

Reassessing Flu Shots as the Season Draws Near

By Roni Caryn Rabin, New York Times

Advice on money and health!

It's flu-shot season, and public health officials are urging everyone over 6 months of age to get one. Many businesses provide on-site flu shots, and some hospitals have told staff members that they have to wear masks if they do not get the vaccine. By 2020, United States health leaders want 80 percent of the population to get yearly shots.

For vaccine manufacturers, it's a bonanza: Influenza shots — given every year, unlike many other vaccines — are a multibillion-dollar global business.

But how good are they?

Last month,, in a step tantamount to heresy in the public health world, scientists at the Center for Infectious Disease Research and Policy at the University of Minnesota released a report saying that influenza vaccinations provide only modest protection for healthy young and middle-age adults, and little if any protection for those 65 and older, who are most likely to succumb to the illness or its complications. Moreover, the report's authors concluded, federal vaccination recommendations, which have expanded in recent years, are based on inadequate evidence and poorly executed studies.

"We have overpromoted and overhyped this vaccine," said Michael T. Osterholm, director of the Center for Infectious Disease Research and Policy, as well as its Center of Excellence for Influenza Research and Surveillance. "It does not protect as promoted. It's all a sales job: it's all public relations."

Dr. Osterholm, who says he is concerned that confidence in current vaccines deters research into identifying more effective agents, comes from the world of public health and the Centers for Disease Control and Prevention. A bioterrorism and public health preparedness adviser to Tommy Thompson, the former health and human services secretary, he served on the interim management team during a transition period at the C.D.C. in 2002.

"I'm an insider," Dr. Osterholm said. "Until we started this project, I was one of the people out there heavily promoting influenza vaccine use. It was only with this study that I looked and said, 'What are we doing?' "

He still considers himself a "a pro-vaccine guy," Dr. Osterholm said.

"I say, 'Use this vaccine,' " he said. "The safety profile is actually quite good. But we have oversold it. Use it — but just know it's not going to work nearly as well as everyone says."

While researching the report released last month, Dr. Osterholm said, the authors discovered a recurring error in influenza vaccine studies that led to an exaggeration of the vaccine's effectiveness. They also discovered 30 inaccuracies in the statement on influenza vaccines put forth by the expert panel that develops vaccine recommendations, all of which favor the vaccine.

C.D.C. officials acknowledge that the vaccines do not work as well in the elderly population as they do in younger healthy adults. But, they say, the effectiveness of the flu shots, which are reformulated every year in an attempt to match the strains most likely to be circulating that season, varies depending on the population being inoculated and the year.

"Does it work as well as the measles vaccine? No, and it's not likely to. But the vaccine works," Dr. Joseph Bresee, chief of epidemiology and prevention in the C.D.C.'s influenza division, said. And research is advancing to improve the effectiveness of the vaccine.

Although the vaccine may be less effective at preventing influenza in the elderly, Dr. Bresee said, that is the population most susceptible to the disease and at highest risk. Anywhere from as few as 3,000 to as many as 49,000 Americans die of influenza each year, some 90 percent of them elderly.

The new report from the Center for Infectious Disease Research and Policy is not the first to point out the shortcomings of influenza vaccines, however. The Cochrane Collaboration, an international network of experts that evaluates medical research, concluded in a 2010 review that the vaccines decrease symptoms in healthy adults under 65 and save people about a half-day of work on average, but that they do not affect the number of people hospitalized and have minimal impact in seasons when vaccines and viruses are mismatched. (When the vaccine matches the circulating viruses, 33 adults need to be vaccinated to avoid one set of influenza symptoms; when there is only a partial match, 100 people must be vaccinated for the same effect.) It was also concluded that the vaccines appear to have no effect on hospital admissions, transmission or rates of complications. A separate Cochrane review on vaccines for the elderly determined the evidence was so scant and of such poor quality that it could not provide guidance. Dr. Bresee of the C.D.C. pointed to only one randomized controlled trial of influenza vaccine in older people, and it looked at people age 60 and over in the Netherlands healthy enough to not be hospitalized or in a nursing home.

Another Cochrane review found no evidence that vaccinating health care workers who work with the elderly has any effect on influenza or pneumonia deaths.

"Not having evidence doesn't prove it doesn't work; we just don't know," said Dr. Roger Thomas, a Cochrane Collaboration coordinator for the University of Calgary in Alberta, who was an author of both of the reviews. "The intelligent decision would be to have large, publicly funded independent trials."

But those may never be conducted on the elderly, in large part because of the way the vaccine was promulgated. Initially developed for soldiers and approved in 1945, the vaccine was approved for civilian use a year later. In 1960, the surgeon general, Leroy E. Burney recommended vaccinating three high-risk groups: pregnant women, the chronically ill and people 65 and over, Dr. Osterholm said. Once that

recommendation was made, scientists felt that it would be unethical to run a trial that would essentially deny a recommended vaccine to participants assigned to the placebo group.

C.D.C. officials say population-based studies show that elderly people who get flu shots are less likely to die of any cause than elderly people who do not get them. Critics say these studies suffer from what's called the healthy vaccine recipient effect and prove only that older people who are in good health and take care of themselves go to the doctor regularly — and get flu shots.

Many of these are big-picture concerns that an individual patient cannot do much about. The reassuring news is that even critics of the influenza vaccines agree that serious complications are rare.

Another option for those who want to reduce their risk of influenza and flulike infections may be simply this: Wash your hands more often. There is good evidence this works.

Source: New York Times, available at: <http://well.blogs.nytimes.com/2012/11/05/reassessing-flu-shots-as-the-season-draws-near/>