

References

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Appendix A Gold Card eligibility

Criteria

Under the current legislation, the *Veterans' Entitlements Act 1986* (VEA), the following are entitled to a Gold Card.

Veterans of Australia's Defence Force who:

- served in Australia's Defence Force after World War II, who are aged 70 or over and have qualifying service under section 7A of the VEA;
- are World War II veterans who served in Australia's Defence Forces and mariners who served in Australia's merchant navy, between 3 September 1939 and 29 October 1945, who are aged 70 years or over, and have **qualifying service** from that conflict;
- are returned ex-servicewomen of World War II, that is, who served in Australia's Defence Force between 3 September 1939 and 29 October 1945 and who have **qualifying service** from that conflict;
- are ex-prisoners of war;
- receive a disability pension at or above 100% of the general rate;
- receive a disability pension at or above 50% of the general rate plus any amount of service pension;
- receive a disability pension including an additional amount under section 27 of the VEA for specific service-related amputations or blindness in one eye;
- receive a service pension and satisfy the treatment benefits eligibility income and assets test;
- receive a service pension and are permanently blind in both eyes;
- receive a disability pension for pulmonary tuberculosis before 2 November 1978;
or
- served in World War I;

Certain dependants of veterans of Australia's Defence Forces:

- A war widow or widower in receipt of the war widow(er)'s pension.
- A dependent child of a deceased veteran whose death has been accepted as war-caused, who is under 16 or between the ages of 16 and 25 and undergoing full-time education.
- A child of a deceased veteran whose death was not war-caused and who had operational service, if the child is not being cared for by the remaining parent.

Some veterans of Commonwealth or Allied forces are eligible for a Gold Card if they are:

- a veteran who served with a Commonwealth or allied force during World War II and who was domiciled in Australia immediately prior to enlistment in the Commonwealth or allied force; or
- a mariner who served on a Commonwealth or allied ship during World War II, if they or their dependants were residing in Australia for a least 12 months prior to the commencement of their service on that ship; and
- meet the eligibility criteria for a Gold Card.

Qualifying service

For the first and second world wars, qualifying service is service rendered during the specified period of hostilities for the wars at sea, in the field, or in the air, in naval, military or aerial operations against the enemy in an area or on an aircraft or ship of war, at a time when the person incurred danger from hostile forces of the enemy in that area or on that aircraft or ship.

For post-World War II service, qualifying service has the meaning given under section 7A of the *Veterans' Entitlements Act 1986*. In general terms the person has to have been allotted for duty and served in a specified operational area or have rendered warlike service as part of a specific operation. This includes service in Korea, the Malayan Emergency, the Malay/Thai Border, Vietnam, the Indonesian Confrontation, Ubon, Namibia, the Gulf War, Cambodia, Yugoslavia, Somalia, East Timor or the War on Terrorism.

Declarations of warlike service and allotment are formal processes administered by the Department of Defence and involve the issue of Ministerial Instruments.

Appendix B Data sources and methods of estimation

This section identifies the data sources and methods of estimation used to calculate utilisation and expenditure for each of the health services examined in this report.

Population data

Australian population estimates at 31 December have been used to represent the population during each financial year, 1997-98, 1998-99 and 1999-00.

DVA treatment populations of Gold Card and White Card holders at December 1997 and December 1999 were used to represent the average populations of these groups of veterans during 1997-98 and 1999-00. To represent the average populations for 1998-99, the Gold Card and White Card populations were calculated as the average of their respective June 1998 and June 1999 populations. This average was used to allow for the large increase in the Gold Card population in late 1998, due to the extension of the Gold Repatriation Health Card benefits to include all World War II veterans aged 70 years and over with qualifying service regardless of their health care needs.

Age-standardisation

The standard populations used were the 31 December Gold Card population in each year, 1997-98, 1998-99, 1999-00, for males, females and all persons. The choice of each Gold Card population as the standard allows the actual Gold Card utilisation and expenditure rates to be reported. The rest of community rates are age-standardised to the Gold Card population so that valid comparisons can be made between Gold Card and rest of community estimates.

Local medical officer and general practitioner (out-of-hospital) medical services

The data on utilisation of, and expenditure on LMO/GP (out-of-hospital) medical services was derived from two main sources.

Data for Gold Card and White Card holders comes from the Department of Veterans' Affairs' Treatment Account System (TAS) for the period 1997-98 to 1999-00. The number of LMO attendances and the fees charged (equal to benefits paid) have been extracted by single-year of age (<40, 40, 41, ..., 94, 95+) and sex.

Data on out-of-hospital GP services for the rest of community were compiled from the Department of Health and Ageing's Medicare 10% patient sample file for the period 1997-98 to 1999-00. Medicare statistics are based on claims processed by the Health Insurance Commission. The statistics have been extrapolated to the full population (estimates multiplied by 10). The Medicare statistics only relate to services rendered on a 'fee-for-service' basis for which Medicare benefits were paid. Excluded are details of services to public patients in hospital, to Department of Veterans' Affairs patients and compensation cases.

Because data on utilisation of, and expenditure on LMO/GP services in Medicare statistics do not include veterans' utilisation and expenditure, White Card holders' utilisation and expenditure was added to Medicare out-of-hospital statistics to derive measures of utilisation and expenditure for the rest of the community. These calculations were done by single year of age and sex. This enabled the comparison of utilisation and expenditure between Gold Card holders and the rest of the community.

Per person utilisation and expenditure rates were calculated by dividing the number of LMO/GP attendances and the expenditure on those attendances by 31 December population at each age for each year, 1997-98, 1998-99, 1999-00. Expenditure per attendance was calculated for each age by dividing expenditure by the number of LMO/GP attendances.

Age-standardised rates for 5 year age groups (<40, 40-44, ..., 80-84, 85+) were calculated using the 31 December Gold Card population for males, females and all persons as the standard population.

95% confidence intervals by 5 year age groups were calculated using the following formula.

$$\text{CI approximation} = \text{age-standardised rate} \pm 1.96 \times \frac{\text{age-standardised rate}}{\sqrt{\text{Number of cases}}}$$

Age-standardised rates were calculated for attendances per person (quantity), expenditure per attendance (price), and expenditure per person.

Pharmaceuticals

Utilisation and expenditure data for Gold Card holders for 1997-98, 1998-99 and 1999-00 were obtained from records of claims for prescribed medications, held by the Department of Veterans' Affairs under their Repatriation Pharmaceutical Benefits Scheme (RPBS).

For the rest of community, it was hoped that PBS data from the Health Insurance Commission could be used. However, these data are not currently available by age and sex, which are required for comparison with the DVA RPBS data. The only comparable data available by age and sex were those collected from the annual

BEACH (Bettering the Evaluation and Care of Health) surveys of general practice activity in Australia.

These surveys commenced in 1998, and collect a range of data on GP-patient encounters across Australia, including detailed information on prescribed medications. A detailed veteran identifier was collected in the BEACH surveys from April 1998 to March 2000 which enables data to be separately analysed for Gold Card holders and the rest of community.

Comparisons of pharmaceutical usage were restricted to PBS prescribed medications, as expenditure per script data needed to calculate the rest of community expenditure was only available for PBS medications.

Data on Gold Card holder PBS scripts per person and expenditure per person on PBS scripts were directly available from the DVA RPBS database. For the rest of community, however, comparable estimates were derived from BEACH data.

The procedure and rationale used for the derivation of rest of community estimates from BEACH data are as follows:

- A comparison of the number of scripts per LMO/GP consultation between Gold Card holders and the rest of community was obtained from BEACH data for each of the three years available, 1998-99, 1999-00 and 2000-01. It should be noted that scripts refer to scripts written rather than filled, and only relate to scripts written by LMO/GPs. PBS data show that scripts written by specialists make up around 10% of all scripts filled.
The BEACH data reported no significant difference in scripts written for each LMO/GP visit between Gold Card holders and the rest of community, or between males and females. There were differences in these rates between age groups, but these differences were similar among Gold Card holders, and the rest of community, and for males and females (Table B1).
- The BEACH data was adjusted for specialist scripts by increasing the number of scripts per GP/LMO encounter by 10%. The resulting BEACH-derived script per LMO/GP visit rates differed substantially from those calculated from the DVA RPBS data. For male Gold Card holders, the BEACH rates were 10-20% higher than the DVA rates, but around 40-50% higher for female Gold Card holders. Given that the BEACH data refers to written scripts rather than filled scripts, the 10% higher BEACH rates for males is expected. However, the much larger difference among female Gold Card holders is difficult to explain, but consistent with previous reports showing much lower pharmaceutical usage among female Gold Card holders, compared with their male counterparts.

Table B1: PBS scripts written for Gold Card holders and the rest of the community, Australia, April 1999–March 2000

PBS scripts per LMO/GP visit					
Age	Gold Card holders	95% confidence interval	Rest of community ^(a)	95% confidence interval	Ratio of Gold Card holders to rest of community
Males					
40–49	2.7	1.6 – 4.0	2.8	2.6 – 3.0	0.97
50–59	3.2	2.2 – 4.2	3.2	2.9 – 3.5	0.99
60–69	3.4	2.7 – 4.3	3.5	3.2 – 3.8	0.99
70–74	3.0	2.5 – 3.6	3.4	3.1 – 3.7	0.88
75–79	3.2	2.9 – 3.7	3.4	3.1 – 3.8	0.95
80–84	3.3	2.8 – 3.8	3.4	3.0 – 3.8	0.97
85–89	3.0	2.4 – 3.8	3.0	2.7 – 3.5	1.00
90+	3.2	1.9 – 4.6	3.0	2.5 – 3.6	1.07
Females					
40–49	3.1	0.0 – 9.5	2.7	2.6 – 2.9	1.13
50–59	2.6	1.3 – 4.0	3.2	2.9 – 3.4	0.81
60–69	3.5	2.7 – 4.5	3.3	3.0 – 3.6	1.06
70–74	3.2	2.7 – 3.9	3.3	3.0 – 3.6	0.97
75–79	3.2	2.8 – 3.8	3.3	3.0 – 3.6	0.98
80–84	3.4	2.8 – 4.1	3.1	2.9 – 3.5	1.08
85–89	2.9	2.2 – 3.7	3.0	2.7 – 3.3	0.97
90+	2.8	1.5 – 4.3	2.8	2.5 – 3.2	1.00

Source: 1999 BEACH survey.

- Based on this analysis, it was assumed that the age pattern of scripts filled per LMO/GP/specialist visit for the rest of the community males was no different to that of male Gold Card holders, as recorded by the DVA RPBS database. It was also assumed that there was no sex difference in the rest of community rates.
- Estimates of scripts per person for the rest of community for 1999–00 were then derived by age group and sex, by multiplying the scripts per LMO/GP/specialist visit by the number of LMO/GP consultations in 1999–00, and dividing by the estimated rest of community population as at 31 December 1999.
- The estimated cost per script for BEACH data for each of the three years 1998–99, 1999–00 and 2000–01, by age group and sex, was derived by attaching a cost to each script written, using data from the Pharmaceutical Benefits Pricing Authority on the average financial year cost for each PBS medication, coded according to the Anatomical Therapeutic Chemical 7-digit classification.
- The resulting annual estimates of cost per script in each age group fluctuated from year to year, largely as a result of variations from year to year in the proportion of high-cost drugs over \$200 per script in the BEACH sample. The

over-\$200 per script drugs were only 0.8% of total scripts but contributed 9.6% of all script expenditure. It was therefore decided to spread the impact of the over-\$200 drugs equally over all age groups. This was done by first calculating for the total rest of community population, the average cost of the over-\$200 drugs in the BEACH sample each year, and the proportion of all scripts in the BEACH sample that were over \$200 in each year. The average cost was then applied to the cost per script excluding over-\$200 scripts for each age group for both sexes, using the proportion calculated for the total population. The effect of this adjustment was to spread the impact of the high-cost drugs equally over all age groups, rather than have one or two age groups distorted by the effect of high-cost prescriptions.

- The estimated expenditure per person on PBS scripts for the rest of community in 1999–00 was then calculated by applying the estimated number of scripts per person in 1999–00 by the estimated cost per script.

Hospital services

For Gold Card holders, data on hospital utilisation and expenditure for 1999–00 were obtained from two sources:

- records from the Department of Veterans' Affairs of claims by veterans for services provided in private hospitals, separately identified for Gold and White Card holders. These records include number of separations (hospital attendances), number of bed days spent in hospital, and expenditure on hospital services and medical services. DRG (diagnostic related group) cost-weighted separations were also provided. These weighted separations are calculated using the relative cost of each separation, with a higher cost weighting allocated to visits requiring more complex procedures or services.
- data for veterans using public hospitals were obtained from the National Hospital Morbidity Database, maintained at the Australian Institute of Health and Welfare. These data provided number of separations, number of DRG cost-weighted separations and number of bed days spent in hospital. These data were only available for Gold Card and White Card holders combined and did not include expenditure data on hospital and medical services.

Hospital utilisation data for the rest of community for 1999–00 (number of separations, number of bed days and number of DRG cost weighted separations) were derived from the National Hospital Morbidity Database. These data were available for both public and private hospitals.

Three indicators of hospital utilisation and expenditure were derived:

- the number of separations or hospital episodes per person;
- the number of Diagnostic Related Group (DRG) cost-weighted separations per person; and
- the number of patient days spent in hospital per person;

Separations per person

For Gold Card holders, the number of separations was derived from two sources. The DVA claims database provided the number of separations in private hospitals. Gold Card holder separations in public hospitals are not routinely separated by DVA, and so the number of Gold Card holder separations was derived from the National Hospital Morbidity Database. This database contains a DVA client identifier, but does not separately identify Gold Card holders from White Card holders. To estimate Gold Card separations in public hospitals, it was assumed that the ratio of Gold Card separations to White Card separations for public hospital separations was the same as the ratio for private hospital separations (derived from DVA data).

To calculate the number of separations for the rest of the community, the number of separations for Gold Card holders was subtracted from the total number of separations from the National Hospital Morbidity Database.

DRG cost weighted separations per person

DRG cost-weighted separations provide an alternative measure of hospital utilisation, by applying a cost weight to each separation according to its costliness relative to other separations. DRGs are a set of 661 codes applied to patient episodes under the Australian Refined Diagnosis Related Groups (AR-DRGs) classification. Cost weights represent the costliness of each DRG relative to other DRGs. For example, a separation with a cost weight of 3.0 is three times more costly, on average, than a separation with a cost weight of 1.0. Separate cost weights are available for private and public hospitals, to reflect the differences in the range of costs recorded in public and private hospitals.

DRG cost-weighted separations for both Gold Card holders and the rest of the community were calculated by multiplying each separation by the DRG cost-weight, according to the DRG code allocated to each separation. AR-DRG Version 4.1 national cost weights for private hospitals were used to calculate DRG cost-weighted separations for both the Gold Card holders and the rest of the community, for both private and public hospitals, to ensure comparability between these two groups

Patient days spent in hospital per person

Patient days spent in hospital were derived using the same method as for separations. As with separations, patient days spent in hospital are collected on the DVA claims database and the National Hospital Morbidity Database.

Appendix C Detailed health care usage and cost tables

Accompanying tables for this report are published on the Internet at www.aihw.gov.au. These tables list the confidence intervals for the data presented in this report and include extra tables for the years 1997-98 and 1998-99.