

Hundreds of young Americans have now been killed by the coronavirus, data shows

ER doctor: ‘Just because they are young doesn’t mean they aren’t vulnerable’



Medical workers wearing personal protective equipment take bodies through a tent before loading them onto a refrigerated trailer serving as a makeshift morgue at Wyckoff Heights Medical Center in Brooklyn. (John Minchillo/AP)

By [Chris Mooney](#), [Brady Dennis](#) and [Sarah Kaplan](#) April 8, 2020 at 11:58 a.m. PDT

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Two weeks after her husband died alone in an intensive care unit in Fort Myers, Fla., Nicole Buchanan is quarantined at the home they shared

with their 12-year-old daughter, wrestling not only with grief but also with why and how the [coronavirus](#) could steal someone so young and healthy.

“My husband didn’t have diabetes, he didn’t have asthma, he didn’t have high cholesterol. He didn’t have anything,” Buchanan said. “There’s

just so much I'll never know, that I'll never get the answers to.”

Conrad Buchanan, who died at 39 on March 26 after battling the infection for nearly two weeks, was creative and goofy. A professional DJ, he could entertain huge crowds with his music. But at home, he was fond of singing Bob Marley's "Three Little Birds" to his daughter, Skye.

“He had an amazing sense of humor. He had a big laugh. He was so magnetic,” his 37-year-old widow said. “He was our universe.”



Conrad Buchanan, who died at 39 on March 26 after battling the coronavirus infection for nearly two weeks, with his wife, Nicole Buchanan, and their 12-year-old daughter, Skye. (Family photo)

He also was among at least 759 people under age 50 across the United States who have perished amid the deepening pandemic, according to a Washington Post analysis of state data. These deaths underscore the tragic fact that while the novel coronavirus might be most threatening to the old and compromised, no one is immune.

For the very young — people under the age of 20 — death is extremely rare in the current pandemic. But it happens: The Post identified nine such cases.

The risk appears to rise with every decade of age. The Post found at least 45 deaths among people in their 20s, at least 190 deaths among people in their 30s, and at least 413 deaths among people in their 40s.

Determining a precise number for each category is difficult because of the divergent ways states present age groups. But The Post found at least 102 other deaths that occurred among people younger than 50.

The true number of deaths among young people is probably even higher. Not all states provide data on coronavirus deaths sorted by age group. Some, like New Jersey and Texas, provided figures after being approached by The Post, while others, like California, did not. As a result, the figures above do not include data from some states, including several with sizable outbreaks.

The percentage of younger deaths, which The Post has defined as people under the age of 50, varies widely among states. It is just 0.8 percent of all deaths in Massachusetts, but 8 percent in Louisiana and 9 percent in Illinois.

An urgent appeal to New Yorkers from a young doctor on the front lines | Voices from the Pandemic

Justin Shafa is a radiology resident in New York who now finds himself on the front lines of fighting the coronavirus. (Reem Akkad, Whitney Leaming/The Washington Post)

By far the largest number of such deaths have come in New York, which has the country's biggest outbreak. [As of Wednesday](#), six New York residents under the age of 20, 33 people in their 20s, 118 in their 30s and 265 in their 40s had died.

Even more young people are getting cases of serious disease that require hospital care to beat. In Colorado — where the state health department reports age data for both hospitalizations and deaths — 247 people under 50 have been hospitalized. Of these patients, nine have died.

Data on more than 1,400 hospitalizations released Wednesday by the Centers for Disease Control and Prevention showed that just over 25 percent of people hospitalized with covid-19 were under age 50. Most of these young people suffered from underlying conditions such as asthma, diabetes and hypertension. But at least seven for whom the CDC had data had no outside health problems, underscoring that a small fraction of severe cases remain hard to explain.



A hearse arrives to transport a body from a refrigeration truck serving as a temporary morgue outside of Wyckoff Heights Medical Center in Brooklyn on April 5. (Bryan R. Smith/AFP/Getty Images)

Similarly, [in New York](#), 64 percent of patients between the ages of 30 and 39 who died of the disease suffered from a preexisting condition, usually high blood pressure or diabetes. But that still leaves about a third of cases without such a possible contributing factor.

Shawn Evans, attending emergency physician and director of resuscitation at Scripps Memorial Hospital La Jolla, said he and other doctors on the front lines of the epidemic have been “humbled” by how many young people have been hospitalized and ended up in the ICU during the outbreak.

“This is nothing like we had predicted based on the data from these other countries,” Evans, who estimated roughly half the covid-19 patients in his ICU have been under 50, said in an interview.

Evans said the vast majority of young people who contract the disease fare well and recover. But for a minority, it appears to cause a unique change in the blood’s oxygen-carrying hemoglobin cells.

“Young people who are otherwise fit can tolerate this longer, but at the expense of their heart and their pulmonary functions,” said Evans, who likened some of the symptoms in younger people to prolonged carbon monoxide exposure.

He said younger patients he has seen tend to come in later, after battling the disease at home for longer. But for those who take a tragic turn, it often happens quickly.

“When they do deteriorate, they do so much more dramatically,” he said.

In those cases, Evans said, the lack of oxygen makes the right side of the heart work extra hard, which leads to pulmonary hypertension. “The lungs clamp down. They can’t get blood flow into the lungs.”

What has profoundly struck Evans and his colleagues is the seeming randomness of the type of young people who are unable to fight off the disease.

“A very fit 30-year-old triathlete is just as vulnerable as a chess-playing 45-year-old who gets no exercise,” he said. “We just don’t know who it is that this virus carries the master key to.”

But he does have a message for any young people still under the impression that covid-19 is a disease that seriously threatens only the elderly and infirm.

“Just because they are young doesn’t mean they aren’t vulnerable,” he said. “Nobody knows what immune protection they have at any given moment.”

Jean-Laurent Casanova, an investigator at the Howard Hughes Medical Institute and physician at Rockefeller University Hospital, suspects vulnerability to the virus among some young people may be partly encoded in their DNA.

For more than two decades, Casanova has studied “inborn errors of immunity,” or genetic conditions that make people susceptible to certain diseases. These conditions — often caused by a single mutation in a single gene — can hinder the immune system’s response to a particular virus or bacteria, explaining why a subset of seemingly healthy young people get extremely sick.

In 2015, his lab discovered a toddler with a life-threatening case of influenza [had a mutation](#) in the gene that codes for a specific type of immune protein that warns cells of an attack. When the researchers [genetically engineered mice to have that same mutation](#), they found the mice were significantly more vulnerable to the virus.

Now, Casanova is collecting genetic material from young people in more than 100 countries who have fallen severely ill with the coronavirus. His hope is that the genomes will reveal “candidate” mutations that might explain susceptibility to the virus.

“Step one is to understand,” Casanova said. But if he can identify a mutation and test it in the lab, “step two is: How can you prevent it, how can you fix it?”

Illnesses caused by inborn errors of immunity are helpful for understanding the behavior of a virus, he said, because they are “clean cases,” uncomplicated by age or underlying conditions. And they can often provide clues in the search for a cure.

For example, [Casanova has found](#) people are more susceptible to tuberculosis when they have a pair of mutations that cause low levels of gamma interferon, a protein that fights the genus of bacteria that causes TB. Fortunately, he said, gamma interferon has been available as a drug for more than 30 years, making it a promising potential treatment for the disease.

“That’s a very good example of what you can do once you understand a condition in patients with the genetic disorder,” he said.

Back in Florida, Nicole Buchanan said she hopes her husband’s death hammers home to young people that the coronavirus can kill without exception.

“All I can hope is that it opens up someone else’s eyes,” she said. “I don’t want anyone else to have to go through the pain my daughter and I are in.”

Buchanan said that each passing day gets harder as she settles into the realization that Conrad is not coming home. She still wrestles with her anger that he was initially denied testing for covid-19 because he was young and healthy and had not traveled overseas. She still struggles with the fact she was never able to see him again after dropping him at the emergency room and going to park the car.

Before she knew it, he was being treated and put on a ventilator, and no visitors were allowed given the outbreak. Even grieving is a lonely exercise. Her two brothers and their wives can’t come inside because of social distancing, she said, but they come during the day to her backyard to visit and offer support from a distance.

There has been no memorial gathering for Conrad yet, even as he was cremated this week.

For now, Buchanan keeps replaying the moment when a nurse held the phone to Conrad’s ear not long before he died, so that his wife and daughter could say their goodbyes. Together, they sang him Marley’s “Three Little Birds.”