

INFLUENZA IMMUNISATION RATES IN ADULTS, NSW 1993

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This article provides a preliminary report of influenza immunisation rates among adults, based on data from the NSW Health Promotion Survey, 1994 (HPS)¹. Influenza prevention depends on the yearly immunisation of people at risk of serious complications following infection. During major epidemics hospitalisation rates may increase between twofold and fivefold². It is estimated that more than 20,000 influenza-associated deaths occurred in each of 10 US epidemics between 1972 and 1990². A recent meta-analysis concluded that influenza immunisation of elderly people reduced respiratory illness by 56 per cent, pneumonia by 53 per cent, hospitalisation by 50 per cent and deaths by 68 per cent³. Influenza immunisation has been shown to be a more cost-effective intervention than treatment of hypertension in middle-aged men, oestrogen therapy in postmenopausal women, neonatal intensive care and hospital haemodialysis⁴, and probably among the most cost-effective medical interventions in the older adult population⁵.

The National Health and Medical Research Council has recommended annual influenza immunisation for people at high risk of serious complications. At the time of the HPS, these groups were⁶:

- all people over 65 years of age;
- people of any age with chronic debilitating disease; especially cardiac, pulmonary, renal and metabolic disorders (including asthma and diabetes);
- people receiving immunosuppressive therapy; and
- health care personnel if particularly at risk.

Immunisation was not recommended for people outside these groups, as serious complications are unlikely and infection is regarded as providing longer-lasting immunity for a wider range of antigenic types of influenza.

METHODS

The 1994 HPS was a telephone survey. It collected demographic information and data on a range of key health areas including injury, nutrition, sexual health, smoking and adult immunisation status. The study population included people 18 years of age or older in a household with a telephone number listed in the White Pages telephone directory (an estimated 93 per cent of NSW households have listed telephone numbers). One thousand interviews were conducted in each of 16 Health Areas or former Regions. All data presented here are estimates for the whole NSW adult population and have been produced by weighting for age, sex and geographic distribution using 1991 census data¹.

Respondents were asked whether they had been immunised for influenza the previous year (1993). Data collected on risk categories for influenza complications were limited to age and past diagnosis of asthma or diabetes. Information on other chronic debilitating diseases and immunosuppressive therapy was not collected.

RESULTS

Sixteen thousand interviews were conducted. The response rate for those approached to be interviewed was 73 per cent. The overall estimate of the 1993 immunisation rate for the adult population was 13.5 per cent (99 per cent CI 12.8-14.2), corresponding to about 570,000 doses of vaccine. Among those 65 or more years of age (16 per cent of the adult population), 46.5 per cent (44.2-48.8) reported being immunised. Of those aged 18-64 years with asthma and/or diabetes (10 per cent of the population) 14.7 per cent (12.5-17.0) reported being immunised. Of the remaining people without recorded risk factors (73 per cent of the population), 6.0 per cent (5.4-6.6) reported being immunised.

At least 67 per cent of the doses of vaccine administered were given to people in high risk groups. Of those immunised, 59 per cent reported they had requested the

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and/or long-term condition. In 1992, 52 per cent of deaths among older people were from cardiovascular diseases.

In 1992, 24 per cent of deaths among older people were from cancer. The most common sites for new cases of cancer in people aged 60 years and over were prostate, lung and colon cancer in men, and breast, colon and lung cancer in women.

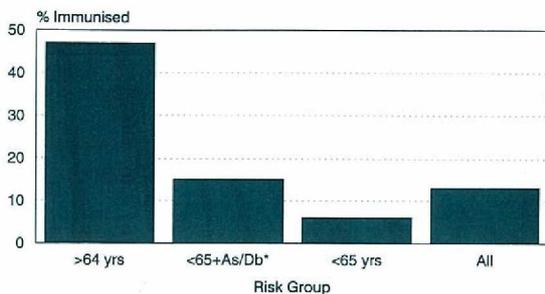
In 1989-90, 89 per cent of older people reported an illness in the previous two weeks. The most commonly reported conditions were hypertension (34 per cent of older people) and arthritis (19 per cent). Ninety-four per cent of older people reported long-term conditions. Disorders of eyesight were reported by 62 per cent of older people and arthritis was reported by 37 per cent.

In 1993, 43 per cent of people aged 60-74 years had a disability, and 82 per cent of these had a handicap.

In those aged 75 years and over, 65 per cent had a disability, and 90 per cent of these had a handicap.

The report was compiled by the following present and former staff of the NSW Health Department's Public Health Division (in alphabetical order): Guncha Ansari, Gaston Arnolda, John Brown, Lucy Burns, Magnolia Cardona, Jennifer Chippis, Tim Churches, Glenn Close, Paul Corben, Stephen Corbett, Christine Cowie, Shing Chung Fung, Margaret Kelaher, Ed Kraa, Michael Levy, Cait Lonie, Wendy Manning, Rob Menzies, Helen Moore, Geoff Morgan, Ru Nguyen, Shanti Raman, Geoff Richards, Geoff Sayer, Gavin Stewart, Lyn Stoker, Lee Taylor and Margaret Williamson. The preparation of the report relied heavily on the Health Outcomes Information and Statistical Toolkit (HOIST), which was developed and is managed by Tim Churches and Peter Brandon. Copies of the report are available from: The Better Health Centre, 162 Blues Point Road, North Sydney NSW 2060, Australia. Phone: (02) 9954 1193; facsimile (02) 9955 5196. The report can be accessed via the Internet from the NSW Health Department's World-Wide Web site, at <http://www.health.nsw.gov.au/public-health/index.html>

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Source: NSW 1994 Health Promotion Survey (*As/Db=Asthmatic and/or Diabetic)

immunisation, while 36 per cent reported that it was recommended by their doctor.

DISCUSSION

The estimated immunisation rate (46.5 per cent) for people 65 years or over is similar to previous estimates of 45 per cent in Victoria in 1992⁷ and 52 per cent in South Western Sydney in 1990⁸. The HPS included only residents of private households, so residents of nursing homes and other chronic care facilities were excluded. In Victoria in 1992, 52 per cent of nursing home residents were reported to be immunised⁷. The immunisation rate in NSW residents 18-65 years with asthma and/or diabetes (15 per cent) was lower than those with chronic debilitating diseases in Victoria in 1992 (30 per cent).

One limitation of the HPS in monitoring influenza rates is that information was not collected on all indications for immunisation. Therefore, the group classified as not being at high risk (aged under 65 years without asthma and/or diabetes) includes an unknown number of people for whom immunisation was recommended. In the Victorian study, which included all age groups, 30 per cent of the surveyed population had at least one indication for immunisation, while in this study 27 per cent were either over 65 years of age or suffering from asthma or diabetes.

The estimated total number of doses given in NSW to adults from the HPS (570,000) is slightly higher than estimates provided by the vaccine suppliers (535,000)⁹.

The HPS showed that less than 33 per cent of vaccine doses were administered to people with no known indications. The actual figure may be lower, because of unreported indications. This compares with 47 per cent in Victoria in 1992, which was a relatively severe influenza season during which vaccine supplies ran out and a second batch was produced. These data suggest that increased immunisation

of people in low risk groups in response to publicity about a severe influenza season may have contributed to the shortage of vaccine in 1992. This underlines the importance of effective targeting of people in high risk groups during autumn, before the peak influenza season.

The majority of immunised people in high risk groups reported that immunisation was initiated by them (59 per cent) rather than by their doctors (36 per cent). It has been demonstrated that, regardless of a person's attitude to immunisation, 70 per cent to 90 per cent of people will accept a health professional's recommendation to be immunised¹⁰. This highlights the potential benefits from active advocacy of immunisation by health professionals.

In October 1994, after the HPS was conducted, the NHMRC recommendations were revised to the following¹¹:

It is recommended that the following groups should receive immunisation routinely:

- all persons over 65 years of age,
- Aboriginal and Torres Strait Islander people over 50 years of age.

Immunisation should also be considered for:

- adults with chronic debilitating diseases;
- children with cyanotic congenital heart disease;
- adults and children receiving immuno-suppressive therapy;
- staff who care for immuno-compromised patients; and
- residents and staff of nursing homes and chronic care facilities.

The immunisation rates detected by the HPS indicate that considerable public health benefits are being forfeited every year by the failure to immunise people at risk of serious complications from influenza. More aggressive strategies are needed to improve rates. In particular, general practitioners should actively encourage people in high risk groups to be immunised.

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