



Do rural incentives payments affect entries and exits of general practitioners?

Jongsay Yong^{a,*}, Anthony Scott^a, Hugh Gravelle^b, Peter Sivey^c, Matthew McGrail^{d,e}

^a Melbourne Institute of Applied Economic & Social Research, University of Melbourne, Australia

^b Centre for Health Economics, University of York, United Kingdom

^c School of Economics, Finance and Marketing, RMIT University, Australia

^d Rural Clinical School, University of Queensland, Australia

^e School of Rural Health, Monash University, Australia



ARTICLE INFO

Keywords:

Australia
GP rural incentives
GP geographic distribution
GP location choice
Entries and exits

ABSTRACT

Many countries use financial incentive programs to attract physicians to work in rural areas. This paper examines the effectiveness of a policy reform in Australia that made some locations newly eligible for financial incentives and increased incentives for locations already eligible. The analysis uses panel data (2008–2014) on all Australian general practitioners (GPs) aggregated to small areas. We use a difference-in-differences approach to examine if the policy change affected GP entry or exit to the 755 newly eligible locations and the 787 always eligible locations relative to 2249 locations which were never eligible. The policy change increased the entry of newly-qualified GPs to newly eligible locations but had no effect on the entry and exit of other GPs. Our results suggest that location incentives should be targeted at newly qualified GPs.

1. Introduction

Significant policy and research effort is directed at understanding the effect of financial incentives on physicians' provision of healthcare (Eccles et al., 2010; Gravelle et al., 2016; Scott et al., 2011). A less studied area is the use of financial incentives to address geographical inequities in access to healthcare by influencing physician's location decisions (Simoens and Hurst, 2006).

Most countries have problems in ensuring equitable access to general practitioner (GP) services in rural areas. The difficulty of attracting and retaining GPs to work in small isolated rural communities is well documented. Although financial incentive programs are widely used to address this problem, there is little evidence about their efficacy. Systematic reviews of a range of interventions to improve physician distribution report few high quality studies of financial incentives. Dolea et al. (2010) found three studies of financial incentives with some positive effects, but these were based on surveys of physicians asking them whether incentives would influence their behaviour, or before-and-after studies with no control group. Wilson et al. (2009) found only two studies of direct financial incentives and concluded that there was little quantitative evidence to support their use. Grobler et al. (2009) reviewed 1844 studies but found no studies satisfying the review's study

design inclusion criteria. This review was updated in 2015 and found only one study meeting the inclusion criteria, but it did not examine financial incentives (Grobler et al., 2015). Buykx et al. (2010) found little evidence demonstrating the effectiveness of any retention strategies based on financial incentives.

Due to the scarcity of revealed-preference evidence, researchers have also used stated-preference approaches to shed light on the potential effectiveness of financial incentive schemes (Hanson and Jack, 2010; Kolstad, 2011; Scott et al., 2013; Li et al., 2014; Holte et al., 2015). Many of these studies found substantial financial incentives would be required to induce GPs to change locations. For example, Scott et al. (2013) report that 65% of the Australian GPs in their sample would not move to a small town under any circumstances, and others would only move if they receive a 64% pay rise. Holte et al. (2015) estimate that a 20% pay rise could increase the number of GPs choosing a rural location by 12 percentage points in Norway. These studies suggest very large incentives that may not be feasible in practice are necessary to affect GP location choices, and that relatively small incentives may not have any impact. Evaluations of actual incentives programs are needed to validate these results.

This paper provides the first rigorous evaluation of the impact of financial incentives designed to influence the location choices of GPs.

* Corresponding author. Melbourne Institute of Applied Economic & Social Research, The University of Melbourne, Level 5, FBE Building, The University of Melbourne, 111 Barry Street, Parkville, Victoria, 3010, Australia.

E-mail address: jongsay@unimelb.edu.au (J. Yong).

<https://doi.org/10.1016/j.socscimed.2018.08.014>

Received 10 January 2018; Received in revised form 14 August 2018; Accepted 19 August 2018

Available online 24 August 2018

0277-9536/ © 2018 Elsevier Ltd. All rights reserved.

Our approach relies on a policy change in Australia in 2010, when the system used to classify remoteness was changed. Because of this exogenous change, some locations previously ineligible for rural incentive payments became newly-eligible post-2010. Exploiting this change in eligibility status, we conduct difference-in-differences analysis using data on the locations and mobility of the population of GPs in Australia over a six-year period, including two years before the policy change and four years after. We compare GP movements in and out of these newly eligible geographic locations (and movements in and out of always eligible locations) with movements in and out of locations that were never eligible for incentive payments before and after the classification change. This study is also the first to distinguish different types of entries and exits of GPs.

In Australia, GPs are paid by fee-for-service for consultations, and patients receive a fixed subsidy or rebate (around AUD\$37 in 2017) from Medicare, the universal tax-financed national health insurance scheme. However, there are no restrictions on the fees GPs can charge patients and patients can face a co-payment if the fee is more than the rebate. GPs can also price discriminate so that fees may vary across patients. The practice of charging no co-payment is known as “bulk billing.” An additional rebate or “bulk-billing incentive” is available to GPs who charge zero co-payment to certain groups of patients: children under 16 and low-income patients who hold concession cards. In recent years approximately 80 per cent of GP services have been bulk-billed (AIHW, 2016).

Most GPs are free to practise in any geographic location, but there are some exceptions: if the GP is qualified overseas, or is a graduate of a medical school in Australia but studied as an international student, or is otherwise bonded at medical school entry. GPs in these categories can only bill Medicare if they work in locations labelled ‘District of Workforce Shortage’ (DWS) for between five and ten years, depending on remoteness of the DWS location.

As there may be less demand for health care in rural areas with small populations, GP’s fee-for-service revenue can be insufficient to maintain a financially viable practice. Consequently, there is a range of subsidies to support rural medical practices and maintain access to health care in rural areas. Financial incentives to bulk-bill children and low-income patients are higher in rural than metropolitan areas. Similarly, there is a loading of between 15 and 50 per cent for rural GP practices in the Practice Incentive Program (PIP) which provides incentives for treating patients with specific chronic diseases and for practice infrastructure (Department of Human Services, 2013).

In addition, there are specific financial incentives to encourage GPs to locate to, or stay in, rural areas. Australia first introduced a rural incentive program for GPs in 1994 (Holub, 1995) and this became the Rural Retention Program (RRP) in 1998. In July 2010, the General Practice Rural Incentives Program (GPRIP) was introduced to streamline and consolidate previous rural incentive programs, including the RRP. The aim of GPRIP is to use direct financial incentives to recruit and retain doctors in rural areas. There are two components to the program: (1) the GP retention component provides incentives for GPs to remain in rural areas and (2) the Rural Relocation Incentive Grant (RRIG) aims to increase the recruitment of doctors to rural areas. The first is an on-going incentive payment depending on several factors (see below), whereas the second component is a one-off payment.

Table 1 shows the size of the GPRIP incentive payments introduced

Table 1
Incentive payments in the General Practice Rural Incentives Program.

	0.5 year	1 year	2 years	3–4 years	5 + years
RA2 (Inner Regional)	–	\$2500	\$4500	\$7500	\$12,000
RA3 (Outer Regional)	\$4000	\$6000	\$8000	\$13,000	\$18,000
RA4 (Remote)	\$5500	\$8000	\$13,000	\$18,000	\$27,000
RA5 (Very Remote)	\$8000	\$13,000	\$18,000	\$27,000	\$47,000

in 2010 and which did not change in the period of this study. This on-going payment depends on: (i) the location, defined using the five-category Australian Geographic Standard Classification–Remoteness Area (AGSC-RA), under which RA1 designates major cities which are not eligible for incentive payments, (ii) the length of time the GP has practised in eligible locations, so that GPs who worked in these location for five years or more receive the largest payments of between \$12,000 and \$47,000, and (iii) volume of services provided – GPs must provide more than a specified minimum quantum of clinical services in these locations (\$4000 of billed items in each quarter). GPs become eligible for the payments after two or four ‘active’ quarters (depending on remoteness) in these locations, where ‘active’ means meeting the minimum volume requirement (iii). Table 1 shows the maximum possible incentive payment made to GPs who bill Medicare for \$80,000 or more for four active quarters. GPs whose workload is less will receive proportionately less (e.g. if a GPs bills \$40,000 they will receive half the payment). At the time GPRIP was introduced, around 11,000 doctors were eligible for these payments. Some specialists were also eligible under the scheme but this paper focuses on GPs (Mason, 2013). GPs in areas that were always eligible for incentives did not lose incentive payments under the new scheme, and would receive higher payments after five years. Further detail about the change in the scheme and the size of incentives is given in Appendix A. Though the first GPRIP component is mainly aimed at retaining GPs in incentivized locations, it can also influence GPs’ decisions to move to or leave rural areas as the incentive payments will influence their future expected lifetime earnings in different types of location.

The second GPRIP component is focused on encouraging recruitment – RRIG provides relocation grants to doctors who move to a rural location. For example, the maximum payment of AUD\$120,000 one-off payment is paid to a GP who moved from a metropolitan location (RA1) to a very remote location (RA5). We examine the overall effect of both components although the fact that in 2011–12 only 33 doctors received RRIG payments (and RRIG was later discontinued in 2015) suggests that it is not as important as the retention component of GPRIP.

For this paper, the key change in July 2010 was the introduction of a different geographic classification scheme (ASGC-RA) which was used to determine the eligibility for GPRIP. Because of this change, all ASGC-RA2 areas, and some ASGC-RA3 areas that were ineligible for incentive payments under the previous classification scheme, became eligible for incentive payments. We refer to these areas as ‘newly eligible locations.’ In total around 750 out of some 3800 locations became newly eligible in July 2010. In newly eligible locations, all doctors were treated as newly eligible and could therefore initially only claim the lowest amount of \$2500 (see Table 1), no matter how many years they had previously been in the location. All doctors in newly eligible RA2 locations would therefore have received an exogenous increase in earnings of up to \$2500 after the first year, increasing up to \$12,000 after five years, subject to claiming rules. After five years, the cumulative additional earnings are \$34,000 or an average of \$6800 per year. In 2010, the average annual earnings of a GP before tax (but after practice expenses) was about \$180,000 (Cheng et al., 2012), suggesting that GPs on average would experience an increase in earnings of up to 1.4 per cent per year after the first year of the scheme, increasing to 6.6 per cent after five years, or an average earning increase of up to 3.8 per cent per year in the first five years. For those who stay in eligible locations the incentives increase their lifetime earnings. Note this is a relatively small incentive compared to that suggested by the stated preference literature discussed earlier.

2. Data and methods

2.1. Data

We map the distribution of GPs and identify entries and exits, using

Download English Version:

<https://daneshyari.com/en/article/10127669>

Download Persian Version:

<https://daneshyari.com/article/10127669>

[Daneshyari.com](https://daneshyari.com)