

## Beneficio sugli anziani sovrastimato

L. Simonsen e Colleghi condussero (in USA) una revisione di 33 consecutive stagioni influenzali, dal 1968 al 2001. Gli Autori trovarono che le morti correlate all'influenza aumentarono stabilmente durante i 33 anni, nonostante il fatto che i vaccinati aumentarono dal 20% (1980) fino al 65% (2001).

Il beneficio dell'antinfluenzale per i più anziani è stato sovrastimato.

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ORIGINAL INVESTIGATION

### Impact of Influenza Vaccination on Seasonal Mortality in the US Elderly Population

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**Background:** Observational studies report that influenza vaccination reduces winter mortality risk from any cause by 50% among the elderly. Influenza vaccination coverage among elderly persons ( $\geq 65$  years) in the United States increased from between 15% and 20% before 1980 to 65% in 2001. Unexpectedly, estimates of influenza-related mortality in this age group also increased during this period. We tried to reconcile these conflicting findings by adjusting excess mortality estimates for aging and increased circulation of influenza A(H3N2) viruses.

**Methods:** We used a cyclical regression model to generate seasonal estimates of national influenza-related mortality (excess mortality) among the elderly in both pneumonia and influenza and all-cause deaths for the 33 seasons from 1968 to 2001. We stratified the data by 5-year age group and separated seasons dominated by A(H3N2) viruses from other seasons.

**Results:** For people aged 65 to 74 years, excess mortal-

ity rates in A(H3N2)-dominated seasons fell between 1968 and the early 1980s but remained approximately constant thereafter. For persons 85 years or older, the mortality rate remained flat throughout. Excess mortality in A(H1N1) and B seasons did not change. All-cause excess mortality for persons 65 years or older never exceeded 10% of all winter deaths.

**Conclusions:** We attribute the decline in influenza-related mortality among people aged 65 to 74 years in the decade after the 1968 pandemic to the acquisition of immunity to the emerging A(H3N2) virus. We could not correlate increasing vaccination coverage after 1980 with declining mortality rates in any age group. Because fewer than 10% of all winter deaths were attributable to influenza in any season, we conclude that observational studies substantially overestimate vaccination benefit.

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ARCHIVES EXPRESS

Now for the importance of flu vaccines to the elderly. A new comprehensive study cast doubt on the widespread belief that flu vaccines save lives (Archives of Internal Medicine, 14 febbraio 2005). Though the authors work for a federal government health agency, they produced evidence that failed to support CDC recommendations.

**Lone Simonsen**, PhD, and colleagues at the National Institute of Allergy and Infectious Diseases **conducted a review of 33 consecutive flu seasons, from 1968 to 2001**. The authors began their report with an acknowledgement that an accurate assessment of flu-related deaths is virtually impossible because few cases are confirmed with blood tests. And the viral infection is usually cleared from the body before the appearance of complications that cause death. For these reasons, the authors had to use a special statistical method to estimate flu-related deaths and deaths from all causes among elderly Americans over the three-decade-period.

Here is what Dr. Simonsen and colleagues found:

--The number of flu-related deaths among elderly Americans increased steadily during the 33-year-period, despite the fact that their acceptance of flu vaccinations also steadily increased. For example, only 20% of all elderly Americans had a flu shot in 1980, compared with 65% in 2001.

--There was a decline in flu-related deaths among people 65-74 years in the decade after the 1968 flu pandemic because people had naturally acquired immunity due to exposure to the emerging viruses of that period. The increasing flu vaccine coverage after 1980, however, did not correlate with a decline in flu-related deaths.

--The over-all death rate for people over 85 during flu seasons did not change over the 33-year-period. Dr. Simonsen and colleagues cite earlier research that might provide an explanation for why flu vaccines did not reduce the flu-related deaths in "the very elderly" after 1980 when vaccine coverage began to increase, "...antibody responses following influenza vaccination decline sharply after age 65 years and a clinical trial involving subjects 60 years or older...found that the efficacy of influenza vaccine in preventing influenza illness was lower in people older than 70 years."

Because fewer than 10% of all winter deaths can be attributed to the flu in any year during this study's three-decade period, the authors conclude that vaccination's benefit to elderly people has been substantially overestimated.