General practitioner service provision in residential aged care facilities: 1998–2011

Michael J Taylor, David Edvardsson, Dell Horey, Deirdre Fetherstonhaugh, Rhonda Nay, Hal Swerissen

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Aim: To examine the general practitioner (GP) consultation patterns for primary health-care services provided in residential aged care facilities (RACFs) by consultation type.
Method: Analyses of service provision and RACF population data for the period 1998–2011. All Medicare-subsidised services provided by GPs across Australia in RACFs were included and categorised by consultation type and by time of service delivery (business or after-hours).
Results: Overall service delivery increased from 12 118 per 1000 residents in financial year (FY) 1998–99 to 17 079 per 1000 residents in FY2010–11, a 41% increase. Since FY2007–08, the rate of brief consultations has grown by an average of 20% each year. Delivery of after-hours consultations also increased.
Conclusions: The pattern of GP services provided in RACFs has changed substantially over time. To some extent these changes reflect regulatory adjustments; however, the pattern is at odds with the ever-increasing dependence levels of residents.
Key words: Medicare, primary health care, homes for the aged.

Introduction

Since the mid-1990s, substantial changes to 'in-surgery' general practitioner (GP) consultation patterns have occurred [1]. Before 2005 there was a long-standing trend towards increased provision of longer (Level C and D) consultations, and a shift away from short (Level A) consultations. Since 2005, these trends have reversed: longer consultations have become less frequent and shorter consultations more common, even after accounting for the plethora of new services introduced to the Medicare Benefits Schedule (MBS) during that time [1].

Compared to in-surgery consultations, GP consultations provided in residential aged care facilities (RACFs) comprise a relatively minor 'market' within Medicare; in financial year (FY) 2010–11, they accounted for only 2.3% of all GP attendances [2]. The underlying pattern for these RACF-based consultations is subject to special pressures, particularly those arising from the higher dependence and clinical complexity of residents [3,4]. Another very specific pressure on RACF consultation patterns is the slow drift of GPs away from RACF-based care which has been attributed to decreasing financial viability of such services [5,6]. Efforts to address this problem – such as the Aged Care Access Initiative (ACAI), which provides financial incentives to GPs to attain a certain level of service volume – will also have influenced the GP consultation patterns in RACFs [7]. The increase in available RACF places under the recently announced *Living Longer, Living Better* package will likely influence consultation patterns into the future [8].

The objective of this study was to examine GP consultation patterns for services provided in RACFs in detail, as these services were specifically excluded from a previous study [1]. This analysis includes GP consultations (business and afterhours) conducted in RACFs as well as comprehensive care services such as medication management and multidisciplinary care planning.

Methods

This study considered Medicare and aged care resident population data over 13 years, from FY1998–99 to FY2010–11 (i.e. post-implementation of the Commonwealth *Aged Care Act 1997*), with financial years used as the temporal unit of analysis.

Population data

Data on the RACF resident population over time were obtained from the Australian Institute of Health and Welfare's (AIHW) supplemental data tables for their *Residential Aged Care in Australia* publications for each consecutive financial year [9]. To match MBS requirements for certain services [10], only the permanent resident population was considered. RACF population data as on 30 June each year were the assumed population for the subsequent financial year.

Medicare data

Data on RACF-based GP consultations, after-hours services and 'special items' provided by GPs across Australia were obtained from Medicare Australia [2]. The RACF-based consultations include Levels A (MBS item 20), B (35), C (43) and D (51), along with consultations provided by non-vocationally registered GPs (92–93, 95–96). RACF-based after-hours services, first introduced as separate MBS items in 2005, were also included (5010, 5260 (Level A); 5028, 5263 (B); 5049, 5265 (C); 5067, 5267 (D)).

The MBS special items for providing comprehensive care to residents, introduced throughout 2004 and 2005, included Comprehensive Medical Assessments (CMA; 712, subsequently withdrawn in May 2010), Residential Medication Management Reviews (RMMR; 903) and Multi-disciplinary Care Plans for residents (MDCP; 732). For the purposes of this study, these special items were classified as 'RACF-based' because of the involvement of the resident and/or facility to meet MBS requirements [10], and were equated with Level C and D consultations based on their length, complexity and higher Medicare benefit payments. Because of their low frequency of provision (relative to general consultations) and staggered introduction into Medicare, special items were considered as a group rather than individually.

Analysis

Medicare data were age–sex standardised using the direct method [11], with the 2010 RACF population used as the reference population. The specific age–sex categories used were limited by available data; AIHW data use an 'under 65 years' age category, and Medicare data report service provision for those '85 years and over'. Comparisons of standardised service delivery rates were made using OpenEpi ('compare two rates'; http://www.openepi.com) at the 5% significance level.

All Medicare services – standard, special or after-hours –were categorised into four main types: Level A; Level B; and Level C/D, either alone or in combination with the special items. Consultations provided by non-vocationally registered GPs were matched according to length; for example, MBS item 92 (brief consultation) was equated to a Level A consultation. Special items were combined with Level C/D consultations using a 1:1 ratio, based on the previous study's assumption that these services were comparable [1].

As an analysis of publicly available aggregate data, ethics approval for this study was not necessary.

Results

The overall standardised service delivery rate per 1000 RACF residents per annum increased significantly from 12 118 in FY1998–99 to 17 079 in FY2010–11 ($P < 0.001$). Figure 1 shows the relative change (to FY1998–99) in standardised rates for each consultation type over time.

As a result of the progressive introduction of special items, the combined delivery rate for longer/complex services (Level C/D and special items) showed significant growth between FY2003–04 and FY2007–08, from 1182 services per 1000 residents to 2235 per 1000 ($P < 0.001$). However, from FY2007–08 to FY2009–10, the rate of increase of long consultations slowed, with a slight decline observed in Figure 1: Standardised service delivery rates for residential aged care facility (RACF)-based Medicare services, financial year (FY) 1998–99 to FY2010–11 (relative to FY1998–99). FY2010–11, perhaps due to withdrawal of the CMA service from the MBS during 2010. Level A consultations increased significantly in recent years, with an average growth of 20% per annum since FY2007–08.

Figure 2 shows the proportional change between consultation types over time, and the proportion provided afterhours. After-hours consultations grew considerably since the introduction of RACF-specific items in 2005. A significant increase in the delivery rate of after-hours consultations was observed for FY2010–11, with the overall rate being 52% higher than in FY2009–10 ($P < 0.001$). In FY2010–11, after-hours services accounted for approximately 10% of all RACF-based service delivery – the highest ever level.

Discussion

As with the pattern observed for in-surgery consultations, the delivery of RACF-based GP services has changed substantially over time. Regulatory change was the most likely cause of the substantial growth in after-hours services noted in FY2010–11. The definition of 'after-hours' on weekdays changed from post-8 pm to post-6 pm in 2010 [10]; as such, the change observed in Figure 2 may be an artefact of this administrative reclassification. However, any continuing trend towards greater delivery of care after-hours should be monitored. While this change may be advantageous in that it allows GPs greater flexibility in organising their workload, it is potentially disadvantageous if the result of GPs' after-hours visits was decreased communication with RACF nursing staff (who may not necessarily be present after-hours).

Increased delivery of RACF-based services after-hours explains only part of the change in consultation patterns. It appears likely that the ACAI's incentivisation of higher service delivery volumes from individual GPs has been successful [12]. Overall, the total number of RACF-based services provided per resident increased 41%, from 12.1 services per resident in FY1998–99 to 17.1 services per resident in FY2010–11. This translates to an average of one RACF-based GP service for a resident every 4.3 weeks in FY1998–99, increasing to one service every 3 weeks in FY2010–11.

However, the service 'mix' underpinning the overall increase is concerning. Despite increasing levels of resident dependence [4], delivery of comprehensive care and/or lengthy consultation services delivered in RACFs has stagnated over recent years. At the same time, RACF-based short consultations (Level A) increased, mirroring observations made for general population consultation patterns [1]. Both changes are counterintuitive given the characteristics of the resident population, and this reflects a substantial design weakness in the current ACAI: the thresholds for incentive payment weight all services equally so short consultations 'count' towards bonus payments as much as complex services [7].

Other factors may also be involved; for example, increased reliance on less qualified staff in RACFs [12] may decrease in-facility capacity to manage minor medical issues, and thus increase demand for short GP services. Further research is required to establish whether this is the case; if so, this effect would be similar to that observed for decreased in-facility capacity for procedural interventions that result in increased emergency department admissions for residents [13].

A major limitation to this study is that only RACF-based consultations were included, and Medicare services provided to residents outside an RACF were not captured. However, given the high levels of dependence observed among residents [4], greater provision of in-facility, rather than in-surgery, consultations would be expected.

Finally, the effect of the consultation pattern on residents must be considered. In FY2010–11, the 'average' resident received at least one short Level A consultation during the year (Level A rate: 1.0 services/resident), while individual types of comprehensive services were less frequent. For example, only one in three residents received a medication review (RMMR rate: 0.36 services/resident), an intervention shown to reduce medication burden [14]. Most critically, these differentiated results show that reliance on an overall ('headline') delivery rate, as conventionally reported [15], to describe RACF-based consultation patterns is inadequate.

Further research into the balance of services provided –practical issues (such as GP–staff communication and RACF staff skills) and, most critically, the care outcomes for residents resulting from different service mixes – is required to understand the impact of consultation pattern changes and inform future redesign of Medicare services.

Key Points

• Substantial changes have occurred in the type and number of services that GPs provide to residents of aged care facilities.
• Service delivery rates to residents have increased overall; however, reliance on this 'headline' rate of service delivery masks the underlying changes in the mixture of services provided.
• Delivery of longer/complex care services has been relatively static over the last few years, despite increasing resident dependence levels. Delivery of shorter consultations and after-hours services has increased.

Figure 1: Standardised service delivery rates for residential aged care facility (RACF)-based Medicare services, financial year (FY) 1998–99 to FY2010–11 (relative to FY1998–99).

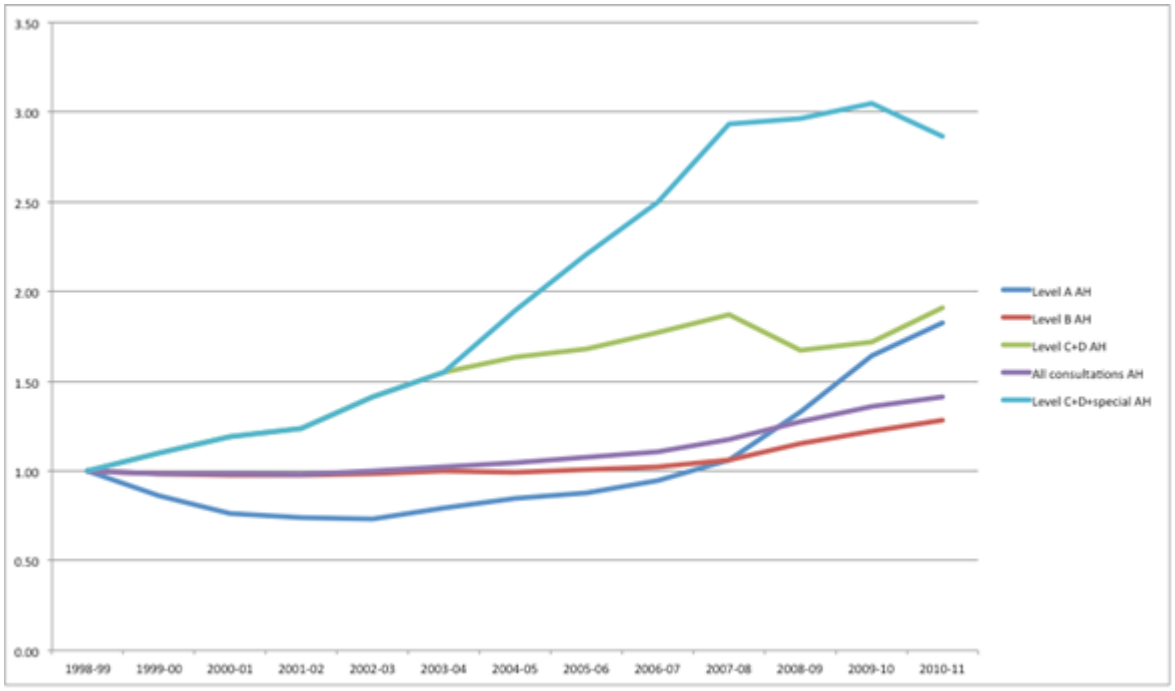
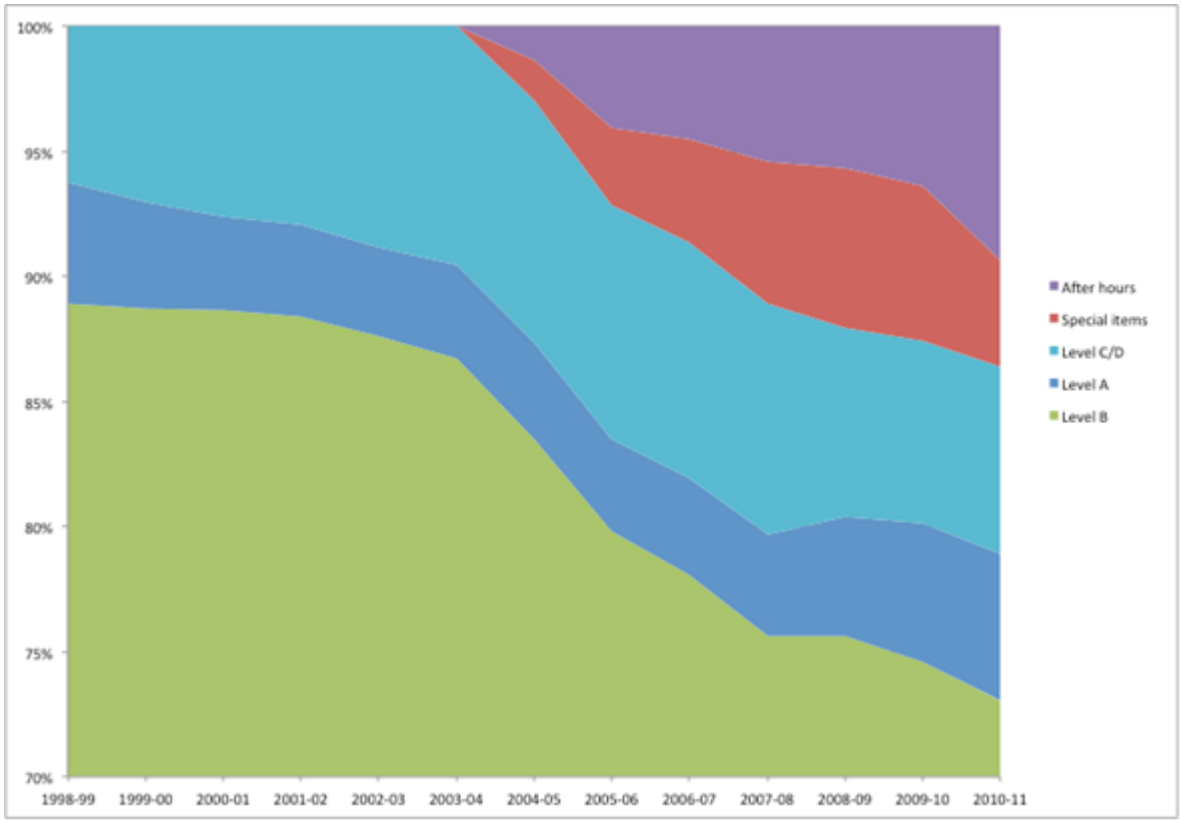


Figure 2: Proportional contribution of individual types of residential aged care facility-based Medicare services to overall service delivery rate, financial year (FY) 1998–99 to FY2010–11. After-hours services at each consultation level shown as shaded areas.



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