

## Addressing migration-related social and health inequalities in Australia: call for research funding priorities to recognise the needs of migrant populations

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### Abstract

**Objective.** Migrants constitute 26% of the total Australian population and, although disproportionately affected by chronic diseases, they are under-represented in health research. The aim of the present study was to describe trends in Australian Research Council (ARC)- and National Health and Medical Research Council (NHMRC)-funded initiatives from 2002 to 2011 with a key focus on migration-related research funding.

**Methods.** Data on all NHMRC- and ARC-funded initiatives between 2002 and 2011 were collected from the research funding statistics and national competitive grants program data systems, respectively. The research funding expenditures within these two schemes were categorised into two major groups: (1) people focused (migrant-related and mainstream-related); and (2) basic science focused. Descriptive statistics were used to summarise the data and report the trends in NHMRC and ARC funding over the 10-year period.

**Results.** Over 10 years, the ARC funded 15 354 initiatives worth A\$5.5 billion, with 897 (5.8%) people-focused projects funded, worth A\$254.4 million. Migrant-related research constituted 7.8% of all people-focused research. The NHMRC funded 12 399 initiatives worth A\$5.6 billion, with 447 (3.6%) people-focused projects funded, worth A\$207.2 million. Migrant-related research accounted for 6.2% of all people-focused initiatives.

**Conclusions.** Although migrant groups are disproportionately affected by social and health inequalities, the findings of the present study show that migrant-related research is inadequately funded compared with mainstream-related research. Unless equitable research funding is achieved, it will be impossible to build a strong evidence base for planning effective measures to reduce these inequalities among migrants.

**What is known about the topic?** Immigration is on the rise in most developing countries, including Australia, and most migrants come from low- and middle-income countries. In Australia, migrants constitute 26% of the total Australian population and include refugee and asylum seeker population groups. Migrants are disproportionately affected by disease, yet they have been found to be under-represented in health research and public health interventions.

**What does this paper add?** This paper highlights the disproportions in research funding for research among migrants. Despite migrants being disproportionately affected by disease burden, research into their health conditions and risk factors is grossly underfunded compared with the mainstream population.

**What are the implications for practitioners?** Migrants represent a significant proportion of the Australian population and hence are capable of incurring high costs to the Australian health system. There are two major implications for practitioners. First, the migrant population is constantly growing, therefore integrating the needs of migrants into the development of health policy is important in ensuring equity across health service delivery and utilisation in Australia. Second, the health needs of migrants will only be uncovered when a clear picture of their true health status and other determinants of health, such as

psychological, economic, social and cultural, are identified through empirical research studies. Unless equitable research funding is achieved, it will be impossible to build a strong evidence base for planning effective measures to reduce health and social inequalities among migrant communities.

**Additional keywords:** asylum seekers, Australian Research Council, equitable funding, low-and middle-income countries, National Medical Research Council, refugees, research advocacy.

Received 7 August 2014, accepted 15 May 2015, published online 13 July 2015

## Introduction

Most industrialised countries such as the US, Canada, the UK, New Zealand and Australia have experienced demographic transformations as a result of increased migration, with immigration accounting for 40% of the total population growth in Organization for Economic Cooperation and Development (OECD) countries between 2001 and 2011.<sup>1</sup> The Australian population grew by 1.6% between June 2011 and June 2012, with 0.9% of the rise due to net overseas migration and 0.7% due to natural increase.<sup>2</sup>

A significant number of migrants to industrialised countries come from low-income or developing countries.<sup>1</sup> Migrants, including refugees, are subpopulations with different cultural traditions from the mainstream population and encompass 'ethnic', linguistic and sometimes 'racial' minorities.<sup>3</sup> In Australia, migrant groups experience disproportionate disease burden depending on their ethnicity and premigratory health status, yet they are under-represented in health research and public health interventions.<sup>4</sup> In 2008, the National Preventative Health Taskforce launched the Australia: The Healthiest Country by 2020 report in which it recognised the existence of significant health inequities between ethnic groups, including migrants and the mainstream Australian population.<sup>5</sup> Available data<sup>6–10</sup> suggest that migrants are disproportionately affected by non-communicable and communicable diseases. Interestingly, however, the disease burden of migrants is often masked by the so-called 'healthy migrant effect', which suggests that most migrants enjoy health that is equal to or better than that of the Australian-born population.<sup>11</sup>

The healthy migrant effect needs to be critically analysed for various reasons. It may not apply to migrants coming to Australia through the refugee and humanitarian entrant scheme because these migrants arrive from an impaired health environment and have often been exposed to trauma. More importantly, available morbidity and mortality data do not include migrants returning home to convalesce and possibly to die (a phenomenon known in the literature as the 'salmon bias').<sup>12</sup> In addition, migrants remain under-represented in major Australian population and health surveys, with, for example, people speaking a language other than English representing a mere 13.9% in the Household, Income and Labour Dynamics in Australia (HILDA) survey<sup>13</sup> and 12.5% in the Longitudinal Study of Australian Children (LSAC).<sup>14</sup> However, the 2011 census showed 26% of Australia's population was born overseas, with 67% speaking a language other than English at home.<sup>15</sup>

A recent systematic review of articles published in three major Australian healthcare journals found that only 2.2% of articles were based on multicultural health issues.<sup>16</sup> Given the fact that 5.5 million Australians are born overseas, this figure suggests

a significant under-representation of migrants in research.<sup>16</sup> Migrants are also under-represented in clinical trials, which often require participants to speak English fluently.<sup>4</sup> Furthermore, as pointed out above, the statistics produced by the HILDA and LSAC surveys may not be truly representative of the entire Australian population because they do not include migrant communities who often have a higher prevalence of diseases by virtue of their ethnicity.

Within the migrant community itself, significant heterogeneity of health issues exists; for example, the prevalence of cardiovascular disease is highest among north-west European migrants (29%), followed by those from the UK (28%), southern Eastern Europe (28%) and North Africa and the Middle East (19%); the prevalence of cardiovascular disease in the Australian-born population is 17%.<sup>17</sup> Based on genetic predispositions and post-migration lifestyle changes, certain migrant groups are also disproportionately affected by obesity, diabetes and mental health disorders.<sup>18,19</sup> For example, after adjusting for age and SES, Pacific Islanders and migrants from Southern and Central Asia have increased odds of Type 2 diabetes (6.75 and 5.1 respectively) compared to the Australian-born population.<sup>20</sup> Migrants from Oceania and Southern/Eastern Europe have higher overweight/obesity rates (63% and 65% respectively) compared to the Australian population (55%).<sup>21</sup> Refugees show a high prevalence of vitamin deficiencies, dental disease and infectious disease upon arrival in Australia; however, there is limited evidence on their access and utilisation rates of available healthcare.<sup>22,23</sup> The prevalence rate of post-traumatic stress disorder among refugee adolescents is 11%, which is double the rate found among non-refugee adolescents.<sup>24</sup>

Routine data collection systems systematically underestimate true migrant population disease burden due to inaccuracies in migrant inclusion. Hence, significant funding is needed to accurately document true migrant disease burden, which may vary across migrant communities, in order to generate evidence-informed policy making. Evidence-based policy making for migrants can be challenging when there is lack of data on specific policy priorities, as evidenced by a Canadian study that examined the literature on migrant research informing policy over a period of 10 years.<sup>25</sup> This is particularly important in Australia because increased healthcare utilisation has been found among migrant populations; for example, migrants accounted for 25% of all hospitalisations in 2005–06.<sup>26</sup> With one-quarter of the cost of hospitalisations contributed by migrants, investing in migrant-related health research will lead to significant economic gains and reduce the burden on the health system.

The methodological flaws associated with the 'healthy migrant effect', together with the under-representation of migrants

in research and clinical trials outlined above, means that for health policy decision making, findings from research do not adequately reflect where the opportunities for health improvement lie. Health inequalities within ethnic minorities and the need to develop and implement effective health policies to reduce these inequalities have been acknowledged by various Australian government initiatives, including the 1999 Health Inequalities Research Collaboration initiative,<sup>27</sup> the 2005 Australian Health Ministers' Conference (which led to the National Chronic Disease Strategy, specifically Key Direction 11, which focuses on reducing health inequalities<sup>28</sup>) and, most recently, the 2009 Australia: The Healthiest Country by 2020 strategy outlining the road map for action strategy to reduce inequity through targeting disadvantage.<sup>29</sup>

Apart from raising the profile of social disadvantage and efforts to bridge the Indigenous health gap, these government declarations have not been commensurate with funding priorities. None of the government's initiatives currently explicitly sets priorities to reduce migration-related health inequalities, nor are there processes through which such priorities can be established. Generally, there are barriers to linking the removal of health inequalities with policy and a poor understanding of the relationship between policy and research across many health disciplines.<sup>30,31</sup> In addition, research on migration and health is often neglected and seen as too expensive, too politically sensitive and too difficult at a community level to implement.<sup>32</sup> This latter view is inconsistent with public health officials' commitment to reduce health inequalities. Although identifying health expenditure targeting migrants is difficult, it may be possible to use a proxy measure of governmental funding for research into health issues among disenfranchised communities.<sup>33</sup> Therefore, the purpose of the present study was to undertake a descriptive examination of grants funded under the Australian national competitive programs to identify the proportion of funding allocated to migration-related health projects.

## Methods

The present study focused on the two national competitive programs for which funding databases are available, namely the National Health and Medical Research Council (NHMRC) and the Australian Research Council (ARC). The NHMRC has various committees (e.g. Australian Health Ethics Committee, NHMRC Research Committee, NHMRC Licensing Committee, Human Genetics Advisory Committee, Water Quality Advisory Committee, Health Care Committee and the Prevention and Community Health Committee). However, it is the NHMRC Research Committee that awards research support in the form of funding for individual research projects and broad research programs, as well as training awards and fellowship grants based on a peer-review process of the scientific quality of submitted applications. The main research priority areas are health and medical research, including public health. Details of all research initiatives funded by the NHMRC between 2002 and 2011 were obtained from the research funding statistics (RFS) and data system.<sup>34</sup>

The ARC, in contrast, manages the Excellence in Research for Australia evaluations and provides research funding through the national competitive grants program. The ARC focuses on non-

clinical medical research and training grants, as well as fellowships that are theory driven. Its fields of interest are social sciences, humanities, psychological and health sciences and biological sciences. Details of all research initiatives funded by the ARC between 2002 and 2011 were obtained from the national competitive grants program (NCGP) data system.<sup>35</sup>

## Analysis

The research funding expenditures within each grant scheme were categorised into two major groups: (1) people-focused research; and (2) basic sciences (including basic sciences and biomedical) research. People-focused research was further categorised into two groups: (1) migrant-related initiatives; and (2) mainstream-related initiatives. Grants were grouped under migrant-related initiatives if the terms 'migration', 'immigration', 'migrant', 'immigrant', 'migratory', 'refugee', 'asylum seeker' were found either in the scientific or project title, research keywords, national or community benefit summary and lay description or media summary from the National Competitive Grants Program and Research Funding Statistics Data systems. In the context of the present study, 'mainstream' refers to all non-migrant research, including that targeting Australian and Indigenous peoples. The overall number of grants in each area and funds allocated to each grant are reported. Given that many initiatives were funded over the years, the amount of funding reported in the present study represents the funding allocated over the project life.

Table 1 summarises the data on overall grants and the proportion allocated to basic science and people-focused research. Table 2 presents data on migration- and mainstream-related people-focused research. Figure 1 shows the trends in ARC and NHMRC migrant-related research funding over a 10-year period (2002–11). Data were analysed using Stata 12 (StataCorp LP, College Station, TX, USA) and descriptive statistics were used to summarise the data.

## Results

The study included all funding schemes that were available for 10 years between 2002 and 2011. Between 2002 and 2011, the ARC funded a total of 15 354 initiatives for A\$5.5 billion. Of these projects, only 897 (5.8%), worth A\$254.4 million (4.6%), were allocated to people-focused research. These findings suggest that the majority of ARC research funds are allocated to basic sciences or biomedical research projects. For people-focused research, more than three-quarters (92.2%) targeted the mainstream Australian population, whereas migrant-related research accounted only for 7.8% of funded projects (Table 2). Trends in ARC-funded people-focused grants (Fig. 1) show an interesting pattern, with migrant-related grants spiking and plummeting every 3 years. The spikes are seen in 2004, 2007 and 2010, followed by declines in 2005, 2009 and 2011.

The NHMRC funded a total of 12 399 initiatives over the 10-year period, worth A\$5.6 billion. Of these initiatives 447 (3.6%) were people-focused projects, worth A\$207.2 million. Similar to ARC funding, people-focused projects were funded to a lesser degree compared with basic sciences research. The majority (93.8%) of people-focused projects were mainstream-related research and only 6.2% were migrant-related research (Table 2).

**Table 1. National Health and Medical Research Council (NHMRC) and Australian Research Council (ARC) initiatives funded between 2002 and 2011: biomedical versus people-focused funded initiatives**

CRE, Centre for Research Excellence; SRDC, Strategic Research Development Committee grant; IEF, Infrastructure, Equipment and Facilities; IRD, Indigenous Researchers Development; SRI, Special Research Initiatives; ALF, Australian Laureate Fellowships

	Total		Biomedical focused		People focused	
	No. initiatives (%)	A\$ million	No. initiatives (%)	A\$ million	No. initiatives (%)	A\$ million
<b>NHMRC</b>						
Project grants	6222	2640.5	6054 (97.3)	2551.1	168 (2.7)	89.4
Program grants	153	966.1	148 (96.7)	937.6	5 (3.3)	28.5
Other <sup>A</sup>	4552	1209.5	4368 (96.0)	1182.8	184 (4.0)	26.7
SRDC grants	113	14.4	72 (63.7)	9.7	41 (36.3)	4.7
Block grants	16	54.3	16 (100)	54.3	0 (0.0)	0
Partnership or collaboration <sup>B</sup>	139	103.3	118 (84.9)	83.5	21 (15.1)	19.8
Strategic awards	212	171.3	198 (93.4)	160.4	14 (6.6)	10.9
CRE	61	88.2	50 (82.0)	68.4	11 (18.0)	19.8
Infrastructure grant	670	279.4	670 (100)	279.4	0 (0.0)	0
Development grant	261	127.4	258 (98.9)	120	3 (1.1)	7.4
Total	12399	5654.4	11952 (96.4)	5447.2	447 (3.6)	207.2
<b>ARC</b>						
Discovery project	8972	2744.7	8434 (94.1)	2580	538 (5.9)	164.7
Linkage projects	4604	1157.4	4304 (93.5)	1082.2	300 (6.6)	75.2
Linkage IEF	755	306.3	755 (100.0)	306.3	0 (0.0)	0
ARC Research Networks	24	42	23 (98.6)	41.4	1 (1.4)	0.6
ARC Future Fellowship	603	435.5	598 (99.2)	432	5 (0.8)	3.5
Discovery IRD	76	8.6	37 (49.2)	4.2	39 (50.8)	4.4
Special Research Initiatives	185	27.1	179 (96.7)	26.2	6 (3.3)	0.9
Centre of Excellence	40	654.9	40 (100.0)	654.9	0 (0.0)	0
Super Science Fellowships	45	27.8	37 (81.8)	22.7	8 (18.2)	5.1
ALF	47	121.7	47 (100)	121.7	0 (0.0)	0
SRI Thinking Systems	3	10	3 (100)	10	0 (0.0)	0
Total	15354	5536	14457 (94.2)	5281.6	897 (5.8)	254.4

<sup>A</sup>Includes postgraduate scholarships, training research fellowships, career development fellowships, and early and established career fellowships.<sup>B</sup>Includes international collaboration.

Despite migrants constituting 26% of the Australian population, they have received <10% of research funding in both the ARC and NHMRC schemes, highlighting the disproportionate allocation of research funds, further supporting the argument that migrant-related research is relatively underfunded. NHMRC funding for migration-related research was predominantly through postgraduate scholarships and early career fellowships (78%), with a small percentage of the funding allocated to project (8.7%) and program (4.3%) grants. Most of the NHMRC funding on migration-related health research focused on mental health and well being (54%), and only three of 28 initiatives (10%) focused on non-communicable diseases (Fig. 2). Unlike ARC funding, trends in NHMRC funding for migrant grants did not show a consistent pattern. Overall, it was observed that migrant-related funding was mostly <5% (Fig. 1).

## Discussion

Migrants are a heterogeneous group whose health issues are dependent on the channel of migration used, such as voluntary, economic, humanitarian including refugees and asylum seekers, forced, internal displacement or trafficking.<sup>36</sup> There are a range of other factors, including English language proficiency, availability of a social support system, premigratory health status and post-migration acculturation levels, that greatly influence health.<sup>37</sup> The role of such psychosocial, cultural and economic drivers in the

interplay between the process of immigration and settlement not only affects the health of migrants, but also the response of the host health system.<sup>38</sup> Health inequities often arise because of ineffective utilisation of the health services caused by cultural and language barriers.<sup>39</sup> The degree to which health inequities affect migrant populations are not yet well understood for a variety of reasons outlined in the Introduction. This is concerning because migrant communities represent a significant proportion of the Australian population and hence are capable of incurring high costs to the Australian health system. Thus, it is important for more resources to be invested into research initiatives aimed at exposing the various elements underpinning the provision of equitable health services to these communities.<sup>40</sup>

A myriad of commitments to address health inequities have been put in place, including the Council of Australian Governments national partnership agreement on preventive health, the National Preventative Health Taskforce report Australia: the Healthiest Country by 2020 and the Australian Government's response to the taskforce report and taking preventative action, which have led to the establishment of the Australian National Preventative Health Agency.<sup>29</sup> Although these commitments acknowledge the need to reduce health inequalities, the funding to support them has not been sufficient to address the issues, nor has there been a proportional investment in research to better understand the complexity of the issue and appropriateness of interventions. In addition, the main focus of many of these government

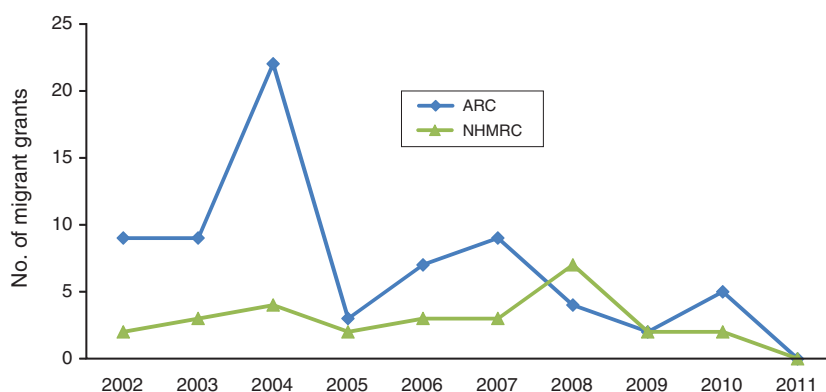
**Table 2. Distribution of funds for people-focused initiatives funded by the National Health and Medical Research Council (NHMRC) and Australian Research Council (ARC) from 2002 to 2011**

CRE, Centre for Research excellence; SRDC, Strategic Research Development Committee grant; IEF, Infrastructure, Equipment and Facilities; IRD, Indigenous Researchers Development; SRI, Special Research Initiatives; ALF, Australian Laureate Fellowships

	Total		Migrant related		Mainstream related	
	No. initiatives (%)	A\$ million	No. initiatives (%)	A\$ million	No. initiatives (%)	A\$ million
<b>NHMRC</b>						
Project grants	168 (2.7)	89.4	4 (2.4)	1.2	164 (97.6)	88.2
Program grants	5 (3.3)	28.5	0 (0.0)	0	5 (100)	28.5
Other <sup>A</sup>	184 (4.0)	26.7	21 (11.4)	2.9	163 (88.6)	23.8
SRDC grants	41 (36.3)	4.7	1 (2.4)	0.1	40 (97.6)	4.6
Block grants	0 (0.0)	0.0	0 (0.0)	0	0 (0.0)	0
Partnership or Collaboration <sup>B</sup>	21 (15.1)	19.8	0 (0.0)	0	21 (100)	19.5
Strategic awards	14 (6.6)	10.9	1 (7.1)	0.2	13 (92.8)	10.7
CRE	11 (18.0)	19.8	1 (9.1)	0.5	10 (90.9)	19.3
Infrastructure grant	0 (0.0)	0.0	0 (0.0)	0	0 (0.0)	0
Development grant	3 (1.1)	7.4	0 (0.0)	0	3 (100)	7.4
Total	447	207.2	28 (6.2)	4.9	419 (93.8)	202.3
<b>ARC</b>						
Discovery project	538 (5.9)	164.7	34 (6.4)	10.5	504 (93.6)	154.2
Linkage projects	300 (6.6)	75.2	25 (8.2)	6.2	275 (91.8)	69
Linkage IEF	0 (0.0)	0.0	0 (0.0)	0	0 (0.0)	0
ARC Research Networks	1 (1.4)	0.6	0 (0.0)	0	1 (100)	0.6
ARC Future Fellowship	5 (0.8)	3.5	5 (100)	3.5	0 (0.0)	0
Discovery IRD	39 (50.8)	4.4	0 (0.0)	0	39 (100)	4.4
Special Research Initiatives	6 (3.3)	0.9	6 (100)	0.9	0 (0.0)	0
Centre of Excellence	0 (0.0)	0.0	0 (0.0)	0	0 (0.0)	0
Super Science Fellowships	8 (18.2)	5.1	0 (0.0)	0	8 (100)	5.1
ALF	0 (0.0)	0.0	0 (0.0)	0	0 (0.0)	0
SRI Thinking Systems	0 (0.0)	0.0	0 (0.0)	0	0 (0.0)	0
Total	897	254.4	70 (7.8)	21.1	827 (92.2)	233.3

<sup>A</sup>Includes postgraduate scholarships, training research fellowships, career development fellowships, and early and established career fellowships.

<sup>B</sup>Includes international collaboration.



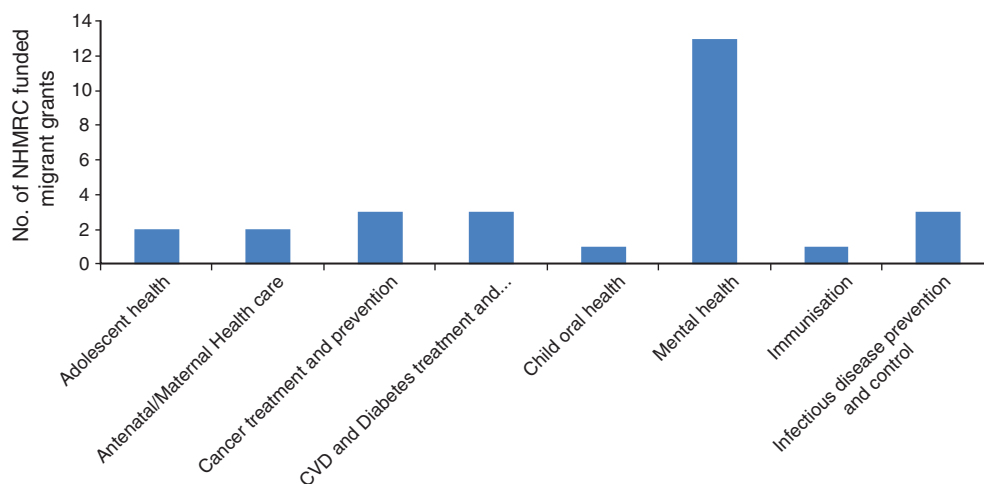
**Fig. 1.** Trends in Australian Research Council (ARC) and National Health and Medical Research Council (NHMRC) migration-related funding initiatives from 2002 to 2011.

initiatives has been on individual health behaviours and risk factors for chronic disease, rather than wider sociodemographic, economic and cultural factors that dictate health differentials at a population level.

The trends for ARC-funded 'people-focused' migrant-related grants peaked in 2004, 2007 and 2010, which, not surprisingly, coincided with the Australian federal elections that took place in

October 2004, November 2007 and August 2010. Historically, the pre-election phase has been linked to strong commitments to investing in public health reform and research with the aim of improving public policy. For example, the Australian government supported the launch of the Closing the Gap campaign in April 2007, 6 months before the election in November. This campaign is a human rights-based approach that aims to improve





**Fig. 2.** Main migration-related health domains funded by the National Health and Medical Research Council ( $n = 28$ ). CVD, cardiovascular disease.

the health of Indigenous Australians by closing the gap in health and life expectancy between Indigenous and non-Indigenous Australians by 2030. Renewal of funding of the National Partnership Agreement, including a commitment of A\$777 million over the next 3 years, and the National Aboriginal and Torres Strait Islander Health Plan 2013–2023 ([http://www.health.gov.au/internet/main/publishing.nsf/content/B92E980680486C3BCA257BF0001BAF01/\\$File/health-plan.pdf](http://www.health.gov.au/internet/main/publishing.nsf/content/B92E980680486C3BCA257BF0001BAF01/$File/health-plan.pdf); verified 1 June 2015) are important mechanisms set in place to achieve the goal of this campaign.<sup>30</sup> However, although migrants constitute one-quarter of Australia's population, a comprehensive and systematic targeted plan designed on evidence-based initiatives to address migrant health inequities is lacking. It is important to ensure that adequate research funding is available to enable culturally competent data collection strategies using interpreter services to include data on migrants from non-English speaking backgrounds. This would facilitate the identification and representation of key health issues specific to migrants in national health policies. In addition, establishing a knowledge exchange platform between researchers and policy makers is important in identifying and agreeing upon urgent issues within the migrant community, which demand research funding.<sup>31</sup>

### Policy implications

Immigration brings with it many challenges, such as rapid demographic transitions leading to shifts in the epidemiology of diseases and population health literacy levels in the host country. Further, issues pertaining to surveillance, cross-border disease prevention and control can only be uncovered by inclusive research that truly embraces multiculturalism. There are two important policy implications following from the present study. First, with the migrant population growing, adequate resources should be allocated to enable migration-related population health research to inform the development of culturally appropriate health services. This will ensure equity across health service delivery and utilisation in Australia.

Second, the health needs of migrants, including refugees and asylum seekers, will only be uncovered when a clear picture of

their true health status and other determinants of health, such as psychological, economic, social and cultural, are identified through empirical research studies. The aim of such research studies is to inform health policy development, planning and implementation in order to make them suitable for a culturally diverse population such as found in Australia. Further, researching the needs of diverse subpopulation groups would enhance the delivery and utilisation of the many health promotion programs being implemented country wide. Investing in migration-related research has the potential to enable data linkage across national health and immigration datasets to allow for migrant population health data analysis in order to develop robust health policy relevant to all people in Australia.

The current NHMRC and ARC schemes are more inclined to fund laboratory or animal research targeting 'universal' health issues. However, unless the specific needs of the growing migrant population are addressed through more 'people-focused' research using culturally competent methodologies, for which adequate funding is required, it will be impossible to reduce health inequalities in Australia. Currently, only 7% of 'people-focused' research is allocated towards research among migrants, who constitute 26% of the overall Australian population.

Given the heterogeneity within the migrant population, it is not possible to estimate their health status by relying on data with only 14% migrant representation, because groups experiencing higher disease burden may not be included in the health studies. Hence, increased research funding for this heterogeneous group comprising migrants, refugees and asylum seekers is needed to document accurate estimates of disease burden and gaps in health care utilisation.

### Limitations

Our analysis was based on secondary data as coded by the NHMRC and ARC and there was no way of verifying any errors in coding or data entry (e.g. incompleteness of listed projects). Further, grants that did not include the terms migration, migrant, immigration or immigrant either in their titles, keywords, categories or media summaries ran the risk of being misclassified.

This constitutes a significant limitation of the present study. Notwithstanding this, given the emphasis on the investigator-driven peer-review process, the NHMRC's and ARC's ability to respond to emerging new and complex research areas, as well as embrace new approaches to deal with the complexities that migration research bring with it, is limited.

## Conclusion

Overall, the present study shows that although migrant groups are disproportionately affected by social and health inequalities, migrant-related health research is significantly underfunded with regard to their proportion of the community by the Australian national competitive programs. Equitable research funding is mandatory in building a strong evidence base that may influence health policy and practice in order to narrow the gap in health equity posed by ethnic factors. The strengthened evidence would further lead to implementation of strategies to reduce migration-related inequalities in the utilisation of health services and help integrate the needs of migrants into health policy development to ensure equity across health service delivery and utilisation in Australia.

## Competing interests

The authors declare they have no competing interests.

## Acknowledgements

This research did not receive funding from any organisation. AR is supported by an Australian Research Council Future Fellowship (FT110100345). The authors acknowledge and thank Associate Professor Peter Pinnington for his valuable feedback. This enabled the authors to significantly refocus the paper on migrant health, recognising that including any comparisons between Aboriginal and Torres Strait Islander people and migrant populations could be interpreted as culturally inappropriate and not reflect the complexity of Indigenous health issues.

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