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Flu Shot Trends in the Elderly Medicare Population

Immunization rates for influenza have been measured by the Medicare Current Beneficiary Survey (MCBS) since its beginning in 1991. Despite a long-term upward trend, the most recent data show a definite dip in the rate for the 2000-2001 flu season. MCBS data are used to show a likely reason for this decline.

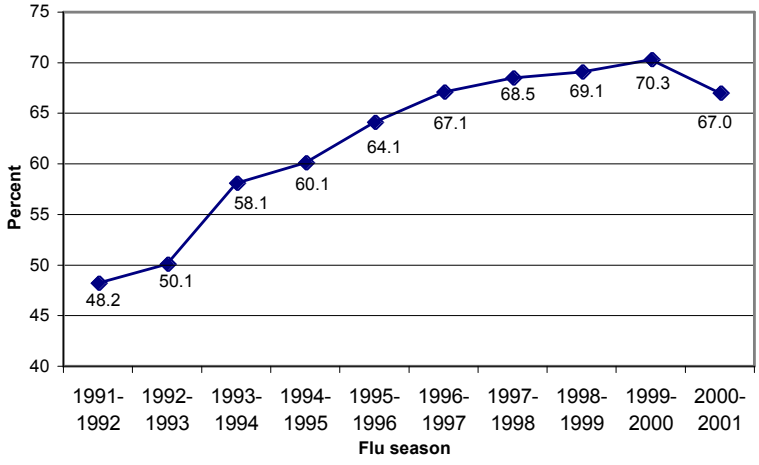
Annual immunization of the elderly population against influenza has been shown to be safe and effective in reducing the risk of illness, hospitalization, and death (U.S. Preventive Services Task Force, 1996). Flu shots are given in the fall to establish resistance before each flu season. In general, the rate of vaccination among Medicare beneficiaries age 65 and over, one of the prime risk groups, has been high: Medicare Current Beneficiary Survey (MCBS) data show that about two-thirds of elderly beneficiaries living in the community have received the shot in recent years.

Trends. Each year's MCBS asks about the shot for the previous flu season. Figure 1 shows the MCBS flu shot rates (percent vaccinated) for aged Medicare beneficiaries living in the community. The proportion reporting receipt of a flu shot increased each influenza season from 1991-92 through 1999-2000, especially between 1992-93 and 1993-94, when flu shots became a Medicare benefit. For the 2000-2001 flu season, 67.0 percent (20.5 million) of the 30.1 million Medicare aged living in the community reported receiving the vaccine.

In 2000-2001 the vaccination rate, instead of maintaining its annual increase, declined from the preceding season by more than 3 percentage points. This decline was also reported by two other government health surveys, the Behavioral Risk Factor Surveillance System (BRFSS) and the National Health Interview Survey (NHIS), both conducted by the Centers for Disease Control (CDC 2002a, 2002b).

Reasons. The MCBS asked further questions about the reasons for not getting flu shots. The question asked was "Why didn't you get a flu shot for last winter?" The respondent was free to give any reason, and the interviewer recorded it in 14 categories.

Figure 1. Percent of beneficiaries receiving flu shots, aged in community



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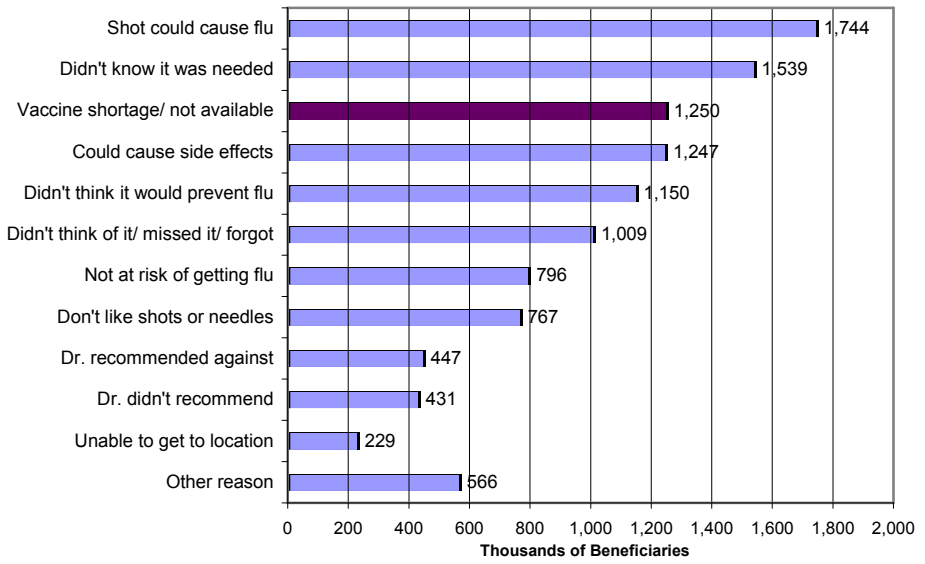
One of the leading reasons for not getting a flu shot was that the vaccine was unavailable or in short supply. This is the first year in which the MCBS recorded this response in significant numbers -- 1.25 million or 4.2 percent of the total population. This is roughly the difference between the expected increasing trend and the observed decline. It was well known in 2000-2001 that production delays affected the distribution of vaccine, creating shortages especially at the beginning of the vaccination period (October and November) when the demand was greatest (General Accounting Office, 2001). However, the impact of these shortages on the over-65 Medicare population, one of the prime risk groups, was not known. MCBS data establish the link between the vaccine shortages and the reduced vaccination rate. Delays in vaccine production continued for the 2001-2002 flu season, though they are considered less severe (Fukuda et al., 2002).

Figure 2. Reasons for not getting a flu shot, MCBS 2001



Discussion. The vaccine shortage in 2000-2001 had fewer consequences than it might have due to the mildness of the virus in that season. In general, the CDC has estimated that for each million of the aged vaccinated, approximately 900 deaths and 1300 hospitalizations are avoided (CDC, 2000). Flu shot rates are used as indicators of progress in achieving the Department of Health and Human Services' 2010 public health goals. Flu shot rates have also acquired administrative significance because they have been selected as one of the performance measures for the Centers for Medicare and Medicaid Services (CMS), performance measures that can have budgetary consequences. The CMS, together with CDC, has conducted a long-term, structured campaign to promote the benefits of immunization to Medicare beneficiaries and to improve provider performance. These efforts have paid off in the large increases over the past decade. However, the experience of the 2000-2001 flu season shows that even the strongest efforts of government agencies to increase the immunization rate may be subject to the constraints of limited vaccine supply.

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Centers for Disease Control (a), "Influenza and pneumococcal vaccination levels among persons aged > 65 years - United States, 2001," Morbidity and Mortality Weekly Report 51(45):1019-1024 (November 15, 2002).

Centers for Disease Control (b), National Center for Health Statistics, "Early Release: Figure 4.1. Percent of adults aged 18 years and over who received influenza vaccine during the past 12 months." http:www.cdc.gov/nchs/about/major/nhis/released200209/figure04_1.htm (retrieved 12/9/02)

Fukuda, Keiji, Dennis O'Mara, and James Singleton, "How the delayed distribution of influenza vaccine created shortages in 2000 and 2001," Pharmacy and Therapeutics vol.27 no. 5 (May 2002):235-242.

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