Immunisation for refugees in Australia: a policy review and analysis across all States and Territories

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Abstract

Objective: Although people of refugee background are likely to be under-immunised before and after resettlement, no study to date has evaluated refugee specific immunisation policies in Australia. We developed a framework to analyse immunisation policies across Australia to highlight the strengths and gaps so as to inform development of more effective refugee specific immunisation policies.

Methods: We sourced publicly available immunisation policy documents from state and territory government websites. Content analysis of seven policy documents was undertaken using a developed framework comprising crucial policy determinants.

Results: Immunisation policy differed substantially across the jurisdictions. While most policies did not highlight the importance of data collection on immunisation for refugees and the public funding of vaccines for refugees, policy determinants such as accessibility and obligations were fulfilled by most jurisdictions.

Conclusion: Our findings indicate stark differences in immunisation policy for people of refugee background across Australia. Highlighted gaps demonstrate the need to revise current policies so that they are aligned with their intended outcome of enhancing uptake of vaccines and improving immunisation coverage among resettled refugees in Australia.

Implications for public health: Immunisation policy development for refugees needs to be robust enough to ensure equitable health services to this group.

Key words: immunisation, refugees, health policy, immunisation policy, Australia

Australia accepts between 13,000 and 17,000 refugees each year under its humanitarian program, with the number fluctuating due to global geo-political conditions.[1-5] Offshore refugees in need of resettlement comprise about half of all the humanitarian entrants arriving in Australia. In the past decade (2004–2014), 55% of Australia's humanitarian entrants have come from four countries: Iraq, Sudan, Myanmar and Afghanistan.[6]

Refugees, who are by definition forcibly displaced from areas of unrest, may be susceptible to vaccine-preventable diseases due to disruption in preventative health services including immunisation programs. Compounding this is the fact that routine immunisation programs available in refugee source countries prior to displacement and those provided in interim host countries include fewer vaccines compared to Australia, which has one of the most comprehensive national immunisation programs (NIPs) in the world. When resettling in Australia, refugees face a number of barriers that further impede accessibility to optimal healthcare including immunisation services. Furthermore, data on immunisation coverage for people of refugee background in Australia are not routinely collected,[7] although small cohort studies of newly arrived refugees have found that most are incompletely immunised.[8-10] Under-immunisation of this population is a public health issue as it not only heightens their risk of vaccine-preventable diseases but, as with any under-immunised group, it is also a risk to the broader community.

Australia's pre-departure immunisation protocol includes only a single MMR (measles, mumps and rubella) vaccination prior to departure, and polio where relevant for offshore refugees.[11] Similarly, Canada does not routinely provide any pre-departure vaccines to refugees.[12] In contrast, the immunisation schedule for refugees bound to the US is extensive and includes two doses of MMR as well as vaccines for hepatitis B, haemophilus influenza type b, diphtheria, tetanus, pertussis and polio, depending on age eligibility.[13] Therefore, Australia relies on post-arrival immunisation to ensure refugees are adequately immunised.

Australia has high overall immunisation coverage with a strong NIP, however inadequate catch-up among people of refugee background affects the strength of the program due to pockets of under-immunised populations. The current National Immunisation Strategy (2013–2018) mentions the need for improving immunisation rates for refugees,[14] but does not outline any key strategic action areas to address this. A unified national refugee immunisation

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Submitted: February 2017; Revision requested: May 2017; Accepted: June 2017

The authors have stated the following conflict of interest: AM has received funding from GSK for investigator driven research. HS has previously received funding for investigator-driven research, invitations to present and travel funding from Seqirus Australia (formally bioCSL), GSK and Sanofi-Pasteur. AH has received independent funding support for investigator-driven research and consultation fees from GSK unrelated to this research.

Aust NZ J Public Health. 2017; 41:635-40; doi: 10.1111/1753-6405.12710

policy in Australia could be integral in addressing existing immunisation gaps for this population. In Canada, the absence of standardised immunisation programs has led to heterogeneity of immunisation coverage across populations leading to inequitable access of vaccines.[15]

To date, no study has evaluated immunisation policies targeted at addressing the existing immunisation gaps among this population. One of the key recommendations of a 2014 immunisation stakeholder workshop in Australia was the need for a comprehensive evaluation of immunisation policy for refugees to articulate specific gaps for this at-risk group.[16] Government immunisation policies play an important role in providing statements of intent and/or guiding principles on decisions related to improved immunisation services and ultimately better health outcomes. A critical analysis of policy development processes could be useful in highlighting not only the strengths but also existing gaps to inform the development of more effective immunisation policies targeting people of refugee background. Our aim therefore was to conduct a systematic analysis of current immunisation policy for refugees who are permanent residents in Australia on humanitarian entrants' visas across all states and territories in Australia. We planned to determine the strengths, gaps and opportunities for improvement in immunisation policy and/or immunisation strategy documents for refugees using an evidence-based policy framework.

Methods

Search strategy

We sought publicly available policy, government policy and strategy documents that were refugee-specific or contained references to immunisation for refugees across all the states and territories in Australia. The search strategy included a search of Government Departments of Health websites and a review of the first two pages of a Google search using relevant key words and via personal communication with relevant stakeholders. The following key words were included in the search strategy: (immunisation OR vaccination) AND refugee AND (policy OR health OR strategy). These search terms were used in addition to individual state and territory search terms to identify relevant state/territory-specific documents.

This review focused on policy and strategy documents pertinent to refugees who are permanent residents in Australia on humanitarian entrants' visas and did not address the issues of asylum seekers in communities or immigration detention facilities. For the purposes of this review, we defined a policy document as any document issued by a part of a governing authority containing strategies and/or priorities relating to immunisation service provision. An immunisation strategy document was defined as any document issued by a governing authority outlining its vision directed at the implementation of immunisation programs. In the absence of specific immunisation policy/strategy documents for refugees, proxy documents containing strategies and directives aimed at improving refugee health such as refugee health plans were included in the analysis and were categorised as policy documents. In jurisdictions where we could not obtain refugee-specific immunisation policy documents, we contacted relevant stakeholders from the respective jurisdictional health departments to determine the existence of the policy document. Where the policy document was unclear, outdated or unobtainable, we contacted the relevant stakeholder as indicated on the government websites for further information and/or clarification, and copies of current policy documents were requested if available. In such cases, the stakeholder's selection of relevant documents for this review was included in the analysis. In jurisdictions where both a refugee-specific immunisation policy document and a state/territory immunisation strategy document co-existed, we included the former, as the content was more aligned with the aims of this review.

Framework for policy analysis

Although there is growing evidence on under-immunisation among refugees,[8,10,17,18] there is limited data on systematic approaches for transforming such information into effective health policies to improve immunisation uptake. A thorough literature search was therefore firstly conducted to highlight critical issues to consider while developing immunisation policies for refugees. The framework consists of eight policy determinants: accessibility, policy background, goals, public opportunities (consultation), obligations, potential for public health impact, data collection and funding for catch-up vaccines as indicated in Table 1. Policy determinants such as goals, obligations and public opportunities (consultations) have been previously validated and shown to have strong predictive power for better policy outcomes.[19]

Results

The documents under consideration included refugee immunisation policies, general immunisation strategies and refugee health plans. We identified seven policy/strategy documents for inclusion in the review as indicated in Table 2.

A refugee-specific immunisation policy document was available for three jurisdictions (New South Wales, the Northern Territory and Western Australia) while two jurisdictions included refugee immunisation as an at-risk group in their state/territory immunisation strategy documents (Australian Capital Territory and Victoria). Refugee-specific immunisation was not indicated in one policy document (Queensland). The remaining policy document that was included in the analysis was a general policy on ordering vaccines only. We could not retrieve a general or a specific immunisation policy for refugees in one state. The results of the analysis of the immunisation policy/strategy documents across all the jurisdictions in Australia are summarised in Table 3 and further discussed below.

Accessibility

Five of the seven policy documents were easily accessible from the jurisdictional government websites implying that the targeted audience, the immunisation service providers, can easily access them when needed.

Policy background/problem identification

Three of the analysed policy documents clearly set the agenda by establishing under-immunisation among refugees as a problem, using evidence from literature in the policy preamble. This included a brief background highlighting reasons that predispose refugees to high risk of under-immunisation; hence the need to develop strategies to ensure they are adequately immunised to Australian standards. However, the information provided for the remaining jurisdictions was

Table 1: Framework for analysing immunisation policies.

Policy determinants	Rationale and relevance for inclusion
A. Accessibility	Accessibility of policy documents can be a determinant and a predictor of how easily they can be retrieved and be directly put into use by the targeted audience.[20] Policy makers, immunisation policy advisors, immunisation coordinators, immunisation service providers including general practitioners, refugee health nurses, practice nurses, community health service providers, local governments were proposed as the potential audience for the immunisation policies for refugees.
B. Policy background (problem identification)	Policy makers need to clearly establish priority areas and justify problems based on available evidence.[21] In the absence of such evidence, setting up policy agendas can be impossible.[22]
C. Goals	Effective goal setting is arguably essential in ensuring better health policy outcomes.[19] Goals ought to be precise, succinct and concrete. Important elements that were taken into consideration included an assessment of whether a policy document had explicitly stated its goals or objectives and whether its strategies were aimed at particularly addressing the immunisation needs of refugees.
D. Public opportunities (consultations)	Stakeholders or interest groups play an important role in not only the provision of technical advice but are also uniquely positioned to ensure policies are responsive to their needs.[19,23] Involvement of refugee communities during the policy making process was assessed by whether community groups were acknowledged in the policy documents.
E. Obligations	Successful implementation of a policy depends on not only allocation of sufficient resources but also in the commitment of relevant parties in its execution.[19] We assessed this criterion by determining whether the roles and responsibilities of implementers in immunisation service delivery were explicitly stated.
F. Potential for public health impact	An important criterion in the analysis of policies is the determination of the impact of a policy in addressing risk factors, quality of life and health disparities/inequities.[24] This criterion was included as we were specifically targeting refugees as an at-risk population in Australia. We assessed the extent to which policies addressed immunisation issues/gaps among this group. Key issues that were considered in the analysis included the potential for the policy to impact risk factors, quality of life and disparities. We assessed this by establishing whether refugees where clearly identified as an at-risk group for under-immunisation in the policy documents; and whether the mechanisms/strategies to ensure the policy would impact immunisation disparities were clearly laid out.
G. Data collection	Collection of data on migrant populations is integral in the assessment of their health service needs thereby improving the planning strategies and health service delivery.[25-30] We assessed this criterion by determining whether the importance of collecting data on immunisation for refugees was mentioned in the policy documents.
H. Funding for catch-up vaccines	Allocation of adequate funding facilitates the implementation of strategies aimed at reducing health inequities and is considered a sign of commitment by health policy planners.[31] We sought to assess whether funding for catch up vaccines for newly arrived refugees was clearly outlined in the policy documents

inadequate. While two policy documents failed to highlight specific immunisation needs/issues pertinent to newly arrived refugees; the remaining two documents did not establish the evidence on which their policies were based.

Goals/aims

Five of the policy documents clearly stated their goals aimed at improving immunisation coverage for refugees. While one policy document had goals aimed at improving the overall immunisation coverage across different age groups, it lacked explicitly stated goals related to the improvement of uptake of immunisation services among refugees. The remaining policy directive had no clearly stated goals although it appeared to focus on increasing the uptake of catch-up immunisation among refugee clients in the jurisdiction.

Potential for public health impact

Five of the policy documents clearly identified refugees as a target population at high risk of being under-immunised and outlined strategies to ensure they benefit equally from immunisation. The remaining two policy documents did not identify refugees as a group at risk of being under-immunised and consequently lacked specific strategies targeting refugees.

Data collection

Only two policy documents clearly highlighted the importance of data collection on immunisation for refugees, with one further exemplifying a model to ensure such information is easily captured. While two policy documents outlined the importance of routinely capturing and reporting immunisation coverage data for refugees, in one document it was not

Table 2: Current immunisation strategy/policy documents identified across the jurisdictions in Australia.

State/Territory	Analysed document	Publication year
Australian Capital Territory[32]	ACT Immunisation Strategy (2012-2016)	2012
New South Wales[33]	NSW Refugee Health Plan (Policy) (2011-2016)	2011
Northern Territory[34]	Northern Territory Refugee Vaccination Policy	2015
Queensland[35]	Queensland Immunisation Strategy (2014-2017)	2014
South Australia[36]	South Australia Policy 1: Ordering free vaccines for NIP and state funded vaccine programs 2016	2016
Tasmania	No document	NA
Victoria[37]	Victoria Immunisation Strategy (2009-2012)	2008
Western Australia[38]	Humanitarian Entrants Health Service Immunisation (HEHS) Policy	2011

Table 3: A summary table showing the analysis of immunisation policies/strategies using the developed framework for refugees across the jurisdictions in Australia.

Policy determinant	Northern Territory	Western Australia	Queensland	Australian Capital Territory	Victoria	South Australia	NSW
Accessibility	Y	N	Y	Y	Y	N	Y
Policy background	Y	N	N	N	Y	N	Y
Goals/Aims	Y	Y	N	Y	Y	N	Y
Potential for public health impact	Y	Y	N	Y	Y	N	Y
Data collection	N	N	N	N	Y	N	Y
Public opportunities/consultations	Y	N	N	Y	Y	N	Y
Obligations	Y	Y	N	Y	Y	Y	Y
Funding for catch-up vaccines	Y	N	N	N	N	N	N

Y: Policy determinant fulfilled

N: Policy determinant not fulfilled

clearly indicated whether the data collection instruments in place could identify people of refugee background. In the other policy document, there were future strategies aimed at ensuring such information was easily captured.

Public opportunities

Four policy documents explicitly acknowledged the contributions and involvement of a wide range of stakeholders in the development of the immunisation policy documents. The key stakeholders included refugee health service personnel, refugee communities, public health units and mainstream service providers.

Obligations

All of the policies except one clearly defined the roles of different stakeholders in the implementation of their policies. Such roles included vaccine procurement, storage and advice; investigating and reporting of adverse reactions following immunisation; promoting and administering vaccination; conducting investigations and developing catch-up plans for refugees; and providing hand-held immunisation records after immunisation.

Funding for catch-up vaccines

Only one policy document had information on catch-up vaccines that are funded for refugees, criteria for the use of funded vaccines and the specific eligibility criteria for providing these.

Discussion

Using the developed framework, our findings indicated vast differences in the policy determinants highlighting different approaches used in policy making for people of refugee background across all the jurisdictions in Australia. Overall, in most of the jurisdictions, the immunisation policies were available online, indicating that they can be easily accessed online by the targeted audience – the immunisation service providers. Additionally, the roles and responsibilities of various stakeholders involved in service delivery were clearly stipulated in almost all the jurisdictional policies, a policy determinant that is a significant predictor of policy implementation.[39] Also, it is important to note that refugees were identified as a population at risk of being under-immunised in almost all jurisdictions, and specific goals were aimed at improving their immunisation uptake. Interestingly, however, only two jurisdictions indicated the importance of ensuring routine collection of data on immunisation for people of refugee background, highlighting a significant gap and an area for improvement in immunisation surveillance. Policy implementation for this group is likely to be problematic in the absence of data collection mechanisms for monitoring and evaluating immunisation uptake in the first place.[25] Coupled with this was the lack of clarity on state-based funded vaccines for refugees – important information for immunisation providers considering the complexities associated with refugee healthcare across Australia.

Standardised and consistent collection of data allows efficient monitoring of health service delivery and provides evidence for best practice.[26,27] The Australian Immunisation Register (AIR) has been advocated to be an integral tool for monitoring and evaluation of Australia's National Immunisation Program;[16] however, there are currently no mechanisms in place to identify people of refugee background by their migrant status on the immunisation register, similar to the previous Australian Childhood Immunisation Register (ACIR). Perhaps this can explain the existing lack of data on immunisation coverage rates for people of refugee background at a population level in Australia,[7] despite available evidence on small cohorts indicating they are under-immunised.[8,10,17,18] Lack of identifier mechanisms for refugees in population datasets compromises effective monitoring and surveillance as well as the evaluation of health-related policies for this subgroup.[40] The identification of Aboriginal and Torres Strait Islander children on the ACIR has been integral in monitoring immunisation coverage and meeting targets of high immunisation coverage among this group. There is a need therefore to ensure identifiers for migrant populations including refugees are incorporated into the national register. This can be achieved by ensuring targeted data collection mechanisms for this population are in place and robust enough for efficient monitoring of immunisation coverage.[41] Indicators that have been proposed as a proxy to identifying people of refugee background include 'country of birth', 'ethnicity', 'language spoken' or 'year of arrival'.[7,25] While inclusion of 'country of birth' as a determinant for people of refugee background is not without its limitations, Gibson-Helm et al. (2013) argue that matching this entity with the 'year of arrival' and other immigration demographics could be used as a proxy.[42] The national immunisation register therefore has the unique potential to not only identify refugees who are under-immunised, but also improve coverage rates for this group by reducing missed opportunities for immunisation.[43]

Although the inclusion of identifiers for refugees and other migrants on the AIR is highly recommended, technical issues that hampered data entry into the ACIR may inhibit efficient data extraction for refugees from the AIR if they are not addressed accordingly. Some of the challenges indicated to affect the quality of data entered into the ACIR include: the amount of time required to enter all data fields correctly; incorporating routine and overseas vaccine histories; differences in notification payments; inadequate capacity to manually enter vaccine records; and specialists – including paediatricians – lacking automatic access to the register.[41,44] Policy analyses of migrant health policies in England, Italy and the Netherlands have similarly highlighted challenges with data collection for migrants leading to difficulties in evaluation of healthcare utilisation among this group.[25] This therefore calls for more standardised measures in primary care, such as increased funding support and targeted training for primary care providers to ensure refugees are flagged and systematically captured in the register[26,43] and a routine data field on the register for country of birth and refugee status.[7]

Under-resourcing of immunisation programs for refugees particularly referring to the complexities around funding for catch-up vaccines remains a major obstacle in immunisation policy implementation.[41,45,46] One of the key priority areas of the National Immunisation Strategy (2013–2018) includes the improvement of immunisation coverage for high-risk population groups.[14] However, refugees are not included as an at-risk population and consequently are not categorised under the National Partnership Agreement on Essential Vaccines (NPEV), which supports and funds the NIP.[47] Complicating this is the lack of clarity for service providers regarding which vaccines are actually funded for catch-up for refugees in almost all the policies across the jurisdictions. Although the state and territory governments have the capacity

to prepare and amend forecasts for the required NIP vaccines to be purchased by the Commonwealth, refugees are not included in them.[41] Furthermore, while refugees are eligible for catch-up vaccines on the NIP, access remains a major issue due to the existing strict age criteria for funded vaccines.[41] National funding for catch-up vaccines for refugees of any age would ensure equitable access and effective delivery of vaccines for this vulnerable group.[43]

While this review focused on high-level immunisation policy documents, the need for lower-level implementation policy that includes clear guidelines for development of catch-up schedules for refugees cannot be over-emphasised. Routine immunisation programs in refugee source countries are not optimal when compared to those available in Australia, which has one of the most comprehensive national immunisation programs in the world. Catch-up immunisation therefore remains an integral mechanism to protect this vulnerable group. Despite having such measures in place across all jurisdictions, one of the challenges immunisation service providers face in the provision of catch-up immunisation is a lack of clear guidelines in developing catch-up schedules for refugees, particularly for children aged above seven years, adolescents and adults.[41,46] As catch-up planning for refugees can be quite a daunting, complex and time-consuming exercise,[46] additional support with resources such as catch-up immunisation guidelines and whole-of-life immunisation calculators could be extremely beneficial.[41] A national policy for catch-up immunisation for refugees could therefore be a useful guide for service providers across all Australian healthcare settings.

The strength of this policy review is that it is the first study to attempt to evaluate policy documents governing immunisation service provision for refugees in an Australian context, hence it fills an important gap in health policy for this group. The analysis of the processes and contents of immunisation policy documents in Australia based on a set of policy determinants highlighted strengths and opportunities that could improve policy development, as well as gaps that may need to be addressed in policy making to ensure equitable provision of immunisation services to newly arrived refugees. The developed framework can be used as a guidepost by policy makers across all states and territories in Australia in future policy development and offers a unique opportunity for jurisdictions to learn from each other. Utilisation of such a framework can be useful in identifying social differences and fostering equity at the realm of the policy making process, thereby improving the quality of immunisation services provided to this highly vulnerable group. In addition, we used policy determinants that have been previously validated for analysis of public health policies and, importantly, all states and territories were contacted to confirm the availability of policy documents.

However, the review is not without its limitations. While it is important to review publicly available policy/strategy documents, we were unable to access internal documents at the state/territory level, which may have affected the results. The documents used in this analysis were high-level policy documents and due to the nature of their content may have lacked the details we were assessing, hence affecting the results. Furthermore, in jurisdictions where both general immunisation strategy documents and refugee-specific immunisation policy documents existed, we only analysed refugee-specific immunisation policy documents. As such, we might have missed out on relevant information that could have been stated in the former. Additionally, although the review focused on analysis of policy documents relating to immunisation, some of the available documents in the jurisdictions were immunisation strategy documents that were included in the review. South Australia lacked a relevant policy document for analysis leading to the use of a substitute document that may not have necessarily addressed the criteria, thereby resulting in a limited comparison with other jurisdictions. While we assessed whether the policy documents had satisfied the criteria in our framework, it is important to acknowledge that our assessment was based on whether these criteria were stated in the policy documents, which might not necessarily reflect the whole policy process. Finally, it is also important to highlight the variation in the dates of publication of the documents used in this review. While some of the documents were recently updated versions, others were not as current. There is a possibility that updated versions were missed in the analysis due to them not being publicly available at the time this review was conducted.

Conclusion

Our findings indicate stark differences in the policy documents across the different states and territories in Australia. By using the developed framework, we could identify clear gaps, suggesting that the policies in place are not as robust as they should be. A clear Commonwealth policy for refugees that serves as a directive for states and territories is needed. This will ensure there is consistency across jurisdictions and alignment with the national immunisation strategy to enhance immunisation coverage among refugees and reduce pockets of under-immunised populations in Australia.

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