

Swine Flu Shots May Be Too Little, Too Late to Halt Outbreaks

Aug. 19 (Bloomberg) -- Swine flu vaccines under development by drugmakers may not provide immunity until the last week of November, too late to hold off outbreaks triggered by infected students returning to schools in the U.S. and Europe.

Just 45 million of 195 million doses ordered for the U.S. will be delivered by mid-October, said health officials who lowered their estimates yesterday. The vaccine will probably require two shots given three weeks apart, and the body won't produce antibodies for two additional weeks, according to an Aug. 7 report by the Department of Health and Human Services.

U.S. students go back to school this week after more than 80 outbreaks of swine flu, also known as H1N1, were reported in summer camps, government health officials said. U.K. classes begin Sept. 1, a week before results from the first test of the new vaccine are set to be released by [CSL Ltd.](#), the Australian drugmaker that makes 20 percent of the U.S. supply.

"This has been a virus that's been smoldering, particularly among children at the many summer camp outbreaks," said [William Schaffner](#), of the [Vanderbilt University School of Medicine](#). "There's no doubt it's coming, and we could see it as early as September. Every pediatrician, internist and public health official is cross-eyed" with worry, he said.

Swine flu infection won't protect patients from seasonal influenza, so the coming season may be "double-barreled," marked by successive rounds of illness, Schaffner, chairman of the Nashville, Tennessee school's department of preventive medicine, said in an interview.

170 Countries

H1N1 has reached more than 170 countries and territories in the four months since being identified, the Geneva-based World Health Organization said. Swine flu causes similar symptoms as seasonal strains. It has so far resulted in "slightly worse" than normal flu seasons, with increased hospitalizations and cases of severe illness, the WHO said in an Aug. 12 release.

The median age of those with the pandemic virus has been 12 to 17 years, the WHO said on [July 24](#), citing data from Canada, Chile, Japan, U.K. and the U.S.

Patients who have already had swine flu will be immune to it in the fall, Schaffner said. Recovered patients shouldn't count on having immunity unless their illness was confirmed by laboratory tests. If they weren't tested, they should get the vaccine to ensure they're protected, he said.

[Sanofi-Aventis SA](#), based in Paris, began vaccine trials on August 6 and needs "two to three months" to complete them, said [Donna Cary](#), a company spokeswoman, in an e-mail yesterday. London-based [GlaxoSmithKline Plc](#) and [AstraZeneca Plc](#) both have said they began testing in the last two weeks.

Required for Licensing

The company tests are required for licensing and are separate from U.S.-funded studies to determine dose and timing of the vaccine, said [Bill Hall](#), a spokesman for the U.S. Department of Health and Human Services.

The U.S. will receive 45 million vaccine doses by mid-October, and get an additional 20 million each week until its full order of 195 million doses from five companies has been received, Hall said.

CSL, based in Melbourne, is delaying its shipment to the U.S. to speed up shots to people in the company's home country, Hall said in a telephone interview yesterday. All U.S. shots are provided by companies based outside the U.S.

"I can confirm that CSL's first commitment is to Australia," said [Sheila Burke](#), a spokeswoman for CSL, in an e-mail yesterday.

Rapid Outbreaks

Australia and nations in South America had rapid outbreaks early in their winter season, and rates in those countries have begun to recede this month, the WHO said. South Africa was the biggest exception in the hemisphere, being struck first by seasonal flu strains that peaked in June, and only recently experiencing a second wave dominated by H1N1, the WHO said.

Companies haven't been able to grow enough antigen, a key ingredient needed for production, to fill vaccine orders, said [Rachel David](#), a spokeswoman from CSL, and [Kim White](#), a spokeswoman for [Baxter International Inc.](#) in telephone interviews last week.

"It's apparent that the vaccine availability is going to be delayed, and that the number of doses available is going to be less," said [Gregory A. Poland](#), head of the vaccine research group at the [Mayo Clinic](#) in Rochester, Minnesota, in an Aug. 14 telephone interview. "Right now they are getting yields of about 50 percent roughly of what they expected."

Information about the required dose of vaccine and number of shots needed probably won't be complete until late September, said [Marie-Paule Kieny](#), director of the WHO's initiative on vaccine research, in a telephone interview from Washington yesterday.

Protection Priorities

Authorities want to ensure [adequate supplies to protect](#) health-care workers, pregnant women, people at risk of developing severe complications from flu and children, whose close contact in tightly packed schoolrooms and in other social settings makes them the biggest spreaders of the virus.

Part of the U.S. plan to vaccinate children is to encourage state and local health departments to set up school-based vaccine clinics. In the U.K., most shots will be given by family doctors and nurses who provide routine health care including seasonal flu shots, according to the [Department of Health](#).

Schools that arrange in-house immunizations will face logistical hurdles, said Mel Riddile, the [National Association of Secondary School Principals'](#) associate director for high school services in the U.S. Riddile, a former principal at a Fairfax County, Virginia, high school, said it typically took a month just for all 2,500 students to turn in their emergency medical information forms at the beginning of the school year.

Immunization Permissions

"It's going to be difficult getting immunization permissions, particularly with some of the misconceptions about the effectiveness and the dangers around flu shots," Riddile said in an interview Aug. 7. "It certainly can be done, but it's going to be challenging for principals to pull that off."

Charles Saylor, president of the [National Parent Teachers Association](#), the non-profit organization that helps organize parents and teachers in local PTA groups, said that even though he has never before received a shot for seasonal flu, he'll get one for H1N1 when it becomes available.

"I would like to see our communities, our families take this more seriously than they normally would a regular seasonal vaccine," Saylor said.

During the initial U.S. outbreak, hospitals saw a surge of patients that were either seriously ill or concerned about the virus. The federal government is now working with communities to encourage that only the sickest go to hospitals, with the rest making appointments with doctors or clinics, the HHS's Kevin Yeskey said.

"What we saw in the springtime was a lot of people who were referred directly to an emergency department rather than being seen in clinics," said Yeskey, director of the [Office of Preparedness and Emergency Operations](#). "That kind of overwhelmed" the hospitals, he said.

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