The real number of swine flu cases in the United States could be "upwards of 100,000," a top public health official estimated on Friday -- far higher than the official count of 7,415 cases confirmed by laboratories.

The official, Dr. Daniel Jernigan, head of flu epidemiology for the Centers for Disease Control and Prevention, said at a news conference that the official number gave an inaccurate picture of the outbreak because so few mildly sick people were being tested.

He added that flu was more prevalent than usual, "something we would not normally expect at this time of year." But he emphasized that most cases were mild. There have been 173 hospitalizations and 5 deaths reported to the agency.

The latest death, added Friday, was that of a 33-year-old man in Corpus Christi, Tex. The Associated Press reported that he died May 6 of viral pneumonia and had several health problems, including morbid obesity, an enlarged heart and an underactive thyroid.

At the same news conference, another C.D.C. official announced that the agency planned to lower its alert on travel to Mexico soon. Mexico's outbreak has not proved as dangerous as it originally seemed.

The agency will no longer suggest that Americans avoid nonessential travel, said Dr. Martin S. Cetron, its director of global migration and quarantine. Instead, it will suggest that anyone with underlying conditions that might make the flu more severe consult a doctor before traveling. Those conditions, previous reports suggest, include pregnancy, asthma, diabetes or cardiovascular disease.
The shifting case figures show how different a new flu can be from a typical seasonal one. Seasonal flu is estimated to kill 36,000 Americans a year, usually as the last blow for the aged and infirm, and outbreaks in nursing homes are the norm. This year's swine flu is concentrated in those ages 5 to 24, Dr. Jernigan said, and school outbreaks like those under way in New York and Houston are the norm.

New pandemic flu often mutates to become the milder seasonal flu; the seasonal H1N1 is a distant descendant of the 1918 Spanish flu, and the seasonal H3N2 is related to the H3N2 of the Hong Kong flu pandemic of 1968.

The agency has a network of 4,500 emergency rooms, clinics and doctors who report weekly how many patients with flu symptoms they see. Normally, Dr. Jernigan said, their counts would now be dropping toward zero as the flu season ends; instead, some are reporting numbers they see at the season's peak.

Flu prevalence varies around the country, he said, but has been heaviest in the Pacific Northwest and in the Southwest, along the Mexican border.

Also on Friday, GlaxoSmithKline became the first company to announce plans to make a vaccine against the new strain of swine flu.

The World Health Organization has not yet made a recommendation on whether to go ahead with a new vaccine, but the company said it already had orders for 128 million doses from Britain, France, Belgium and Finland, roughly enough for the populations of all four countries if a single dose turns out to be protective. It will also donate 50 million doses to the World Health Organization for poor countries, the company said.

Glaxo and its customers are essentially betting that the virus will not mutate so far that the vaccine will not protect against the strain circulating when it is ready. That should be in four to six months after it gets viral "seed stock" from the C.D.C.

Glaxo will add an adjuvant, a chemical compound that jolts the immune system into a stronger reaction than the seed stock virus alone does. Glaxo said it would not have to interrupt its run of seasonal flu vaccine, which is scheduled to finish in July.
Ill-equipped for a pandemic; 
If flu hits hard, U.S. may lack supplies, medicine, doctors

BYLINE: Liz Szabo

SECTION: LIFE; Pg. 6D

Though health officials say the swine flu outbreak appears relatively mild, some medical experts say the USA is unprepared in many ways to handle a severe pandemic.

States, cities and public health agencies have made enormous progress in preparing for health crises such as bioterrorism and a flu pandemic since the anthrax attacks in 2001, says Neal Cohen of Hunter College's School of Urban Public Health, who was New York City's health commissioner from 1998 to 2002.

More recent threats, such as SARS in 2003, have given doctors and nurses a "dress rehearsal" for a pandemic, Cohen says, allowing them to test strategies for dealing with dangerous new viruses.

The world is "better prepared for an influenza pandemic than at any time in history," said Margaret Chan, director general of the World Health Organization, last week.

Yet even before the flu outbreak, emergency rooms could barely handle all the patients coming through their doors, says Katherine Heilpern, chair of Emory University's Department of Emergency Medicine in Atlanta. "Most emergency rooms are working at or above capacity," she says.

Equipment in limited supply

Hundreds of ERs have shut down over the past 15 years, largely because of financial pressures, including declining reimbursements from insurance programs such as Medicare, Heilpern says.

But the number of emergency room patients grew 32% from 1996 to 2006, according to the American College of Emergency Physicians. Emergency rooms have little "surge capacity," the ability to gear up to treat many more patients, Heilpern says.
Even hospital equipment could be in short supply. In a pandemic, hospitals might not have enough mechanical ventilators -- used when patients have severe trouble breathing, Heilpern says.

Up to 80,000 of the nation's 105,000 ventilators are being used for everyday medical care, and nearly all of them are used during a normal flu season, according to a 2007 editorial in The New England Journal of Medicine.

Even if hospitals were able to order more machines, many hospitals don't have enough critical care nurses, respiratory therapists or intensive care doctors to open up more beds in their intensive care units, Heilpern says.

In a pandemic, doctors could be forced to ration ventilators, using them on patients who have the most to gain, such as those who -- though severely ill in the short term -- are otherwise healthy enough to recover, she says.

In a crisis, Heilpern says, hospital beds might be reserved for the sickest patients; others would be treated at outpatient clinics.

Health workers also might have to set up triage centers in public places, such as parking lots, to decide which patients are well enough to recuperate at home and which need medical attention. At Emory, Heilpern has even raised the idea of "drive-through" flu triage, with health workers performing quick assessments of heart rate, breathing and mental status through the window.

And pandemics can be like marathons, according to an article published last week in The New England Journal of Medicine, which notes that they can continue taking lives for two to five years.

Will vaccines, antivirals work?

Other experts say the world could have trouble manufacturing enough vaccine.

Because viruses can change rapidly, a vaccine produced today might not match the viral strain circulating next winter, Cohen says. The Centers for Disease Control and Prevention has not yet decided whether to make a vaccine for H1N1, a manufacturing process that could take months.

The World Health Organization has said manufacturers could produce 1 billion to 2 billion doses. That's enough to protect 17% to 33% of the population with one dose. If it takes two doses to produce that immunity, only half as many would be protected.

"Clearly, we need a major initiative in the vaccine area," says Michael Osterholm, director of the Center for Infectious Disease Research and Policy at the University of Minnesota.
In the USA, health professionals, emergency workers and people at high risk for complications, such as babies and pregnant women, would be vaccinated first, according to the national vaccine plan.

Osterholm commends the federal government for building a robust stockpile of antiviral drugs. Between national, state and military supplies, the nation can treat 80 million people, or about 25% of the population, with antivirals, which can lessen the flu's severity if given within 48 hours of the appearance of symptoms and even prevent the flu if given to household members of flu patients.

Considering that influenza often has an "attack rate" of 25% to 40%, those supplies may be enough, Osterholm says. But in a very severe outbreak, a person might need four times the usual amount of Tamiflu, leaving enough drugs for about 6% of the population, says John Bartlett, a professor in infectious diseases at Johns Hopkins University School of Medicine.

Antiviral medications might not work at all if the flu virus becomes resistant to it, Bartlett says. A strain of seasonal flu that caused about 45% of the infections this past winter was resistant to Tamiflu, he says. That resistance developed very quickly. Two years ago, only 1% of that flu virus strain was resistant. Now, 99% of that strain is resistant, Bartlett says.

The global picture -- from WHO and the CDC

The World Health Organization reports 5,728 confirmed cases of the H1N1 flu in 33 countries as of Wednesday.

The Centers for Disease Control and Prevention reports 3,352 confirmed cases in the USA in 45 states and the District of Columbia. There have been three U.S. deaths: two in Texas and one in Washington state.
Swine flu getting longer-term look

BYLINE: Elizabeth Weise       SECTION: LIFE; Pg. 7D

With about 2,600 cases of swine flu reported in all but seven U.S. states, the Centers for Disease Control and Prevention is changing its focus from identifying cases of H1N1 to a comprehensive, longer-term perspective.

Though not ignoring people still falling ill, researchers say they have enough understanding of the outbreak to begin looking ahead at what the new strain of influenza will do during the Southern Hemisphere's winter flu season, which is just beginning, and how H1N1 may have evolved when it comes back to the Northern Hemisphere next fall for the regular flu season, says the CDC's Anne Schuchat.

The World Health Organization reports 4,694 cases of H1N1 flu in 30 countries and 53 deaths as of Monday. The outbreak is still classified as Phase 5 -- just below a pandemic -- because it doesn't appear to have established itself outside North America, WHO's Keiji Fukuda says.

The CDC has linked three deaths in the USA to the new flu. The number of confirmed cases is almost certainly only "the tip of the iceberg," Schuchat says.

In the USA, more young people than old are getting sick; the median age for reported cases is 15, Schuchat says. "We would love to nail down" why, she says.

One theory is that it's simply because the first people who got sick were young, and it has remained in that population. Another possibility is that previous outbreaks of influenza shared at least some genetic attributes with this one, which gives older people partial protection.

The CDC and the World Health Organization are working on plans to develop a vaccine against the strain, though a decision on whether to move forward with production has not been made.

About 40% of people being tested for influenza in the USA are positive for the H1N1 virus, and the remaining 60% are positive for regular seasonal flu viruses, the CDC says.

Doctors can't let their guard down, Schuchat says. "We need to guard against complacency as we move into a new normal."