

2002 Influenza Vaccine Survey

Summary results

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2002 Influenza Vaccine Survey

Summary results

April 2003

Australian Institute of Health and Welfare
Canberra

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Foreword

This report presents summary results from the 2002 Influenza Vaccine Survey. The AIHW managed the survey on behalf of the Commonwealth Department of Health and Ageing. The survey project was approved by the AIHW Health Ethics Committee.

For the first time, the survey was fully conducted under AIHW legislation, affording a very high level of protection to the personal information collected in the survey. Custody of the survey data set rests with the AIHW and is protected by the *Australian Institute of Health and Welfare Act 1987*. The release of this report is an important contribution to evaluation of the Commonwealth's Influenza Vaccine Program for Older Australians.

I would like to pay particular tribute to AIHW staff for their role in managing the survey and to the Department's officers who worked closely with the AIHW throughout the survey.

Richard Madden
Director
Australian Institute of Health and Welfare
April 2003

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Acknowledgments

The 2002 Influenza Vaccine Survey required the time and input of a number of individuals and organisations. The assistance of the following is particularly appreciated.

The Policy Reference Group (see Appendix 1) was the main steering committee for the survey, with technical development provided by staff of the Department of Health and Ageing and the Australian Institute of Health and Welfare.

From the Department of Health and Ageing:

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The funding for the 2002 Influenza Vaccine Survey was provided by the Commonwealth Department of Health and Ageing.

Abbreviations and symbols

Abbreviations

AIHW	Australian Institute of Health and Welfare
CATI	Computer Assisted Telephone Interview
DoHA	Department of Health and Ageing
NHMRC	National Health and Medical Research Council
RSE	Relative standard error
SE	Standard error

Symbols

–	Nil, or rounded to zero
..	not applicable
n.a.	not available

Note: State means state and/or territory.
Totals may differ due to rounding.
Where the context permits, all results are for Australia in 2002.

Summary

The National Influenza Vaccine Program for Older Australians

Through the program, the Commonwealth funds free vaccine for Australians aged 65 years and older – the target group. In 2002, the Commonwealth made available to each state government sufficient funds to purchase one vaccine dose for each target group member in that state. The Commonwealth reviews the program through an annual survey.

The 2002 Influenza Vaccine Survey

The survey was conducted in October 2002. This was the third national survey in a current series, and it was the first to be managed by the Australian Institute of Health and Welfare.

Eight thousand Australians aged 40 years and older participated in the survey. They were asked about their recent medical and financial experience of influenza and influenza vaccination. From their responses, answers to four central questions were estimated and some other analyses made. The central questions and their calculation are discussed below and illustrated in Figures S.1 and S.2.

Coverage

Coverage is the proportion of the target population vaccinated against influenza. It is estimated from the 2002 survey that, of about 2.4 million Australians in the target group, 1.9 million were vaccinated against influenza (*Vaccinated* in Figure S.1), giving an **estimate of coverage of 76.9%**.

Valid usage

Valid usage is the proportion of the target population vaccinated against influenza with program-funded vaccine. Again, it is estimated from the 2002 survey that, of about 2.4 million Australians in the target group, 1.7 million were vaccinated against influenza with vaccine provided under the program (*Program* in Figure S.1), giving an **estimate of valid usage of 70.4%**.

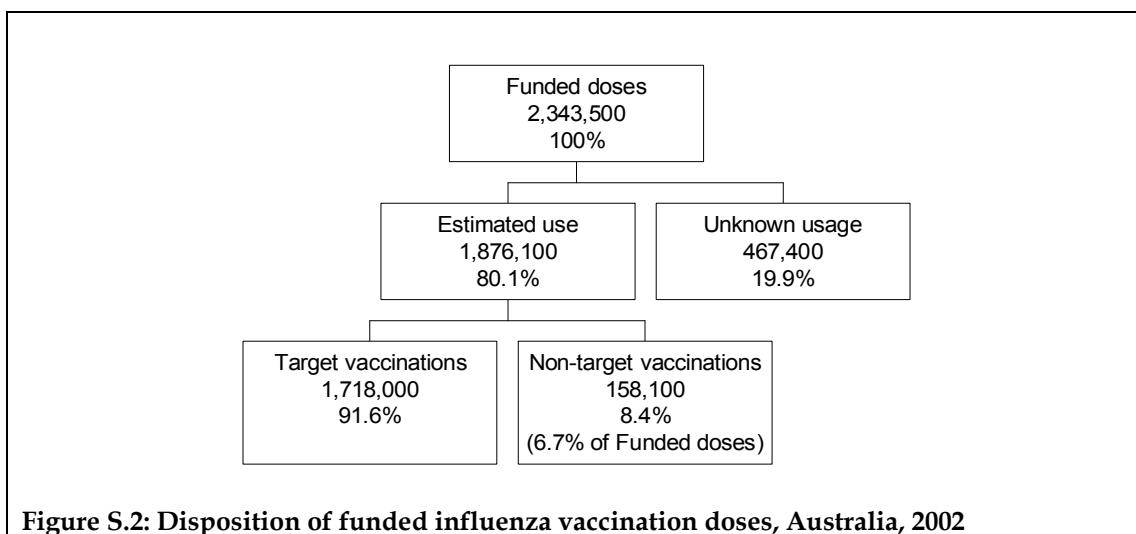
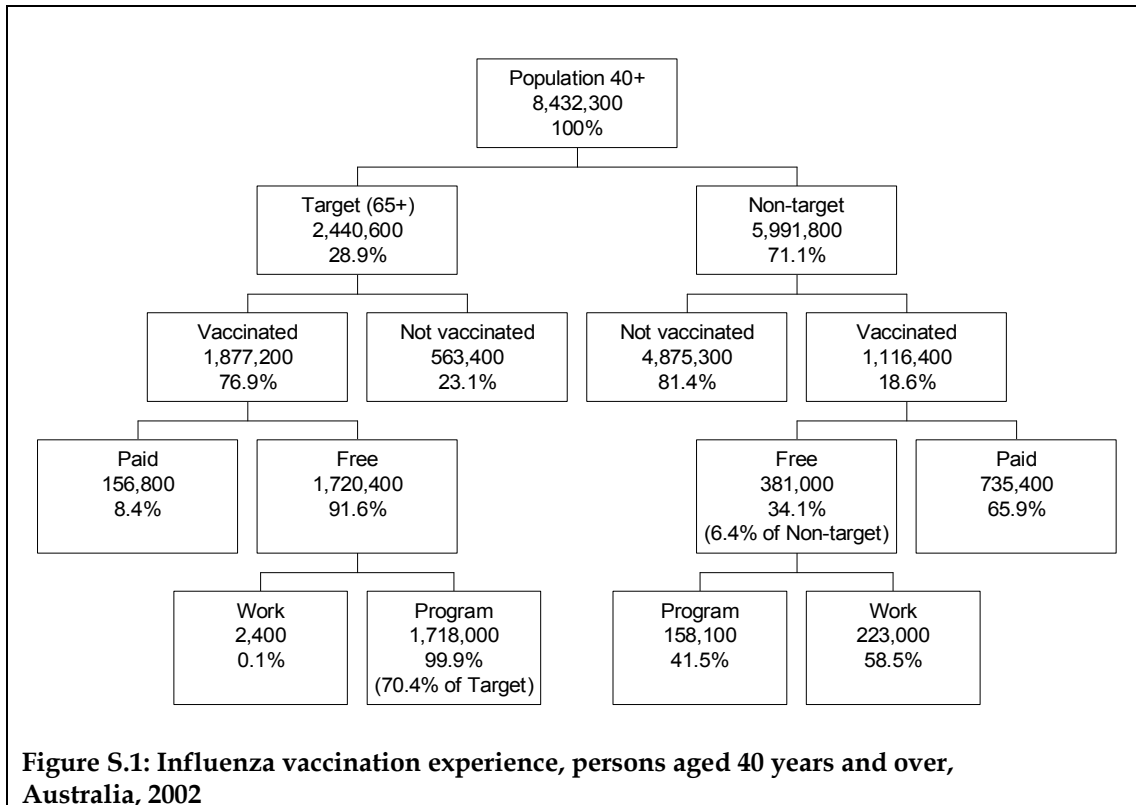
Leakage

Leakage is the proportion of the program-funded doses administered to the non-target population. Of 2.3 million funded doses, 158,100 doses were administered to non-target Australians (*Non-target vaccinations* in Figure S.2), giving an **estimate of leakage of 6.7%**.

Unknown usage

Unknown usage is the proportion of the funded doses not otherwise accounted for in this report. It arises through administration to those beyond the scope of the survey or just remaining in refrigerators at the end of the 'season' (doses not used in the season are not used later) or through wastage (that is, loss or destruction).

Unknown usage is calculated as total program-funded doses less valid usage doses less leakage doses. It is estimated that 467,400 doses were not otherwise counted, giving an **estimate of unknown usage of 19.9%**.



1 Introduction

The impact of influenza in Australia

Influenza is an epidemic disease which sometimes becomes pandemic and from which complications (such as pneumonia and pleurisy) can arise. In Australia in 2000, there were 67 deaths with influenza as an underlying cause – the influenza age-standardised death rate was 0.3 per 100,000 (AIHW 2002 Australia's Health, p. 92). In 1999–2000 there were 2,591 hospital separations with a principle diagnosis of influenza, of which 28% were adults aged 65 years and older (AIHW 2002, p. 93). It appears that people in this age group are at increased risk from the complications of influenza, including those leading to death.

Influenza vaccination is a population health intervention that aims to reduce the impact of influenza.

The National Influenza Vaccine Program for Older Australians

Through the program, the Commonwealth Government funds state governments to purchase vaccine for administration to Australian residents aged 65 years and over. In this report, this group is referred to as the target population or target group.

State governments are responsible for the acquisition and distribution of vaccine to immunisation providers.

Program evaluation

The Commonwealth undertakes an annual evaluation of the program, by way of the Influenza Vaccine Survey.

The program is designed to cover all and only the people in the target population. It is also intended that the supply of vaccine doses will meet the demand and that over-supply will be minimised. Two aspects of the program are evaluated by studying:

- the proportion of the target population that received influenza vaccine (called coverage);
- the way the supply of free vaccine was actually used – for example:
 - given to people in the target population (valid usage);
 - given to people not in the target population (leakage); or
 - lost, destroyed, stored inappropriately, or simply not used in the program year (unknown usage).

Leakage is further analysed in terms of two NHMRC-recommended population groups – people at increased risk from influenza and its complications; and those caring for people at risk.

Vaccine not used in the program year (part of unknown usage) must be thrown out because the influenza vaccine is formulated each year according to the particular influenza strains circulating at the time.

The evaluation of leakage (and therefore unknown usage) is clouded by the existence of other Commonwealth and state programs that provide free vaccine. An example is the National Indigenous Pneumococcal and Influenza Immunisation program, which provides free influenza vaccine to Indigenous people in high-risk groups. It is unlikely that respondents accurately distinguished between one source of government-funded vaccine and another. Therefore, some of the leakage from the program may represent vaccine provided appropriately under another government-funded program.

The Influenza Vaccine Survey

The 2002 Influenza Vaccine Survey is the third of its type and the first managed by the Australian Institute of Health and Welfare (AIHW). As in previous years the 2002 survey used the computer-assisted telephone interview (CATI) survey method.

The survey was of 8,000 people – 1,000 in each state and territory – aged 40 years and over. This age restriction contains the cost of the survey but covers those aged 40 to 64 years who are not in the target population but may have received the vaccine.

Individual survey records are weighted according to gender, age group and state. The weighting is calculated so that the weighted contribution of each such group to the analysis is appropriate to the contribution of that gender/age group/state within the Australian population.

About this report

The report presents estimates derived from survey responses weighted to the Australian population aged 40 years and over.

Chapter 2 presents the central analysis for coverage, valid usage, leakage and unknown usage.

Chapter 3 describes:

- coverage and valid usage in more detail
- people who paid for the vaccine when they did not need to
- coverage of the non-target group
- two population groups that the NHMRC recommends be vaccinated
- the effect of excluding residents of aged care facilities from the survey.

Chapter 4 summarises characteristics of the respondents to the survey and the method used.

The appendixes document the administration of the survey, provide the populations underlying the report, give standard error estimates and include the survey questionnaire.

2 Main results

Introduction

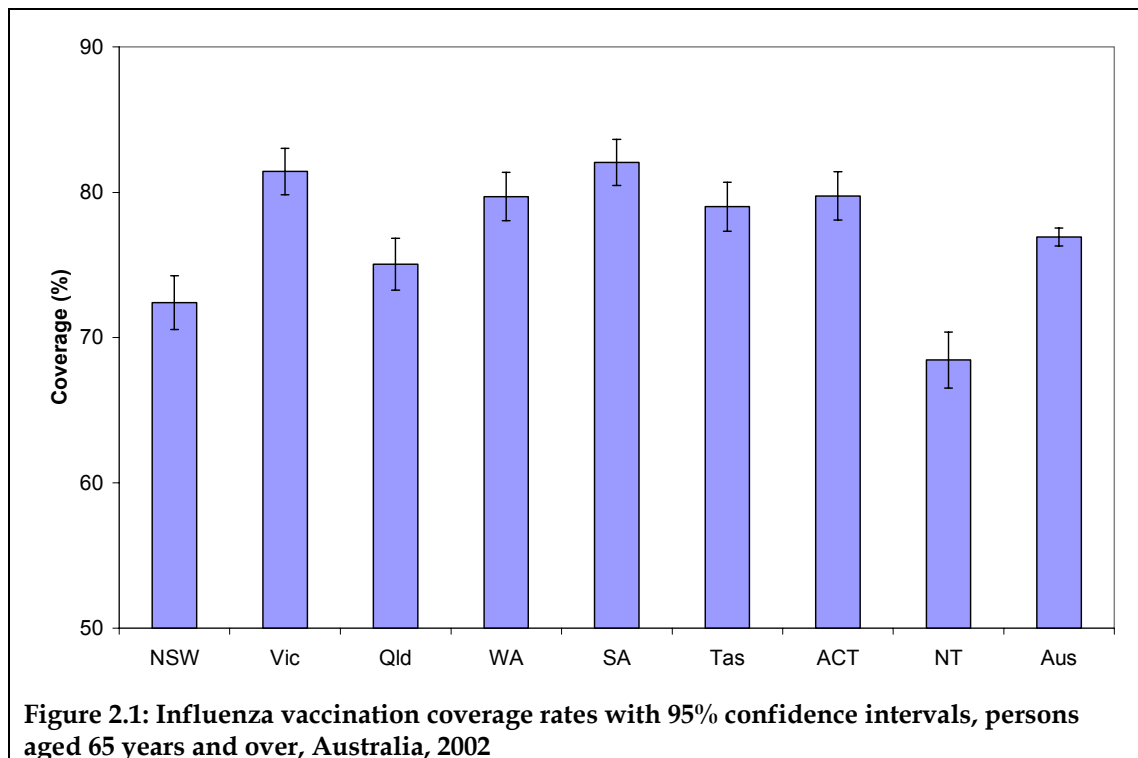
The main survey results are presented as population statistics (relating to people) and as dose counts (doses provided through the program). A person can receive no vaccine, one dose or more than one dose of vaccine.

No explicit comparison with earlier survey results is made in this report as the survey instrument has changed over time.

Population statistics

Coverage

Coverage is the proportion of the target population vaccinated against influenza. In Australia in 2002, overall coverage was 76.9% (1.9 million divided by 2.4 million) (Figure 2.1, Table 2.1). State by state this varied by 5.2 percentage points or less with the exception of the Northern Territory where coverage was 8.5 percentage points less than that for the country as a whole.



Valid usage

Valid usage is the proportion of the target population vaccinated against influenza with program-provided vaccine. Valid usage was 70.4% (1.7 million divided by 2.4 million) (Table 2.1). State by state this varied from the national rate by as much as 9.1 percentage points.

Valid usage and coverage can be further analysed by calculating the proportion of the vaccinated target population who were vaccinated with program-provided vaccine (that is, valid usage divided by coverage) – this was 91.5% (1.7 million divided by 1.9 million) (Table 2.1). This implies 8.5% of the vaccinated target population (coverage) either paid for the vaccine or received vaccine provided by their employer.

Table 2.1: Influenza vaccination coverage and valid usage, persons aged 65 years and over, Australia, 2002

Measure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	(number)								
Target population	861,400	626,000	423,100	209,700	220,500	64,900	27,500	7,600	2,440,500
vaccinated	623,700	509,700	317,500	167,100	180,900	51,300	21,900	5,200	1,877,200
with program vaccine	559,700	488,700	284,200	151,500	164,100	45,700	20,100	4,600	1,718,000
	(per cent)								
Coverage	72.4	81.4	75.0	79.7	82.1	79.0	79.7	68.4	76.9
Valid usage	65.0	78.1	67.2	72.2	74.4	70.4	73.2	61.3	70.4
as a proportion of coverage	89.7	95.9	89.5	90.6	90.7	89.1	91.7	89.6	91.5

Dose statistics

This analysis takes as its starting point the number of doses purchased by the states that were funded by the Commonwealth, under the program (2.3 million) (Table 2.2).

Leakage

Leakage is the proportion of the program-funded doses administered to the non-target (ineligible) population. Australia-wide in 2002, 158,100 doses were administered this way (Table 2.2). This was 6.7% of program-funded doses.

Other Commonwealth and state government programs affect the estimates. For example, in Victoria, the state government provides free influenza vaccines through public hospitals for people aged less than 65 years with risk factors recognised by the National Health and Medical Research Council (NHMRC) as indications for vaccination. It is therefore possible that some of what is classified as leakage, that is, vaccine received free by this group, has been appropriately administered by a public hospital in Victoria.

Unknown usage

Unknown usage is the proportion of all funded doses not otherwise accounted for in this report – total program-funded doses less valid usage doses less leakage doses.

Australia-wide in 2002, 467,400 doses were not otherwise accounted for (Table 2.2). This was 19.9% of program-funded doses.

Unknown usage arises from program-funded vaccine:

- administered to people beyond the scope of the survey – that is, less than 40 years of age or resident in nursing homes or other institutions;
- remaining at the end of the ‘season’ (from May to September) – vaccine not used in the season must be discarded because it is formulated each year according to the circulating strains of the influenza virus;
- lost, destroyed or stored inappropriately.

Table 2.2: Influenza vaccination: funded doses, eligible vaccinations, leakage and unknown usage, Australia, 2002

Measure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Funded doses (number)	844,600	621,400	375,000	205,400	201,300	64,100	25,000	6,600	2,343,500
Eligible vaccinations (number)	559,700	488,700	284,200	151,500	164,100	45,700	20,100	4,600	1,718,000
Ineligible vaccinations (number)	63,200	41,900	21,300	10,900	11,400	5,000	3,400	1,400	158,100
Leakage (per cent)	7.5	6.7	5.7	5.3	5.6	7.8	13.4	21.9	6.7
Doses not used (number)	221,700	90,900	69,500	43,100	25,900	13,400	1,500	500	467,400
Unknown usage (per cent)	26.2	14.6	18.5	21.0	12.9	21.0	6.2	7.7	19.9

Second and subsequent vaccination doses are excluded from coverage, valid usage and leakage calculations – it is assumed one person means one dose. These excluded doses are therefore counted as unknown usage.

3 Other results

Coverage and valid usage by sex

The proportion of the target population that was vaccinated (coverage) varied less by sex than it did by state (Table 3.1). Nevertheless, the variation in sex-specific coverage was as much as 5.6 percentage points, in Queensland.

Across Australia, males in the target population were less likely than their female counterparts to be vaccinated against influenza although this is not true for all states and territories. The same pattern is found for the proportion of the target population vaccinated under the program (valid usage).

Table 3.1: Influenza vaccination coverage and valid usage, by sex, persons aged 65 years and over, Australia, 2002

Sex and measure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	(per cent)								
Males									
Coverage	73.8	78.5	72.0	80.4	82.9	76.7	80.5	67.5	76.2
Valid usage	66.5	75.3	63.7	71.9	75.5	69.9	72.4	60.0	69.6
Females									
Coverage	71.3	83.7	77.6	79.2	81.4	80.8	79.2	69.5	77.5
Valid usage	63.8	80.2	70.1	72.5	73.6	70.6	73.8	62.8	71.0

Vaccinations by month

For the whole population (40 years old or more), for the target population and for the target populations vaccinated within the program, more than 60% of vaccinations occurred in March and April (Table 3.2).

By state and for the whole population (40 years old or more), this was not true for Tasmania, where over 25% of vaccinations occurred in May, and the Northern Territory, where over 18% of vaccinations occur in February or earlier.

Table 3.2: Influenza vaccination: month of vaccination, persons aged 40 years and over, Australia, 2002

Group and month	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	(per cent)								
Timing of all vaccinations									
February or earlier	3.5	6.7	5.9	7.1	4.6	5.2	5.3	18.4	5.4
March	28.2	31.2	33.2	23.5	24.4	26.1	26.5	26.9	29.0
April	37.0	30.4	30.8	35.1	36.4	30.1	35.5	17.8	33.6
May	17.3	17.8	18.5	22.8	16.6	25.6	18.1	19.0	18.3
June	7.1	6.8	5.7	5.3	10.8	6.2	8.5	8.0	7.0
July	3.1	4.5	2.8	4.3	5.9	3.8	4.5	2.5	3.9
August	1.5	1.9	2.9	0.7	1.0	2.4	1.4	6.5	1.8
September	0.5	0.7	0.2	1.0	0.2	0.6	0.2	0.7	0.5
October	1.8	–	–	0.3	–	–	–	0.2	0.6
Timing of target group vaccinations									
February or earlier	3.3	5.1	6.1	5.1	5.2	4.9	3.4	22.6	4.7
March	31.2	35.0	33.8	31.1	32.3	30.2	33.7	32.0	32.7
April	35.9	29.0	33.9	33.9	33.6	34.2	33.9	18.9	33.2
May	17.2	16.7	15.9	17.9	14.9	19.8	18.9	12.5	16.8
June	6.8	6.7	4.0	5.6	6.7	3.6	5.2	6.1	6.1
July	2.6	4.2	2.9	3.2	5.3	4.2	3.6	3.6	3.4
August	2.3	2.0	3.1	1.2	1.7	2.3	1.0	2.2	2.2
September	0.7	1.2	0.3	1.5	0.4	1.0	0.4	1.8	0.8
October	0.1	–	–	0.5	–	–	–	0.5	0.1
Timing of program-funded target group vaccinations									
February or earlier	3.5	5.0	6.6	4.8	5.8	4.7	3.2	23.2	4.9
March	31.7	34.8	32.4	32.4	33.1	29.9	34.8	32.6	32.9
April	36.4	29.3	34.3	33.1	32.4	35.2	34.1	17.8	33.3
May	17.1	16.5	15.9	18.0	15.3	19.2	17.5	12.4	16.7
June	7.1	6.5	3.7	5.5	6.6	3.7	5.5	6.3	6.1
July	1.8	4.4	3.2	3.0	5.4	4.2	3.4	3.2	3.3
August	1.8	2.1	3.5	1.3	1.1	2.2	1.1	2.4	2.1
September	0.4	1.3	0.4	1.3	0.4	0.9	0.5	1.6	0.7
October	0.1	–	–	0.5	–	–	–	0.6	0.1

Target population: payment for vaccine

The great majority (90.2% Australia-wide in 2002) of people who were eligible under the program and who were vaccinated paid nothing for the vaccine (Table 3.3). Among these people, 0.2% were paid for by their employer and 90.0% by the program.

Some 9.8% of the vaccinated population who were eligible under the program nevertheless paid for their vaccine – 9.4% to a pharmacy and 0.4% direct to the provider of their vaccination.

Table 3.3: Influenza vaccination: payment for vaccine, persons aged 65 years and over, Australia, 2002

Proportion	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	(per cent)								
Paid									
Pharmacy	12.5	4.4	10.4	8.9	10.1	13.8	7.7	9.8	9.4
Direct	0.1	0.2	1.0	0.8	0.4	0.8	1.0	0.3	0.4
<i>Paid</i>	12.6	4.6	11.4	9.8	10.5	14.6	8.7	10.1	9.8
Free									
Program	87.2	95.4	88.6	89.9	88.2	85.3	91.2	89.9	90.0
Employer	0.2	–	–	0.3	1.3	0.1	0.1	–	0.2
<i>Total free</i>	87.4	95.4	88.6	90.2	89.5	85.4	91.3	89.9	90.2

Payment by sex and marital status within age

Of those in the target population who paid for the vaccine, 37.1% were aged 65–69 years (Table 3.4). The greater proportions of these vaccinations were for females and for partnered people.

Table 3.4: Influenza vaccination purchased by target population, by age and sex, by age and marital status, persons aged 65 years and over, Australia, 2002

Profile	65–69	70–74	75–79	80–84	85–89	90+	All
	(per cent)						
Sex							
Male	15.3	14.0	7.7	3.1	3.2	0.5	43.8
Female	21.9	12.0	7.6	6.8	5.2	2.7	56.2
Marital status							
Never married	3.1	2.5	0.0	0.5	–	0.1	6.2
Divorced/separated	7.7	6.9	6.6	2.7	8.3	3.2	35.3
Married/de facto	26.4	16.6	8.7	6.8	–	–	58.4
Overall	37.1	26.0	15.3	9.9	8.3	3.3	100.0

Coverage of those not in the target group

Of those not in the target group (that is, aged 40–64 years), some 18.6% were vaccinated, only 2.6% with program vaccine (Table 3.5). This ‘coverage’ of people not in the target population varied greatly from a low of 14.4% in New South Wales to 29.1% in the Australian Capital Territory. Use of funded vaccine by this non-target population did not vary quite as much.

Table 3.5: Influenza vaccination of the non-target population, persons aged 40–64 years, Australia, 2002

Non-target population	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	(per cent)								
Vaccinated	14.4	23.8	16.9	19.2	20.8	23.3	29.1	14.5	18.6
Used program-funded vaccine	3.1	2.9	1.9	1.8	2.4	3.3	3.4	2.6	2.6

Use of program-funded vaccine by sex and marital status within age

Of those not in the target population (aged 40–64 years) who used program vaccine, 32.3% were aged 60–64 years (Table 3.6). As in Table 3.4, the greater proportion of

these vaccinations was for females and for partnered people, in this oldest age group. Overall, however, non-targeted males appear to have been much greater users of program vaccine than females (60.1% versus 39.9%).

Table 3.6: Influenza vaccination: use of program vaccine for the non-target population, by age and sex, by age and marital status, persons aged 40–64 years, Australia, 2002

Profile	40–44	45–49	50–54	55–59	60–64	All
	(per cent)					
Sex						
Male	10.2	6.6	10.1	19.4	13.7	60.1
Female	2.4	2.2	5.1	11.5	18.6	39.9
Marital status						
Never married	0.7	3.7	0.2	2.9	2.9	10.5
Divorced/separated	–	2.1	0.4	10.8	9.1	22.5
Married/de facto	12.0	3.0	14.6	17.3	20.2	67.1
Overall	12.7	8.8	15.2	31.0	32.3	100.0

Other groups recommended by NHMRC

NHMRC guidelines identify a number of population groups as being at heightened risk from influenza. For two such groups (people with medical risk factors and carers of people with medical risk factors), this section provides:

- a coverage measure – the proportion of the defined group who were vaccinated, both overall and among those not in the target population (that is, not aged 65 years and over);
- the proportion of the defined group vaccinated with program-funded vaccine;
- the number of doses that that represents;
- an estimate of the contribution to overall leakage of program-funded doses.

Note that these two population groups are not mutually exclusive. There will be overlap between the two populations; that is, people with risk factors who care for other people with risk factors.

‘At risk’ population

One such group is those Australians suffering from various circulatory, respiratory and immuno-suppressant conditions that put them at further risk from influenza and its complications. Of these, 61.4% were vaccinated in 2002, whereas 41.7% of those at risk but not in the target population were vaccinated (Table 3.7). The majority of those at risk but not in the target population who were vaccinated funded the vaccination themselves (32.2% of this at-risk subgroup, or 77.2% of those vaccinated in this subgroup).

Table 3.7: Influenza vaccination among the 'at risk' population, persons aged 40 years and over, Australia, 2002

Measure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	(per cent)								
Total 'at risk' (persons aged 40 years and over)									
Vaccinated	58.6	59.6	60.9	75.5	62.1	74.1	70.8	52.3	61.4
Program-funded	39.3	40.6	34.9	40.2	39.5	50.3	36.4	35.4	39.2
Employer-funded	2.1	3.6	0.4	–	3.8	3.2	6.1	3.2	2.3
Self-funded	17.3	15.4	25.7	35.3	18.8	20.6	28.3	13.7	19.9
'At risk' and not in the target population (persons aged 40–64 years)									
Vaccinated	38.8	37.9	42.9	62.4	38.8	55.2	62.4	41.4	41.7
Program-funded	5.2	7.5	0.9	4.2	3.6	13.2	11.4	21.8	5.3
Employer-funded	4.2	6.2	0.8	–	6.7	7.4	10.0	4.4	4.3
Self-funded	29.4	24.2	41.2	58.2	28.5	34.6	41.1	15.2	32.2

Contribution to leakage

In terms of the contribution to leakage, the at-risk non-target group accounted for around three-tenths of the total program leakage (2.0 percentage points out of the total 6.7 percentage points leakage (Tables 3.8 and 2.2)).

Table 3.8: Influenza vaccination: contribution to leakage from those 'at risk' but not in the target population, persons aged 40–64 years, Australia, 2002

Contribution to leakage	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
All funded doses (number)	844,600	621,400	375,000	205,400	201,300	64,100	25,000	6,600	2,343,500
Vaccinations to non-target 'at risk' (number)	14,900	21,200	1,500	3,100	3,100	2,400	1,500	1,400	49,100
Leakage to 'at risk' people (per cent)	1.8	3.4	0.4	1.5	1.5	3.7	6.1	22.0	2.1

Caring for the 'at risk' population

Many Australians care for people suffering from various circulatory, respiratory and immuno-suppressant conditions. Of these carers of 'at risk' Australians, 36.8% were immunised in 2002 (Table 3.9). Of carers not in the target population, 23.8% were vaccinated in 2002, of which a slim majority (12.4% out of 23.8%) self-funded the vaccine.

Table 3.9: Influenza vaccination among carers of the 'at risk' population, persons aged 40 years and over, Australia, 2002

Measure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	(per cent)								
Total carers (persons aged 40 years and over)									
Vaccinated	26.6	48.8	30.8	37.4	45.0	36.4	38.2	31.6	36.8
Program-funded	12.9	27.5	19.0	19.6	23.9	13.9	14.3	13.0	19.8
Employer-funded	3.2	7.8	3.7	9.5	8.1	8.7	13.1	9.9	6.0
Self-funded	10.5	13.4	8.1	8.2	13.0	13.8	10.8	8.7	11.1
Carers not in the target population (persons aged 40–64 years)									
Vaccinated	15.1	34.4	17.1	25.2	32.6	25.9	31.1	27.9	23.8
Program-funded	1.1	5.9	3.9	4.1	6.4	1.0	4.6	8.5	3.7
Employer-funded	3.5	11.1	4.8	12.3	10.8	10.9	15.0	11.1	7.7
Self-funded	10.5	17.5	8.3	8.8	15.4	14.1	11.5	8.4	12.4

Contribution to leakage

In terms of the contribution to leakage, carers in the non-target group accounted for 1.5% of total funded doses, or just over one-fifth of the total program leakage (Table 3.10).

Table 3.10: Influenza vaccination: contribution to leakage from carers not in the target population, persons aged 40–64 years, Australia, 2002

Contribution to leakage	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
All funded doses (number)	844,600	621,400	375,000	205,400	201,300	64,100	25,000	6,600	2,343,500
Vaccinations to non-target carers (number)	3,300	14,800	7,000	3,300	6,200	300	1,000	600	36,400
Leakage to carers (per cent)	0.4	2.4	1.9	1.6	3.1	0.5	4.0	8.5	1.6

Residents of aged care services—exclusion from survey

The CATI method of the survey excludes residents of institutions. The weighting process used to cause a sample population of 8,000 to represent a population of 8.3 million assumes that vaccination rates (and other characteristics) of aged care residents are the same as the broader population. However, vaccination rates for those in residential aged care may differ from rates for the broader population.

The adjusting of the survey weighting method can be assessed by comparing the survey results using three other adjustment alternatives: that all, half and no residents, aged 65 or more (that is, in the target group), were vaccinated under the program (by the care facility's visiting GP, say). These adjustment are derived from all residents at 30 June 2001, by state and sex, reported in *Residential Aged Care in Australia 2000–01* published by the AIHW in 2002. By comparison with the general population, males are under-represented in aged care institutions. This has been allowed for in the adjusted vaccination rates.

Assuming all residents aged 65 or more were vaccinated increases coverage by 1.3 percentage points, from 76.9% to 78.2% (Table 3.10). The results using the survey weight method (as presented in Table 2.1) lie between the 'half vaccinated' and 'all vaccinated' alternative rates.

Table 3.11: Influenza vaccination: coverage and valid usage adjusted for vaccination of aged care residents, persons aged 65 years and over, Australia, 2002^(a)

Measures	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	(per cent)								
All residents vaccinated									
Coverage	73.9	82.3	76.4	80.8	83.1	80.1	80.8	69.6	78.2
Valid usage	66.9	79.1	69.0	73.7	76.0	72.0	74.5	62.8	72.0
Half residents vaccinated									
Coverage	71.2	79.8	73.6	78.2	80.2	77.3	78.2	67.8	75.5
Valid usage	64.2	76.6	66.1	71.1	73.0	69.2	72.0	60.9	69.3
No residents vaccinated									
Coverage	68.5	77.2	70.7	75.5	77.2	74.5	75.7	65.9	72.8
Valid usage	61.5	74.0	63.3	68.4	70.1	66.4	69.4	59.1	66.6
Survey results									
Coverage	72.4	81.4	75.0	79.7	82.1	79.0	79.7	68.4	76.9
Valid usage	65.0	78.1	67.2	72.2	74.4	70.4	73.2	61.3	70.4

(a) Coverage and valid leakage are for 2002, based on resident counts for 30 June 2001.

4 Explanatory notes

Introduction

The 2002 Influenza Vaccine Survey was conducted in October 2002. This was the third survey under current vaccine funding arrangements, and the first to be managed by the Australian Institute of Health and Welfare, which was commissioned by the Commonwealth Department of Health and Ageing to manage the 2002 survey. A Departmental Policy Reference Group and a Technical Advisory Committee supported the AIHW in this task. Millward Brown Australia was selected by competitive tender in September 2002 to conduct the survey.

The survey, using computer-assisted telephone interview (CATI), was conducted in October 2002.

Eight thousand Australians aged 40 years and older participated in the survey. They were asked about their recent medical and financial experience of influenza and influenza vaccination. Interview quotas of 300 respondents aged 40–64 years and 700 aged 65 years and over for each state were used.

Scope

The estimates for 2002 contained in this publication are based on information obtained from persons aged 40 years and over from the populations of all states and territories.

Respondents

Respondent quotas of 300 aged 40–64 years old and 700 aged 65 or more for each state were set and achieved. Thus, unweighted, the target population of the survey was 5,600.

Numbers of respondents to the survey are summarised by gender, eligibility (for program-funded vaccine) and Indigenous status (Table 4.1).

Table 4.1: Respondents, unweighted counts, by sex, eligibility and Indigenous status, 2002 Influenza Vaccine Survey

Characteristic	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	(number)								
Sex									
Male	345	348	357	340	358	358	385	444	2,935
Female	655	652	643	660	642	642	615	556	5,065
Total	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	8,000
Eligibility									
Eligible	700	700	700	700	700	700	700	700	5,600
Not eligible	300	300	300	300	300	300	300	300	2,400
Total	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	8,000
Indigenous status									
Indigenous	5	1	5	3	6	11	1	42	74
Other Australian	994	998	994	997	993	987	998	955	7,916
Not ascertained	1	1	1	—	1	2	1	3	10
Total	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	8,000

Weighted numbers of respondents to the survey are also summarised by gender, eligibility (for program-funded vaccine) and Indigenous status (Table 4.2). The represented population (aged 40 years and over) is 8.4 million. Of these, the majority were female and 2.5 million were eligible under the program.

Table 4.2: Respondents, weighted counts, by sex, eligibility and Indigenous status, 2002 Influenza Vaccine Survey

Characteristic	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	('000)								
Sex									
Male	1,393	1,002	753	391	334	104	61	33	4,072
Female	1,493	1,097	789	408	366	112	66	29	4,361
Total	2,886	2,099	1,542	799	700	216	127	62	8,432
Eligibility									
Eligible	861	626	423	210	220	65	27	8	2,441
Not eligible	2,025	1,473	1,119	590	479	151	100	55	5,992
Total	2,886	2,099	1,542	799	700	216	127	62	8,432
Indigenous status									
Indigenous	27	1	8	3	5	4	—	3	50
Other Australian	2,856	2,096	1,531	796	694	212	127	59	8,370
Not ascertained	4	3	4	—	—	—	—	—	11
Total	2,886	2,099	1,542	799	700	216	127	62	8,432

Methodology

Survey design

The 2002 survey used the computer-assisted telephone interview (CATI) survey method drawing telephone numbers from the electronic white pages.

The survey was of 8,000 people – 1,000 in each state and territory – aged 40 years and over. This age restriction reduces the surveyed population and the cost. The utility and validity of the analysis arising is not greatly affected: representation of the target population in the survey is reduced very little and representation of the non-target population is not reduced where the greatest interest lies (60–64-year-olds).

Individual survey records are weighted according to gender, age group and state. The weighting is calculated so that the weighted contribution of each such group to the analysis is appropriate to the contribution of that gender/age group/state within the Australian population.

Participation rates

Under the CATI methodology response management is highly automated, at least in the initial scoping and selection of participants. In the 2002 survey, the participation rate (participants divided by total eligible calls) was 33.8% (Table 4.3), a level slightly higher than in 2001 (30.7%).

Table 4.3: Sample participation rates, Millward Brown CATI, Australia, October 2002

Sample outcome	Number	Proportion of	
		all calls	eligible calls
Completed interviews	8,000	7.4	33.8
Refusals	14,618	13.5	61.8
Unable to contact selected respondent	990	0.9	4.2
Screened out—refused to specify age	62	0.1	0.3
<i>Total eligible</i>	<i>23,670</i>	<i>21.9</i>	<i>100.0</i>
No one of qualifying age in household	40,388	37.3	..
No answer/answering machine	21,188	19.6	..
Busy/engaged	2,422	2.2	..
Inadequate English	1,584	1.5	..
Business number	1,590	1.5	..
Fax/modem	1,256	1.2	..
Number out of service	16,125	14.9	..
Screened out—different state	38	0.0	..
Total calls made	108,261	100.0	..

Editing

As the survey was conducted using CATI methodology, data was entered at the source using programs with in-built logic and consistency checks at data entry. Routing instructions with data type designations – single, multiple response or integers and their ranges – provided additional integrity control and checks. As a result there was no need to edit data to account for inconsistencies.

The data were checked for outliers in questions where an integer response was recorded. The only outliers noted were in question f2 (number of telephone numbers listed in the White Pages telephone directory). The outliers were edited individually as follows:

If the outlier response began with a '1' (that is, 12 or 11) the number of telephone lines for that case was edited to a '1'. Similarly, if the outlier response began with a '2' (that is, '21' or '22') the number of telephone lines was edited to a '2'.

Millward Brown reports that it appears that these outliers resulted from interviewer keystroke error. It was apparent in only a few cases.

As the 2002 survey contained solely closed questions, no coding was required.

Reliability of estimates

Sampling error

As the estimates are based on a sample, they are subject to sampling variability (that is, the extent to which the sample varies from all persons, had a complete census been conducted). Estimates in this publication are assumed to be reliable if the relative standard error (the ratio of the sampling error to the population estimate) is less than 25%. Estimates with relative standard errors between 25% and 50% should be interpreted with caution. Estimates with relative standard errors over 50% should be considered unreliable for most practical purposes. To assist readers with these judgments, a table of indicative standard errors is provided in Appendix 2.

Non-sampling error

In addition to sampling errors, the estimates are subject to non-sampling errors. These can arise from errors in transcription of responses, errors in reporting of responses (for example, failure of respondents' memories), and the unwillingness of respondents to reveal their 'true' responses.

Limitations of the data

Excluded from sampling were non-private dwellings (hotels, motels, boarding houses, etc.) and institutional settings (hospitals, nursing homes, other clinical settings such as drug and alcohol rehabilitation centres, prisons, military establishments and university halls of residence). Accordingly, homeless persons were also excluded. The territories of Jervis Bay, Christmas Island and Cocos Island were excluded as well.

Comparability with previous surveys

No comparisons have been undertaken. The definitions of the key questions (coverage and so on) and the survey questions have changed significantly. Thus comparisons with previous surveys are not valid. Also, sample size, in this and past surveys, limits the significance of any derived statistics.

Appendix 1: Membership of Policy Reference Group

Table A1.1: Membership of the Influenza Vaccine Survey Policy Reference Group

Member	Affiliation
Ms Sharon Tuffin (Chair, from Dec. 2002)	Commonwealth Department of Health and Ageing
Ms Margaret Deerain (Chair, until Nov. 2002)	Commonwealth Department of Health and Ageing
Dr Eddie O'Brien	Commonwealth Department of Health and Ageing
Dr Rosemary Lester	National Immunisation Committee
Ms Karen Peterson	National Immunisation Committee
Prof. Margaret Burgess	National Centre for Immunisation Research and Surveillance
Ms Natalie Cohen (Secretary)	Commonwealth Department of Health and Ageing

Appendix 2: Standard errors

Table A2.1: Standard errors (SE) and relative standard errors (RSE), Australia, 2002

Prevalence ^(a)	Indicative base population									
	2,500,000		2,000,000		500,000		50,000		5,000	
	SE ^(b)	RSE	SE	RSE	SE	RSE	SE	RSE	SE	RSE
	(per cent)									
90	0.4	0.5	0.5	0.5	1.0	1.1	3.1	3.5	9.8	10.9
80	0.6	0.7	0.7	0.8	1.3	1.6	4.1	5.2	13.1	16.4
70	0.7	1.0	0.8	1.1	1.5	2.1	4.7	6.8	15.0	21.4
60	0.7	1.2	0.8	1.3	1.6	2.7	5.1	8.5	16.0	26.7
50	0.7	1.5	0.8	1.6	1.6	3.3	5.2	10.4	16.4	32.7
20	0.6	2.9	0.7	3.3	1.3	6.5	4.1	20.7	13.1	65.5
10	0.4	4.4	0.5	4.9	1.0	9.8	3.1	31.1	9.8	98.2

Prevalence ^(a)	Indicative base population									
	6,000,000		2,000,000		500,000		50,000		5,000	
	SE ^(b)	RSE	SE	RSE	SE	RSE	SE	RSE	SE	RSE
	(per cent)									
90	0.7	0.7	1.2	1.3	2.3	2.6	7.3	8.2	23.2	25.8
80	0.9	1.1	1.5	1.9	3.1	3.9	9.8	12.2	31.0	38.7
70	1.0	1.5	1.8	2.5	3.5	5.1	11.2	16.0	35.5	50.7
60	1.1	1.8	1.9	3.2	3.8	6.3	12.0	20.0	37.9	63.2
50	1.1	2.2	1.9	3.9	3.9	7.7	12.2	24.5	38.7	77.5
20	0.9	4.5	1.5	7.7	3.1	15.5	9.8	49.0	31.0	154.9
10	0.7	6.7	1.2	11.6	2.3	23.2	7.3	73.5	23.2	232.4

(a) Prevalence estimate (values taken from tables in the report can be interpolated between those provided in this table).

(b) Standard error expressed in same units as prevalence.

Appendix 3: Population estimates

Table A3.1: Population estimates, by age and sex, Australia, 2001

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Males									
0–39	1,885,246	1,368,973	1,054,737	563,192	415,507	129,056	97,729	70,981	5,585,421
40–44	249,918	180,486	135,444	73,834	57,796	17,999	12,044	8,093	735,614
45–49	228,249	165,792	126,325	69,143	53,556	16,955	11,517	7,209	678,746
50–54	219,912	157,366	123,776	65,954	52,324	16,435	11,537	6,580	653,884
55–59	174,710	123,894	98,290	49,304	40,836	13,092	8,074	4,477	512,677
60–64	141,771	101,448	77,536	39,037	33,156	10,977	5,569	3,036	412,530
65–69	116,842	83,831	60,832	30,337	28,067	8,948	4,078	1,666	334,601
70–74	107,366	77,404	53,542	26,644	27,100	8,069	3,399	1,182	304,706
75–79	80,835	58,088	40,107	19,339	20,948	6,115	2,584	612	228,628
80–84	45,713	32,198	23,032	10,375	12,173	3,329	1,349	249	128,418
85+	28,074	21,569	14,372	7,084	7,687	2,192	743	236	81,957
<i>Total 40+</i>	<i>1,393,390</i>	<i>1,002,076</i>	<i>753,256</i>	<i>391,051</i>	<i>333,643</i>	<i>104,111</i>	<i>60,894</i>	<i>33,340</i>	<i>4,071,761</i>
Total all ages	3,278,636	2,371,049	1,807,993	954,243	749,150	233,167	158,623	104,321	9,657,182
Females									
0–39	1,837,791	1,354,372	1,038,160	543,679	399,816	127,730	96,831	66,593	5,464,972
40–44	251,962	185,513	139,361	74,495	58,361	18,511	12,925	7,537	748,665
45–49	229,706	170,233	127,791	69,893	54,625	17,135	12,429	6,662	688,474
50–54	215,952	161,091	121,581	63,430	53,036	16,285	11,838	5,587	648,800
55–59	170,426	123,927	94,343	46,340	41,226	12,850	8,008	3,513	500,633
60–64	142,212	103,617	74,689	38,155	34,149	11,007	5,702	2,196	411,727
65–69	122,143	89,516	60,351	31,287	29,671	9,250	4,292	1,342	347,852
70–74	118,823	86,671	57,079	28,389	30,112	8,706	3,757	946	334,483
75–79	104,330	76,237	49,084	23,813	27,739	7,823	3,344	609	292,979
80–84	72,696	51,876	34,411	16,339	19,255	5,561	2,150	408	202,696
85+	64,627	48,561	30,278	16,051	17,714	4,906	1,781	305	184,223
<i>Total 40+</i>	<i>1,492,877</i>	<i>1,097,242</i>	<i>788,968</i>	<i>408,192</i>	<i>365,888</i>	<i>112,034</i>	<i>66,226</i>	<i>29,105</i>	<i>4,360,532</i>
Total all ages	3,330,668	2,451,614	1,827,128	951,871	765,704	239,764	163,057	95,698	9,825,504
Persons									
0–39	3,723,037	2,723,345	2,092,897	1,106,871	815,323	256,786	194,560	137,574	11,050,393
40–44	501,880	365,999	274,805	148,329	116,157	36,510	24,969	15,630	1,484,279
45–49	457,955	336,025	254,116	139,036	108,181	34,090	23,946	13,871	1,367,220
50–54	435,864	318,457	245,357	129,384	105,360	32,720	23,375	12,167	1,302,684
55–59	345,136	247,821	192,633	95,644	82,062	25,942	16,082	7,990	1,013,310
60–64	283,983	205,065	152,225	77,192	67,305	21,984	11,271	5,232	824,257
65–69	238,985	173,347	121,183	61,624	57,738	18,198	8,370	3,008	682,453
70–74	226,189	164,075	110,621	55,033	57,212	16,775	7,156	2,128	639,189
75–79	185,165	134,325	89,191	43,152	48,687	13,938	5,928	1,221	521,607
80–84	118,409	84,074	57,443	26,714	31,428	8,890	3,499	657	331,114
85+	92,701	70,130	44,650	23,135	25,401	7,098	2,524	541	266,180
<i>Total 40+</i>	<i>2,886,267</i>	<i>2,099,318</i>	<i>1,542,224</i>	<i>799,243</i>	<i>699,531</i>	<i>216,145</i>	<i>127,120</i>	<i>62,445</i>	<i>8,432,293</i>
Total all ages	6,609,304	4,822,663	3,635,121	1,906,114	1,514,854	472,931	321,680	200,019	19,482,686

Source: AIHW National Population Database.

Appendix 4: The questionnaire

The survey instrument follows.

Coopma
 Millward Brown Australia
 245 ST KILDA ROAD
 ST KILDA VIC 3182

Job No: 83102351

INFLUENZA VACCINATION SURVEY
Version: 1st October 2002

STATE: [FROM SAMPLE]

[INCLUDE AT TOP OF INTRO SCREEN DETAILS OF AGE QUOTA ACHIEVEMENT BY STATE/TERRITORY]

Good morning/afternoon/evening my name is ... from Millward Brown Australia Market Research. Today we are conducting an important survey on behalf of the Australian Institute of Health & Welfare on health related issues.

IF BOTH AGE QUOTAS ARE OPEN SAY: Could I please speak to the person in your household who is aged 40 years or over and whose next birthday is closest to today's date?

IF 40-64 AGE QUOTA IS FULL SAY: Could I please speak to the person in your household who is aged 65 years or over and whose next birthday is closest to today's date?

IF 65+ AGE QUOTA IS FULL SAY: Could I please speak to the person in your household who is aged between 40 and 65 years and whose next birthday is closest to today's date?

REINTRODUCE IF NECESSARY

MAKE APPOINTMENT TO SPEAK TO THE SELECTED RESPONDENT UNAVAILABLE

CLOSE IF NO HOUSEHOLD MEMBERS ARE IN THE SPECIFIED AGE RANGE

This survey will only take around 5 minutes to complete. As this is market research, it is carried out in compliance with the Privacy Act and the information you provided would be used only for research purposes. Would you like to participate?

Your number has been randomly selected from the White Pages

[INSERT TIME CHECK]

S1 **Can I confirm that the number that I have called is in the Australian State/Territory of [INSERT LOCATION FROM SAMPLE]?**

- Yes (CONTINUE) 1
- No (TERMINATE) 2

S2 **Just to make sure we get a true cross-section of people, would you mind telling me your age please?**

RECORD EXACT AGE: _____
 AND ENTER IN APPLICABLE RANGE BELOW

IF RESPONDENT IS UNWILLING TO GIVE AN EXACT AGE READ OUT THE AGE RANGES AND ASK WHICH RANGE WOULD APPLY

CHECK QUOTAS

- TERMINATE - Under 40 years** 1
- 40-44 2
- 45-49 3
- 50-54 4
- 55-59 5
- 60-64 6
- 65-69 7
- 70-74 8
- 75-79 9
- 80-84 10
- 85-89 11
- Over 90 years 12
- TERMINATE - Refused** 13

S3 INTERVIEWER AUTO RECORD RESPONDENT GENDER

MALE 1

 [INSERT TIME CHECK]
START OF MAIN SURVEY

The following questions are in relation to influenza or the flu. For the purposes of this survey we will describe the flu, as it is often confused with the common cold.

Typical symptoms of influenza include an abrupt onset of fever, acute cough, sore throat, fatigue, muscle aches, headaches, runny nose and watery eyes, and can cause extreme weariness lasting several days. The flu may include serious respiratory complications, including pneumonia.

In Australia, it is possible to have an influenza vaccination or flu shot, administered by a doctor or health worker, to protect people from catching the flu.

A1 Before today, had you heard of the flu injection?

YES	1
NO	2
DON'T KNOW	3

 [INSERT TIME CHECK]

ASK B1 IF HEARD OF THE FLU INJECTION BEFORE TODAY (CODE 1 ON A1) OTHERWISE SKIP TO C2

B1 Have you had a flu injection THIS YEAR, that is, in 2002?

YES	1
NO	2
DON'T RECALL	3
REFUSED	4

 ASK B2 IF HAD FLU INJECTION THIS YEAR (CODE 1 ON B1)

B2 What month was that?

FEBRUARY OR EARLIER	1
MARCH	2
APRIL	3
MAY	4
JUNE	5
JULY	6
AUGUST	7
SEPTEMBER	8
OCTOBER	9
DON'T RECALL	10
REFUSED	11

B3 Did you have a flu injection LAST YEAR, that is in 2001?

YES	1
NO	2
DON'T RECALL	3

REFUSED 4

B4 Do you intend to have a flu injection next year, that is in 2003?

YES 1
 NO 2
 DON'T KNOW 3
 REFUSED 4

IF HAD THE FLU INJECTION THIS YEAR (CODE 1IN B1) CONTINUE OTHERWISE SKIP TO C1

Now thinking about the flu injection that you had this year.
B5 Who gave you the flu injection this year? [DO NOT READ OUT] [IF HAD MORE THAN 1 VACCINATION ASK ABOUT THE MOST RECENT ONE]

DOCTOR OR GP (INCLUDING THE NURSE / SISTER / HEALTH WORKER EMPLOYED THERE) 1
 A COUNCIL CLINIC OR MOBILE CLINIC 2
 SOMEONE AT MY PLACE OF WORK 3
 SOMEONE IN A HOSPITAL 4
 SOME OTHER PERSON 5
 DON'T RECALL 6
 REFUSED 7

B6 Did you have to pay for the CONSULTATION or VISIT you made when you were vaccinated? I don't mean payment for the vaccine.

[IF HAD MORE THAN 1 VACCINATION ASK ABOUT THE MOST RECENT ONE] YES, PAID IN FULL 1
 YES, PAID IN PART 2
 NO, DID NOT PAY 3
 DON'T RECALL 4
 REFUSED 5

ASK B7 IF PAID IN PART OR DID NOT HAVE TO PAY FOR THE CONSULTATION (CODE 2 OR 3 IN B6)

B7 Why didn't you have to pay the full cost of the consultation?

[DO NOT READ OUT] [PROMPT ONLY IF NECESSARY] [SINGLE RESPONSE ONLY]
 [IF HAD MORE THAN 1 VACCINATION ASK ABOUT THE MOST RECENT ONE]
 IF MORE THAN ONE RESPONSE GIVEN PROBE FOR MAIN REASON

BULK BILLED 1
 A FREE CLINIC 2
 YOUR WORK PAID 3
 COVERED ON YOUR PENSION / VETERAN'S AFFAIRS HEALTH CARD 4
 COVERED BY MEDICARE 5
 BECAUSE OF YOUR AGE 6
 OTHER REASON 7
 DON'T RECALL 8
 DON'T KNOW 9
 REFUSED 10

B8	Did you have to pay for the vaccine? [IF HAD MORE THAN 1 VACCINATION ASK ABOUT THE MOST RECENT ONE]	YES	1
		NO	2
		DON'T RECALL	3
		REFUSED	4

ASK B9 IF HAD TO PAY FOR THE VACCINE (CODE 1 IN B8)

B9	Was this via prescription and payment to a pharmacist, or direct payment to the provider of the vaccine? [IF HAD MORE THAN 1 VACCINATION ASK ABOUT THE MOST RECENT ONE]	PREScription AT PHARMACIST	1
		DIRECT PAYMENT	2
		OTHER	3
		DON'T RECALL	4
		REFUSED	5

ASK B10 IF DID NOT HAVE TO PAY FOR THE VACCINE (CODE 2 IN B8)

B10	Why didn't you have to pay for the vaccine? [DO NOT READ LIST] [PROMPT ONLY IF NECESSARY] [SINGLE RESPONSE ONLY] [IF HAD MORE THAN 1 VACCINATION ASK ABOUT THE MOST RECENT ONE] IF MORE THAN ONE RESPONSE GIVEN PROBE FOR MAIN REASON	A FREE CLINIC	1
		YOUR WORK PAID	2
		COVERED ON YOUR PENSION / VETERAN'S AFFAIRS HEALTH CARD	3
		BECAUSE OF YOUR AGE	4
		BECAUSE YOU MEET OTHER ELIGIBILITY CRITERIA	5
		YOUR DOCTOR JUST GAVE IT TO YOU	6
		ANOTHER REASON	7
		DON'T RECALL	8
		DON'T KNOW	9
		REFUSED	10

[INSERT TIME CHECK]

C1	Did your doctor recommend that you have a flu injection this year?	YES	1
		NO	2
		DON'T HAVE A DOCTOR / GP	3
		DON'T RECALL	4
		REFUSED	5

ASK C2 IF NO OR DON'T HAVE A DOCTOR/GP OR DON'T RECALL OR REFUSED IN C1 (CODES 2,3,4 & REF) AND NO OR DID NOT RECALL OR REFUSED IN B1 (CODES 2,3 & REF) OR NOT AWARE OF FLU INJECTION IN A1 (CODES 2 or 3)

C2	Would you have a flu injection if a doctor or GP recommended it to you?	YES	1
		NO	2
		DON'T HAVE A DOCTOR / GP	3
		DON'T KNOW	4
		REFUSED	5

[INSERT TIME CHECK]

ASK EVERYONE

I would now like to ask some questions on your general health

D1A	Do you have chronic heart disease?	YES	1
		NO	2
		DON'T KNOW	3
		REFUSED	4

D1B	Have you ever had a heart attack or a stroke?	YES	1
		NO	2
		DON'T KNOW	3
		REFUSED	4

D1C	Do you have severe asthma that has required hospitalisation in the last twelve months?	YES	1
		NO	2
		DON'T KNOW	3
		REFUSED	4

D1D	Do you have chronic lung disease (such as chronic bronchitis or emphysema)?	YES	1
		NO	2
		DON'T KNOW	3
		REFUSED	4

D1E	Do you have diabetes requiring regular hospitalisation or medical follow-up?	YES	1
		NO	2
		DON'T KNOW	3
		REFUSED	4

D2	Are you on medication that may affect your immune system, for example cortisone tablets, or having cancer treatment, or have had an organ transplant?	YES	1
		NO	2
		DON'T KNOW	3
		REFUSED	4

D3	Are you a health care worker?	YES	1
		NO	2
		DON'T KNOW	3
		REFUSED	4

D4	Do you do paid or volunteer work with any.... People aged 65+, Patients living with chronic conditions, Patients receiving chemotherapy etc, Bone marrow transplant patients, Patients with HIV/AIDS, or other immuno-compromised people?	YES	1
		NO	2
		DON'T KNOW	3
		REFUSED	4

D5	Did you get the flu this year?	YES	1
		NO	2
		DON'T RECALL	3
		DON'T KNOW	4
		REFUSED	5

ASK D6 IF HAD THE FLU THIS YEAR (CODE 1 IN B5)

D6	What month was that? [RECORD MULTIPLE FLU EPISODES]	INTERVIEWER: IF ANSWER TO THIS QUESTION IS LATER THAN [INSERT EARLIEST ANSWER RECORDED AT B2], THEN SAY: Can I just confirm that you got the flu at a date after you received the flu injection? CHANGE RESPONSE IF NECESSARY	
		FEBRUARY OR EARLIER	1
		MARCH	2
		APRIL	3
		MAY	4
		JUNE	5
		JULY	6
		AUGUST	7
		SEPTEMBER	8
		OCTOBER	9
		DON'T RECALL	10
REFUSED	11		

[INSERT TIME CHECK]

NOW TO FINISH WITH SOME GENERAL QUESTIONS, COULD YOU PLEASE TELL ME...

E1	Are you of Aboriginal or Torres Strait Islander origin?	YES	1
		NO	2
		DON'T KNOW	3
		REFUSED	4

IF YES TO E1, ASK:

E2	Are you...? [READ OUT]	ABORIGINAL	1
		TORRES STRAIT ISLANDER	2
		BOTH ABORIGINAL AND TORRES STRAIT ISLANDER	3
		DON'T KNOW	4
		REFUSED	5

ASK EVERYONE

E3	Are you presently...? [READ OUT]	NEVER MARRIED / SINGLE	1
		WIDOWED	2
		DIVORCED	3
		SEPERATED (BUT NOT DIVORCED)	4
		MARRIED (INCLUDING LIVING WITH A PARTNER OR IN A DE FACTO RELATIONSHIP)	5
		REFUSED	6

E4	Can you tell me the approximate combined annual gross income of your household, that is, for all people in the household before tax is taken out, from all sources [READ OUT RANGES ONLY IF NECESSARY].	NEGATIVE INCOME	1
		UP TO \$20, 000	2
		\$20, 001 - \$40, 000	3
		\$40, 001 - \$60, 000	4
		\$60, 001 - \$80, 000	5
		\$80, 001 - \$100, 000	6
		OVER \$100, 000	7
		DON'T KNOW	8
		REFUSED	9

[INSERT TIME CHECK]

F1 Including you, how many people living in this household are in each of the following age categories?

[ENTER THE NUMBER OF PEOPLE IN EACH AGE RANGE]

[ALLOW DK OR REFUSED]

A	HOW MANY PEOPLE LIVING IN THIS HOUSEHOLD ARE AGED 0 TO 39 YEARS?	_____	RECORD NUMBER
B	HOW MANY PEOPLE LIVING IN THIS HOUSEHOLD ARE AGED 40 TO 64 YEARS (IS THAT INCLUDING YOU)?	_____	RECORD NUMBER
C	HOW MANY PEOPLE LIVING IN THIS HOUSEHOLD ARE AGED 65 YEARS OR MORE (IS THAT INCLUDING YOU)?	_____	RECORD NUMBER

F2 Can you tell me how many times phone numbers for this residence appear in the White Pages telephone directory?

RECORD NUMBER OF ENTRIES: _____ [ALLOW DK OR REFUSED]

May I please have your SUBURB.

SUBURB: _____ [ALLOW DK OR REFUSED]

May I please have your POSTCODE.

POSTCODE: _____ [ALLOW DK OR REFUSED]

[INSERT TIME CHECK]

This concludes the survey. On behalf of the Australian Institute of Health & Welfare, thank you very much for taking part in this survey. As this is market research, it is carried out in compliance with the Privacy Act. The information you provided will be used only for research purposes.

As part of our quality control procedures, someone from Millward Brown may re-contact you to ask you some short questions to validate that this interview actually took place.

Can I please have your permission to re-contact you if necessary?

YES 1
NO 2

IF AGREE TO BE RECONTACTED

May I please have your NAME? RECORD NAME.

NAME: _____

IF YES TO BE RECONTACTED

Once the validation period has finished, please be assured that your name and contact details will be removed from your responses to this survey. After that time we will no longer be able to identify the responses provided by you. However, for the period that your name and contact details remain with your survey responses, which will be approximately 3 months. During this time you will be able to contact us to request you have access to your information.

SAY TO ALL

Thank you very much for your help.

IF QUERIED ABOUT BONA FIDES OF RESEARCH SAY:

Please be assured this is genuine market research. If you have any queries, you can call my supervisor at Millward brown on (02) 9927-0125 or call the market research society's free survey line on 1300 364 830.

THANK YOU VERY MUCH FOR YOUR HELP. AS I SAID, I AM FROM MILLWARD BROWN MARKET RESEARCH. IF YOU WOULD LIKE TO CHECK THE BONA FIDES OF THIS COMPANY, PLEASE CALL OUR COMPANY ON (02) 9927-0125 DURING OFFICE HOURS.

I certify this is a true, accurate and complete interview, conducted in accordance with IQCA standards and the ICC/ESOMAR code of conduct. I also agree to hold in confidence and not disclose to any other person the content of this questionnaire or any other information relating to this project.

[INSERT TIME CHECK]

END OF INTERVIEW