-19 data and expert guidance. The center gathers and analyzes statistics and other information related to COVID-19 cases, testing, contact tracing, and vaccine research. The site also provides links to numerous articles from a variety of sources.

National Institute of Allergy and Infectious Diseases (NIAID)

www.niaid.nih.gov

The NIAID is one of the twenty-seven institutes and centers that make up the National Institutes of Health. Its website includes information about coronaviruses, the public health and government response to COVID-19, and treatment guidelines. It also provides details on volunteering for prevention clinical studies.

National Institutes of Health (NIH)

www.nih.gov/coronavirus

Part of the US Department of Health and Human Services, the NIH is the largest biomedical research agency in the world. Its website provides information on development of COVID-19 vaccines, testing, and treatments as well as links to other related topics.

FOR FURTHER RESEARCH

Books

Steven R. Feldman and Veronica K. Emmerich, *Will It Ever Go Away? Practical Answers to Your Questions About COVID-19*. Rand-Smith, 2020.

Richard Horton, *The COVID-19 Catastrophe: What's Gone Wrong and How to Stop It Happening Again*. Cambridge, UK: Polity Press, 2020.

Debora MacKenzie, *COVID-19: The Pandemic That Never Should Have Happened and How to Stop the Next One*. New York: Hachette, 2020.

Hal Marcovitz, *The COVID-19 Pandemic: The World Turned Upside Down*. San Diego, CA: ReferencePoint, 2021.

Michael Mosley, *COVID-19: Everything You Need to Know About the Corona Virus and the Race for the Vaccine*. New York: Atria, 2020.

Klaus Schwab and Thierry Malleret, *COVID-19: The Great Reset*. Zurich, Switzerland: ISBN Agentur Schweiz, 2020.

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