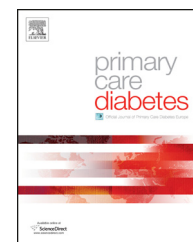




Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

Primary Care Diabetes

journal homepage: <http://www.elsevier.com/locate/pcd>



Original research

Variation in the use of primary care services for diabetes management according to country of birth and geography among older Australians



Duong Thuy Tran^{a,*}, Louisa R. Jorm^a, Alys Havard^{a,b}, Mark F. Harris^c, Elizabeth Jean Comino^c

^a Centre for Big Data Research in Health – Faculty of Medicine, UNSW Australia (The University of New South Wales), UNSW Sydney, NSW 2052, Australia

^b Centre for Health Research – School of Medicine, University of Western Sydney, Locked Bag 1797, Penrith, NSW 2751, Australia

^c Centre for Primary Health Care and Equity, UNSW Australia, UNSW Sydney, NSW 2052, Australia

ARTICLE INFO

Article history:

Received 4 July 2014

Received in revised form 1 June 2015

Accepted 13 July 2015

Available online 1 August 2015

Keywords:

Australia

Administrative claim data

Diabetes annual cycle of care

Ethnicity

Immigrants

Health service use

ABSTRACT

Aims: To investigate variation according to country of birth and geography in the use of primary care services funded through Medicare Australia—Australian universal health insurance—for diabetes annual cycle of care among older overseas-born Australians with type-2 diabetes.

Methods: Records of Medicare claims for medical services were linked to self-administered questionnaire data for people with type-2 diabetes enrolled in the 45 and Up Study, including 840 participants born in Italy, Greece, Vietnam, Lebanon, China, India, or the Philippines and 12,444 participants born in Australia, living in 195 statistical local areas (SLAs) in New South Wales, Australia. Study outcomes included ≥ 6 claims for general practitioner (GP) visits, at least one claim for specialist, optometrist, Practice Incentive Payment for completion of diabetes annual cycle of care (PIP), GP Management Plan or Team Care Arrangement (GPMP/TCA), allied health, blood tests for glycosylated haemoglobin (HbA1c) and cholesterol, and urine test for micro-albumin. Multivariable multilevel logistic regression was performed, controlling for personal socio-demographic and health characteristics and geographical area remoteness and socio-economic status.

Results: Compared with Australia-born participants, people born in Vietnam and China had significantly lower rates of claims for allied health services (odds ratio [OR] 0.14, 95% confidence interval [CI] 0.05–0.43, and OR 0.40, 95%CI 0.18–0.87, respectively), those born in Italy had lower rates of PIP claims (OR 0.60, 95%CI 0.39–0.92) and micro-albuminuria testings (OR 0.65, 95%CI 0.47–0.89), and those born in the Philippines had lower claims for specialist services (OR 0.59, 95%CI 0.38–0.91). Participants born in Greece and China (GP visits), Vietnam (optometrist services), and India (micro-albuminuria tests) were more likely to claims for

* Corresponding author. Tel.: +61 02 9385 0645.

E-mail addresses: Danielle.Tran@unsw.edu.au (D.T. Tran), L.Jorm@unsw.edu.au (L.R. Jorm), Alys.Havard@unsw.edu.au (A. Havard), m.f.harris@unsw.edu.au (M.F. Harris), e.comino@unsw.edu.au (E.J. Comino).

<http://dx.doi.org/10.1016/j.pcd.2015.07.001>

1751-9918/© 2015 Primary Care Diabetes Europe. Published by Elsevier Ltd. All rights reserved.

these services than Australia-born people. Significant geographic variation was observed for all study outcomes, with the greatest variations in claims for allied health services (variation 9.3%, median odds ratio [MOR] 1.74, 95% credible interval [CrI] 1.60–2.01), PIP (7.8%, MOR 1.65, 95%CrI 1.55–1.83), and GPMP/TCA items (6.6%, MOR 1.58, 95%CrI 1.49–1.73).

Conclusions: Different approach among geographical areas and intervention programs for identified cultural groups and their providers are warranted to improve disparities in diabetes care.

© 2015 Primary Care Diabetes Europe. Published by Elsevier Ltd. All rights reserved.

1. Introduction

Type-2 diabetes is a major global public health challenge and requires ongoing, comprehensive, and patient-centred care [1,2]. General practice plays a central role in providing and coordinating care across the spectrum of people with diabetes. Clinical guidelines recommend that management of people with diabetes in primary care settings should include patient history assessment, physical examinations (at least quarterly), pathology investigations (at least six monthly), immunisation, evaluating, care planning and referrals when appropriate [2].

Australia is a nation built on immigration, and culturally and linguistically diverse (CALD) communities make up 26% of the population [3]. Some CALD immigrant communities have greater prevalence of type-2 diabetes [4,5], poorer glucose control [6], higher rates of vascular complications [5,6], hospitalisation and mortality [5,7] than Australia-born people. Barriers to access to services by CALD immigrants with diabetes have been reported, including being unable to speak or read English, feeling of stigmatisation, lack of awareness of health systems, and lack of access to culture-specific services [8]. Yet, little is known about immigrants in Australia use primary care services for recommended cycle of care for diabetes. High quality of diabetes care is associated with better patient outcomes [2], identifying disadvantaged ethnic groups, importantly in the context of Australia's universal health insurance coverage, can inform strategies and target interventions to improve their access to and utilisation of services.

The Australian Medicare Program provides affordable access to medical and hospital services for all Australian residents and eligible visitors. Scheduled fees are claimable via Medicare's Medical Benefits Schedule (MBS) for a wide range of clinically relevant consultations, procedures and tests provided by an appropriate health practitioner [9]. Since 1999, Australian government has implemented several major initiatives to support general practices in provision of high quality and proactive diabetes care. These initiatives include payment via Medicare to general practitioners (GP), nurses, allied health professional and the practices for developing annual management plans and organising team care for people with diabetes [2,10]. Practices and GPs are able to claim for Practice Incentive Payments (PIP) items for completion of minimum requirements for annual cycle of diabetes care [2,10]. However, achievement of target glycosylated haemoglobin (HbA1c) and cardiovascular risk factors among people with type-2 diabetes has been suboptimal [11,12]. In 2002–2005, nearly 40% of people with type-2 diabetes had HbA1c >7%, 56%

had systolic blood pressure >130 mmHg and 78% had total cholesterol >4.0 mmol/L [11]. People with diabetes, on average, received four or five out of seven clinical checks (HbA1c, total cholesterol, triglycerides, high density lipoprotein cholesterol, microalbuminuria, body mass index and blood pressure) as required for a completion of annual cycle of care [13]. About 77% had HbA1c, lipids and blood pressure all assessed [11]. It is unknown whether the control of clinical markers and annual cycle of care is uniform or varies across different cultural groups within the Australian population.

Research evidence has indicated that both ethnicity and geography contributed to disparities in health and health care access [14–16], a failure to control for residential geography would over-estimate the differences due to ethnicity [14,15]. Of a further relevance for ethnicity research is that patterns of migration to Australia have been shaped by historical events and policies both in Australia and internationally [3], and immigrants tend to locate in “ethnic enclave” at time of arrival [17]. Although, the spatial concentration of CALD communities appears to decrease with longer duration of residence but this occurs to a larger extent among skilled immigrants and lesser extent for refugees [17]. This study investigated country of birth and geography variation in the use of publicly funded primary care services for annual diabetes cycle of care among older CALD Australians.

2. Methods

This study used baseline questionnaire data from the Sax Institute's 45 and Up Study [18] linked to Medicare MBS and Pharmaceutical Benefits Scheme (PBS) claim data and death registrations. The 45 and Up Study is a cohort study of people aged 45 years and older living in New South Wales (NSW), Australia. Prospective participants were randomly sampled from the Medicare enrolment database, with oversampling of people aged 80 years and older and residents of rural and remote areas. A total of 267,153 participants joined the Study between January 2006 and December 2009 by completing a baseline questionnaire (response rate 18%) and giving signed consent for follow-up and linkage of their information to routine health databases [18]. The MBS and PBS data include every claim for subsidised medical services and pharmaceutical products for eligible Australian residents and visitors. Participants' baseline questionnaire data were linked deterministically to MBS and PBS claims records by the Sax Institute using a unique identifier, and linked probabilistically to death registrations by the Centre for Health Record Linkage.

Download English Version:

<https://daneshyari.com/en/article/5871227>

Download Persian Version:

<https://daneshyari.com/article/5871227>

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