

Why COVID-19 Is Killing U.S. Diabetes Patients At Alarming Rates



Devon Brumfield could hear her father gasping for breath on the phone.

Darrell Cager Sr., 64, had diabetes. So his youngest daughter urged him to seek care. The next day, he collapsed and died in his New Orleans home.

The daughter soon learned the cause: acute respiratory distress from COVID-19. His death certificate noted diabetes as an underlying condition. Brumfield, who lives in Texas and also has type 2 diabetes, is “terrified” she could be next.

“I’m thinking, Lord, this could happen to me,” she said of her father’s death in late March.

She has good reason to fear. As U.S. outbreaks surge, a new government study shows that nearly 40% of people who have died with COVID-19 had diabetes.

Among deaths of those under 65, half had the chronic condition. The U.S. Centers for Disease Control and Prevention analyzed more than 10,000 deaths in 15 states and New York City from February to May.

Jonathan Wortham, a CDC epidemiologist who led the study, called the findings “extremely striking,” with serious implications for those with diabetes and their loved ones.

A separate Reuters survey of states found a similarly high rate of diabetes among people dying from

COVID-19 in 12 states and the District of Columbia.

Ten states, including California, Arizona and Michigan, said they weren't yet reporting diabetes and other underlying conditions, and the rest did not respond – rendering an incomplete picture for policymakers and clinicians struggling to protect those most at-risk.

America's mortality rates from diabetes have been climbing since 2009 and exceed most other industrialized nations. Blacks and Latinos suffer from diabetes at higher rates than whites and have disproportionately suffered from COVID-19.

“Diabetes was already a slow-moving pandemic. Now COVID-19 has crashed through like a fast-moving wave,” said Elbert Huang, a professor of medicine and director of the University of Chicago's Center for Chronic Disease Research and Policy.

Keeping diabetes under control – among the best defenses against COVID-19 – has become difficult as the pandemic disrupts medical care, exercise and healthy eating routines.

The high price of insulin has also forced some people to keep working – risking virus exposure – to afford the essential medicine. And as the country grapples with an economic crisis, millions of Americans have lost their jobs and their employer-sponsored health insurance.

Much of this could have been anticipated and addressed with a more comprehensive, national response, said A. Enrique Caballero, a Harvard Medical School endocrinologist and diabetes researcher.

Top health officials should have done more to emphasize the threat to people with diabetes and assuage their fears of hospital visits, he said, while also focusing more on helping patients manage their condition at home.

Policymakers had ample warning that COVID-19 posed a high risk for diabetes patients. In 2003, during the coronavirus outbreak known as SARS, or Severe Acute Respiratory Syndrome, more than 20% of people who died had diabetes.

In 2009, during the H1N1 flu pandemic, patients with diabetes faced triple the risk of hospitalization.

Most recently in 2012, when the coronavirus Middle East Respiratory Syndrome, or MERS, emerged, one study found 60% of patients who entered intensive care or died had diabetes.

The COVID-19 pandemic, however, has unearthed previously unknown complications because it has lasted longer and infected many more people than earlier coronavirus epidemics, said Charles S. Dela Cruz, a Yale University physician-scientist and Director of the Center of Pulmonary Infection Research and Treatment.

Doctors warn that the coronavirus pandemic may indirectly lead to a spike in diabetes-related complications – more emergency-room visits, amputations, vision loss, kidney disease and dialysis.

“My fear is we will see a tsunami of problems once this is over,” said Andrew Boulton, president of the

International Diabetes Federation and a medical professor at the University of Manchester in England.

‘ONE BIG PUZZLE’

Researchers have scrambled for months to unravel the connections between diabetes and the coronavirus, uncovering an array of vulnerabilities.

The virus targets the heart, lung and kidneys, organs already weakened in many diabetes patients. COVID-19 also kills more people who are elderly, obese or have high blood pressure, many of whom also have diabetes, studies show.

On the microscopic level, high glucose and lipid counts in diabetes patients can trigger a “cytokine storm,” when the immune system overreacts, attacking the body. Damaged endothelial cells, which provide a protective lining in blood vessels, can lead to inflammation as white blood cells rush to attack the virus and may cause lethal clots to form, emerging research suggests.

“It’s all one big puzzle,” said Yale’s Dela Cruz. “It’s all interrelated.”

Many of their vulnerabilities can be traced to high blood sugar, which can weaken the immune system or damage vital organs. COVID-19 appears not only to thrive in a high-sugar environment but to exacerbate it. Recent evidence suggests the virus may trigger new cases of diabetes.

David Thrasher, a pulmonologist in Montgomery, Alabama, said up to half of COVID-19 patients in his local hospital ICU have diabetes. “They are often my most challenging patients,” he said, and the immune system response may be a big reason why.

‘DIABETES BELT’

The pandemic has ripped through several southern states with some of the nation’s highest diabetes rates. A Reuters examination of state data found that nearly 40% of COVID-19 deaths were people with diabetes in Alabama, Louisiana, Mississippi, North Carolina, South Carolina and West Virginia. Much of this area lies within what the CDC calls the “diabetes belt.”

Alabama has the highest percentage of adults with diabetes at 13.2%, or more than 550,000 people, CDC data show. Diabetes patients accounted for 38% of the state’s COVID-related deaths through June, officials said. Karen Landers, Alabama’s assistant state health officer, said she is particularly heartbroken at the deaths of diabetes patients in their 30s and 40s.

Medical professionals in these states say they struggle to keep patients’ diabetes under control when regular in-person appointments are canceled or limited because of the pandemic.

Sarah Hunter Frazer, a nurse practitioner at the Medical Outreach Ministries clinic for low-income residents in Montgomery, Alabama, said diabetes is common among her COVID-19 patients. With clinic visits on hold, she stays in touch by phone or video chat. If a problem persists, she insists on an outdoors, face-to-face meeting. “We meet them under a shade tree behind the clinic,” Frazer said.

In similar fashion, doctors at the University of North Carolina stepped up their use of telemedicine to reach at-risk rural patients. Despite those efforts, John Buse, a physician and director of the university's diabetes center, said he's certain some foot ulcers and dangerously high blood sugars are being missed because people avoid health facilities for fear of the virus.

'UNDER CONTROL'

Many diabetes patients with severe or deadly cases of COVID-19 were in good health before contracting the virus.

Clark Osojnicki, 56, of Stillwater, Minnesota, had heard early warnings about the risks of the coronavirus for people with diabetes, said his wife, Kris Osojnicki. But the couple didn't think the admonitions applied to him because his glucose levels were in a healthy range.

"He was incredibly active," she said.

On a Sunday in mid-March, Osojnicki jogged alongside his border collie, Sonic, on an agility course for dogs inside a suburban Minneapolis gym. Three days later, Osojnicki developed a fever, then body aches, a cough and shortness of breath. He was soon in the hospital, on a ventilator. Clark, a financial systems analyst, died April 6 from a blood clot in the lungs.

Osojnicki is among 255 recorded deaths in Minnesota of people with COVID-19 and diabetes mentioned on their death certificate as of mid-July, according to state data. The records describe people who died as young as 34.

WORKING FOR INSULIN

For years, the skyrocketing cost of insulin has fueled much of the national outrage over drug prices. Early in the pandemic, the American Diabetes Association asked states to eliminate out-of-pocket costs for insulin and other glucose-lowering medications through state-regulated insurance plans.

But no state has fully followed that advice, the ADA said. Vermont suspended deductibles for preventive medications, like insulin, starting in July. Other states ordered insurers to make prescription refills more available but didn't address cost.

Robert Washington, 68, knew his diabetes put him at risk from COVID-19. When his employer, Gila River's Lone Butte Casino in Chandler, Arizona, reopened in May, he decided to keep working as a security guard so he could afford insulin.

Washington's supervisors had assured him he could patrol alone in a golf cart, said his daughter, Lina. But once back at work, he was stationed at the entrance, where long lines of gamblers waited, most without masks, Robert told his daughter.

"He was terrified at what he saw," Lina said.

He tested positive for the virus in late May and was admitted to the hospital days later. He died from complications of COVID-19 on June 11, his daughter said.

A week after Washington's death, the casino again closed as COVID-19 cases exploded in the state. The casino did not respond to a request for comment.

"It's hard to accept he is gone. I have to stop myself from wanting to call him," said Lina, a sports anchor and reporter at a Sacramento, California, TV station. "A lot of these deaths were in some way preventable."

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