

Coronavirus

Milestone frustrates docs

US COVID deaths top 700K as 'delta' rages

NEW YORK, Oct 2, (AP): It's a milestone that by all accounts didn't have to happen this soon.

The US death toll from COVID-19 eclipsed 700,000 late Friday — a number greater than the population of Boston. The last 100,000 deaths occurred during a time when vaccines — which overwhelmingly prevent deaths, hospitalizations and serious illness — were available to any American over the age of 12.

The milestone is deeply frustrating to doctors, public health officials and the American public, who watched a pandemic that had been easing earlier in the summer take a dark turn. Tens of millions of Americans have refused to get vaccinated, allowing the highly contagious delta variant to tear through the country and send the death toll from 600,000 to 700,000 in 3-1/2 months.



Benjamin

Florida suffered by far the most death of any state during that period, with the virus killing about 17,000 residents since the middle of June. Texas was second with 13,000 deaths. The two states account for 15% of the country's population, but more than 30% of the nation's deaths since the nation crossed the 600,000 threshold.

Dr. David Dowdy, an infectious disease epidemiologist at Johns Hopkins Bloomberg School of Public Health who has analyzed publicly reported state data, said it's safe to say at least 70,000 of the last 100,000 deaths were in unvaccinated people. And of those vaccinated people who died with breakthrough infections, most caught the virus from an unvaccinated person, he said.

"If we had been more effective in our vaccination, then I think it's fair to say, we could have prevented 90% of those deaths," since mid-June, Dowdy said.

"It's not just a number on a screen," Dowdy said. "It's tens of thousands of these tragic stories of people whose families have lost someone who means the world to them."

Danny Baker is one of them.

Vaccinations

The 28-year-old seed hauler from Riley, Kansas, contracted COVID-19 over the summer, spent more than a month in the hospital and died Sept. 14. He left behind a wife and a 7-month-old baby girl.

"This thing has taken a grown man, 28-year-old young man, 6'2", 300-pound man, and took him down like it was nothing," said his father, 56-year-old J.D. Baker, of Milford, Kansas. "And so if young people think that they're still ... protected because of their youth and their strength, it's not there anymore."

In the early days of the pandemic, Danny Baker, who was a championship trap shooter in high school and loved hunting and fishing, insisted he would be first in line for a vaccine, recalled his mother.

But just as vaccinations opened up to his age group, the US recommended a pause in use of the Johnson & Johnson vaccine to investigate reports of rare but potentially dangerous blood clots. The news frightened him, as did information swirling online that the vaccine could harm fertility, though medical experts say there's no biological reason the shots would affect fertility.

His wife also was breastfeeding, so they decided to wait. Health experts now say breastfeeding mothers should get the vaccine for their own protection and that it may even provide some protection for their babies through antibodies passed along in breastmilk.

"There's just a lot of miscommunication about the vaccine," said his wife, 27-year-old Aubrea Baker, a labor and delivery nurse, adding that her husband's death inspired a Facebook page and at least 100 people to get vaccinated. "It's not that we weren't going to get it. We just hadn't gotten it yet."

When deaths surpassed 600,000 in mid-June, vaccinations already were driving down caseloads, restrictions were being lifted and people looked forward to life returning to normal over the summer. Deaths per day in the US had plummeted to an average of around 340, from a high of over 3,000 in mid-January. Soon afterward, health officials declared it a pandemic of the unvaccinated.

But as the delta variant swept the country, caseloads and deaths soared — especially among the unvaccinated and younger people, with hospitals around the country reporting dramatic increases in admissions and deaths among people under 65. They also reported breakthrough infections and deaths, though at far lower rates, prompting efforts to provide booster shots to vulnerable Americans.

Now, daily deaths are averaging about 1,900 a day. Cases have started to fall from their highs in September but there is fear that the situation could worsen in the winter months when colder weather drives people inside.

Almost 65% of Americans have had at least one dose of vaccine, while about 56% are fully vaccinated, according to the Centers for Disease Control and Prevention.

Misinformation

But millions are either refusing or still on the fence because of fear, misinformation and political beliefs. Health care workers report being threatened by patients and community members who don't believe COVID-19 is real.

The first known deaths from the virus in the US were in early February 2020. It took four months to reach the first 100,000 deaths. During the most lethal phase of the disaster, in the winter of 2020-21, it took just over a month to go from 300,000 to 400,000 deaths.

The US reached 500,000 deaths in mid-February, when the country was still in the midst of the winter surge and vaccines were only available to a limited number of people. The death toll stood about 570,000 in April when every adult American became eligible for shots.

"I remember when we broke that 100,000-death mark, people just shook their heads and said 'Oh, my god,'" said Dr. Georges Benjamin, executive director of the American Public Health Association. "Then we said, 'Are we going to get to 200,000?' Then we kept looking at 100,000-death marks," and finally surpassed the estimated 675,000 American deaths from the 1918-19 flu pandemic. "And we're not done yet," Benjamin said.

The deaths during the delta surge have been unrelenting in hotspots in the South. Almost 79 people out of every 100,000 people in Florida have died of COVID since mid-June, the highest rate in the nation.

Amanda Alexander, a COVID-19 ICU nurse at Georgia's Augusta University Medical Center, said Thursday that she'd had a patient die on each of her previous three shifts.

"I've watched a 20-year-old die. I've watched 30-year-olds, 40-year-olds," with no pre-existing conditions that would have put them at greater risk, she said. "Ninety-nine percent of our patients are unvaccinated. And it's just so frustrating because the facts just don't lie and we're seeing it every day."



This undated image provided by Merck & Co. shows their new antiviral medication. Pharmaceutical company Merck & Co. said Friday, Oct. 1, that its experimental COVID-19 pill reduced hospitalizations and deaths by half in people recently infected with the coronavirus and that it would soon ask health officials in the US and around the world to authorize its use. (AP)

Coronavirus

Results from Merck 'very good news': Fauci

COVID pill cuts death, hospitalization risk

WASHINGTON, Oct 2, (AP): In a potential leap forward in the global fight against the pandemic, drugmaker Merck said Friday that its experimental pill for people sick with COVID-19 reduced hospitalizations and deaths by half.

If cleared by regulators, it would be the first pill shown to treat COVID-19, adding a whole new, easy-to-use weapon to an arsenal that already includes the vaccine.

The company said it will soon ask health officials in the US and around the world to authorize the pill's use. A decision from the US Food and Drug Administration could come within weeks after that, and the drug, if it gets the OK, could be distributed quickly soon afterward.

All other COVID-19 treatments now authorized in the US require an IV or injection. A pill taken at home, by contrast, would ease pressure on hospitals and could also help curb outbreaks in poorer and more remote corners of the world that don't have access to the more expensive infusion therapies.

"This would allow us to treat many more people much more quickly and, we trust, much less expensively," said Dr. William Schaffner, an infectious disease expert at Vanderbilt University who was not involved in the research.

Merck and its partner Ridgeback Biotherapeutics said early results showed patients who received the drug, molnupiravir, within five days of COVID-19 symptoms had about half the rate of hospitalization and death as those who received a dummy pill.

The study tracked 775 adults with mild-to-moderate COVID-19 who were considered high risk for severe disease because of health problems such as obesity, diabetes or heart disease. The results have not been reviewed by outside experts, the usual procedure for vetting new medical research.

Among patients taking molnupiravir, 7.3% were either hospitalized or died at the end of 30 days, compared with 14.1% of those getting the dummy pill. After that time period, there were no deaths among those who received the drug, compared with eight in the placebo group, according to Merck.

Effective

The results were so strong that an independent group of medical experts monitoring the trial recommended stopping it early.

Company executives said they plan to submit the data to the FDA in the coming days.

Even with the news of a potentially effective new treatment, experts stressed the importance of vaccines for controlling the pandemic, given that they help prevent transmission and also reduce the severity of illness in those who do get infected.

White House coronavirus coordinator Jeff Zients said that vaccination will remain the government's main strategy for controlling the pandemic. "We want to prevent infections, not just wait to treat them when they happen," he said.

Dr. Anthony Fauci, the government's foremost authority on infectious diseases, called the results from Merck "very good news."

Merck only studied its drug in peo-



In this image provided by courtesy of Janet Baker, Danny Baker holds his daughter Haylen on Feb 27, 2021, in Milford, Kan. The 28-year-old seed hauler from Riley, Kansas, contracted COVID-19 over the summer, spent more than a month in the hospital and died Sept. 14. (AP)

Discovery

**Probes flyby Mercury:** A joint European-Japanese spacecraft was set to fly by Mercury for the first time late Friday on its path to deliver two probes into the planet's orbit in 2025.

The BepiColombo mission was to make the first of six flybys of Mercury at about 2334 GMT (1934 EST), using the planet's gravity to slow itself down.

As it passes by Mercury down to an altitude of 200 kilometers (125 miles) the spacecraft will gather its first data and images before zooming off again.

The joint mission by the European Space Agency and Japan Aerospace Exploration Agency was launched in 2018, flying once past Earth and twice past Venus on its journey to the innermost planet of the solar system.

The mission is named after Italian scientist Giuseppe 'Bepi' Colombo, who is credited with helping develop the gravity assist maneuver that NASA's Mariner 10 first used when it flew to Mercury in 1974. (AP)

**Volcano turns aggressive:** An erupting volcano on a Spanish island off northwest Africa blew open two more fissures on its cone Friday that belched forth lava, with authorities reporting "intense" activity in the area.

The new fissures, about 15 meters (50 feet) apart, sent streaks of fiery red and orange molten rock down toward the sea, parallel to an earlier flow that reached the Atlantic Ocean earlier this week.

The volcano was "much more aggressive," almost two weeks after it erupted on the island of La Palma, said Miguel Angel Morcuende, technical director of the Canary Islands' emergency volcano response department.

Overnight, scientists recorded eight new earthquakes up to magnitude 3.5.

The eruption was sending gas and ash up to 6,000 meters (almost 20,000 feet) into the air, officials said.

The prompt evacuation of more than 6,000 people since the Sept. 19 eruption helped prevent casualties.

A new area of solidified lava where the molten rock is flowing into the sea extends over more than 20 hectares (50 acres).

Officials were monitoring air quality along the shoreline. Sulfur dioxide levels in the area rose but did not represent a health threat, La Palma's government said. (AP)

**Experts decipher Marie's notes:** "Not without you." "My dear friend." "You that I love."

Marie Antoinette sent these expressions of affection - or more? - in letters to her close friend and rumored lover Axel von Fersen. Someone later used dark ink to scribble over the words, apparently to dampen the effusive, perhaps amorous, language.

Scientists in France devised a new method to uncover the original writing, separating out the chemical composition of different inks used on historical documents. They tested their method by analyzing the private letters between the French queen and the Swedish count, which are housed in the French national archives.

That allowed them to read the original words and even identify the person who

scratched them out - Fersen himself.

"It's always exciting when you discover that you can know more about the past than you thought you could," said historian Rebecca L. Spang, who studies the French Revolution at Indiana University, and was not involved in the study.

The letters were exchanged between June 1791 and August 1792 — a period when the French royal family was kept under close surveillance in Paris, after having attempted to flee the country. Soon the French monar-

NEW YORK, Oct 2, (AP): Amid all the focus on COVID-19 vaccinations, US health experts have another plea: Don't skip your flu shot.

Flu cases have dropped to historically low levels during the pandemic. The US and Europe experienced hardly any flu last winter, and the Southern Hemisphere just ended its second flu season of the coronavirus pandemic with little to report.

But with U.S. schools and businesses reopened, international travel resuming and far less masking this fall, flu could make a comeback. The big question is whether it will trickle in or roar back and put extra pressure on hospitals already struggling with COVID-19 surges.

"People are sick to death of hearing about having to roll on out and get vaccines of any sort," said flu specialist Richard Webby of St. Jude Children's Research Hospital in Memphis.

Yet after 18 months of little influenza exposure, "we probably as a population don't have as much immunity against this virus as we typically might," Webby said. "It makes absolute sense to go on out and get that vaccine and at least prepare for something that, you know, could be quite severe."

Here are some things to know: **Question:** Who should get a flu vaccine?

**Answer:** The Centers for Disease Control and Prevention says just

about everybody needs an annual flu vaccination, starting with 6-month-old babies. Influenza is most dangerous for adults over age 65, young children, pregnant women and people with certain health conditions, such as heart or lung disease.

**Q:** Why do I need one this year, since flu hasn't been a threat during the pandemic?

**A:** COVID-19 restrictions including masking and staying home - especially for children, who are flu's biggest spreaders - clearly had a side benefit of tamping down influenza and other respiratory bugs. But as soon as masks started to come off, the U.S. experienced an unusual summer surge of children hospitalized with a different virus, named RSV, that usually strikes in the winter. That's a worrying sign of what to expect if flu returns.

**Q:** What's the forecast for flu this winter?

**A:** Flu is notoriously difficult to predict. But there's a little more circulating in some countries this fall than last, including a recent uptick in China, said Webby, who directs a World Health Organization flu center. And people may be a little more vulnerable: Before the pandemic, 15% to 30% of the population was exposed to flu each year, a missing bump in immunity, he said.

"If flu does at least get a foothold in, it's going to have more opportunity of spreading this season," he said.

ple who were not vaccinated. But FDA regulators may consider authorizing it for broader use in vaccinated patients who get breakthrough COVID-19 symptoms.

Andrew Pekosz of Johns Hopkins University predicted vaccines and antiviral drugs would ultimately be used together to protect against the worst effects of COVID-19.

"These shouldn't be seen as replacements for vaccination - the two should be seen as two strategies that can be used together to significantly reduce severe disease," said Pekosz, a virology specialist.

Patients take four pills of molnupiravir twice a day for five days. Side effects were reported by both groups in the Merck trial, but they were slightly more common among those who received a dummy pill. The company did not specify the problems.

Earlier study results showed the drug did not benefit patients who were already hospitalized with severe disease. That's not surprising, given that antiviral drugs are most effective when used before the virus ramps up in the body.

The US has approved one antiviral drug, remdesivir, for COVID-19, and allowed emergency use of three antibody therapies that help the immune system fight the virus. But all the drugs are expensive and have to be given by IV or injection at hospitals or clinics, and supplies have been stretched by the latest surge of the delta variant.

The antibody drugs have been shown to reduce hospitalization and death by roughly 70% when given to high-risk patients, roughly 20 percentage points more than Merck's pill. But experts cautioned against comparing results from the two, given the preliminary nature of Merck's data.

Health experts, including Fauci, have long called for a convenient pill that patients could take when COVID-19 symptoms first appear, much the way Tamiflu is given to help speed recovery from the flu.

Like other antivirals, Merck's pill works by interfering with the virus's ability to copy its genetic code and reproduce itself.

The US government has committed to purchasing enough pills to treat 1.7 million people, assuming the FDA authorizes the drug. Merck said it can produce pills for 10 million patients by the end of the year and has contracts with governments worldwide. The company has not announced prices.

Several other companies, including Pfizer and Roche, are studying similar drugs and could report results in the coming weeks and months.

Merck had planned to enroll more than 1,500 patients in its late-stage trial before the independent board stopped it early. The results reported Friday included patients across Latin America, Europe and Africa. Executives estimated 10% of patients studied were from the US.



Spang



Morcuende

chy would be abolished, and the next year both Marie Antoinette and her husband, Louis XVI, would be beheaded.

"In this time, people used a lot of flowery language — but here, it's really strong, really intimate language. We know with this text, there is love relationship," said Anne Michelin, a material analyst at the Sorbonne's Research Center for Conservation and co-author of the research published Friday in the journal Science Advances. (AP)