

GP claims for completing diabetes 'cycle of care'



Andrew Georgiou, BA, DipArts, MSc, is Senior Research Fellow, Centre for Health Informatics, University of New South Wales.

Joan Burns, BSc, MEdAdmin, is Head, Education and Accreditation, The Royal Australian and New Zealand College of Radiologists, Conjoint Senior Lecturer, School of Public Health and Community Medicine, University of New South Wales.

Mark Harris, MBBS, FRACGP, DRACOG, MD, is Professor of General Practice, School of Public Health and Community Medicine, University of New South Wales.

BACKGROUND

There is wide variability in the level of claims for diabetes Service Incentive Payments (SIP) by general practitioners.

METHOD

Cross sectional comparison of the ratio of the number of SIP items claimed between August 2002 and July 2003 to the estimated prevalence of diabetes by divisions of general practice (DGP).

PARTICIPANTS AND SETTING

Seventy-nine of the 101 DGP with diabetes programs in 2002.

RESULTS

The average ratio of diabetes SIP claims to estimated diabetes prevalence (including both diagnosed and undiagnosed cases) for each quarter of the year between August 2002 and July 2003 was 10.1% (standard deviation 3.6). This ratio was higher in DGP with a more disadvantaged population, and more of their GP members in large practices. The provision of IT support in DGP and the proportion of GPs who had patients registered on the division's register were associated with a higher ratio of claims. A multiple regression model with two factors: socioeconomic disadvantage and the proportion of GP members in practices of five or more GPs predicted 41% of the variance.

CONCLUSION

Divisions of general practice appear to be supporting practices serving disadvantaged populations to deliver quality care for patients with chronic disease. The association with practice size and DGP activities suggests that practice organisation and systems are important in the provision of good care for patients with chronic disease.

Sustained improvements in health outcomes for people with chronic diseases such as diabetes are associated with a systematic approach in general practice including intensive follow up, use of clinical management guidelines integrated with self management support programs, and more effective use of nurse case managers and nonphysician care providers.¹ Primary care can achieve standards of care as good as, or better than, hospital outpatient care if the care is systematic. This includes having a disease register, regular recall and review, protected time, a practice nurse, clear written guidelines and a system for auditing standards of care.^{2,3}

In Australia, although most general practitioners are aware of best practice management of diabetes, consistent quality of care has proven elusive. In 1999, in divisions of general practice (DGP) providing data for the National Divisions Diabetes Program (NDDP), 60% or less of the patients were receiving each of the eight aspects of care outlined in best practice guidelines.⁴

Partly in response to this, the National Integrated Diabetes Program (NIDP)⁵ was launched by the commonwealth government in November 2001 with the aim of improving prevention, early diagnosis and better management of diabetes focussing on general practice.⁶ As part of the NIDP, three incentive payments were introduced: two were the Practice Incentive Payment (PIP) (which pays practices for having a disease register to help support best practice care), and the Service Incentive Payment (SIP) (for GP's completion of an annual cycle of care which

includes 12 quality of care items).

Divisions of general practice potentially have an important role in supporting practices. We studied SIPs for diabetes within DGP in relation to division diabetes programs and the populations they serve.

Methods

Survey of divisions

The NDDP and the Divisions Diabetes and Cardiovascular Quality Improvement Project (DDCQIP) collect and collate program, service delivery and demographic information from DGP.⁷ Between July and October 2002, we identified DGP that ran a diabetes program by contacting all Australian DGP, and defining a division run program as one encompassing more than continuing medical education, and using resources specifically dedicated to diabetes. Our total differed slightly from the 104 diabetes programs reported in the 2000–2001 Annual Survey of Divisions (ASD) report (which was the only data available at the time, the 2001–2002 survey were not available until 2003)⁸ suggesting either a change of circumstances since the 2000–2001 ASD, or that some DGP believed their diabetes related activities fell outside our definition. The 101 DGP we identified were invited by mail to participate in the DDCQIP ensuring that participation was voluntary, and that division data would be used to contribute to quality improvement and feedback mechanism.⁹

We received agreement from the 79 (78%) eligible DGP to participate. This involved division diabetes program officers

responding to a survey of both open ended free format and closed questions.

HIC data

The Health Insurance Commission (HIC) publishes data for each quarter for each DGP. We selected four quarters: August to October 2002, November 2002 to January 2003, February to April 2003, and May to July 2003. Only diabetes SIP data were used in this analysis.^{10,11} The data used in this study were the number of SIPs claimed by GPs by division (Medicare claimed for item numbers 2517, 2518, 2521, 2522, 2525, 2526 are used to generate a payment for the completion of an annual cycle of care for people with diabetes).

Population based data

Division population figures were obtained from Australian Bureau of Statistics (ABS) supplied basic community profiles for postal areas.¹² Diabetes prevalence estimates were based on the Australian Diabetes, Obesity and Lifestyle Report of 2000¹³ adjusted for age and sex. The Socio-Economic Indexes of Areas (SEIFA) index is an area based measure developed from the 1996 ABS National Population Census.¹⁴ It focusses on low income, lower educational attainment, and high unemployment. Health Wiz 6.2¹⁵ provides a breakdown of DGP by SEIFA levels of

Table 1. Multiple regression model using the ‘enter’ method for ratio of SIP/estimated diabetes prevalence

F=9.84, p=0.01, adjusted R square=0.414, with the following significant variables

| Predictor variable | Standardised beta coefficient | p |
|---|-------------------------------|-------|
| SEIFA category (high/low disadvantage) | -0.549 | 0.002 |
| Proportion of GP members working in practices with five or more GPs | +0.420 | 0.01 |

Variables excluded: proportion of GPs in solo practice and division IT support

disadvantage 1–11. Divisions were dichotomised into high and low disadvantage comprising less than 10% in SEIFA levels 1 and 2. This resulted in 63 DGP as high disadvantage and 58 as low disadvantage.

Analysis

Data were analysed using descriptive statistics for frequencies and distribution, the Pearson product moment coefficient and multiple linear regression.¹⁶

Results

Between August 2002 and July 2003, 95 486 SIPs were claimed by general practices for completion of an annual cycle of care for people with diabetes, representing a mean of 10.1% (SD: 3.6) of the population estimated to have diabetes (based on a prevalence of 7.5%) (Figure 1).¹³

The ratio of SIPs claimed over the 12 month period to the estimated prevalence of diabetes (‘coverage’) was compared with division variables. High disadvantaged DGP had a mean of 2.2% higher coverage than those of low disadvantage ($p<0.01$). Higher coverage was also associated with the proportion of GP members who worked in a practice with five or more GPs (Pearson correlation coefficient =0.40, $p<0.05$) and lower coverage with the proportion who worked in solo practices ($r=0.42$, $p<0.05$). Other factors not significantly associated with coverage were: whether the DGP was urban or rural, the proportion of practices using practice nurses, the ratio of GPs per head of population, the proportion of GPs working in accredited practices, or the proportion of GPs working in corporate practices.

When coverage was tested against division activities, only the provision of practice IT support (associated with a mean coverage 2.78% higher, t-test 2.4, $p<0.05$) was associated with it. Other division activities found not to be associated with coverage were: a divisional diabetes program, a divisional diabetes register, and division support for amalgamation.

Using multiple regression the best fit model included socioeconomic status of the population served by the DGP and the proportion of GP members working in practices with five or more GPs (Table 1). This predictive model explained 41% of the variance in the SIP coverage between DGP.

Discussion

This study examines the correlations between data at the level of the DGP regarding division and practice activities, frequency of claims for SIP payments for diabetes, and population based estimates of diabetes prevalence. Associations between the frequency of diabetes SIP claims and other factors at the level of the practice, provider, or patients, may therefore have not been evaluated.

We estimate that only 10% of patients with diabetes (undiagnosed and diagnosed) had claims made for completion of a cycle of care for diabetes, or 20% of those diagnosed (as approximately 50% are estimated to be undiagnosed).¹³ This is much higher than earlier estimates^{17,18} suggesting that the introduction of the NIDP in 2002 was responsible. Two division level factors were associated with higher SIP claims: socioeconomic status (which accords with the higher burden of

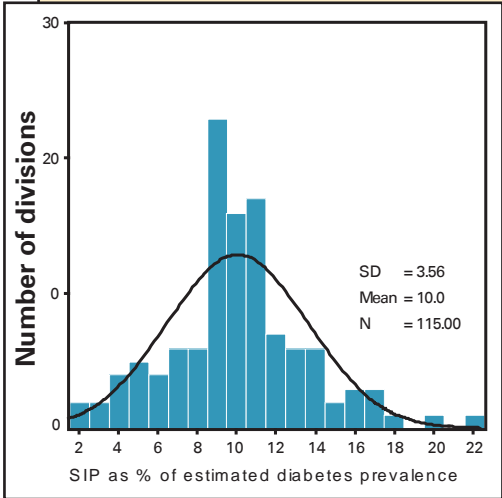


Figure 1. Frequency of SIP claimed as a proportion (%) of estimated number of people with diabetes by DGP (August 2002 to July 2003)

disease) and proportion of GPs working in practices with five or more GPs.¹⁹

Other factors which predicted increased coverage – the size of the practices in the division and the provision of IT support to practices by the division – is consistent with recent findings from our study of the importance of practice organisation and capacity in the care of patients with chronic disease.²⁰ While smaller practices can provide excellent care, larger practices are more likely to install systems to support quality care and a team approach to chronic disease management.

There are some limitations to this study. First, although the response rate was good (78%), disadvantaged DGP (who performed better) were more likely to respond (58%). Since both HIC data and the socioeconomic data were aggregated at division level, this may have concealed within division variation. Thus, these results should be interpreted with care and not extrapolated to the levels of the practice or GP.

Yet this exploratory study has identified a correlation between socioeconomic status and SIP claims. Although it is likely that factors operating at each of these levels contribute, the positive relationship with practice size and IT support from the division emphasises the importance of practice organisation and systems in achieving quality care for diabetes in general practice.

Implications of this study for general practice

- GPs claim 10% of SIPs for diabetes cycles of care for all eligible patients.
- This is probably 20% of those diagnosed and is an increase.
- GPs are more likely to do so in divisions of high socioeconomic need, divisions with IT support, and in divisions with larger practices.

Conflict of interest: The Department of Health and Ageing did not have any involvement in the study design, data collection, analysis or interpretation, nor any influence over the writing and submission of this article.

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AFP

Correspondence

Email: m.f.harris@unsw.edu.au