

(D-III.) introduced the Flu Prevention Act of 2004 in January, to stop the disappearance of vaccine manufacture in the United States and create new makers, with a small intervention of Federal funds. The legislation, based on proposals from medical experts, would have created a Federal buy-back program for unused vaccine, like a price-support for farmers. It would have regulated an area of vaccine production which is vital to public health, but which involves six months' production, is unpredictable in sales, and inexpensive in price. And it would have set aside funds to help get new producers into the market. The discarded legislation was re-introduced in early October, aimed now at next year's season. The urgent need for the United States to play a much larger role in global vaccine production, is clear from **Figure 3**.

We do have antiviral drugs that can be used to treat flu patients, but these drugs, as Stohr emphasized on Oct. 30, are in very short supply. At present, there are four main antiviral drugs for the flu, made by only two companies, Roche and

GlaxoSmithKline. There is only a small stockpile of 120,000 doses of amantadine and rimantadine; about 4 million doses of Tamiflu; and even fewer of Relenza. These drugs should be rapidly produced to build up a large stockpile for treating flu patients, which treatment would save thousands of lives.

It is useful to consider the speed of spread of some recent historical flu pandemics. The 1957 Asian Flu, of type H2N2, started in China in February of 1957. By April, it had spread through most of Asia and Australia, and by August, it had become established on six continents, killing 70,000 in the United States alone. This pandemic spread around the world in six months.

Today, with increased air travel relative to 50 years ago, a new pandemic may spread globally in just a few weeks if public health surveillance fails to detect and contain it quickly. The United States already lacks the hospital surge capacity to deal with a mere typical flu season, let alone a new deadly pandemic of avian flu.

Not adequately preparing for this new threat could cost millions of lives.

What State Authorities Face To Get Vaccine

Senators Susan Collins (R-Me.) and Jack Reed (D-R.I.) sent a letter Oct. 26 to Health and Human Services Secretary Tommy Thompson, again prodding the smug Bush Administration that "It is essential that use of the remaining influenza vaccine be optimized to achieve greatest effectiveness." They demanded a Centers for Disease Control and Prevention (CDC) "clearinghouse" vaccine-tracking website, since state health authorities are "facing state-wide vaccine shortages and have no ability to allocate supply to comply with the new recommendations of the CDC."

On Oct. 27, CDC did indeed take that one step toward directed allocation. The website is for restricted use by state and county health officials, and gives them a schedule through the end of December on which they can expect the remaining 20+ million Aventis Pasteur vaccine shots to arrive, as well as "voluntary" information on where to find, and how to try to reallocate, remaining standing supplies from the 30+ million from Aventis Pasteur and Medimmune FluMist already shipped.

An extensive survey put online by the Gannett newspaper chain as of Oct. 28 shows how little capability the state health authorities have to cope with the crisis. The chart compares the state's health authorities' vaccine supplies so far, against their over-65 population. The nation's 35 million seniors are *only one* of the influenza risk groups defined by the CDC—in total, these risk groups surpass 100 million people—though seniors are most threatened

with fatal complications from flu.

In most cases, the state health departments' supply at the end of October represented about half the total supply of all public health agencies, which also include county health departments, public hospitals and nursing homes, etc. But these supplies are dwarfed by the elderly population; and many of the state supplies are specifically funded, ordered, and earmarked for young children. The huge shortfall has led Massachusetts, for example, to take "healthy seniors 65-75 years of age" out of its priority vaccination population.

The table is taken from the survey as of end-October:

| State | Over 65 | State Vaccine Supply |
|--------------------|-------------|----------------------------|
| Arizona | 714,000 | 115,000 |
| California | 3.8 million | 506,000 |
| Los Angeles County | 700,000 | 31,000 |
| Colorado | 441,000 | 54,000 |
| Connecticut | 471,000 | None (77,000 expected) |
| Florida | 2.9 million | None (150,000 expected) |
| Illinois | 1.5 million | None (150,000 expected) |
| Indiana | 763,000 | 18,000 |
| Iowa | 434,000 | 22,000 |
| Louisiana | 524,000 | 25,000 |
| Maryland | 625,000 | 50,000 |
| Massachusetts | 857,000 | 134,000 |
| New York | 2.5 million | 450,000 |
| Pennsylvania | 1.9 million | 54,000 |
| Texas | 2.2 million | 250,000 |
| New Mexico | 225,000 | None |