Every year, the National Institute of Allergy and Infectious Diseases develops a new flu vaccine protecting against several different strains of the flu virus based on predictions made early in the year. The vaccine is usually about 60 percent effective, although effectiveness varies from year to year. According to the CDC’s sampling of flu cases this season, some of the strains being seen do not match those present in the vaccine. The most common strain seen so far is influenza A (H3N2). However, just under half of the cases sampled were a good match for the H3N2 strain contained in the vaccine.

ACSH’s Dr. Josh Bloom, a former researcher in virology, explains: There are two proteins found on the surface of the virus. They are hemagglutinin (H) and neuraminidase (N). This is how viruses are identified, which leads to names like H3N2. These are called subtypes. But even within these subtypes, rapid mutation leads to different strains, which may or may not be covered by the previous vaccine. This is why we need a new one every year.

People often criticize vaccine makers and health agencies for the less than perfect efficacy of vaccines, but Dr. Bloom says that this criticism is unfair.

He explains, Every year, strains of flu are collected and characterized in more than 100 countries. This information is distilled into recommendations by the WHO, which decides on the three strains will be most likely to cause infection the next year. This decision is made six months in advance, since it takes this long to make the vaccine. So, at best, this is an educated guess. They may select a strain they believe is most likely to cause infection only to have another strain predominate. Or they may select the correct strain, and it then mutates enough to render the vaccine ineffective. Given the problems inherent in these predictions, I think they do an excellent job.
Even if the vaccine is not terribly effective in preventing flu, it can still reduce risk of hospitalizations and deaths as a result of the flu. Furthermore, the vaccine is still protective against the strains it contains. For this reason, the CDC continues to recommend that everyone six months of age and older get the flu vaccine.

ACSH's Dr. Gilbert Ross adds, This vaccine offers by far the best protection one can get from the flu. Although the vaccine is not perfect, it can prevent severe complications from the virus as well as offer protection for the strains contained in the vaccine. Furthermore, there is no downside to getting the flu vaccine. A reduced average risk of 60 percent is nothing to ignore.

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