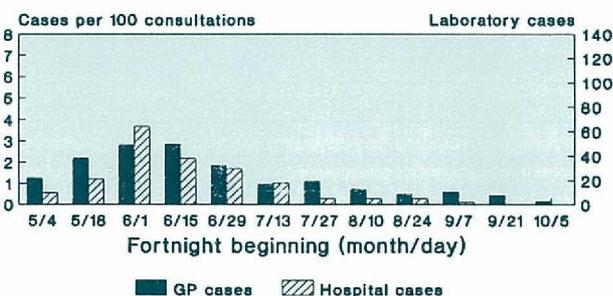


VACCINATION STATUS OF NURSING HOME STAFF AND RESIDENTS

Each year the Commonwealth Government makes influenza vaccine available to groups at risk in the community. The vaccine is prepared as a conjugate of the expected strains anticipated in the coming year. The goal is to reduce influenza-related morbidity and mortality in the community. In NSW during 1991 the rates of reported infection reached a peak in June of 12.75 cases/100 general practice consultations. Lower rates were observed in Victoria – 3/100 general practice consultations. The peak rates occurred in June in both States¹. The Victorian figures are reproduced in Figure 1.

FIGURE 1

INFLUENZA SURVEILLANCE
CLINICAL AND LABORATORY CASES, VICTORIA, 1992



GP cases based on GP surveillance,
laboratory cases from Fairfield &
Royal Children's Hospital.

The National Health and Medical Research Council (NH&MRC) states that "annual vaccination is recommended for individuals ... (who are) ... residents of nursing homes and other chronic care facilities"². The Public Health Unit of Central and South Sydney thought it worthwhile to examine the vaccinated status of this risk group in our Area.

	Number	(%)
0-39 residents	10	(20)
40-49 residents	8	(16)
50-59 residents	10	(20)
60-69 residents	6	(12)
70-79 residents	6	(12)
80+ residents	9	(18)
Missing data	1	(02)
Total	50	(100)

These people are at increased risk because of their age, often debilitating medical condition and residence in an institution where rapid spread is possible.

SURVEY METHOD

A list of registered nursing homes was obtained from the National Association of Nursing Homes and Private Hospitals Inc. We sent a questionnaire to the directors of each nursing home on August 6, 1992 inquiring about the vaccination status of their staff and residents.

RESULTS

There were 120 nursing homes on the list provided. Four questionnaires were returned unopened. A total of 53 (45 per cent) survey forms was returned. Three were excluded because significant information appeared to be wrong or was missing. The remainder, some with missing data, were used in the analysis.

The homes varied considerably in size (Table 1). The smallest had 14 and the largest 300 residents. The average is not meaningful given this distribution.

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Influenza immunisation

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EDITORIAL COMMENT

Influenza immunisation poses several unique problems for public health:

- Influenza vaccine is the only vaccine in routine use that varies in composition from year to year. It is the only vaccine which, because of limited supply, has achieved 'commodity' status.
- The terms flu, cold and common cold are interchanged in day-to-day language, making it difficult to communicate reasonable health messages to the general public. Influenza, with its graphic history of pandemics, has the ability to generate florid and exaggerated media reports.

- Risk groups for complications of influenza have been identified by the National Health and Medical Research Council. In general terms they are the aged and those people with serious cardiac, pulmonary problems or immunosuppressed individuals. Recommendations for the carers of these people, and for others at risk of infection, are less clear.

Influenza is usually a mild illness in otherwise healthy children and young adults. Data from overseas studies indicate that the best protection from the fatal complications of influenza later in life is prior lifetime exposure to influenza.

These are strong arguments against immunisation of otherwise healthy individuals. Immunisation protects against specific virus strains for one year. Natural exposure generates a broader antibody response which is longer lasting, possibly lifelong.

In addition, as supplies of vaccine are not sufficient to immunise all high-risk individuals, it is appropriate to discourage healthy people from influenza immunisation.

TABLE 2**VACCINATION STATUS OF NURSING HOME STAFF**

Vaccination status	Nursing staff (No. of homes)	Support staff (No. of homes)
Status unknown in 100% of staff	16	21
Status unknown in 50-99% of staff	8	4
>50% of staff – not vaccinated	15	15
>50% of staff – vaccinated	3	3

Influenza vaccination status

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There were 1,672 full-time equivalent nursing staff employed in these homes and 747 support staff (administrative, clerical and cleaning). This staff looked after a total of 3,158 full-time residents of whom 2,392 (80 per cent) were considered chronically debilitated. The patient to nursing staff ratio varied from 1:1 (40 per cent of homes) to 6:1 (10 per cent of homes).

VACCINATION STATUS

Forty-five institutions reported the vaccination status of either their nursing or support staff (Table 2 on page 40). This information was missing for nursing staff in eight and for support staff in seven nursing homes. Thus in only three (6 per cent) of nursing homes were more than 50 per cent of nursing staff thought to have been vaccinated. The equivalent figure for support staff was three (6 per cent) of nursing homes.

Forty-six institutions reported the vaccination status of their residents (Table 3 on page 40). Therefore while the vaccination status of many staff was not known, more than half the nursing homes had less than 80 per cent of residents vaccinated. There were three homes (10 per cent) where 100 per cent were vaccinated.

ORGANISATION OF VACCINATIONS

In most homes the staff organise their own vaccinations while among residents the service is provided equally by the person's doctor or in conjunction with the home (Table 4).

PUBLIC HEALTH IMPLICATIONS

The avoidance of major outbreaks in these institutions depends on the presence of high levels of herd immunity. Although there are no Australian recommendations about optimal immunisation rates, US recommendations are that at least 80 per cent of people in such settings should be immunised if there

TABLE 3**VACCINATION STATUS OF NURSING HOME RESIDENTS**

% of residents vaccinated	Number of nursing homes	(%)
<50% vaccinated	5	(10)
50-79% vaccinated	17	(34)
>80% vaccinated	24	(48)
Missing data	4	(08)
Total	50	(100)

is to be adequate herd immunity³. Just under half the homes surveyed reported a level of vaccination among residents that met this US criterion. In most homes the vaccination level among staff was either unknown or inadequate. As a result the level of protection afforded appears less than desirable.

A major limitation of the survey is the relatively low response rate. This has not been investigated further. It may be that the non-responding homes were those where full coverage had been achieved although this is not thought likely. Therefore the level of protection could be improved.

Similar findings to these are in an unpublished report (in press) from Victoria. If these findings are common, a major influenza outbreak within the State could result in much unnecessary morbidity and mortality. Last year there was no influenza epidemic in Australia and therefore the Victorian surveillance system did not find a rise in death and hospital morbidity. However the levels of immunisation reported in this study are a cause for concern. Public Health Units should plan strategies in response to these findings before a major outbreak occurs.

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1. Department of Health and Community Services, Victoria. Influenza Surveillance 1992. Influenza Newsletter No. 12.
2. National Health and Medical Research Council. Immunisation Procedures. Fourth Edition, AGPS 1991. p83.
3. Healthy People 2000: National Health Promotion and Disease Prevention Objectives. Washington DC. Department of Health and Welfare, Public Health Service 1991, p521.

TABLE 4**ORGANISATION OF VACCINATIONS**

Who provided the vaccinations?	Nursing home staff	(%)	Residents	(%)
Institution	4	(08)	9	(18)
Own physician	34	(68)	19	(38)
Both	5	(10)	20	(40)
Missing data	7	(14)	2	(04)