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New 45–49 year health checks

GP uptake of MBS item 717

Background

The Medicare Benefits Schedule item 717 was introduced in November 2006 for health checks among Australians aged 45–49 years. This study examines current data on Medicare item 717 in order to identify trends in general practitioner and patient participation.

Methods

Medicare data and division population and GP data was collected quarterly from November 2006 to September 2007. The number of claims and number of GPs claiming one or more item 717 health check were analysed at the division level. Associations based on location, socioeconomic status and ethnicity were sought.

Results

The health check was claimed for 7.7% of the estimated population aged 45–49 years, with no significant difference by gender. These positively correlated with GP participation rates. Patient participation was higher in divisions with a higher proportion of recent migrants from non-English speaking countries. General practitioner participation increased with rurality, with the exclusion of remote areas. No significant associations were found with socioeconomic status or education.

Discussion

There has been rapid uptake of the health check item by GPs in divisions with lower ratios of GPs to population, with no evidence of a socioeconomic or gender bias.

■ **The 45–49 year old health checks were introduced in November 2006 as a new Medicare Benefits Schedule item to assist general practitioners in detecting and preventing chronic diseases, and to enable strategies for intervention. The health check is available as a once only service to people aged 45–49 years who have one or more identifiable risk factor that can lead to chronic disease.**

The Australian Institute of Health and Welfare estimates that 94% of males and 89% of females in the 45–54 years age range have at least one cardiovascular risk factor.¹

The Enhanced Primary Care 75+ Annual Health Assessment was introduced by Medicare in November 1999. Research into uptake of this item showed it was relatively slow in the first 6 months; only 27% of GP respondents in southwest Sydney reported having used the item.²

Previous research has shown that attendance at health assessments is influenced by demographic and health related factors. The 'Oxcheck' study in the United Kingdom³ examined the uptake of health checks which addressed a comprehensive range of cardiovascular and chronic disease risk factors, and found that nonattendance was higher among lower socioeconomic groups, smokers and obese individuals. Another UK study found that lower socioeconomic status was associated with higher attendance at health checks, but was also associated with a lower likelihood of the patient having a 'full check' performed.⁴

Methods**Data collection****Medicare data**

Medicare Australia publishes data on the number of items claimed and the proportion of GPs who billed the item at least once by division of general practice.⁵ The latter was included because it provides a measure of the threshold use of the item by GPs. Information on MBS item 717 was compiled for the four quarters from the fourth quarter in 2006 to the third quarter in 2007. The item was launched on 1 November 2006; the study period is 11 months from November 2006 to September 2007.

Population based data

Division population data and GP data were compiled from the Public Health Information Development Unit website,⁶ including:

- number of full time equivalent GPs
- estimated population aged 45–49 years
- Socioeconomic Index for Areas (SEIFA, an area based measure developed from the 1996 Australian Bureau of Statistics National Population Census)
- proportion of population born predominantly in non-English speaking countries and residing in Australia for less than 5 years
- proportion who have participated in full time secondary education
- proportion of indigenous background
- unemployment rate.

Rurality was based on the Rural, Remote and Metropolitan Areas (RRMA) classification⁷ used in the 2005–2006 annual survey of divisions.⁸ Item 717 data was not available on the remote divisions for each of these quarters.

Analysis

The patient participation rate was calculated as the proportion of the division population aged 45–49 years for whom item 717 claims were made over the 11 month period. This was normally distributed, and analysis of variance was used to analyse for correlation with state and rurality of division and Pearson correlation coefficient for association with sociodemographic characteristics of the divisions of general practice (using SPSS version 15).

The GP participation rate for each quarter was calculated as the proportion of the total number of GPs in the division who made one or more claims in the quarter. This was examined for correlation with rurality of division (using analysis of variance) and the division characteristics (including GP-population ratio using Spearman rank correlation coefficient). Adjustment for the association between GP participation and GP-population ratio was made using multiple linear regression.

Results

Patient participation

There were 120 261 claims for item 717 over the 11 months from November 2006 to September 2007. This represents an estimated 7.7% of the population aged 45–49 years. Uptake increased rapidly after the first quarter and appears to have reached a plateau during the remaining quarters of 2007.

Gender of patients

There were no significant gender differences; 49% of claims were made for men and 51% for women.

Location of division

Patient participation rates were higher in New South Wales and lowest in the Northern Territory (Figure 1). These declined from 8.5% to 6.5% in metropolitan divisions, to 7.2% in metropolitan/rural and rural divisions, and were lowest in rural remote divisions at 5.7%.

Demographic characteristics of division

Patient participation rates were higher in divisions with higher proportions of patients born in non-English speaking countries and living in Australia less than 5 years ($r=0.399$, $p<0.001$) (Figure 2). There were no associations with the socioeconomic status, unemployment or secondary education participation rates in the division.

General practitioner participation

General practitioner participation increased steadily from 25% in the fourth quarter of 2006, to 48% by the third quarter of 2007. The average number of items claimed per participating GP in the third quarter of 2007 was 4.8 services.

Rurality of division

General practitioner participation rates in the third quarter of 2007 were highest in metropolitan/rural and rural divisions (59 and 52% respectively) and lowest in metropolitan and rural/remote divisions (45 and 42% respectively).

Division-GP population ratio

The GP participation rate was higher in areas with low ratios of the number of GPs to population ($r=-0.373$, $p<0.001$).

Figure 1. Percentage of total population of people aged 45–49 years by state claiming item 717 (November 2006 to September 2007)

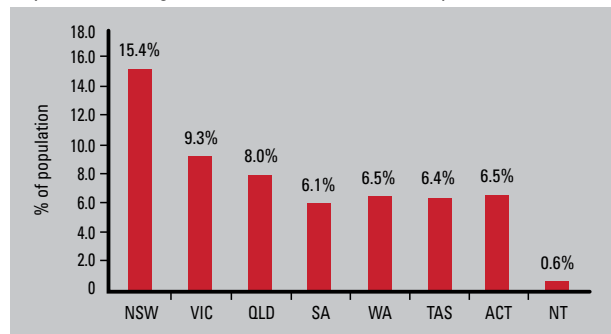
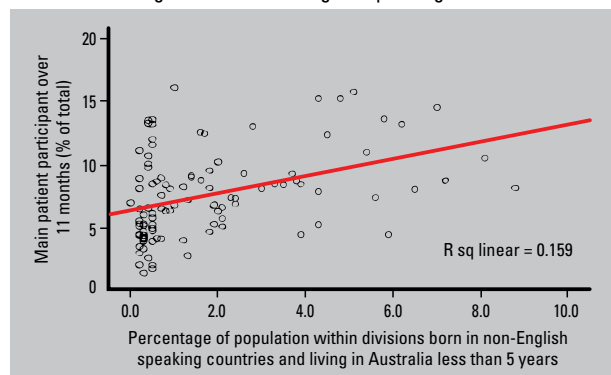


Figure 2. Percentage of total population aged 45–49 years claiming item 717 by percentage of population within individual divisions who were recent migrants from non-English speaking countries



Division population characteristics

General practitioner participation was negatively correlated with the proportion of the population in the division born in non-English speaking countries and living in Australia for less than 5 years in quarters two and three of 2007 ($r=-0.215$, $p<0.05$; $r=-0.296$, $p=.002$ respectively). However, this was not significant for the fourth quarter of 2006 or the first quarter of 2007, and was not significant overall after adjusting for the number of GPs per population. The association between patient participation and patients born in non-English speaking countries and living in Australia less than 5 years was not affected by adjustment for GP participation.

Discussion

There has been a rapid uptake of the 45–49 year health checks by GPs, particularly when compared to the initial uptake of the 75+ health assessment.² Nearly half of all GPs had utilised the health check by the third quarter of 2007. Patient participation, which averaged only 7.7% across states and territories over 11 months, was lowest in the Northern Territory and in remote areas, despite higher risk in these populations.

In this age bracket, women are heavier users of general practice services than men, with 58% of Level B consultations being with women patients.⁵ It could therefore be expected that more women would have health checks. Reasons for the equal gender uptake may include a specific targeting of male patients by GPs or greater responsiveness to health checks among men.

Interestingly, there appears to be little evidence of inverse care (where low socioeconomic groups in greater need receive less preventive care).⁹ We did not find a difference in uptake in divisions in areas of lower socioeconomic status. This differs from trends found in two UK studies^{3,10} which found higher rates of nonattendance among lower socioeconomic patients. It also differs from trend data on participation rates in screening for breast and colorectal cancer in New South Wales.¹¹

Indeed, there was a moderate positive association between patient participation and the proportion of the division population born in non-English speaking countries and living in Australia for less than 5 years. Research in the United States has shown similar trends in immunisation rates among urban immigrant groups.¹² By contrast, previous research into care of patients with diabetes found lower rates of preventive pharmacotherapy and complication screening in patients born overseas.¹³

General practitioner participation was higher in those divisions with a lower GP-population ratio. In these divisions, GPs were more likely to claim one or more health checks in a quarter despite having higher workloads. This is the opposite of what has been found in areas of low socioeconomic status regarding access to long consultations.¹⁴

An important limitation of this study was that aside from patient gender, analysis of data was performed at the level of divisions, not the individual. Factors operating at the division level may have enhanced or masked associations at the individual level.

The lack of evidence for a socioeconomic or gender bias in the uptake of these items by division suggests that the health check may

provide an opportunity to address the higher general levels of risk factors present in the 45–49 year old male and low socioeconomic population.¹¹ Further research is needed into factors affecting individual and GP uptake and the impact of this item on patient risk.

Implications for general practice

- Uptake by GPs of the 45–49 year health check has been relatively rapid, while participation by those aged 45–49 years has been moderate at around 7.7% of the population group.
- Our analysis shows little evidence of a social gradient or ‘inverse preventive care’ in the attendance of the 45–49 year health checks.
- An opportunity exists to address the higher proportion of risk factors present in men aged 45–49 years, given that total health checks provided have been relatively equal between men and women.
- More research needs to be undertaken to identify the factors affecting individual participation and delivery by GPs of the health check and the impact of this item on patient risk.

Conflict of interest: none declared.

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