

U.S.

Widespread Coronavirus Cases Could Tax U.S. Hospitals

Providers already face a global disruption in medical supplies and an expected shortage in rooms that could safely isolate patients



A pedestrian wore a surgical mask as she walked by VacaValley Hospital in Vacaville, Calif., on Thursday. The first confirmed case of ‘community acquired’ coronavirus initially went to that hospital.

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By *Melanie Evans*

Updated Feb. 28, 2020 7:08 pm ET

The spread of coronavirus world-wide has intensified efforts to prepare for a U.S. outbreak, with hospitals straining to increase capacity to handle an influx of contagious patients and local governments mulling closures as a precaution.

The Centers for Disease Control and Prevention this week warned of a possible pandemic, a day before confirming that a California patient may be the first diagnosed case of the new coronavirus in the U.S. with no clear idea of how the patient was exposed. That suggests the virus might be spreading in the country.

A large-scale U.S. coronavirus outbreak would strain a health-care system already facing a global disruption in medical supplies, with an anticipated shortage in rooms that could safely isolate patients, infectious disease experts said.

“You can’t just invent medical equipment and more beds overnight,” said Michael Osterholm, director of the University of Minnesota’s Center for Infectious Disease

He said medical-supply manufacturers should cut off retail sales and narrow their customer base to health-care providers. Hospitals began to restrict the use of protective equipment early in the year as reports of coronavirus in China emerged, an effort to hold back supply in case of a U.S. coronavirus outbreak.

A domestic outbreak would also land more critically ill patients in hospitals, which are already seeing a seasonal surge from flu patients, the infectious disease specialists said. Widespread coronavirus cases could lead to hospital-services demand that would likely be worse than the 2009 pandemic of influenza, said Eric Toner, an infectious disease specialist at the Johns Hopkins Center for Health Security.

Emergency room patient volume soared 18% during the fall of 2009, compared with the same period in years between 2005 and 2008, researchers reported in the public-health journal *Medical Care*. Not all hospitals saw a surge of hospitalizations, but those hardest hit saw admissions increase 20%.

That could strain overall hospital capacity, Dr. Toner said. Hospitals have plans to respond to surges, but need time to get them in place, he said.

Less is known about how coronavirus is transmitted, and there are no existing antiviral drugs for the new virus, unlike influenza, requiring new plans for what might be needed in the event of a surge in patients, said CDC spokeswoman Martha Sharan. Coronavirus patients also require isolation to prevent others from being infected.

The CDC is working to adapt its influenza plans to respond to a potential surge in demand for hospital services from coronavirus cases, Ms. Sharan said, adding that guidance for hospitals is expected to be released next week.

When dealing with infectious diseases, such as measles and tuberculosis, hospitals typically place patients in rooms with special ventilation to prevent air carrying disease from circulating around their buildings. But most hospitals have few such rooms. Some hospitals also have units where ventilation can be switched to safely isolate a group of infectious patients. The CDC doesn't track the number of hospital isolation rooms.

More widespread screening could make it easier to track the spread of the virus in the U.S., Dr. Toner said. Health and Human Services Secretary Alex Azar told Congress Thursday that testing capacity is expanding, with 40 labs qualified to screen for coronavirus. Another 93 labs will have an easier test by the weekend, and about 70 manufacturers are working on bedside diagnostic tests, he said.

Hospitals and local public health agency officials say they are working to coordinate access to hard-to-get medical supplies, such as protective masks, and track where hospitals have space to safely isolate a coronavirus patient across a region.

The Health and Human Services Department keeps a strategic stockpile of critical medical supplies, including protective equipment, which is available to hospitals when they can't replenish inventory from the market or state and local reserves. HHS hasn't received requests or deployed protective equipment in response to the coronavirus.

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In New York, state health officials have already begun distributing critical medical supplies from public stockpiles. Gov. Andrew Cuomo said Wednesday the state will be seeking approval from the New York state Legislature for \$40 million in emergency funds to combat coronavirus in the state and pay for needed equipment, including protective gear for health-care workers.

Hospital and public health emergency plans include contingencies for a surge in patients, which include possible makeshift wards outside hospitals, if necessary, said Jenna Mandel-Ricci, who is heading emergency preparedness for the Greater New York Hospital Association, a trade group. Hospitals are also seeking to create temporary isolation rooms with specialized equipment, she said.

Montefiore Health System in New York readied a two-room isolation unit, outfitted with its own laboratory, in recent weeks to prepare for possible patients, said Montefiore's health-care epidemiologist Theresa Madaline.

New York hospitals are also sharing information about their capacity to take in coronavirus patients, and may dispatch patients wherever space is available, Dr. Madaline said.

Local governments are also pushing ahead with emergency declarations in efforts to prepare for coronavirus cases, with San Francisco joining the list this week. "Although there are still zero confirmed cases in San Francisco residents, the global picture is changing rapidly, and we need to step up preparedness," said Mayor London Breed earlier this week.

California health officials have reported the nation's second coronavirus case with no travel history to China or known exposure to carriers, adding to concerns among officials that the virus is spreading in U.S. communities.



Officials in Santa Clara County, just south of San Francisco, said Friday afternoon that an older adult woman had been confirmed as infected with coronavirus. The finding came after the woman, whose identity and hometown were not released, was hospitalized for a respiratory illness and her physician requested testing for the deadly new virus.

Government and other agencies also say they are also working to prepare businesses, schools and other community gathering places for potential closures to limit the virus's spread in an outbreak.

Kris Ehresmann, the Minnesota Department of Health infectious disease director, said the state is working out plans if schools would need to close, asking businesses to come up with new sick-leave policies that allow people to work from home or in shifts, and finding ways for houses of worship to gather virtually rather than in person.

“We can't stop this from happening, but we can take measures to slow down the spread,” Ms. Ehresmann said.

In Nashville, Tennessee's fast-growing capital and a major tourist draw, the local public health department has authority to close public venues, including bars, restaurants, concert halls and sporting events, said Gill Wright, acting medical director for the Metro Public Health Department. “We hope it doesn't come to that,” he said.

Schools, too, are on alert to exposure risks among students, disinfecting classrooms more frequently, urging good hygiene among students and cautioning those who may be at risk of infection to stay away.

Forsyth County Schools in Georgia has asked students to stay home for 14 days after family travel to China or South Korea. “We have an international community, so they have been very understanding of this request since it was made out of an abundance of caution for the safety of our students and staff,” spokeswoman Jennifer Caracciolo said. In a letter to parents, the district said students would be provided with online learning.

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