A decade of Asian and ethnic minority health research in New Zealand: findings from a scoping review

Annie Chiang, Rachel Simon-Kumar, Roshini Peiris-John

ABSTRACT

BACKGROUND: Despite the increasing proportion of Asian and MELAA (Middle Eastern, Latin American and African) population groups in Aotearoa New Zealand (collectively referred here as A/EM), research on their health and wellbeing is still nascent. To improve our understanding of health and wellbeing of A/EM groups, including future research needs, a review and synthesis of existing A/EM research in New Zealand is timely.

AIM: To undertake a scoping review of existing research on A/EM health in New Zealand with a view to highlighting key health concerns for this group and identifying the areas where there is a concentration of A/EM research and, concomitantly, where there are gaps.

METHODS: Medline and PubMed databases were searched for quantitative and qualitative studies published between 2010 and 2019 that report on A/EM health and wellbeing.

RESULTS: The scoping review identified 115 (63 quantitative and 52 qualitative) studies. Three thematic areas were identified in the published literature: health conditions, health determinants and health services. The review also highlighted several gaps in the body of published A/EM research.

CONCLUSION: Overall, the evidence base on A/EM health in New Zealand is weak as there is limited information on health conditions and its determinants of minority groups, including their patterns of health service use. The nature and content of A/EM health research requires further substantive development in terms of understanding the health and its determinants of this ever increasing and heterogenous population group.
and acculturation (from those who have lived in New Zealand for generations to first-generation migrants, and second-generation ethnic young people) and ethno-cultural and linguistic differences. In addition, there are also diversities of social markers such as age, gender, religion, sexuality, ability and socioeconomic position. There are also variations in their settlement patterns, with greater concentrations in urban centres like Auckland, Hamilton and Christchurch. More recently, there has been growing attention to the intersectionality of inequalities within and among this group that call for divergent approaches to equity and fairness.

The size and sheer diversity of A/EM groups mark a growing challenge for New Zealand’s future public health responses. Despite a growing body of scholarship, health research on A/EM is still nascent and, at best, sporadic. Instead, a strategic and future-focused approach to researching their health and wellbeing is urgently needed. As a step towards this goal, a scoping review and a thematic analysis of New Zealand-based A/EM health research published between 2010 and 2019 was undertaken with the following aims: firstly, to highlight key issues in A/EM health and wellbeing that have emerged through existing research, and secondly, to identify the areas where there is a concentration of A/EM research and, concomitantly, where there are gaps. Our study extends upon the work done by Kanengoni, Andajani-Sutjahjo and Holroyd, encompassing a wider range of publication years but focusing more specifically on A/EM communities in New Zealand.

Figure 1: PRISMA flow diagram.
Methods

This scoping review was conducted with the aim of identifying the common themes and gaps in research related to A/EM health. In August 2020, Medline and PubMed databases were searched to identify articles that were published in the 10 years between 2010 and 2019 (both years inclusive). The topic search was open-ended and not restricted to any specific area of health or medicine. Additionally, the ethnicities included in the search terms are all New Zealand ethnic groups that have a population of at least 100 individuals, according to Census 2013. At the time of the search, the equivalent list of ethnicities for Census 2018 was not yet available. In addition, the terms “refugee,” “asylum seeker,” “ethnic minority” and “migrant” were included. The comprehensive search strategy used to search the Medline database is available in Appendix Table 1.

Study selection

Articles were included if they were research studies (a) undertaken in New Zealand and (b) included ethnic minority groups who identify with Asian or MELAA ethnicities, defined as either total response or prioritised ethnicities. Studies were excluded if ethnic minority groups were not clearly identified. For example, “ethnic minority” or “Other” ethnicity were defined as non-European or non-Māori ethnicities. Title and abstract screening for inclusion into the review corpus were conducted by the primary author, and when articles that did not clearly meet the criteria, the primary author consulted the third author. An initial full-text review of select articles was conducted by the primary author, whose decision to include each article was made in conjunction with the other authors.

As shown in Figure 1, a total of 3,224 articles were initially identified. Four hundred and fifteen were duplicates, so 2,809 were selected for screening. Title and abstract screening excluded 2,633 papers. The most common reason for removal of articles at this stage was that they were not relevant to the New Zealand context. This resulted in 176 articles being retrieved for full-text review. From the full-text review, a further 61 articles were excluded as they did not meet the aforementioned criteria.

Data extraction

The review included a total of 115 articles. Each article was reviewed to identify the ethnic groups included in the study, the population group of interest, the broad area of research and the subject of study. Ethnic groups were coded as they appeared in the publication, as were the populations of interest. These data, along with additional details on subject of study, where collated using Microsoft Excel by the first author. Following review and discussion, the authors identified three broad themes that emerged:

- Health conditions
- Health determinants
- Healthcare services

Each author conducted an in-depth analysis of the studies within each theme, using a qualitative thematic synthesis approach. As this was a scoping review, and given the heterogeneity of the fields and methodologies of research, a meta-analysis was not undertaken.

Results

Table 1 summarises the 115 studies selected for review. The publication rate for papers over the past 10 years has ranged from five to 15 papers per year, with the total number of publications peaking in 2014 and 2016. The most studied ethnic groups were Chinese (39.1%) and Indian (33.9%). Broad ethnic groups, such as South Asian, East Asian, Southeast Asian and other Asian, were included in 12.2%, 9.6%, 3.5% and 6.1% of selected studies, respectively. Despite the small number of studies on MELAA groups, their inclusion contributes to the overall picture of immigrant health in New Zealand, and also highlights gaps in research and intervention within these specific small-population groups.

Of the 115 selected studies, 16 focused on health of children or youth and 13 studies focused on the health and experiences of older people. Women’s health comprised 16.5% of the selected, whereas only two studies were exclusively on A/EM men. Seven papers identified their participants as migrants. Just four studies focused on former refugees, and these intersected with research on physical health needs of
Table 1: Summary of studies by publication year, ethnicity and population groups and area of research.

<table>
<thead>
<tr>
<th>Year of publication</th>
<th>Number of papers</th>
<th>% of total studies</th>
<th>Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>12</td>
<td>10.4%</td>
<td>11–23</td>
</tr>
<tr>
<td>2011</td>
<td>6</td>
<td>5.2%</td>
<td>24–29</td>
</tr>
<tr>
<td>2012</td>
<td>10</td>
<td>8.7%</td>
<td>30–39</td>
</tr>
<tr>
<td>2013</td>
<td>13</td>
<td>11.3%</td>
<td>40–52</td>
</tr>
<tr>
<td>2014</td>
<td>15</td>
<td>13.0%</td>
<td>53–67</td>
</tr>
<tr>
<td>2015</td>
<td>9</td>
<td>7.8%</td>
<td>68–76</td>
</tr>
<tr>
<td>2016</td>
<td>15</td>
<td>13.0%</td>
<td>77–91</td>
</tr>
<tr>
<td>2017</td>
<td>14</td>
<td>12.2%</td>
<td>92–105</td>
</tr>
<tr>
<td>2018</td>
<td>10</td>
<td>8.7%</td>
<td>106–115</td>
</tr>
<tr>
<td>2019</td>
<td>11</td>
<td>9.6%</td>
<td>116–126</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>Number of papers</th>
<th>% of total studies</th>
<th>Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian</td>
<td>39</td>
<td>33.9%</td>
<td>18, 21, 27, 28, 30, 37, 39, 40, 49, 54, 58–60, 62, 68, 74–77, 79, 80, 89, 91–95, 98, 103, 104, 106, 109, 113–115, 118, 120, 121, 126</td>
</tr>
<tr>
<td>South Asian</td>
<td>14</td>
<td>12.2%</td>
<td>12–14, 24, 31, 34, 61, 64, 73, 87, 89, 90, 96, 110</td>
</tr>
<tr>
<td>Korean</td>
<td>13</td>
<td>11.3%</td>
<td>15, 17, 20, 50, 55, 62, 63, 85, 111, 113, 114, 123, 125</td>
</tr>
<tr>
<td>East Asian</td>
<td>11</td>
<td>9.6%</td>
<td>12, 24, 27, 33, 64, 73, 90, 110, 115, 119, 124</td>
</tr>
<tr>
<td>African</td>
<td>8</td>
<td>7.0%</td>
<td>42, 43, 46, 69, 75, 82, 83, 106</td>
</tr>
<tr>
<td>Other Asian</td>
<td>7</td>
<td>6.1%</td>
<td>30, 40, 58, 75, 92, 93, 98</td>
</tr>
<tr>
<td>Filipino</td>
<td>6</td>
<td>5.2%</td>
<td>62, 86, 97, 103, 122, 123</td>
</tr>
<tr>
<td>Southeast Asian</td>
<td>4</td>
<td>3.5%</td>
<td>20, 73, 93, 110</td>
</tr>
</tbody>
</table>
Table 1: Summary of studies by publication year, ethnicity and population groups and area of research continued.

<table>
<thead>
<tr>
<th></th>
<th>Number of papers</th>
<th>% of total studies</th>
<th>Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Children/youth</strong></td>
<td>16</td>
<td>13.9%</td>
<td>12, 24, 26, 29, 51, 62, 66, 75, 76, 89, 92, 95, 99, 100, 111, 120</td>
</tr>
<tr>
<td><strong>Older Peoples</strong></td>
<td>13</td>
<td>11.3%</td>
<td>11, 22, 41, 50, 63, 86, 97, 113, 114, 117, 122, 123, 125</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>19</td>
<td>16.5%</td>
<td>12–14, 24, 30, 31, 34, 38, 40, 43, 44, 55–57, 61, 65, 71, 96, 103</td>
</tr>
<tr>
<td><strong>Men</strong></td>
<td>2</td>
<td>1.7%</td>
<td>54, 87</td>
</tr>
<tr>
<td><strong>Migrants</strong></td>
<td>7</td>
<td>6.1%</td>
<td>26, 29, 32, 44, 107, 108, 116</td>
</tr>
<tr>
<td><strong>Former refugees</strong></td>
<td>4</td>
<td>3.5%</td>
<td>36, 51, 102, 105</td>
</tr>
<tr>
<td><strong>Area of research</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chronic health conditions</strong></td>
<td>45</td>
<td>39.1%</td>
<td>12–14, 18, 20, 21, 24, 25, 27, 28, 31, 33, 34, 37, 39, 48, 49, 59–61, 64, 71–75, 77, 79, 80, 90, 91, 96, 98, 104, 106, 109, 110, 112, 115, 116, 118–121</td>
</tr>
<tr>
<td><strong>Mental/psychiatric health</strong></td>
<td>15</td>
<td>13.0%</td>
<td>11, 26, 36, 52, 70, 78, 92, 93, 101, 102, 105, 114, 117, 125</td>
</tr>
<tr>
<td><strong>Settlement experience</strong></td>
<td>11</td>
<td>9.6%</td>
<td>22, 29, 50, 66, 85, 97, 99, 100, 113, 122, 123</td>
</tr>
<tr>
<td><strong>Health practice</strong></td>
<td>9</td>
<td>7.8%</td>
<td>16, 19, 35, 53, 65, 81, 86, 88, 108</td>
</tr>
<tr>
<td><strong>Women's/maternal health</strong></td>
<td>8</td>
<td>7.0%</td>
<td>30, 38, 40, 44, 55, 57, 103</td>
</tr>
<tr>
<td><strong>Sexual health/STIs</strong></td>
<td>7</td>
<td>6.1%</td>
<td>42, 43, 46, 69, 82, 83, 87</td>
</tr>
<tr>
<td><strong>Palliative care</strong></td>
<td>4</td>
<td>3.5%</td>
<td>41, 45, 84, 107</td>
</tr>
</tbody>
</table>
Health conditions

The first overarching theme of the review was health conditions, that is, the specific diseases that were researched in relation to A/EM and the methodologies used in these studies. Cardiovascular disease (CVD) in A/EM is the most common health condition featured in the selected articles. Research in this area largely involved quantitative analyses of the underlying health determinants of the disease or mortality associated with a cardiovascular event. There is also significant interest in understanding association between ethnicity (Indian, in particular) and differential access to medication and treatment.

The high prevalence of macronutrient deficiency, especially of vitamins B12 and D, in South Asian and Middle Eastern groups was another prominent area of interest. Experimental studies demonstrated the benefits of supplementation of vitamin B12 and long-term supplementation of vitamin D in women from these communities, among whom chronic deficiency was especially high. Observational studies described the prevalence of vitamin B12 and vitamin D deficiencies as an outcome of attitudes towards diet and lack of sun exposure.

Diabetes mellitus among A/EM groups was another common condition that was researched. Nutrition research involving Chinese participants included experimental studies of ethnic specific glycaemic responses and found that Chinese individuals were more likely to have increased glycaemic responses compared to European counterparts. This finding, coupled with the traditionally rice-based diet, suggests that Chinese are at an increased risk of developing type-2 diabetes. Quantitative studies found that ethnic diabetics were more likely to experience albuminuria whereas other Asians demonstrated lower risk. In contrast, Sankaran et al found the emergence of Paget's disease among New Zealand's Asian populations, challenging the long-accepted view that these groups had genetic protections and instead noting environmental factors in the propensity to new health risks for A/EM groups.

Cultural perceptions and stigma were also implicated in Asian healthcare practices, including reduced help-seeking behaviours and child-birth practices.
lack of awareness and use of services\textsuperscript{45,67,94,123} and reliance on experts to make medical decisions.\textsuperscript{27,74} However, cultural worldviews and systems also had protective influences. Family and community support was critical in health outcomes,\textsuperscript{41,52,114} and in young Asians, deep-rooted cultural values, despite acculturation, was identified as a factor in low levels of addictive behaviours.\textsuperscript{26} Asians also demonstrated high levels of awareness of some diseases,\textsuperscript{25,62} whereas one study on HIV noted a gap between health awareness and actual practice, with the latter informed greatly by cultural beliefs.\textsuperscript{40}

Research also pointed to migration as a health determinant. Two studies noted the protective influence of the “healthy migrant effect,”\textsuperscript{23,109} although a larger number focused on post-migration hardships such as isolation and identity alienation,\textsuperscript{92,120} deprivation,\textsuperscript{37,77,91} stress\textsuperscript{50,45,103,122} and the experience of racism,\textsuperscript{76,83} all of which had a direct impact on health. Some studies also pointed to the health effects of trauma experienced pre-migration.\textsuperscript{43,51,101} In response to migration-related effects, Asian communities demonstrate resilience through adaptive strategies such as reconstruction of new hybrid identities accommodating values of their own and adoptive country’s cultures,\textsuperscript{70,65,107} and through participation in their communities.\textsuperscript{72,211} Studies differed in their appraisal of acculturation, with two studies\textsuperscript{40,67} noting the inherent conflicts in health practices arising from acculturation and another that linked migrant integration with less conflict in health beliefs and behaviours.\textsuperscript{29}

Lastly, the studies highlighted shortcomings in healthcare systems as a determinant of health outcomes for Asian population groups. Studies noted normalisation of Eurocentric discourses among healthcare practitioners that delegitimised A/EM experiences of health and wellbeing,\textsuperscript{44,55,57} and others noted evidence of explicit systemic racism.\textsuperscript{76,83} A number of studies also highlighted the impact of dominantly western values in existing conceptualisations and measurements of illness and intervention practices.\textsuperscript{12,17,18,21,32,33,59,64,67,105} The areas where these cultural value differences were particularly evident included maternity care,\textsuperscript{44,55} mental health\textsuperscript{95} and obesity/BMI measures.\textsuperscript{12}

Health services

A third overarching theme from this review was health services, or the provision and utilisation of formal and informal healthcare.

Ethnicity differentiation was notable in the access and use of health services. Studies noted variability in elective and emergency caesarean sections, namely reduced odds among Chinese and increased odds among Indian women,\textsuperscript{40} reduced risk of lower limb amputation among (all) Asians,\textsuperscript{90} and high revascularisation for acute coronary syndrome among Asian and Indian populations.\textsuperscript{60} Low rates of mental health service utilisation\textsuperscript{93} and delayed seeking of psychiatry services\textsuperscript{1} were also noted. In contrast, positive parental attitude towards immunisations and minimal barriers to immunisation service access resulted in high coverage among Asian children under five years of age.\textsuperscript{62}

Studies on enablers and barriers to healthcare access among A/EM identified inadequacies in primary mental health care services,\textsuperscript{102} barriers to accessing Accident Compensation Corporation (ACC) services,\textsuperscript{20} stigma and discrimination in relation to HIV services\textsuperscript{43} and lack of knowledge of available health services for multi-morbid culturally and linguistically diverse (CALD) patients\textsuperscript{72} and older migrants\textsuperscript{97} and hospice services.\textsuperscript{45}

The importance of culturally appropriate services were highlighted in studies on contraception,\textsuperscript{38,87} diabetes self-management,\textsuperscript{49,115} pain relief,\textsuperscript{47,56} child-birth practices,\textsuperscript{40} palliative and end-of-life care,\textsuperscript{41,53} HIV\textsuperscript{46} and residential aged care facilities.\textsuperscript{122} Strong preferences for decisive and comprehensive treatment in culturally comfortable settings was highlighted in a study exploring the practice of visiting homeland for medical operations.\textsuperscript{65}

The role of the family was highlighted as fundamental in decision-making and satisfaction with care\textsuperscript{41} and around communicating end-of-life information with the family rather than the patient.\textsuperscript{84} However, studies also showed that, in contrast to New Zealand Europeans, Asians relied on doctors for decisions around medication related to CVD,\textsuperscript{27,74} and the decisive role of practitioners was associated with comfort and trust for Asians.\textsuperscript{27,44,55} Similarly, patient-
practitioner interaction was found to be influential in the patient’s decision to seek screening. The importance of receiving client feedback on models of care was highlighted in a study on maternal and child health services.

Research during this period also examined a range of personnel and organisational factors impacting the provision of healthcare services. For example, studies highlighted personal challenges faced by migrant nurses when working in New Zealand and struggles by host and migrant registered nurses in a care-rationed work environment, complicated by increasing diversity in both patients and staff.

Another study highlighted how migrant care workers providing health and social care to the elderly were found to be vulnerable to exploitation. Research on training of healthcare staff and students have highlighted the specific need for cultural safety training of non-European international nursing students on aspects of cultural safety unique to New Zealand. Additionally, several studies have recommended strengthening training in culturally safe practice.

**Discussion**

This scoping review was undertaken to identify key issues in A/EM health and wellbeing that have emerged through existing published research in New Zealand. Some notable findings emerged. First, the range of health conditions studied (and published) in relation to A/EM in New Zealand remains limited. Studies tended to focus on the “usual suspects” (CVD, macronutrient deficiencies and diabetes mellitus), that is, conditions that are widely accepted as being highly prevalent among A/EM. Although research on these conditions is necessary, there is clearly a need to broaden the scope of disease and ill-health beyond “ethnic” diseases. Similarly, the range of A/EM subgroups researched needs broadening. There is some diversity and group disaggregation in the research, but these tend to be qualitative in nature; small population sample sizes unfortunately are a challenge to establishing statistical significance and remain an ongoing challenge in undertaking quantitative research on health conditions among A/EM.

Second, the review found that a wide array of determinants, ranging from fixed genetic to social-structural influences, moderate A/EM health and wellbeing. Key social-structural determinants include culture, cultural practices and perceptions (with some being protective and others enhancing risks), post-migration hardships (with adaptive strategies demonstrating resilience in Asian communities) and shortcomings in healthcare systems, such as explicit systemic discrimination. Importantly, several studies pointed to limitations in the health data on A/EM populations and called for ethnic-specific screening measurements to facilitate precision in diagnosis.

Thirdly, the analysis highlighted the barriers faced by A/EM in accessing primary care and ACC services, as well as the general lack of research on the use and impact of health and community care by A/EM in New Zealand. Although only one study reported the practice of visiting the “homeland” for medical care, anecdotal evidence certainly suggests the widespread prevalence of this practice among A/EM communities in New Zealand. The few studies available globally on this have shown health status, level of social integration, experiences of discrimination and attitudes towards services in the countries of residence and origin to be significantly associated with healthcare use by ethnic minority people in their country of origin. The other side of healthcare use is service provision; studies in our review highlighted the need for culturally appropriate services, including a greater awareness of the influence of family and medical experts on decision-making and health workforce training. Although there have been some efforts in improving A/EM healthcare experiences (eg, through CALD training of health professionals and the appointment of Asian and migrant health gain managers at some DHBs), research is needed to explore the gains of these system changes. Ongoing barriers to culturally sensitive practices reported anecdotally remain largely unresearched. Self-reported experience of racism, both among patients and health professionals, is higher for Asian, Māori and Pacific peoples in New Zealand compared to European/Other ethnicities; these need to be systemically addressed.
Overall, the number of research studies on A/EM health and wellbeing in New Zealand published over this 10-year period is limited in quantity and the research areas covered. This may reflect the low number of studies conducted, a lack of funding to support A/EM research and/or a lower rate of publication. In 2015, Wong highlighted the relative invisibility of the discourse on Asian health in New Zealand’s health agenda and its related policies and research. Historically, A/EM health has not been recognised as a priority in New Zealand, which has led to poor funding for A/EM health research. A 2018 paper for establishing priorities for health research in New Zealand to achieve the vision of the New Zealand Health Research Strategy 2017–2027 noted: “No summary on the health of Asian peoples is presented, because to date very little research has been targeted to this population despite the unique position they have in New Zealand.” Although the ensuing strategy notes the low investment in Asian health as a limitation, there is no mention of A/EM in any of the strategic priority areas.

Importantly, the findings of this review raise several issues that have relevance for A/EM health research, practice and policy. Although the three thematic-focused sections (health conditions, health determinants and health services) highlight key focus areas in the published literature, there are several gaps evident in the body of published A/EM research. For example, research studies focused on MELAA groups were very limited, as were studies on men and intersectional groups, such as A/EM sexual or gender minorities or A/EM groups living in material hardship.

Although this review grouped various A/EM ethnicities together to learn what research is available in general, it is important to have greater understanding of specific A/EM population subgroups, where appropriate, as diversity exists between and within A/EM communities and different groups have different needs, priorities and issues. Categorisation of A/EM in New Zealand is an ongoing challenge. Researchers also continue to contend with the dilemma of balancing sample size, statistical power and representation of ethnic communities. There is strength in a collective group of A/EM, but this leads to “averaging” and masking health issues, further marginalising those with the greatest need.

A major strength of this review is that it focused on published academic peer-reviewed literature, and consequently, the findings presented are high-quality and reliable. The decision to undertake a scoping review over a systematic review allowed us to map the body of literature and identify knowledge gaps. The findings and themes are likely to be relevant for their intended audience (health researchers, A/EM health practitioners and policymakers). Both quantitative and qualitative research was included. Eclectic methodologies, heterogeneous sample groups and inclusion of all available health conditions mean that this can be regarded as a comprehensive overview of the available evidence. The exclusion of grey literature is a limitation of this review and an area for further research.

Conclusion

This review has identified the current state of peer-reviewed published literature on A/EM health research in New Zealand. Overall, the evidence base on A/EM health in New Zealand is weak, as there is limited information on health conditions and its determinants (including health service use). The nature and content of A/EM health research requires further substantive development in terms of understanding the health and health determinants of this significant population demographic in Aotearoa New Zealand.
Appendix

**Appendix Table 1:** Example of search strategy used in Medline and PubMed databases.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Asian Continental Ancestry Group/</td>
</tr>
<tr>
<td>2.</td>
<td>Ethnic Minority.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]</td>
</tr>
<tr>
<td>3.</td>
<td>(East Asian or Chinese or Japanese or Korean or Hong Kong or Taiwan).mp.</td>
</tr>
<tr>
<td>4.</td>
<td>(South East Asian or Filipino or Cambodian or Vietnamese or Burmese or Indonesian or Malay or Lao or Thai).mp.</td>
</tr>
<tr>
<td>5.</td>
<td>(South Asian or Indian or Bengali or Fijian Indian or Tamil or Punjabi or Sikh or Sri Lankan or Sinhalese IR Bangladeshi or Pakistani or Nepalese).mp</td>
</tr>
<tr>
<td>6.</td>
<td>(Middle Eastern or Arab or Afghani or Assyrian or Egyptian or Iranian or Persian or Iraqi or Israeli or Jewish or Jordanian or Kurd or Lebanese or Moroccan or Palestinian or Syrian or Turkish).mp.</td>
</tr>
<tr>
<td>7.</td>
<td>(Latin American or Argentinian or Brazilian or Chilean or Colombian or Mexican or Peruvian or Uruguayan).mp.</td>
</tr>
<tr>
<td>8.</td>
<td>(African or Jamaican or Kenyan or Nigerian or West Indian or Somali or Eritrean or Ethiopian or Ghanaian).mp.</td>
</tr>
<tr>
<td>9.</td>
<td>New Zealand/</td>
</tr>
<tr>
<td>10.</td>
<td>(Immigrant or Migrant or Refugee or Asylum Seeker).mp.</td>
</tr>
<tr>
<td>11.</td>
<td>1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 10</td>
</tr>
<tr>
<td>12.</td>
<td>9 and 11</td>
</tr>
<tr>
<td>13.</td>
<td>limit 12 to yr=&quot;2010 - 2019&quot;</td>
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</tbody>
</table>
Competing interests: Nil.

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