

**Exploring factors that influence vaccination uptake for children with  
refugee backgrounds: An Interpretive Descriptive study of primary  
healthcare provider's perspectives**

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## Abstract

**Background:** The world is witnessing the highest level of forced displacement on record leading to a global rise in refugees requiring resettlement. Children under the age of 18 make up more than half the total number of refugees globally. Children with refugee backgrounds are at high risk of acquiring vaccine preventable diseases (VPDs) due to a complex set of factors, one being under-immunisation both before and after resettlement. All children under 18 years are eligible to receive funded scheduled vaccinations in Aotearoa New Zealand (NZ) regardless of their immigration status. In NZ, reported age-appropriate vaccination rates are suboptimal among children with migrant and refugee backgrounds.

**Methods:** A qualitative interpretive description study was undertaken to explore factors associated with access and uptake of immunisations and develop strategies to improve age-appropriate vaccinations among refugee children post-resettlement in NZ. Semi-structured interviews were conducted with primary healthcare providers (nurses and doctors) (N = 14) across seven resettlement locations in NZ. Collected data was transcribed verbatim and thematically analysed.

**Results:** Findings suggest there is considerable variability across the resettlement locations regarding the provision of immunisation services for refugees. Five themes were derived from the data, which demonstrate the interrelated factors that influence vaccination uptake across the refugee caregiver, health provider and system level: 1) *resettlement priorities and challenges* describes caregiver challenges in the early resettlement phase including lack of knowledge of vaccines and health services in NZ, access barriers and competing resettlement priorities 2) *knowledge as a driver for change* describes how possessing or lacking knowledge about refugee concerns has corresponding positive or negative impacts on forming therapeutic relationships with, and delivering health services to, former refugees 3) *working within the system* includes system level factors that influence access to and provision of immunisation services, such as resourcing, resettlement policies, system inefficiencies and missed opportunities 4) *to understand and be understood* describes the capacity of caregivers and health providers to navigate communication barriers in order to understand each other 5) *the service needs to change* describes how participants were highly motivated to improve the system. Strategies were suggested to overcome commonly mentioned barriers and included the provision of culturally and linguistically appropriate resources,

education campaigns, reducing access barriers (e.g., after-hours clinics), and improving system efficiencies.

**Conclusion:** These findings highlight root factors that impact immunisation uptake among children with refugee backgrounds. To reduce the burden of VPDs, broad system level changes are required to address the barriers to vaccine uptake faced by both families of refugee backgrounds and health providers.

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### **Attestation of Authorship**

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signed:

Larisa Cavit

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## **Ethics Approval**

This study was approved by the AUT Ethics Committee on the 28<sup>th</sup> February 2019, under the Ethics Application number 19/4

## Chapter One: Introduction

### 1.1 Study background and context

The world is currently witnessing the highest level of forced displacement on record. By the end of 2020, there were more than 82.4 million forcibly displaced people worldwide. This number includes 26.4 million refugees and 4.1 million asylum seekers (UNHCR, 2021). Despite calls for a ceasefire to focus on COVID-19 responses, these numbers continue to rise amid increasing global conflict, persecution, violence, and severe economic and political instability (United Nations, 2020). The United Nations High Commissioner for Refugees (UNHCR) estimates that 1 in 95 people worldwide are now forcibly displaced (UNHCR, 2021).

Children, in particular, are affected by displacement and are over-represented in displaced and refugee populations. Children make up half of the global refugee population (UNHCR, 2021). Refugees, by definition, have been forced to flee their homes because of war, persecution, or disasters. Many have experienced poverty, conflict, trauma, and high prevalence of disease. These dire events impeded healthcare access due to destroyed infrastructure or non-existent preventative care services in their country-of-origin (Newbold & McKeary, 2018). The combination of circumstances places them at increased risk of complex mental and physical health conditions, including vaccine preventable diseases (VPDs). Children with refugee backgrounds are particularly vulnerable to communicable and VPDs due to under-immunisation (De Vito et al., 2017).

Immunisation is one of the most successful and cost-effective ways to prevent disease. Vaccines have saved millions of lives and have contributed to reducing global incidence and mortality from diseases such as polio, measles, diphtheria and tetanus (World Health Organisation, 2020). Suboptimal vaccination coverage and population immunity gaps, however, have led to outbreaks of VPDs, including the recent global measles resurgence (Patel et al., 2019). According to the World Health Organisation (WHO) the COVID-19 pandemic has put further strain on health systems, with 23 million children missing out on regular vaccination in 2020, 3.7 million more than the previous year (World Health Organisation, 2021a).

The benefits of immunisation continue to be shared unequally. According to WHO (2020), the poorest and most marginalised populations across fragile and conflict-torn settings continue to have the poorest access. One of the by-products of war is the disruption of health-care systems including immunisation services. This disintegration is evidenced by lower vaccination coverage rates, and suboptimal immunity to various VPDs, in children with refugee backgrounds in comparison with other populations residing in countries of resettlement (Charania, Gaze, Kung, & Brooks, 2019; Moller, Hjern, Andersen, & Norredam, 2016; Perry et al., 2020).

Resettlement to a third country is one of three durable solutions offered by the UNHCR. This approach involves the transfer of UN refugees from a country of asylum to a State that has agreed to admit them, and ultimately grant permanent residence. The latter pathway is the least common, with less than one percent of refugees resettled every year (UNHCR, n.d.). As a signatory to the 1951 United Nations Convention, and the 1967 Protocol, Aotearoa New Zealand (NZ) has provided resettlement to refugees since the 1930s (Beaglehole, 2013).

In response to the global refugee situation, NZ increased its quota refugee programme intake to 1,500 in July 2020. Each year, NZ accepts over 1,800 refugees through the UN quota programme, family reunification scheme and new Community Organisation Refugee Sponsorship Category (CORS). In addition, there are over 400 asylum claimants each year (New Zealand Immigration, 2021d). In accordance with the New Zealand Public Health and Disability Act 2000, all refugees are eligible for funded healthcare services.

All children, regardless of immigration status, are eligible for Well Child/Tamariki Ora services including funded vaccines administered in line with the NZ vaccination schedule (Ministry of Health, 2020b). Increasing age-appropriate immunisations for quota refugee children (at six and twelve months after arrival) is also one of two primary health and wellbeing outcomes within the New Zealand Refugee Resettlement Strategy (Immigration New Zealand, 2012). Despite this target, recorded vaccination rates have been shown to be lower in migrant and refugee children than non-migrant children (Charania, Paynter, Lee, Watson, & Turner, 2018).

On resettlement, children with refugee backgrounds and their parents/caregivers continue to face difficulties when accessing health services, including immunisation services. These difficulties are complex and determined, in part, by socioeconomic,

environmental, cultural and lifestyle factors across the continuum of their 'old' and 'new' life (Newbold & McKeary, 2018). For example, trauma related to conflict, migration and prolonged periods of uncertainty has the potential to disrupt healthcare access. This trauma also has a detrimental impact on caregiver's capacity to prioritise their child's preventative healthcare on resettlement (Moller et al., 2016).

Former refugees face financial, structural, and socio-cultural barriers when accessing health services. These challenges include cultural and linguistic barriers; lack of transportation; competing priorities on resettlement; difficulty navigating new healthcare systems, and healthcare costs (Kohlenberger, Buber-Ennsner, Rengs, Leitner, & Landesmann, 2019; Kpozehouen et al., 2016; Moller et al., 2016). Another important factor that impedes health access is a lack of appropriate resources to support informed vaccine decision making. Resource deficits include: a paucity of appropriate vaccination information; uneven access to interpreters, and limitations caused by macrosocial factors such as government policies surrounding resettlement.

## **1.2 Rationale for study**

Globally, the number of refugees and asylum seekers is steadily increasing, and this increase is mirrored in the numbers of refugees NZ has committed to take each year. Decreased vaccination coverage in children with refugee backgrounds, alongside barriers to accessing immunisation services, creates an increased risk of VPDs and related outbreaks. This potential is heightened within NZ's current suboptimal vaccination coverage (Ministry of Health, 2021c). While there is no direct association between migration and the importation of VPDs, under-immunisation in refugee populations increases the individual risk of contracting a VPD. Thus, the risk of a community VPD-related outbreak also increases. This situation has been evidenced in Australia where under-immunised migrants were identified as a driving factor in the 2012 measles outbreak (Najjar, et al., 2014).

WHO, UNHCR and UNICEF (2015) released a joint statement recommending that on settlement; refugees receive equitable and non-discriminatory access to vaccines without delay and in accordance with the national immunisation schedule of the host country. Acknowledging the risks associated with under immunisation, NZ has established health goals to increase immunisation coverage for children with refugee backgrounds. Inequities in immunisation coverage, however, continue to co-exist alongside inadequate surveillance data on immunisation coverage for refugee children in NZ (Charania et al., 2018).

There has been limited research regarding access and engagement with immunisation services for refugee children post resettlement in NZ, particularly from the lens of the health provider. Immunisations are administered almost exclusively by practice nurses within general practices (Taylor, Turner, & Poutasi, 2017). Therefore, these healthcare providers are likely to have valuable insights into the challenges associated with immunising refugee children. This research aims to contribute knowledge to fill gaps in the literature by exploring the insights and challenges faced by health professionals delivering immunisation services to refugees. These first-hand provider experiences inform suggestions for future improvement at both local and national level.

### **1.3 Research Question and objectives**

This study addressed the following research question: What are health provider perspectives of the factors that influence vaccination uptake in children with refugee backgrounds and strategies to improve vaccine uptake?

The research question was addressed through the following research objectives:

1. To identify barriers to, and enablers of, delivering immunisation services to children with refugee backgrounds.
2. To understand existing barriers faced by refugees in accessing immunisations, as perceived by healthcare providers.
3. To identify areas for improvement and strategies to increase vaccination uptake for children with refugee backgrounds.

### **1.4 Significance of the study**

Findings from this research will contribute to the current body of knowledge concerned with understanding why immunisation uptake is lower in children with refugee backgrounds. This study presents knowledge generated from health providers' unique understanding of system level challenges that exist when providing primary healthcare to refugee families, particularly with regard to vaccinations. This vaccination-uptake research is particularly important and timely considering the current global COVID-19 pandemic and the subsequent vaccination rollout. The COVID-19 vaccination is currently not recommended for those under 16 years (Ministry of Health, 2021b). Findings from this research, however, provide insight into barriers to healthcare access including vaccinations. Thus, this study has relevance for former refugees aged over 16 years for whom the COVID-19 vaccination is recommended.

In addition to identifying barriers to immunisation uptake, this study also uncovered factors that support immunisation uptake for children with refugee backgrounds. These vaccination enablers include strategies currently employed, as well as suggestions for future improvements. Utilising knowledge arising from first-hand health provider experience, this research has relevance for general practices and healthcare providers who work with people with refugee backgrounds.

### **1.5 Researcher positionality**

Grant and Giddings (2002) describe that an essential touchstone for any researcher is formed by reflecting on your own ontological and epistemological position, and thus illuminating your research purpose. My background is in occupational therapy, which is more closely aligned within the qualitative paradigm (Stanley & Nayar, 2014). I began my career in 2007, working across mental health and physical health settings in secondary level healthcare services, and Non-Government Organisations (NGO), in New Zealand and the United Kingdom.

In 2015, I became part of the Manaaki Hauora – Supporting Wellness campaign led by Counties Manukau Health and Ko Awatea. It was during this time that I became interested in the wider social determinants of health and co-designing service improvements with service users, whānau and healthcare providers. My focus shifted from individual level health to the wider construct of population health with its emphasis on social determinants of unwellness and disease. In 2017, this interest led me to enrol in the Diploma of Public Health at Auckland University of Technology (AUT). This same year, I left clinical practice and moved into the patient experience space to continue working on bringing the patient voice to the forefront of healthcare services. This exposure shaped my worldview towards the interpretive paradigm. My heightened belief: to fully capture experience requires a comprehensive understanding of the patients' empirical world, led to my interest in gathering their subjective experiences.

During my health career, I became acutely aware of the inequities that exist in disease burden and health outcomes, particularly for Māori, Pacific Peoples, people living in socioeconomic deprivation and other ethnic minorities. This awareness was further reinforced throughout the Public Health Diploma and continued to be shaped by my professional experiences. I saw those who experience the highest level of health inequities, often receive NZ healthcare system responses that were inadequate and culturally misaligned.

As my Masters studies progressed, I identified that I wished to focus my research on a minority population who experienced health inequity. I was also passionate about research that aimed to bring about clinical change. These drivers saw me arriving at this research focused on former refugees, and led to the selection of interpretive description which is orientated towards clinical practice (Thorne, Kirkham, & MacDonald-Emes, 1997). This methodology generates meaningful knowledge that is capable of informing clinical practice, within a clinical context (Teodoro et al., 2018).

### **1.6 Thesis structure**

This thesis is presented in six chapters. Chapter one provides an introductory overview of the refugee situation at a global and local level. The burden of VPDs and immunisation coverage in children with refugee backgrounds are discussed in this chapter, along with barriers to accessing primary health care services. This chapter also outlines the rationale behind the study, the research question, and the significance of the research findings.

Chapter two reviews the relevant literature to contextualise this vaccination-uptake study within the current body of knowledge. The chapter begins by critically evaluating what is already known about the global refugee situation and resettlement in Aotearoa New Zealand. A brief overview of the determinants of health and access across the pre, during and post-resettlement phases follows. The chapter then explores immunisation coverage and VPD burden in children with refugee backgrounds. Determinants of immunisation uptake are examined using Yang and Hwang's (2016) theoretical framework of health service utilisation. Lastly, chapter two identifies where current knowledge gaps exist.

Chapter three outlines the research paradigm and methodology that underpin this study. The chapter then details the research methods employed in this study, describing the data analysis approach used to derive themes from the data. This chapter concludes with methods employed to ensure rigour was maintained throughout the study, along with ethical considerations.

Chapter four outlines the demographic characteristics of the participants and the results of the research. Five themes were derived from the data through the process of thematic analysis. Each of the five themes illustrates providers' perspectives on the factors that influence vaccination uptake among refugee children and strategies to improve service delivery.

In Chapter five, the study findings are presented and discussed. Findings are reviewed within the body of existing knowledge, and a critical discussion of the themes is presented. This chapter also critically discusses implications for policy and practice and recommends areas for future research. This chapter then addresses the strengths and limitations of the research and makes some concluding remarks.

## **Chapter Two: Literature Review**

This chapter reviews the relevant literature to contextualise this vaccination-uptake study within the current body of knowledge. Interpretive description is located within the existing knowledge of what is already known from the work of others (Thorne et al., 1997). The purpose of this literature review is to first identify and critically evaluate what is already known about the global refugee situation and resettlement in Aotearoa New Zealand. This exploration includes both determinants of health and access to immunisation services, situating these aspects alongside factors that influence immunisation service delivery. The second purpose is to identify where the current knowledge gaps exist.

### **2.1 Structure and search methods**

This literature review is separated into two parts. The first section defines the refugee situation internationally and within a local context. Drawing from the literature, this review seeks to understand determinants of health and healthcare access in the pre transit, during transit, and post resettlement phase of the refugee journey. The second part of this literature review defines vaccine preventable diseases and explores international and national literature on vaccination coverage for children with refugee backgrounds. Factors that influence access and uptake of immunisations are also reviewed.

Literature searches were conducted between March 2019 and July 2021 using databases CINAHL, EBSCO Health Databases, MEDLINE, Scopus, and Google Scholar. Search terms include but were not limited to refugee; migrant; asylum seeker; access; barriers; limit\*; enable\*; facilitate\*; vaccinations; immunisations; healthcare; general practice; child\*. Inclusion criteria led to articles that were published in English and published in academic, peer-reviewed journals. Grey literature was accessed from Government and official websites, such as the Ministry of Health, Immunisation Advisory Centre, World Health Organisation, and the UN Refugee Agency.

### **2.2 The global refugee situation**

#### **2.2.1 Migration**

Migration is defined as the movement of a person away from their place of usual residence, either within a State or across an international border. The growing body of evidence suggests that migration is largely linked to broader global economic, political, social, and technological transformations. The International Organization for Migration (IOM) (2020) estimates there are currently 281 million international migrants, including

31 million children. While this number represents a very small percentage of the world's population (3.6%), global migration trends have increased at a faster rate than expected. The number of migrants has already surpassed projections made for the year 2050 (International Organisation for Migration, 2020). There is no universally agreed or legal definition for the term migrant.

One of the fundamental disagreements in international politics and humanitarian work is whether or not the term 'migrants' includes or excludes refugees. The two approaches that are generally adopted are the *inclusivist* and the *residualist*. The *inclusivist approach*, used by the International Organisation for Migration (IOM), includes all forms of movement regardless of legal status or motivation for moving. The *residualist approach* excludes those fleeing from war or persecution (International Organization for Migration, 2019).

For the purposes of this thesis, a residualist approach to migrants is utilised. Adopted by the United Nations High Commissioner for Refugees (UNHCR), this approach defines migrants as those who make an informed voluntary choice to leave their usual country of residence, often for reasons related to work, education, or family. In contrast, a refugee or internally displaced person (IDP) is defined as someone who is forced to leave their home because of conflict, persecution or disaster (UNHCR, 2006).

This residualist approach is employed in this study because it highlights the substantive differences in circumstances between refugees and those who voluntarily migrate to a different country. The framework acknowledges the impact migration history has on individuals' mental health and wellbeing, on their resettlement, and on their increased support and assistance needs (Mishori, Aleinikoff, & Davis, 2017). There is no universal definition classifying who is, and who is not, considered a migrant. In contrast, refugees are legally defined by the United Nations High Commissioner for Refugees (UNHCR) in the 1951 Convention relating to the Status of Refugees (1951 Convention).

### **2.2.2 Defining refugee**

After World War II, the United Nations General Assembly mandated the United Nations High Commissioner for Refugees (UNHCR) to provide international protection for refugees and other Internally Displaced People. The 1951 Convention was established to provide a clear definition of who is, and who is not, a refugee, and what kind of legal protection and assistance they should receive from countries that are signatories to the document. This accord was initially limited to protecting those dislocated, mostly

Europeans, in the aftermath of World War II. At inception, the target population was those who had been displaced as a result of events occurring before 1 January 1951.

After 1951, new refugee situations arose, and these refugees did not fall within the scope of the 1951 Convention. This omission led to the creation of the 1967 Protocol relating to the Status of Refugees. The protocol removed the temporal and geographical limits of the 1951 Convention, thereby encompassing a wider group of people (UNHCR, 2011a). The 1951 Convention and the 1967 Protocol continue to be the main international instruments of refugee law. These accords define a refugee as an individual who:

*"owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence, is unable or, owing to such fear, is unwilling to return to it".*

The UNHCR also supports Internally Displaced People (IDP), who often flee from the same conditions as refugees, but they remain within the borders of their home countries. Unlike refugees, IDPs remain under legal protection of their own governments, and therefore, are not protected by international law or eligible for many types of aid. Obtaining refugee status can be critical for those living in tenuous situations where their safety and security are compromised. This status affords access to critical supports and resources from the 78 states that are signatory to the 1951 United Nation convention relating to the Status of Refugees, and its 1967 protocol addendum (UNHCR Handbook, 2019).

### **2.2.3 Global Trends**

Understanding emerging global trends and shifting demographics related to migration of displaced people, helps make sense of current world politics and assists future planning (International Organisation for Migration, 2020). The current global estimate is at the close of 2020, there were 82.4 million forcibly displaced people. This number is the highest ever recorded and shows 2.3 million increase from the previous year (UNHCR, 2021). The unfortunate reality is that these numbers continue to rise. Conflict (particularly in Syrian Arab Republic, South Sudan and the Democratic Republic of the Congo); persecution; violence (such as that inflicted upon Rohingya), and severe economic and political instability (such as seen in Venezuela), force 37,000 people to

flee their home each day (UNHCR, 2019a). Of the 82.4 million displaced people in 2020, there were: 48 million internally displaced people, 26.4 million refugees, and 4.1 million asylum-seekers (UNHCR, 2021).

The full impact of the COVID-19 pandemic on global displacement is not yet clear. Although the number of refugees has increased from previous years, UNHCR data indicates that arrivals of refugees and asylum seekers was 1.5 million fewer than expected in non-COVID circumstances. This reduction likely reflects that many people seeking international protection in 2020 have become stranded in the wake of COVID-19 (UNHCR, 2021). On March 23<sup>rd</sup> 2020, The Secretary-General of the United Nations issued an urgent appeal for a global ceasefire to focus on COVID-19 responses (United Nations, 2020). Despite pleas for a ceasefire and COVID-19-related movement restrictions, displacement continues to grow and the UNHCR now estimates that 1 in 95 people worldwide is now forcibly displaced. This figure compares with 1 in 108 people in 2018 (UNHCR, 2019a) and 1 in 159 people in 2010 (UNHCR, 2021).

Children are particularly affected by displacement crises, especially in protracted displacement situations, and are overrepresented in displacement and refugee populations worldwide. Children account for about 30% of the global population, yet make up an estimated 42% of all forcibly displaced people and about half of the global refugee population (UNHCR, 2021). Recent global estimates show the total number of children impacted by displacement is approximately 13 million child refugees, 936,000 asylum-seeking children and 17 million children who have been forcibly displaced (International Organisation for Migration, 2020). Between 2005 and 2019, the global number of children who qualify for protection under UNHCR mandate more than doubled, from four million to almost ten million (UNICEF, 2021). The situation continues to worsen as new UNHCR (2021) estimates show that among refugees; almost one million children were born in displacement between 2018 and 2020.

#### ***2.2.4 Seeking durable solutions: Resettlement***

Part of the UNHCR's mandate is to provide durable solutions for those classified as refugees. The three possible solutions are: voluntary repatriation wherein refugees are able to return to their country of origin; local integration wherein refugees are able to make a home in the country where they have sought protection, and resettlement to a third country (UNHCR, 2011b). According to the UNHCR (2021), the impacts of COVID-19 and border closures have meant only a limited number of refugees have been able to access solutions such as voluntary return or resettlement to a third country. In 2020, only 251,000 people were able to return to their country of origin. This

figure represents the third lowest number of returnees in the past decade, and continues the downward trend of the previous two years (UNHCR, 2021).

Refugee resettlement is defined by the UNHCR as the “*selection and transfer of refugees from a State in which they have sought protection to a third State which has agreed to admit them – as refugees – with permanent residence status.*” (UNHCR, 2011, p. 3). Of the three durable solutions, resettlement is usually a last resort and the least common pathway. According to the UNHCR (2021) less than one percent of the total number of refugees is resettled each year. Resettlement has also become harder to access due to COVID-19 travel restrictions and significant reduction in the number of places offered globally.

During the early phase of the COVID-19 pandemic, resettlement was put on hold amid border and travel restriction around the world. This halt had a significant effect on resettlement. Numbers plummeted to the lowest level in almost two decades. In 2020, only 34,400 refugees were resettled to 21 countries compared with 107,700 in 2019, and 92,400 in 2018. The UNHCR (2021) estimated that more than 1.4 million refugees required resettlement in 2020, yet only 2.4% arrived in host countries. As a result, the gap between the number of refugees in need of resettlement, and the places made available globally, continues to widen.

Outside of the impact of COVID-19, resettlement numbers have been steadily decreasing. In 2016, 163,206 submissions for resettlement were put forward, compared with just 81,300 places in 2018 (UNHCR, 2019b). Globally, departures to resettlement countries with UNCHR’s assistance have also decreased. In 2018, global departures decreased by 15% compared to 2017, and 56% when compared to 2016. This decrease was related, in part, to the United States of America’s reduced refugee ceiling, down from 45,000 in 2018 to 18,000 in 2020 (U.S. Department of State, 2019).

### **2.2.5 Global compacts**

The refugee situation continues to increase in scope, scale and complexity. The vast majority of refugees are hosted in low-middle income countries which face economic and development challenges. In 2016, Member States of the United Nations came together for the first time to discuss issues related to migration and refugees. In adopting the New York Declaration for Refugees and Migrants, all 193 UN Member States recognised the need for a more comprehensive approach. This assembly agreed that international responsibilities for refugee situations must be shared more equitably and predictably.

After two years of extensive consultations, UN Member States came together to reaffirm the New York Declaration for Refugees and Migrants. This assembly also finalised two global compacts related to migration and refugees: the Global Compact on Refugees and the Global Compact for Safe, Orderly and Regular Migration. The ratifying of both accords saw 2018 become a historically significant year for the protection of refugees (McAdam, 2018). The two compacts, while non-binding, offer the first global UN agreement on a common approach to international migration.

The Global Compact for Safe, Orderly and Regular Migration is guided by the 2030 Agenda for Sustainable Development, specifically clause 10.7 to “facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies” (United Nations, 2015 p 25). Recognising refugee concerns requires international cooperation to attain sustainable solutions. The Global Compact on Refugees proposed a framework for more predictable and equitable sharing of responsibility. There are four key objectives:

1. Ease the pressures on host countries
2. Enhance refugee self-reliance
3. Expand access to third-country solutions
4. Support conditions in countries of origin for return in safety and dignity

The Global Compact on Refugees places emphasis on the importance of greater sharing of responsibilities. However, an examination of refugee and IDP host countries demonstrates more than half of all displaced people in 2020 were hosted in just 10 countries. This picture is consistent with previous years (UNHCR, 2021). Developing countries continue to carry disproportionately larger responsibility for hosting refugees. In 2020, only 17% of displaced people were hosted in high-income countries. In contrast, the least developed countries hosted 27% of the global refugee population, including displaced Venezuelans. These countries collectively accounted for just 1.3% of the global Gross Domestic Product, thus have the least fiscal resource to meet refugee need (UNHCR, 2021).

### **2.3 Aotearoa New Zealand context**

In the context of this research, “children of refugee backgrounds” refers to children, aged 0 to 18, who have come to Aotearoa New Zealand (NZ) as first-generation refugees, and to those born in NZ to first-generation refugee parents. This inclusive definition recognises that experiences of refugee parents often transcend generations and may impact their children, also referred to as ‘second-generation refugees’. As a

signatory to the 1951 United Nations Convention and the 1967 Protocol, NZ has provided resettlement to refugees since the 1930's. NZ's formal refugee resettlement programme, however, is considered to have begun at the end of World War II with the intake of 800 Polish people, most of them (734) displaced and orphaned children (Beaglehole, 2013).

Since the mid-forties, more than 35,000 refugees from over 70 countries have been resettled in NZ. Up until the late-eighties, NZ accepted refugees on an ad hoc basis in response to changing global circumstances and needs (Beaglehole, 2013). In 1987, the Government established a formal quota, agreeing to accept 800 refugees annually upon referral from the UNHCR. This number was subsequently reduced to 750 in 1997, which was maintained until July 2018 when it increased to 1000. The NZ government committed to increasing the number of quota refugee from 1,000 to 1,500 in July 2020. Due to a pause in the refugee resettlement programme related to COVID-19, this quota was not met and is unlikely to be met in 2021 (New Zealand Immigration, 2021b).

In response to changing global circumstances and humanitarian needs, the geographic pattern of refugee resettlement in NZ has changed over the past 40 years. In the late-seventies to mid-eighties, Indochinese refugees were the dominant group resettled in NZ. In recent years, broader global focus has led to a more diverse range of nationalities being resettled, as seen in the Table 1 below.

**Table 1**

*Nationalities of refugees resettled to New Zealand (1944 – 2020)*

<b>Year</b>	<b>Refugee Group</b>
1944	Polish children and adults
1949-1952	Displaced persons in Europe
1956-1958	Hungarian
1962-1971	Chinese (in Hong Kong and Indonesia)
1965	Russian Christian 'Old Believers' (in China)
1968-1971	Czechoslovakian
1972-1973	Asian Ugandan
1974-1991	Bulgarian, Chilean, Czechoslovakian, Hungarian, Polish, Romanian, Russian Jews, Yugoslav
1977-2000	Cambodian, Lao and Vietnamese
1979-1989	Iranian Bahasi
1985-2002	Iraqi
1992–2006	Afghan, Albanian, Algerian, Assyrian, Bosnian, Burundi, Cambodian, Chinese, Congolese, Djibouti, Eritrean, Ethiopian, Indonesian, Iranian, Iraqi, Kuwaiti, Libyan, Khmer Krom (Cambodian Vietnamese), Liberian, Myanmar, Nigerian,

2006-2007	Pakistani, Palestinian, Rwandan, Saudi, Sierra Leone, Somali, Sri Lankan, Sudanese, Syrian, Tanzanian, Tunisian, Turkish, Ugandan, Vietnamese, Yemeni, Yugoslav (Main nationalities) Afghan, refugees from Republic of Congo (Congo-Brazzaville) and Democratic Republic of Congo, Burmese/Myanmar
2007-2009	Same as previous period plus Iraqi, Colombian, Eritrean, Ethiopian, Bhutan, Indonesian, Nepalese
2010 - 2014	(Main nationalities) Myanmar, Bhutan, Iraq, Colombia, Afghanistan
2015- 2019-20	(Top ten nationalities) Syria, Myanmar, Colombia, Afghanistan, Palestine, Pakistan, Bhutan, Eritrea, Sri Lanka, Iraq

*Note.* Adapted from “Human Rights in New Zealand: Ngä Tika Tangata O Aotearoa” by Human Rights Commission, 2010 and updated with current source countries 2010-present from <https://www.immigration.govt.nz/documents/statistics/statistics-refugee-and-protection.pdf>

In the ten years leading to March 2021 financial year end, the top five nationalities arriving under the NZ quota scheme were: Syria (23.3%); Myanmar (21.8%); Colombia (15.2%); Afghanistan (13%), and Palestine (5.7%). Over the same period, the top five nationalities approving convention refugees’ entry were China, Iran, Saudi Arabia, Afghanistan, Egypt, and Russia. Refugees resettled under the RFSC primarily originated from Afghanistan, Ethiopia, Iran, Somalia, and Vietnam. This demographic is representative of the global refugee crisis pattern, as over two thirds of the world’s refugees come from just five countries: Syria; Afghanistan; South Sudan; Myanmar, and Somalia (UNHCR, Global trends report 2018). Refugees resettled under the RFSC primarily originated from Afghanistan, Ethiopia, Iran, Somalia, and Vietnam.

### **2.3.2 Pathways to settlement in Aotearoa New Zealand**

In NZ, refugees fall into several different categories depending on the pathway used to enter the country. These categories include quota or UN mandated refugees; asylum seekers or convention refugees; family reunification refugees, and Community Organisation Refugee Sponsorship (CORS) refugees. Each refugee group experiences different and fluctuating access to supports; variations which are dependent on the context that overarches their entry to NZ (Human Rights Commission, 2010).

#### **2.3.2.1 Refugee Quota programme**

Aotearoa New Zealand accepts 1,500 refugees every year through the United Nations Quota Refugee Resettlement programme. NZ is one of the few countries who formally accept those ‘at risk’. These groups include: women at risk (75 places); medical/disabled (75 places including 20 places for refugees with HIV/AIDS), and UNHCR priority protection which applies to refugees requiring urgent legal or physical protection (UNHCR, 2018). The Refugee Quota Branch (RQB) of Immigration New Zealand (INZ) is tasked with operating the Refugee Quota Programme. INZ sits within

the Ministry of Business, Innovation and Employment (MBIE). The size, regional allocation and priorities for the Quota Programme are set by the NZ government in three-year cycles.

In response to the global refugee crisis, NZ's Refugee Quota Programme increased from 750 to 1,000 places in July 2018 and to 1,500 places in July 2020. As previously discussed, however, this quota was not met in 2020 due to the global impact of COVID-19 and the decision made by UNHCR to pause the refugee resettlement programme (UNHCR, 2021). In line with NZ's refugee resettlement agreement, prior to being considered for entry under the quota system, refugee submissions for resettlement are evaluated by the UNHCR.

All people accepted for resettlement under the Refugee Quota Programme complete a six-week orientation programme at Immigration New Zealand's Mangere Refugee Resettlement Centre (MRRC). Quota refugees spend this time participating in activities that prepare them to live and work in the community. The programme includes: orientation to life in NZ; initial health assessment and screening including immunisation status; English language classes; work and education preparedness, and health promotion (New Zealand Immigration, 2021b). During this time, a Settlement Plan is also developed in collaboration with each quota refugee family. This plan outlines the types of services the family will be connected with to support their successful settlement in their community.

Upon completion of the programme, quota refugees are settled into one of eight current settlement locations: Auckland; Hamilton; Palmerston North; Wellington; Nelson; Christchurch; Dunedin, and Invercargill. The location is selected based on community links, employment opportunities and access to services to help support their integration. The New Zealand Red Cross holds the national contract with INZ to provide quota refugees support for the first 12 months upon resettlement in the community. The resettlement contract includes forging linkages with required services such as GP clinics, education, English language classes and employment.

Alongside the increase in the annual Refugee Quota from 1,000 to 1,500 from July 2020, the Government announced six new settlement locations: Masterton; Levin; Whanganui; Ashburton; Timaru, and Blenheim. This increase will result in a total of 14 resettlement locations across the country. Resettlement in these smaller urban locations was to have commenced in April 2020. The pause in the Quota Resettlement

Programme delayed this initial timeframe, however, Ashburton, Blenheim and Timaru have now resettled a small number of refugees (New Zealand Immigration, 2021b).

Another delayed change is the planned reduction in time spent at the Mangere Refugee Resettlement Centre, moving from six weeks to five. Prior to leaving MRRC in Auckland, a Settlement Plan will be developed with all families and a public or private tenancy will be secured in their settlement location. On resettlement, quota refugees will continue to receive 12 months of government-funded settlement support including support with enrolment in: GP practices; education facilities; employment, and English language classes.

As a result of the quota increase, the delivery of government funded health services for quota refugees will also change. In a joint project, titled Quota Health Service Delivery Model, INZ and the MoH will see the implementation of a new health assessment, screening and management service for quota refugees (New Zealand Immigration, 2020). At the time of writing, health screening and assessment, which includes the provision of immunisations, is completed on arrival at MRRC. Under the new Quota Health Service Delivery Model, the provision of health screening will be moved offshore. INZ has contracted the International Organization for Migration (IOM) to undertake offshore services. In addition, immunisations will be offered offshore through IOM in accordance with the NZ Immunisation Schedule (New Zealand Immigration, 2020). There will be an increased focus on early primary care in the settlement communities, with plans to provide additional resources to support this.

### **2.3.2.2 Convention Refugees**

An asylum seeker is a person who is seeking refugee and protection status in NZ, also referred to as a “Claimant” (New Zealand Immigration, 2021a). Successful claimants are then known as convention refugees. NZ is a signatory to the 1951 United Nations Refugee Convention and the 1967 Protocol relating to the status of refugees.

Accordingly, NZ is obligated under United Nations conventions to consider applications from asylum seekers who claim refugee status when they arrive in NZ. Convention refugees are considered separately from, and in addition to, the Quota Refugee Programme. In the five years leading to March 2021 financial year end, there were 2,668 refugee and protection claims, averaging 445 claims per year. Of those 2,668 claims, 722 (27%) were subsequently approved (New Zealand Immigration, 2021d). As portrayed in Table 2 below, the number of claimants has steadily increased over the past ten years.

**Table 2***Refugee and Protection Claims and Decisions by Financial Year*

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Claims	303	306	287	328	339	434	438	510	502	445
Decisions	363	321	287	285	314	360	413	437	342	284
Declines*	244	235	218	185	203	228	281	284	218	214
Approved	119	86	69	100	111	132	132	153	124	70
Approval Rate	32.8%	26.8%	24.0%	35.1%	35.4%	36.7%	32.0%	35.0%	36.3%	24.6%

\* includes withdrawals

Note. Adapted from <https://www.immigration.govt.nz/documents/statistics/statistics-refugee-and-protection.pdf>. Immigration New Zealand, 2021.

Once asylum claimants have their identity verified, they are eligible for a work permit and state-funded health, welfare, and education services. For some asylum claimants, this community integration process takes a considerable amount of time. This delay is particularly apparent if asylum seekers or other refugees have arrived in the country on false documentation. Asylum seekers' situation continues to be precarious while they await the outcomes of their claims (Bloom & Udahemuka, 2014).

Asylum claims are decided according to the Immigration Act 2009. Refugee status is confirmed or rejected by the Refugee Status Branch of Immigration NZ. Granting of this status is dependent on whether the refugee's circumstances meet the criteria set out in the 1951 United Nations Refugee Convention and the 1967 Protocol relating to the status of refugees (New Zealand Immigration, 2021a).

If their asylum claim is approved, adults will be granted work visas and school-aged children will generally be granted student visas to enable them to study at primary or secondary school. Convention refugees are then able to apply for a residence visa, although this can take time to process. Throughout the process, convention refugees have the right to access publicly funded healthcare. Access to other services and resettlement supports granted to quota refugees, however, is limited (Bloom & Udahemuka, 2014).

According to a 2004 Department of Labour research report, NZ's convention refugees stood out from quota refugees in that they had more advanced literacy skills, more pre-arrival education and more prior work experience. Convention refugees generally received less support than quota or family reunification refugees, and therefore, relied more heavily on government agencies (Department of Labour, 2004). Other research has suggested that convention refugees have disproportionately more challenging

resettlement experiences than quota refugees due to having limited access to basic support services (Bloom & Udahemuka, 2014).

### **2.3.2.3 Refugee Family Support Category (RFSC)**

The Refugee Family Support Category (RFSC) offers 300 places annually for people with refugee status to sponsor a family member, which includes the latter's partner and dependent children. This is on top of the 1,500 offered to quota refugees (New Zealand Immigration, 2021c). This category allows resettled refugees to sponsor family members who would otherwise not qualify under any other NZ immigration policies. Family reunification is a fundamental principle of refugee protection, driven by the right of the family to protection by the State (Human Rights Commission, 2010). The RFSC has a two-tier registration system that prioritises tier one sponsors who meet a high threshold of need. The application and transportation costs are generally covered by relatives.

### **2.3.2.4 Community Organisation Refugee Sponsorship Category (CORS)**

In June 2017, the NZ government agreed to pilot the CORS category as an alternative form of entry for up to 25 refugees in 2017/2018. The aims of this pilot were threefold. Firstly, provide an alternative form of admission for refugees; secondly, enable communities to be more actively engaged in refugee resettlement, and thirdly, support refugee sponsorship instigated by community organisations. The programme was intended to complement the Quota Refugee Programme. Eligible applicants were required to be mandated as refugees under the 1951 Refugee Convention (UNHCR, 1951). Selection criteria also included that refugee applicants were required to: demonstrate English language ability; meet minimum work experience or qualifications and be aged 18 to 45. These criteria were considered to maximise the likelihood of former refugees' successful integration and employment.

Prior to resettlement, CORS refugees spend two weeks at MRRC in a specifically designed programme with a strong employment emphasis. A review by MBIE (2019), however, indicated that there was confusion between both sponsored refugees and INZ staff about the difference in eligibilities and programmes between CORS and quota refugees. Both refugee groups were at MRRC at the same time. The review also indicated that some sponsored refugees came with unrealistic economic expectations about the cost of living and ease of gaining employment in NZ. This refugee group also identified challenges concerned with learning English and gaining employment, which existed alongside learning to drive and feelings of stress and isolation. Sponsors noted

their greatest difficulties were dealing with 'red tape'; government agencies such as Work and Income who had limited awareness about the CORS pilot programme.

Despite identified challenges, the evaluation noted that the CORS pilot achieved its objectives and, in general, participants were positive about the programme. Of particular relevance to this thesis is that all CORS refugees were enrolled in a GP practice within three months of resettlement (Ministry of Business Innovation and Employment, 2019). Following a successful pilot, the NZ government agreed to extend the CORS pilot for a further three years from 1 July 2021. This extension allows up to 50 sponsored refugees to be resettled annually across the three-year period, a total of 150 individuals. Due to COVID-19, the start timeframe has been extended; INZ is expecting that the first sponsored refugees will arrive in NZ from the middle of 2022 (New Zealand Immigration, 2021c).

### ***2.3.3 Aotearoa New Zealand Refugee Resettlement Strategy***

In 2012, the New Zealand Refugee Resettlement Strategy (The Strategy) was developed as a whole-of-government approach to delivery refugee resettlement outcomes. The strategy aims to accelerate and improve refugees' social and economic integration, thereby enabling independence and sense of belonging. The five priority areas outlined in the strategy are: self-sufficiency; participation; health and wellbeing; education and housing (Immigration New Zealand, 2012). Increasing age-appropriate immunisations for refugee children (6 and 12 months after arrival) is one of two primary goals within the health and wellbeing outcomes of the New Zealand Refugee Resettlement. In 2018, the NZ government reaffirmed strengthening the delivery and coordination of health and disability services as one of the strategies' top five priorities leading into 2020.

Resettlement is a complex process, and achieving the desired health and wellbeing outcomes is intrinsically linked with broader social determinants of health (Marlowe, Bartley, & Hibbit, 2014). Positive outcomes are dependent on success across all domains: housing; education; health; employment, and participation (Immigration New Zealand, 2012). The implementation of the strategy is led by INZ. This strategic framework has a broad span that overarches government agencies, non-government organisations such as Red Cross, and refugee communities; the combined aim is to support resettlement. While this strategy provides a framework for supporting quota refugees, it is important to note that these supports do not extend to asylum seekers, convention refugees and those classified under the RFSC or CORS categories.

Instead, families and local communities bear the social and financial responsibility for supporting RFSC and CORS refugees.

A NZ study suggests that the lack of inclusive policies and recognition in New Zealand's Resettlement Strategy has amounted to structural discrimination of convention refugees (Bloom & Udahemuka, 2014). The lack of access to supports that are afforded to quota refugees unfairly disadvantages those from asylum seeker, family reunification and CORS backgrounds. Debate amongst refugee stakeholders has highlighted that all refugees should be recognised in the New Zealand Refugee Resettlement Strategy. This move would result in equitable access to supports for all refugee groups, ensuring adequate monitoring, participation, and access to health, education and housing (Bloom & Udahemuka, 2014). While there may be differences in terms of legal status and entitlements between these groups of refugees, people under each of these statuses share similar experiences. These groups all come from similar war-stricken backgrounds and are often fleeing the same persecution. Therefore, they should be afforded the same resettlement supports.

## **2.4 General Health and Wellbeing**

### **2.4.1 Right to Health**

#### **2.4.1.1 Global overview**

The right to the highest attainable standard of health is a fundamental and universal human right. This entitlement is recognised in several core human rights instruments, including Article 25 of the United National Declaration on Human Rights (UN General Assembly, 1948) and more explicitly in Article 12 of the International Covenant on Economic, Social and Cultural Rights (ICESCR). The article states that everyone has the right to enjoy the highest attainable standard of physical and mental health. Outlined in the article are steps State institutions can take to fully realise this right including 'The prevention, treatment and control of epidemic, endemic, occupational and other diseases' (UN General Assembly, 1966). The right to health (Article 12) was defined in General Comment 14 of the UN Committee on Economic, Social and Cultural Rights (2000).

The Committee states that the right to health is not a right to be healthy, but "*a right to the enjoyment of a variety of facilities, goods, services and conditions necessary for the realization of the highest attainable standard of health*" (UN Committee on Economic Social and Cultural Rights, 2000, p. 3). Furthermore, the Committee interprets the right to health as "*an inclusive right extending not only to timely and appropriate health*

*care but also to the underlying determinants of health.”* (UN Committee on Economic Social and Cultural Rights, 2000, p. 3). The right to health identifies availability, accessibility and quality as core aspirations.

In summary, health services are required to be provided in a safe, timely and equitable manner that are accessible to everyone. Accessibility includes: affordability; being free from discrimination; physically accessible, and includes information accessibility i.e. ensuring that health information and promotional materials is reaching all populations (UN Committee on Economic Social and Cultural Rights, 2000). Goal three of the sustainable development goals (SDGs) refers to ensuring healthy lives and the promotion of wellbeing for all, at all ages. Target 3.8 specifically refers to the provision and access of quality essential healthcare services, including equitable access to safe, effective, quality and affordable essential medicines and vaccines (UN General Assembly, 2015).

#### **2.4.1.2 Related to children**

The United Nations Convention on the Rights of the Child (UNCRC) is a legally binding international agreement consisting of 54 articles outlining the rights of the child. Nations that ratify this convention are bound by internal law to meet the basic needs of the child to enable them to reach full potential. Article 24 of the UNCRC recognises the right of the child to the enjoyment of the highest attainable standard of health. The article emphasises that no child should be deprived of his, or her, right of access to such health care services. In particular, State institutions should take appropriate measures to ensure the provision of necessary medical assistance and health care to all children. Emphasis is placed on developing primary health care. A key objective embedded within ‘The Global Strategy for Women’s, Children’s and Adolescent’s Health’ is ‘Thrive: Ensure health and wellbeing’. This objective is concerned with universal health coverage, such as access to quality essential health services and vaccines. Accordingly, focus is on prioritising services for women, children, and adolescents, and addressing access barriers to achieve equitable and universal health coverage.

#### **2.4.1.3 Related to refugees**

The health of refugees, and those forced to flee, is a major priority for UNHCR. This right is recognised in the 1951 Convention which states that refugees should enjoy access to health services equivalent to that of the host population (United Nations High Commission for Refugees, 1951). Article 22 of the UNCRC explicitly states that State Parties shall ensure that a child who is seeking refugee status, or is considered a

refugee, shall receive appropriate protection in the application of the rights. These entitlements are set forth in the UNCRC as well as all other international rights instruments to which the said States are signatories. The Global Strategy for Women's, Children's and Adolescent's Health also acknowledges that the SDGs will not be achieved without specific attention to refugees and other people of concern. The strategy asserts the need for the international community to better support people in crises and conflict situations, upholding fundamental human rights in every setting.

#### **2.4.1.4 Aotearoa New Zealand Context**

Aotearoa New Zealand is party to the core international human rights instruments of the United Nations. This agreement includes the ICESCR which was ratified in 1978 (Ministry of Justice, 2020). In NZ, all refugees are eligible for funded healthcare services in accord with the New Zealand Public Health and Disability Act 2000. The Code of Health and Disability Services Consumers' Rights sets out 10 rights that consumers have when using health and disability services in NZ. This code includes the right to effective communication, the right to be treated with respect, the right to be fully informed and the right to make informed choice and give informed consent. (Health and Disability Commissioner, n.d.). All children, regardless of immigration status, are eligible for Well Child/ Tamariki Ora services including funded vaccines administered in line with the NZ vaccination schedule. Increasing age-appropriate immunisations for quota refugee children (at 6 and 12 months after arrival) is one of two primary health and wellbeing outcomes within the New Zealand Refugee Resettlement Strategy (Immigration New Zealand, 2012).

#### **2.4.2 Determinants of health for refugees**

Refugees represent a diverse group of people from different cultural, political, ethical, religious, socioeconomic and education backgrounds. Despite these differences, there are commonalities among refugees that often lead to health disparities in relation to the host populations (Mishori et al., 2017). As occurs in the general population, refugees' health and health related behaviours are determined, in part, by socioeconomic, environmental, cultural and lifestyle factors. These social determinants of health are primarily responsible for the health inequities that exist between countries and population groups (WHO, 2017). Many studies have focused on refugee health status in the migration and post resettlement context. Newbold and McKeary (2018) argue that refugees' health status must be viewed as part of a continuum between their 'old' and 'new' life. Refugees' health, therefore, needs to be contextualised around pre-departure, in-transit, and post arrival experiences.

#### **2.4.2.1 Pre-departure**

To recognise health as a continuum between a refugee's 'old' and 'new' life, Newbold and McKeary (2018) assert consideration needs to be given to country of origin before the status of 'refugee' was received. Health status at this stage may already be compromised due to conflict within the country; destroyed healthcare services and public infrastructure; limited access to health care services including immunisation services; high prevalence of disease, and poverty. The negative impact of these socio-political factors is further compounded when the individual is also experiencing loss of family support; financial security; cultural roles, and expectations (Hvass & Wejsea, 2017; Newbold & McKeary, 2018; Pavli & Maltezou, 2017). Poverty may mean that health care access is very limited. Many low-income countries may have rudimentary healthcare services and non-existent preventative care and, therefore, experience high burden of disease. Refugees, by definition, come from countries of conflict and persecution. Thus, it is likely that they will have experienced traumatic events in this pre-departure phase, which may impact their psychological and physical health throughout their journey (Zimmerman, Kiss, & Hossain, 2011). Women and children are particularly vulnerable as they are disproportionately exposed to conflict-related trauma in their home countries and during migration.

#### **2.4.2.2 In-transit**

The conditions surrounding migration expose refugees to further health risks, which negatively impact health outcomes and fuel health inequities (International Organisation for Migration, 2018). Some authors argue that migration should be considered a social determinant of health in its own right (Castañeda et al., 2015). These conditions include those that are experienced during transit and travel, and those experienced in the destination country. A Danish study sought to understand the differences in uptake of immunisations and health examination among refugee children compared to the host population. The authors concluded that trauma experienced during migration has potential to disrupt healthcare access. Trauma can have a detrimental impact on caregiver's capacity to prioritise their child's preventative health care (Moller et al., 2016). This "in-transit" phase can last for years. At the beginning of 2019, UNHCR estimated that 78% of refugees were in a protracted refugee situation (living in exile for more than five consecutive years). Refugees in this situation may be denied basic human rights in the country of refuge. Children may also have limited or no access to education (UNHCR, 2020).

#### **2.4.2.3 Post resettlement**

On resettlement, refugees face many obstacles in accessing essential health-care

services. These barriers are due to a number of factors including: communication difficulties due to language barriers and lack of resources to address these; knowledge-gaps about healthcare entitlements; lack of refugee-inclusive health policies; financial challenges including limited health insurance, and discrimination and stigmatisation (Chiarenza, Dauvrin, Chiesa, Baatout, & Verrept, 2019). A NZ study highlighted numerous barriers that convention refugees encounter when accessing essential services such as health, education, housing and economic support (Bloom & Udahemuka, 2014). The study revealed service providers had significant knowledge gaps about refugees' access to entitlements. Providers were also found to have limited knowledge about refugees' experiences of both implicit and explicit discrimination. These findings support recent arguments that migration status should be considered as a social determinant of health. Migration intersects with other determinants and can adversely affect health outcomes and access to health care.

It is important to note, however, that refugees are a heterogeneous group and health risks vary greatly. Factors that influence variances in health risk include: exposures to disease; previous living conditions; migration pathways; socioeconomic status (e.g. related race, sex, income, education and occupation) and access to preventative services such as pre-departure access to primary care and vaccinations (Pottie et al., 2011). One Canadian study found that health indicators among refugees varied depending on the geographic region they came from. These regional variances tended to reflect global epidemiologic patterns (Redditt, Janakiram, Graziano, & Rashid, 2015). For example, HIV is higher in the sub-Saharan African refugee population. Another example is the significantly higher rate of chronic hepatitis B infection found among refugees from Asia where hepatitis B is endemic. Thus, it is very likely that health needs between refugee cohorts will differ.

## **2.5 Immunisations and Vaccine Preventable Diseases**

Immunisation is one of the most successful and cost-effective ways to prevent diseases. Vaccines have saved millions of lives, contributed to the global eradication of smallpox and the reduction of global incidence and mortality of other diseases such as polio, tetanus, measles, whooping cough and diphtheria (World Health Organisation, 2021b). Between 2000 and 2018, it was estimate that the measles vaccine alone prevented 23 million deaths (Patel et al., 2019). Nevertheless, challenges remain, and suboptimal vaccination coverage and population immunity gaps have led to outbreaks of vaccine preventable diseases (VPDs). These gaps were evidenced by the recent global measles resurgence in 2017-2018 (Patel et al., 2019). Measles is almost entirely preventable through immunisations. The largest outbreaks occur in countries with low

measles vaccination coverage. In order to stop measles transmission, a minimum vaccination coverage of 95% with two doses of measles-containing vaccine must be achieved across the entire population (World Health Organisation, 2019a). As of 5 November 2019, there were 440,263 confirmed cases reported to WHO by 187 Member States (World Health Organisation, 2019a). Thousands of deaths have already been associated with this measles outbreak. The overwhelming majority of deaths occurred in countries with low per capita incomes and weakened health infrastructures, such as the Democratic Republic of the Congo (DRC) which reported 5,110 measles associated deaths to date (World Health Organisation, 2019a). According to WHO, unvaccinated children are at highest risk of measles and its complications including death (World Health Organisation, 2019a).

Global vaccination coverage is defined by WHO as the proportion of the world's children who received recommended vaccines. The rate of global coverage has remained consistent over the past few years. In 2020 approximately 83% of children globally were vaccinated with diphtheria-tetanus-pertussis (DTP3) (World Health Organisation, 2021a). An estimated 19.7 million children did not receive basic vaccines, with 17 million children missing out on measles, diphtheria, and tetanus vaccines.

In 2012, the Global Vaccine Action Plan (GVAP) was endorsed at the 65<sup>th</sup> World Health Assembly, recognising immunisations as a core component of the right to health. The plan's vision was to deliver universal access to all people, regardless of where they live, who they are, or where they were born (World Health Organisation, 2013). A strategic objective of the Global Vaccine Action Plan was that benefits of immunisations should be equitably extended to all people. Conversely, progress has stalled or even reversed in some countries, and the benefits of immunisation continue to be shared unevenly. The poorest, most marginalised, and most vulnerable populations across fragile and conflict-torn settings continue to have the poorest access (World Health Organisation, 2020). The new Immunisation Agenda 2030 (IA2030) draws on lessons learnt from the GVAP with the goal of reducing mortality and morbidity from vaccine-preventable diseases. The mandate is equitable access to vaccines, thus leaving no one behind (World Health Organisation, 2020).

### ***2.5.1 Overview of immunisation patterns for refugee children pre- and post-settlement***

Children from refugee-like backgrounds are particularly vulnerable to VPDs. These children may not have been vaccinated, or may be under-vaccinated, in their country of

origin (De Vito et al., 2017). Multiple reasons for this gap have been cited in the literature. For many refugees from low- or middle-income countries, under-immunisation occurs due to limited vaccination resources. This deficit includes: lack of available health services; insufficient human resources, and lack of policies or effective strategies to ensure coverage (UNICEF, 2019).

Humanitarian crises are associated with disruption of health-care systems including immunisation services. Protracted conflict and civil unrest are key determinants of inequitable VPD coverage. This combination leads to disease outbreaks in many low- and middle-income countries. Common features of war and conflict include destroyed infrastructure; delayed vaccine introductions; depleted health resources and limited access to vaccination services. By-products of war are a growing reason for stagnating global vaccination coverage (World Health Organisation, 2017). Outbreaks of VPDs in conflict-affected areas have also had a substantial impact on achieving global immunisation disease elimination and eradication goals (Grundy & Bigg, 2019).

In 2014, a review focused on 16 countries with the largest numbers of registered UNHCR “persons of interest” (500,000 or more). Selected countries received support from the Global Alliance for Vaccine and Immunisation (GAVI). The researchers found that all 16 countries had immunisation coverage below the global DTP3 average of 85%, with 6 of the countries having DTP3 coverage below 50%. Of those 6 countries, there were 6,874,291 UNHCR persons of interest, including refugees with DTP3 coverage below 50% (Grundy & Bigg, 2019).

Some countries, such as Myanmar and Afghanistan, have experienced on-going conflict over years. This conflict is often contained to smaller sub regions, thus making it difficult to establish a direct link between conflict and national immunisation coverage (Grundy & Bigg, 2019). There are several recent situations, however, that highlight the impact of conflict on vaccination coverage. Pre-conflict, the Syrian Arab Republic had relatively high vaccination coverage (A de Lima Pereira et al., 2018). In contrast, a vaccination coverage survey conducted in Northern Syria five years after civil war found that only one in five children under five years had received all vaccinations due by age. Furthermore, only one child out of 50 (two percent) under the age of 12 months was fully vaccinated compared to 19 out of 34 (55.9%) in the 48-59 month age range (A de Lima Pereira et al., 2018). This finding suggests that younger children are more severely affected by disruptions to health-care services.

Comparisons of vaccination coverage estimates in the Syrian Arab Republic pre and post conflict are; 80% DTP3 coverage and 82% MCV2 (2<sup>nd</sup> dose of measles vaccine for children by nationally recommended age) coverage in 2010 vs. 41% DTP3 coverage and 47% MCV2 coverage in 2015 (WHO & UNICEF, 2019). These findings underscore those disruptions to healthcare services caused by conflict have a significant negative impact on childhood vaccinations

On resettlement in a third country, many studies have found that immunisation uptake between refugees and asylum seekers is lower than that of the local populations (Charania et al., 2019; Moller et al., 2016; Perry et al., 2020). Seroprevalence studies in the European region have also shown suboptimal immunity to various VPDs amongst refugees, as well as lower vaccination coverage compared with local host populations (WHO Regional Office for Europe, 2019). In addition to increased individual risk of contracting a VPD, under-immunisation in these populations also increases the risk of outbreaks of VPDs.

This situation was realised in Australia where under-immunised migrants were identified as a driving factor in the 2012 measles outbreak (Najjar et al., 2014). Consequently, leading international health agencies released a joint statement recommending that on settlement, refugees receive equitable and non-discriminatory access to vaccines without any delay and in accordance with the national immunisation schedule of the host country (WHO, UNHCR, & UNICEF, 2015). Unfortunately, many host countries have an inconsistent approach to gathering routine data about refugees' health and vaccination status. This data gap leads to difficulties establishing a clear picture of vaccine coverage and the burden of VPD's amongst the refugee groups (Mipatrini, Stefanelli, Severoni, & Rezza, 2017; WHO Regional Office for Europe, 2019).

## **2.5.2 Aotearoa New Zealand Context**

### **2.5.2.1 Delivery of immunisation services in Aotearoa New Zealand**

Aotearoa New Zealand has a predominantly publicly funded health care system wherein services are largely funded by government through taxation. The Ministry of Health (MoH) is the Government division responsible for managing the health system. At the time of completing this vaccination-uptake study, there were 20 District Health Boards (DHBs) that are responsible for providing health and disability services for their geographically defined populations. While public hospitals and most secondary healthcare services are provided directly by the DHBs, primary health care services are

delivered through Primary Health Organisations (PHOs). These organisations contract general practices to provide essential primary health care services for their registered patients.

The DHBs use a capitation funding model to contract 30 separate PHOs. Thus, contracted general practice funding is commensurate with the number of enrolled patients, rather than the number of patient presentations (Ministry of Health, 2021d). Immunisation benefits are paid by DHBs to PHOs for the administration of all scheduled childhood vaccines. Immunisations are administered almost exclusively by practice nurses through general practices. Most general practices operate as independent businesses, therefore, the amount charged as a co-payment for consultations and other services differs between practices (Ministry of Health, 2021d). In NZ, all children under the age of 18 are eligible to receive funded vaccines as per the National Immunisation Schedule and Well Child Tamariki Ora services, regardless of their immigration status (Ministry of Health, 2020b).

The National Immunisation Schedule (NIS) is the series of vaccines that are offered free to babies, children, adolescents, and adults. The first formal schedule was drawn up in 1960 and included the routine delivery of diphtheria, tetanus and pertussis (DTP) vaccinations to children (Reid, 2006). Since inception, the schedule has undergone many changes. Under PHARMAC management, the purchasing of vaccines is subject to rigorous and regular review (Ministry of Health, 2020b). Immunisation information is recorded on a computerised information system; the National Immunisation Register (NIR). This system is designed to: collect immunisation information; facilitate immunisation delivery, and provide an accurate record of a child's immunisation history (Ministry of Health, 2020b).

Informed consent is fundamental to the provision of immunisations. This mandated protocol requires that parents/caregivers are appropriately informed about risks and benefits of vaccinations, thereby enabling them to make an informed decision. The components of informed consent are outlined in the Code of Health and Disability Services Consumers' Rights. Specifically: Right 5: Right to effective communication; Right 6: Right to be fully informed and Right 7: Right to make an informed choice and give informed consent are particularly relevant (Health and Disability Commissioner, 2021).

Immunisation guidelines for refugees are specifically referred to in the MoH Immunisation handbook, alongside other migrants (Ministry of Health, 2020b). The MoH requires that healthcare providers complete a needs assessment of the documented vaccination status of all adults and children who enter NZ as refugees or immigrant and plan a catch-up schedule as per the NIS. The vaccination guidelines state that in the absence of clear, reliable documentation of vaccination history, then the provider should plan the immunisation catch-up schedule assuming that the vaccinations were not given (Ministry of Health, 2020b). These recommendations are in line with recommendations from the WHO and other countries (Australian Government Department of Health, 2018; Public Health England, 2019; World Health Organisation, 2021b)

### **2.5.2.2 Mangere Refugee Resettlement Centre**

On arrival in NZ, quota refugees spend six weeks at MRRC where they participate in a reception programme, including health screening, treatment, and health promotion. During this period, the vaccination status of all children and adults is assessed and a catch-up programme is planned as per the NIS (Ministry of Health, 2017). On resettlement, patient medical records are transferred to the general practices electronically via GP2GP (Medtech's electronic patient record transfer system). According to the Ministry of Health (2017) where a practice uses a different electronic Patient Management System (PMS), hard copies are mailed to relevant Public Health Units (PHUs), DHBs and some PHOs and GPs. Immunisation data is transferred from MRRC to the NIR via the PMS.

### **2.5.2.3 Aotearoa New Zealand immunisation coverage**

Aotearoa New Zealand has a national health target to ensure that high rates of immunisation coverage are achieved and maintained. Currently, WHO and the NZ government share the target of 95% of children fully immunised by two years of age. The NZ target also includes a marker for eight months and five years (Ministry of Health, 2020b). In NZ, immunisation coverage is measured at 'milestone' ages: six months; eight months; 12 months; 18 months; 24 months; 54 months and five years of age. At the 12-month reporting period ending 31 March 2021, immunisation coverage of children who have completed their age-appropriate immunisations was 89% at eight months and 90% at two years of age. This data is reported at a national level and does not capture migration background. These figures are below WHO and NZ government targets of 95% and a slight decrease from 2019.

The NZ MoH recently expressed concerns at the declining rates of immunisations, particularly over the period 2016 to 2018. Concern was also expressed about the widening equity gap in immunisation coverage for some populations, including Māori. Having lower than optimal immunisation coverage increases the risk of vaccine preventable diseases. In 2019, NZ saw the largest outbreak of measles in more than two decades, with over 1,500 confirmed cases. The reasons behind the outbreak were two pronged. Historical low immunisation coverage, particularly for Māori and Pacific children, had resulted in significant gaps and existed alongside a recent decline in immunisation coverage (Turner, 2019). For herd immunity to be effective, approximately 95% of the population must be immune. Inequity in vaccination coverage has increased over the past four years, particularly for children of Māori ethnicity and those living with socioeconomic deprivation (Nowlan, Willing, & Turner, 2019).

#### **2.5.2.4 Brief overview of determinants of immunisation for Aotearoa New Zealand population**

Socio-economic deprivation was noted to have a strong negative effect on immunisation coverage (Grant et al., 2011). Practice-level factors have also been identified. Nowlan et al. (2019) found that vaccination coverage was higher in practices where there was high staff confidence in providing immunisations. As health professionals have an essential role in educating families about vaccination, their detailed knowledge is vital to immunisation delivery (Nowlan et al., 2019). This scientific knowledge has heightened relevance in the present climate where parental concern over vaccine safety has been identified as a barrier to immunisation uptake in NZ families (Turner, Taylor, Chong, & Horrell, 2017). Therefore, it is of concern that prior research identified nurses as lacking knowledge about vaccine safety (Grant et al., 2011).

Practitioner-perceived challenges also include: family belief systems; effects of anti-immunisation lobbyists; lack of awareness of vaccines, and barriers to accessing the practice (Turner et al., 2017). Barriers related to practice resources and priorities have also been identified in the literature. One study found that of the four different practice management systems used, immunisation coverage and timeliness was higher at practices that used Medtech32 (Grant, Turner, York, Goodyear-Smith, & Petousis-Harris, 2010). Another finding from this study was that staff shortages were associated with less timely immunisation delivery. Coverage was higher in practices where immunisations were seen as an organisation priority (Grant et al., 2011). Younger age

of children at registration was also associated with higher immunisation coverage and more timely immunisation delivery (Grant et al., 2010).

There are multiple factors that have potential to influence an individual's decision to seek out immunisations for themselves or their child. A recent NZ study found that confidence in the safety of childhood vaccines is becoming increasingly divided, with 30% of the population showing decreased confidence overtime (Lee & Sibley, 2020). In 2019, WHO highlighted vaccine hesitancy as a major threat to global health (World Health Organisation, 2019b). Vaccine hesitancy is not defined as the refusal of vaccinations. There are multiple definitions for vaccine hesitancy in the literature. Some definitions relate hesitancy to a specific concern about the value or safety of vaccinations (Yaquub, Castle-Clarke, Sevdalis, & Chataway, 2014). The SAGE Working Group on Vaccine Hesitancy defines it as the *“delay in acceptance or refusal of vaccines despite availability of vaccination services. Vaccine hesitancy is complex and context specific, varying across time, place and vaccines. It is influenced by factors such as complacency, convenience and confidence.”* (SAGE Working Group, 2014, p. 7). This inclusive definition highlights that vaccine hesitancy is complex and driven by a multitude of factors outlined in the 3 C's model: *Confidence* is defined as trust in: the vaccines; the delivery systems, and in the policymakers driving them. *Complacency* exists where perceived risk of VPD's are low. This concept includes prioritising other health/ life issues which are considered more important. *Convenience* relates to physical access; affordability: willingness to pay; ability to understand (Language and health literacy); and quality of service. This concept also encompasses the degree to which vaccinations are delivered, with regard to time, place and cultural context, to meet recipients' convenience and comfort (SAGE Working Group, 2014)

Vaccine hesitancy is not unique to NZ. Lane, Macdonald, and Marti (2018) analysed the data collected between 2015 and 2017 for the WHO/UNICEF Joint Reporting Forum. These authors found that vaccine hesitancy was reported in more than 90% of countries. The reasons for vaccine hesitancy varied by country income level (according to the World Bank grouping) and WHO region. Globally, the top three reasons cited were: risk-benefits imbued in scientific evidence (e.g., individuals' vaccine safety concerns); lack of knowledge about vaccinations and their importance (e.g., parents lacking awareness of immunisation benefits); and thirdly, religion, culture, gender and socioeconomic issues regarding vaccines (e.g., cultural beliefs concerned with certain vaccinations leading to sexual promiscuity).

Lack of knowledge and awareness, and religious, cultural, gender and socioeconomic issues, were more commonly reported in low- and middle-income countries. In contrast, risk-benefits, and beliefs and attitudes about health, were more commonly cited reasons for vaccine hesitancy in high income countries (Lane et al., 2018). This is an important point as it highlights potential differences in vaccination attitudes and reasons for hesitancy between refugees who commonly come from low-income countries, and New Zealand born individuals. Defining these differences is important in determining what interventions are required to target specific factors present in different subgroups, within the general NZ population.

Vaccine attitudes can be seen on a continuum, ranging from total acceptance to complete refusal. While vaccine hesitancy is evident in NZ, Nowlan et al. (2019) purport that only a small proportion of parents actively refuse to accept vaccinations (approximately five percent). These researchers argue that immunisation coverage is more dependent on access to vaccines and engagement with services. Notably, access barriers have a significant influence on the immunisation status of disadvantaged populations (Nowlan et al., 2019).

#### **2.5.2.5 Immunisation coverage amongst refugees**

Similar to other countries that resettle refugees, surveillance data on immunisation coverage for refugee children in NZ is inadequate. Vaccination rates have been shown to be lower in migrant and refugee children than non-migrant children (Charania et al., 2018). Researchers completed a retrospective audit of health screening conducted between 2007 and 2011 on under-fives staying at the MRRC. The audit found that in children over 12 months, who had rubella and measles serology, immunity was found in 50% and 59% respectively (Rungan, Reeve, Reed, & Voss, 2013). The researchers also determined that there was no difference in measles immunity rates between regions. Rubella immunity, however, was highest in refugees from the America's group (71%) and lowest in refugees in the African group (14%). Although refugee children may have had vaccinations overseas, a complete vaccination certificate was only available for 66% of children, with 73% requiring additional vaccinations on arrival to MRRC (Rungan et al., 2013). This finding further highlights that refugee children are at risk of VPDs due to under-immunisation.

It is important to note that there is little to no comprehensive data about the health status or needs of non-quota refugees, such as those that come through the family reunification scheme (Kennedy et al., 2020). Consequently, there is an even more limited understanding about immunisation coverage amongst this group. One recent

study focused on a not-for-profit primary care service in Wellington. The researchers investigated the differences in needs, health utilisation, health screening and immunisation between quota refugees and refugee-like migrants (defined as refugees in the visitor visa, family support, or work visa categories). The findings reported that 80.6% of quota refugees, and 80.3% of refugee-like migrants, had at least one immunisation consultation with the general practice. Refugee-like migrants, however, usually waited longer before their first immunisation consultation (95 days vs. 39.4 days for quota refugees). Refugee-like migrants also had, on average, one more immunisation consultation than quota refugees (Kennedy et al., 2020). This study was unique in that it was situated within a general practice setting that included a specific model of care for refugee-like migrants and quota refugees. The researchers stated, to the best of their knowledge, no other general practices systematically identified the refugee-like migrant group in their data collection (Kennedy et al., 2020). Therefore, this study provides a unique insight into immunisations for non-quota refugees.

## **2.6 Determinants of immunisation uptake in refugees (post resettlement)**

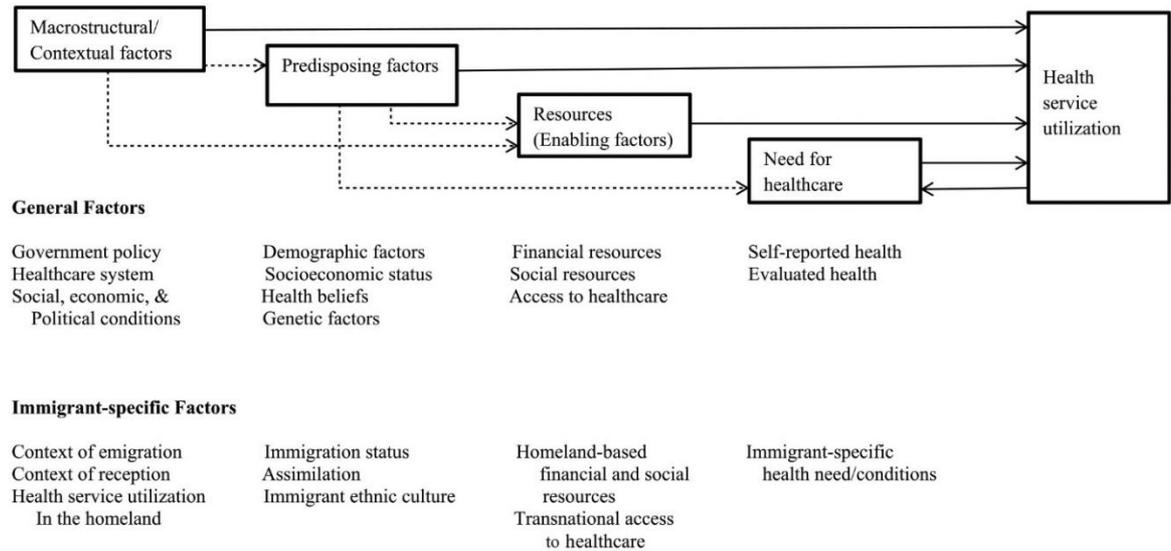
Barriers and enablers to accessing immunisation services for refugee children are complex and multifaceted. Previous research has shown that refugee children have significantly lower immunisation uptake than the host population (Moller et al., 2016). This section explores some of the barriers and enablers identified in previous research. There is scant literature relating specifically to immunisation access for refugees. Therefore, literature sourced included papers that focused on access to primary health care. These settings are the primary administrators of vaccinations, particularly in NZ (Ministry of Health, 2020b). Due to the paucity of literature from a NZ context, this section will predominantly draw on international research. The research will be contextualised to NZ by comparing and contrasting differences in the provision of health services. Aspects that will be examined include financial and political differences, refugee pathways, and determinants of community health care access.

Yang and Hwang's (2016) theoretical framework of health service utilisation has been used to provide structure to this section of the literature review. This framework builds on influences, theories and models, such as Andersen's health behaviour model, to further explore disparities in the utilisation of health service that are specific to immigrants (Yang & Hwang, 2016). The first category is *healthcare needs*. These needs include general and immigrant specific health concerns that prompt seeking care. The second category is *resources*. Included in this area are financial and social resources that enable or prevent immigrants' access to healthcare. The third category is *predisposing factors*. These individual-level factors include characteristics that affect

access to, and use of, health services, such as sociocultural factors, demographics, and immigration status. Lastly, *macrostructural factors* represent contextual conditions influencing healthcare access that are beyond individual control. This final category includes: government policy (including resettlement policies); conditions surrounding the health system; context of emigration, and resettlement (Yang & Hwang, 2016).

**Figure 1**

*Yang and Hwang's theoretical framework of health service utilisation*



*Note.* An analytical framework for immigrant health service utilisation. From “Explaining Immigrant Health Service Utilization: A Theoretical Framework”, by P.Q. Yang & S.H. Hwang, 2016, *SAGE Open*, Doi:10.1177/2158244016648137

### 2.6.1 Need for healthcare

Within the body of knowledge, it has been well established that refugee children are particularly vulnerable to communicable diseases. This susceptibility is due to coming from places with high prevalence of disease, travelling through endemic areas and residing in overcrowded refugee camps (Hvass & Wejsea, 2017). Under-immunisation is of particular concern. This shortfall is due to limited access to health care services, including country of origin immunisation services, and destroyed public health infrastructure (Pavli & Maltezou, 2017). Previous international research has shown that refugee children generally have lower rates of vaccination coverage and uptake than that of the host population (Fozouni, Weber, Lindner, & Rutherford, 2019; Moller et al., 2016).

Differences in vaccination coverage were noted between refugee populations. For example, one study noted that immunisation rates were significantly lower in Syrian

children born after 2011 when compared with Afghani children in the same age bracket. This disparity was considered to be a direct result of the Syrian civil conflict and its impact on child healthcare delivery (Fozouni et al., 2019). Differences in vaccination uptake were noted across refugee populations. For example, one study situated in Denmark noted that quota-refugees had lower uptake than asylum-seekers (Moller et al., 2016). Region of origin was also identified as a precipitator of uptake among refugee children (Moller et al., 2016).

### **2.6.2 Resources – Ability to receive and/or access health services**

In the context of this review, immunisation uptake and utilisation of primary health care, resources refer to means that enable refugee caregivers to receive and/or access primary health care services for the purpose of vaccinations. This includes financial resources, social resources and access to healthcare. (Yang & Hwang, 2016). International and national literature has found that refugees face many financial, structural and socio-cultural barriers to accessing health services (Kohlenberger et al., 2019; Wilson et al., 2018). Multiple studies identified that structural barriers, such as language and lack of interpreting services, presented obstacles to accessing effective healthcare, particularly in the early settlement period (Bischoff & Denhaerynck, 2010; Chiarenza et al., 2019). A cross-sectional study of 92 adults refugees in the US found that 65.9% believed the type of care they received would have been better if there were no language barriers (Mkanta, Ibekwe, Grubb, & Korupolu, 2017).

The use of interpreters plays an important role in facilitating communication between refugee families and healthcare professionals, particularly in relation to determining vaccination history (Nakken, Nørredam, & Skovdal, 2018). Some services have moved from a model of face-to-face interpreter to phone or language line interpreting services. However, Mkanta et al. (2017) found that the majority of refugee patients prefer onsite interpreter, with just 59% expressing satisfaction with phone or language line interpreters. The lack of available interpreters may lead to informal strategies being used. These methods include the use of friends and family members. Children frequently assume an interpreter role which can cause disruption to the child/parent relationship. The utilisation of online translating tools may be interspersed with the use of body language and gesturing. All the above strategies have some measure of effectiveness, but this co-exists with the potential to compromise access, trust and doctor-patient relationships (MacFarlane et al., 2014).

Provider-patient relationships have been identified as a crucial component in supporting access to primary health care services. Previous studies with refugees have

highlighted that compassionate and culturally considerate care is essential to developing and maintaining trust between refugees and providers (Patel, Bernays, Dolan, Muscat, & Trevena, 2021). From the perspective of refugees, compassionate care can be achieved through providers' willingness to listen to their personal stories, non-verbal cues such as smiling and nodding, showing patience and cultural understanding, which includes access to same gender interpreters and providers (Carroll et al., 2007). Health providers play a key role in disseminating information about vaccines. Their professional recommendations are universally believed to be a key determinant to increasing vaccination uptake in the general population (Nowlan et al., 2019). The positive impact of informed opinion also translates to the migrant and refugee population (Napolitano, Gualdieri, Santagati, & Angelillo, 2018).

Financial barriers include direct and hidden costs such as healthcare costs, insurance, transportation and lack of accessibility (Newbold & McKeary, 2018). When compared to host populations, studies identified refugees' experience heightened financial and transport barriers to healthcare access (Moller et al., 2016). The issue of healthcare costs and insurance coverage is likely to be more problematic in insurance-based health systems such as exists in the United States of America. In comparison, the NZ health system is predominantly a tax-funded system and all refugees are eligible for publicly funded healthcare (Ministry of Health, 2019b). Access to social resources such as family, friends or voluntary organisations also supports access to healthcare services. A Dutch study, focused on undocumented immigrants, found women supported by voluntary organisations were significantly more likely to register with a general practice than those without support (81% vs. 23% respectively) (Schoevers, Loeffen, & Lagro-Janssen, 2010).

Limited, or lack of, accurate and user-friendly information negatively impacts access to vaccination services. This deficit is exemplified when immunisation; vaccine preventable disease, and health service information is only available in English. This dearth of accessible information is particularly relevant as many studies highlighted that refugees lack knowledge about vaccines and diseases (Wilson et al., 2018). A Canadian study was conducted on parental decision-making factors influencing HPV vaccine uptake in refugee populations. The mothers' experience was vaccine information is usually presented in English or aimed at higher levels of literacy than they possessed. The authors noted that the lack of accessible information undermined the mothers' confidence in their ability to articulate their reservations and decisions whether or not to have their daughters vaccinated (Burke et al., 2015).

Having access to a wide range of information sources has been highlighted in the literature as an important determinant for refugees' vaccination uptake. In a study exploring refugees' attitudes and awareness of the HPV vaccine, Napolitano et al. (2018) found that the primary vaccine information source was healthcare providers (60.3%), followed by friends and family (22.1%) and mass media campaigns including television and magazines (19.2%).

### **2.6.3 Predisposing factors**

Linguistic and cultural issues have been identified in many studies as predominant barriers to accessing and receiving effective healthcare services, including refugee access to immunisations (Chiarenza et al., 2019; Moller et al., 2016; Szajna & Ward, 2015). One study found that language barriers between refugees and service providers are a leading cause of dissatisfaction with regards to receiving healthcare for refugee families (Mkanta et al., 2017). These challenges are associated with disparities in accessing health services. For example, a longitudinal study of Australian children reported that children living with families from non-English speaking backgrounds are more disadvantaged regarding access to healthcare, than children living with families from English speaking backgrounds (Ou, Chen, & Hillman, 2010).

Similarly, a USA based study found that children in non-English speaking homes were less likely to have a usual source of medical care than children from English speaking homes (38% vs. 13% respectively) (Flores & Tomany-Korman, 2008). This disparity may be due, in part, to refugees' reticence to contact GPs due to language barriers (Moller et al., 2016). Immigrant children typically acculturate faster than their parents. Often children find themselves acting in the position of a "cultural broker" and having to serve as a translator between their families and the new society. These situations may lead to generational conflict as children are likely to experience the stress of adult responsibilities, whereas parents and caregivers may feel added stress having to rely on their children for well-being (Bush, Abrams-Muruthi, Bohon, & Kim, 2017).

Knowledge gaps were identified as a key barrier to accessing immunisation services and cited as common reasons why refugee children were not vaccinated. The literature highlights that refugees' typically have limited knowledge of preventative health services, vaccine preventable diseases and the vaccines themselves (Burke et al., 2015; Rubens-Augustson et al., 2018; Wilson et al., 2018). This limited knowledge was considered to be related to experiences of war and conflict, and sub-optimal health services in their home countries (Moller et al., 2016). Burke et al. (2015) retold stories

from refugee mothers who described that war, deprivation, and scarcity precluded their access to health education. Care during this period was centred on food and survival. Another study indicated that parents having lower education levels was also considered a risk factor for under-immunisation (Fozouni et al., 2019). Low levels of vaccination awareness were also thought to be related to unfamiliarity of medical services in the host country (Napolitano et al., 2018). Communication challenges and cultural discordance was also considered to negatively impact on refugees awareness of vaccines and vaccination services (Napolitano et al., 2018).

International research has found that refugee parents and caretakers are generally very accepting of children's vaccinations (Rubens-Augustson et al., 2018; Socha & Klein, 2020). Some studies have reported that there is a level of vaccine hesitancy amongst refugee parents/caregivers, particularly in relation to the HPV vaccination (McComb, Ramsden, Olatunbosun, & Williams-Roberts, 2018; Rubens-Augustson et al., 2018; Wilson et al., 2018). The reasons behind parent/caregiver hesitancy were purported to be related to cultural barriers (e.g., talking about sex is taboo) and religious beliefs around sex before marriage. Some parents were reluctant to vaccinate their child due to beliefs that vaccinating against a sexually transmitted disease may promote promiscuity (McComb et al., 2018). A Canadian study explored health provider perspectives on human papilloma vaccine uptake in newcomers. The researchers found hesitation or rejection of the HPV vaccine was perceived to be more strongly correlated with religion than culture (Rubens-Augustson et al., 2018).

Despite some hesitancy to the HPV vaccine, Rubens-Augustson et al. (2018) noted that newcomers displayed greater acceptance of vaccinations than non-newcomers. The researchers suggested refugees' acceptance was heightened due to personal experience of disease in their country of origin. Refugees' experiences included witnessing the health implications in people who are not vaccinated. The authors concluded that due to these experiences, refugees were generally very trusting of healthcare services (Rubens-Augustson et al., 2018). Burke et al. (2015) also noted how refugee mothers' past experiences and vulnerabilities became motivators to protect their children. Their aspirations included protecting children from future diseases through vaccination.

#### ***2.6.4 Macrosocial structure / contextual conditions***

Research has identified multiple factors at the macrosocial level that enable or hinder uptake of immunisation services. These factors include institutional barriers put in place by health care systems; government policies surrounding resettlement; social

and economic conditions; context surrounding resettlement, and healthcare utilisation in their homeland. Resettlement polices have an important role to play in accessing services. The New Zealand Resettlement Strategy provides a framework for government agencies and non-government organisations to work together to support resettlement outcomes including health and well-being and access to general practices (Immigration New Zealand, 2012). Previous authors, however, have criticised The Strategy for its exclusion of non-quota refugees. The latter includes groups such as convention refugees and those that arrive through the RFSC category (Bloom & Udahemuka, 2014). This disparity is highlighted in the NZ government-mandated arrival process. The system sees quota refugees being screened for immunisations and commencing any required catch-up programmes before settlement (Kennedy et al., 2020). Quota refugees also receive up to 12 months of resettlement support through a community orientation programme.

In contrast, the lack of NZ government sponsored settlement support and health screening for non-quota refugees is likely to impact on their health utilisation and immunisation uptake. Bloom and Udahemuka (2014) highlighted a significant barrier concerned with refugee and healthcare professionals' knowledge gap about healthcare entitlements. Asylum seekers and convention refugees encounter this obstacle when accessing health services. Other authors highlighted that increased NZ government funding is required to enable general practices to support refugee service access and to provide culturally competent care (Woodley & Williams, 2012).

Refugee pathways were considered to impact on healthcare utilisation in international research. For example, one Danish study noted that quota-refugees had lower vaccination uptake than asylum-seekers (Moller et al., 2016). The study found that asylum seekers spent an extended period in an asylum centre. During their stay, they received comprehensive information about the Danish health care system and disease prevention. Moller et al. (2016) summarised that asylum seekers are better informed about vaccination uptake than quota refugees; the latter being less likely to receive the required health advice on arrival in Denmark. Contrary to the Danish experience, and as previously discussed, NZ's quota refugees are provided with resettlement support not afforded to other refugee categories including successful asylum seekers (convention refugees).

The context that surrounds refugees' resettlement may also negatively impact immunisation uptake. Research indicates that immunisations may be overlooked upon

arrival due to competing resettlement priorities (Kpomezouen et al., 2016). Another impediment to vaccination uptake is the lack of accompanying immunisation records when refugees arrive in the host countries. This information deficit is accentuated by inadequate systems to record and report vaccination status for refugees and migrants (Mipatrini et al., 2017). The lack of comprehensive demographic and health data on refugees has also been highlighted in NZ research (Kennedy et al., 2020; Mortensen, 2011).

There is limited research exploring the impact of institutional discrimination on healthcare access for refugees. Within New Zealand, institutional discrimination is evidenced by resettlement policies that exclude certain refugee and asylum seeking groups from accessing resettlement supports (Bloom & Udahehuka, 2014). And thus may impact on health outcomes. Emerging global research suggests that refugees and asylum seekers experience discrimination regarding healthcare access (Kang, Tomkow, & Farrington, 2019). An Australian based study described refugees' experiences of systemic discrimination, including discriminatory government policies, which impact on healthcare access pending the type of visa a refugee is holding (Ziersch, Due, & Walsh, 2020). A Canadian based study explored attitudes of healthcare professionals' regarding healthcare access for refugee claimants. The researchers found that alongside personal and professional factors, institutional factors such as institutional context (primary vs secondary care) and direct vs indirect contact with refugees influenced individuals' attitudes about refugee claimants' access to health care (Rousseau et al., 2017). For example, health professionals in primary care settings were found to have more positive attitudes towards refugees' than those working in hospital settings. These findings suggest that institutional settings, professional backgrounds and institutional discrimination may impact on healthcare access and outcomes for people with refugee backgrounds.

### **2.7 Challenges impacting immunisation service delivery: Health professional perspectives**

Aside from healthcare utilisation, the literature has addressed challenges that healthcare providers face in delivering immunisation services to refugees. Healthcare providers identified communication challenges as a major impediment to providing appropriate care to refugees in general practice settings (Chiarenza et al., 2019; Lawrence & Kearns, 2005; Richard et al., 2019; Rubens-Augustson et al., 2018). Primarily, this stumbling block relates to challenges in providing culturally appropriate services to refugee patients (Szajna & Ward, 2015).

A NZ evaluation study was completed on eCALD® Services' Culturally and Linguistically Diverse (CALD) training for health providers working in the emergency quota refugee regions (Mortensen, Lim, & Puddle, 2018). This study identified that 44% of participants reported facing barriers that impacted on their provision of culturally appropriate services to CALD patients (44% said they didn't face barriers and 7% answered not applicable). Of those who answered "yes", the primary reason was the unavailability of translated information, followed by "other": no appropriate services to refer to; no cultural case worker for complex patients, and interpreting services not available or not funded. Most importantly, 27% of participants highlighted "other" as a response, indicating that further investigation on barriers faced by health professionals working with CALD patients is required (Mortensen et al., 2018).

Difficulties accessing both interpreting services and resources in different languages are frequently identified in the literature (Bischoff & Denhaerynck, 2010; Chiarenza et al., 2019; Szajna & Ward, 2015). These two challenges were interrelated and often compounded by each other. For example, the lack of appropriate resources to resolve linguistic barriers can lead to providers and refugees facing heightened cultural barriers, further hindering the process of care provision (Chiarenza et al., 2019). Language barriers are also detrimental to the patient-provider relationship (Mkanta et al., 2017). There is a preference amongst health professionals for interpreters to be physically present. It is also expected that interpreters are qualified, have knowledge about the medical field and an understanding of vaccine names (Nakken et al., 2018).

In NZ, the availability of interpreters is negatively impacted by lack of funding and inconsistent policies on interpreter use across DHBs (Gray, Hilder, & Stubbe, 2012). Immunisation information resources, including consent forms, were usually only available in the host language; the lack of diagrams leads to information not being readily accessible to refugees and asylum seekers (Rubens-Augustson et al., 2018). The paucity of culturally appropriate information further compounded challenges around language and awareness, resulting in difficulties with obtaining signed consent forms. The inability to obtain consent created time delays and, in some cases, led to a missed immunisation event (Rubens-Augustson et al., 2018).

Healthcare professionals identified the lack of time and increased workload as key challenges when providing health services to migrants and refugees (Piselli et al., 2019; Richard et al., 2019). In a study conducted across six European Union Member States, health practitioners cited excessive workload as the problem they encountered

most frequently when providing services to refugees and asylum seekers (Piselli et al., 2019). In a NZ study, health providers from a newly established resettlement location in Dunedin were interviewed. Participants perceived that time-restricted consultations impeded delivery of care to refugee patients. This experience continued even when financial assistance was provided to support 30 minute consultations (Richard et al., 2019).

Health providers also reported a lack of preparedness in the systems set up to support the delivery of health services. Richard et al. (2019) found planned resources were considered deficient when meeting the actual needs and demands of the refugee population. For example, initially refugees were provided with 6 months of support cover which enabled their free access to general practices. Subsequently, this was raised to 2 years to meet their actual demands. The financial compensation to cover extended consultations was also perceived to be too limited (Richard et al., 2019).

International studies highlighted that health professionals perceive insufficient training and lack of expertise create barriers to delivering effective immunisation services for refugee children (Socha & Klein, 2020; Szajna & Ward, 2015). An Australian based study concurred, describing resource barriers created by the lack of refugee-specific training for GPs and other key stakeholders. This knowledge deficit included a lack of training and expertise amongst GPs in the provision of catch-up immunisations (Mahimbo, Seale, Smith, & Heywood, 2017). Inadequate resources to support the provision of immunisation services for refugees were also identified. These findings are congruent with those from a review into the responsiveness of the NZ public health system in meeting refugees' needs. This review highlighted health professionals' limited knowledge and skills in providing culturally relevant care for some migrant and refugee groups (Mortensen, 2011). Rubens-Augustson et al. (2018) also identified health professionals' hesitancy to initiate discussions related to sexuality and sexual health due to these being taboo subjects among different cultures in the refugee community.

Aotearoa New Zealand based studies describe difficulties providing affordable care for refugees due to their complex health needs requiring more frequent presentations to health services than predicted by government funding models (Lawrence & Kearns, 2005). Language barriers negatively impact on both quality and cost of health care. A Swiss study found that higher care costs were incurred when there were language barriers between asylum seekers and the healthcare provider (Bischoff &

Denhaerynck, 2010). These costs were primarily attributed to the use of interpreting service. Bischoff and Denhaerynck (2010) concluded, however, that although care costs were higher, these patients had a lower number of healthcare visits than patients who did not received interpreting services. This finding indicates the presence of an interpreter led to the resolution of health issues in fewer visits. Therefore, not employing effective solutions to language barriers due to cost containment, such as not using an interpreter, may increase overall costs because health issues may take longer to resolve.

The international literature identified the lack of global funding for refugee and migrants' catch-up immunisations as being a significant barrier to the provision of immunisation (Kprozehouen et al., 2016). In NZ, however, all children under the age of 18 are eligible to receive fully-funded vaccines as per the National Immunisation Schedule, regardless of their immigration status (Ministry of Health, 2020b). This funding includes all required catch-up immunisations.

Previous literature also noted that at times refugee may have unrealistic expectations of healthcare delivery in host countries e.g. expecting to receive faster treatment (Mkanta et al., 2017). These presuppositions can lead to incongruity between refugee patient and provider expectations. Creating trustworthy relationships with refugees involves respecting and managing differences in expectations to avoid unmet needs. A key part of this process also involves healthcare providers managing their own expectations when providing care to refugees (Richard et al. (2019)

The lack of infrastructure to facilitate inter-service and inter-sectorial coordination of services, such as shared information systems, was identified as a significant barrier to promoting continuity of care. Participants in this vaccination-uptake study highlighted the lack of processes to ensure timely coordination of refugees' health information. These disrupted information pathways caused delays in providing timely access to care, including immunisations, to former refugees (Richard et al., 2019).

## **2.8 Improving immunisation services**

In 2016, the United Nations Committee on the Rights of the Child recommended the NZ government take necessary measures to ensure adequate access to health services for all children. These recommendations included reducing the prevalence of preventable diseases. With particular reference to refugee and asylum-seeking

children, the committee recommended increased efforts to promote the integration of, and access to, health services (United Nations, 2016). A review of the literature concerned with strategies to improve vaccination uptake in refugee populations underscored the importance of health practitioner communication. Highlighted was the need to ensure language is culturally and linguistically appropriate (MacFarlane et al., 2014). One way to achieve linguistic responsiveness is to utilise interpreters when refugees and healthcare providers do not have a shared language or cultural background.

Community engagement and educational activities focusing on refugees have been recommended to address cultural differences in: health seeking behaviours; unfamiliarity of local healthcare systems, and attitudes to preventative healthcare measures. Much of the literature highlighted the need for culturally appropriate information resources in a variety of languages and literacy levels (Kpozehouen et al., 2016; Rubens-Augustson et al., 2018; Wilson et al., 2018). These educational resources must explain the purpose of vaccinations while alleviating concerns about safety or effectiveness (Wilson et al., 2018).

Further training for healthcare professionals has also been identified as an important factor in improving immunisation service delivery (Socha & Klein, 2020; WHO Regional Office for Europe, 2019). Specific training opportunities should be provided to improve healthcare professionals' awareness of the needs and cultural perspectives of refugees. Studies have also highlighted the need for training on the effective use of interpreters. WHO Regional office for Europe (2019) produced a technical guide on the delivery of immunisation services for refugees and migrants. This guide states that healthcare professionals can reduce missed vaccination opportunities by utilising every healthcare contact and opportunity with their refugee patient. Each health contact should include a review of the refugees' immunisation history, and then administer appropriate vaccines as per the national immunisation schedule including catch-up vaccinations. Out-of-hours clinics and drop-in centres can also reduce access barriers and provide opportunities for administering vaccinations (WHO Regional Office for Europe, 2019).

Other recommended tools to boost vaccination compliance include utilising appropriate mobile and e-technology to support the delivery of health-promoting messages, vaccination reminders and recall notifications (Jacobson Vann et al., 2018). To increase monitoring and evaluation of immunisation coverage, it is recommended that

primary care health practitioners routinely collect refugee specific characteristics (WHO Regional Office for Europe, 2019). This information gathering should include: the identification and recording of migration status; country of birth; year of arrival; language spoken, and interpreter requirements (Kpozehouen et al., 2016).

When discussing effective vaccination measures, Nichter (1995) calls for a community based approach to primary health care. He argues that campaigns which focus on immunisation targets and surveillance data can also disempower communities to decide on their own health care and are ultimately less effective than campaigns which aim to educate a community. Programmes designed to achieve short-term goals (e.g. rapid vaccination coverage) will therefore differ, in terms of content and service-user participation, to programmes designed to educate a community. Nichter (1995) purports that the long-term success of vaccination campaigns will be measured in terms of community demand for vaccination services.

## **2.9 Summary of literature review**

This literature review has analysed a comprehensive range of both national and international literature concerned with vaccine-preventable diseases and vaccination coverage in refugee populations. Identified determinants of immunisation uptake amongst refugee populations are examined using an immigrant specific health utilisation framework (Yang & Hwang, 2016). This framework is also utilised to explore the perceptions of people who provide primary healthcare services, including immunisations, to refugees. Barriers and enablers of immunisation delivery are discussed. These ideas and insights are drawn from the literature that describes both refugee and service provider experiences. Determinants of immunisation uptake for refugee children residing in Aotearoa New Zealand are explored. This review identified refugee-related challenges such as varying, and sometimes very limited, awareness of immunisations, VPDs and local health systems. Barriers discussed include financial difficulties, impediments to accessing health services, experiences of discrimination and contextual challenges around resettlement priorities.

Provider-related challenges were highlighted from within the international literature. Mainly drawing on practitioners' first-hand experiences, these significant challenges included: inadequate resources to support communication between healthcare professionals and refugees; increased time and workload in delivering health services to refugees, and lack of healthcare provider knowledge around refugee-specific issues

and needs. Finally, this review explored system-related challenges from both international and Aotearoa New Zealand perspectives. These systemic issues included: lack of policies concerned with resettlement and access to supports; inadequate funding of primary care services to delivery effective healthcare to refugees, and lack of routine data collection of refugee status and health needs.

Established Aotearoa New Zealand health priorities include increased immunisation coverage for refugee children. This goal includes acknowledgment of increased health risks from under-vaccination. Research regarding refugee children's post resettlement access and engagement with NZ immunisation services is, unfortunately, limited. This review highlights that there are different influencing factors for parents/caregivers' decisions to vaccinate their children. Factors that influence access and decision making are different between low, middle and high-income countries (Lane et al., 2018). This is an important consideration as most refugees that resettle in NZ are from low and middle-income countries. Therefore, there is likely to be a difference in parental attitudes between refugees and parents of NZ born children. Defining these differences is important as it will determine what interventions are required to target specific factors in subgroups of the national population.

This review also review highlights that the characteristics, quality and organisation of healthcare can amplify, or mitigate, the impact of determinants of refugee health (O'Donnell et al., 2016). Primary healthcare services, therefore, have an important role in the provision of equitable immunisation services to refugees. Healthcare providers, who work with refugees, have valuable insights into the challenges associated with immunising refugee children. Further research is needed that aims to explore experiences and challenges faced by health providers who are responsible for delivering immunisation services with refugee families. These insights are likely to provide an understanding of the best way of coordinating immunisation services so that they meet the needs of children with refugee backgrounds and their caregivers and support the identification of strategies that may improve immunisation uptake in refugee children.

There is no known NZ research specifically exploring health provider perspectives on positive influencers of vaccination uptake amongst refugee children. Immunisation providers, mostly practice nurses, possess first-hand knowledge that is integral to developing national and local policy to improve immunisation coverage for refugee

children. Therefore, this research aims to address gaps in the literature by exploring the insights and challenges faced by healthcare professionals in the delivery of immunisation services to refugees.

## Chapter Three: Methodology

Before undertaking research, Crotty (1998) suggests that two questions must be considered. Firstly, what methods and methodologies will be employed, and secondly, how is this choice justified. The answers will lie, in part, with the research question. The rest will emerge from answering what is the theoretical perspective behind the chosen methodology, and what epistemology informs this. This chapter outlines the research paradigm and methodology utilised in the study, along with the methods used for recruitment, data collection and analysis. Finally, aspects of academic rigour are described along with ethical considerations.

### 3.1 Research paradigm: Interpretivism

Research paradigms relates to a system of beliefs and assumptions which influences how research generates knowledge. This construct includes ontological assumptions about realities, epistemological assumptions about knowing and axiological assumptions about the extent and ways in which values shape research. These assumptions inevitably shape how research questions are understood, the methodology used and the interpretation of findings (Crotty, 1998). There are three dominant research paradigms: positivism, interpretivism and critical inquiry. Each paradigm involves different philosophical assumptions about how research should be conducted and the role of the researcher (Lincoln & Guba, 2013). Much of the research in public health is still located in the positivist paradigm (Baum, 2015), which assumes there is one single reality that can be observed and measured and that this reality exists independently of the human mind (Polit, Beck, & Hungler, 2001). Most of this research is quantitative with the goal of determining the nature of this reality through observation and measurement, otherwise known as empiricism (Carter & Lubinsky, 2015).

The research paradigm that guided this study was interpretivism, which argues against the reductionist approach to human experience that exists within positivism (Grant & Giddings, 2002). The ontological position of interpretivism is relativism, which in contrast to the positivist paradigm, assumes there are multiple realities for which people create their own subjective and intersubjective meanings as they interact with the world around them. Thus, each individual experience is truthful and worth investigating (Grant & Giddings, 2002). Within interpretivism, researchers attempt to understand human and social reality through interacting with research participants, holding the epistemological position that knowledge is maximised when the distance between research participants and the researcher is minimised (Polit et al., 2001). This study was situated within the interpretivist paradigm as it seeks to understand the

participants' experiences and assumes that each experience is different and important to understand through an interactive process between the researcher and the participants.

Creswell and Miller (2000) discuss the importance of the "lens" used by the researcher. In contrast to quantitative studies where researchers are most concerned about scores, instruments and internal and external validity of research design, qualitative researchers adopt a lens that is constructed by the views of people who conduct and participate in the research (Creswell & Miller, 2000). For this reason, Thorne (2016) emphasises the importance of acknowledging and documenting the ideas held by the researcher about the phenomenon that is being studied. Researcher reflexivity is an inherent part of the researcher "lens". This requires self-disclosure of beliefs, values and biases that may shape the research (Creswell & Miller, 2000). While reflexivity should be a continuous process throughout all stages of the research, Thorne (2016) states that it is particularly important during the data collection and analysis processes.

### **3.2 Research methodology: Interpretive Description**

Interpretive Description (ID) is one of several qualitative methodologies that align with the interpretivist paradigm. ID was developed by Thorne and colleagues as an inductive research approach that is orientated towards clinical practice (Thorne, Kirkham & MacDonald-Emes, 1997). ID emerged within the field of nursing out of recognition that traditional qualitative methodologies, which are deeply rooted in sociology and anthropology, did not answer many of the questions that health research sought to answer (Thorne, Kirkham & MacDonald-Emes, 1997). Rather than being new and unique, ID evolved from traditional qualitative research methodologies and has roots in grounded theory, phenomenology, and ethnography. As a non-categorical methodology, ID uses various sampling, data collection, analysis and reporting methods that are common to its predecessors (Thorne, 2016). ID researchers, however, are more concerned with offering practical solutions to the issues identified within a health context, as opposed to providing deep philosophical understandings, such as with phenomenology (Thorne, 2016).

Interpretive description (ID) was selected to inform this research due to the emphasis on generating meaningful knowledge that is capable of informing practice within a clinical context (Teodoro et al., 2018). This study aimed to explore vaccination provider perspectives on factors that influence vaccination uptake and use that knowledge to develop practical strategies to improve vaccination coverage among children with refugee backgrounds post-resettlement. Although ID was originally developed within

the field of nursing, over time it has proven to be a suitable methodology for other applied health professionals who seek to answer clinical questions (Teodoro et al., 2018). The clinical questions that formed the basis of this research were: *why are immunisation rates for refugee children lower than non-migrant children? Why are current immunisation services not meeting their needs? What strategies can be employed in a clinical context to improve immunisation rates for this population?* The other notable point with ID research is that the knowledge and clinical understanding must be relevant to the clinical context in which vaccination practitioners' work (Throne, 2016).

### 3.3 Study Area and Population

This research was conducted over eight refugee quota settlement locations in New Zealand as of 2019: Auckland, Waikato/Hamilton, Manawatu/Palmerston North, Wellington, Nelson, Christchurch, Dunedin, and Invercargill. Only seven locations, however, are represented in the final results due to refugee resettlement being suspended in Christchurch following the 2010 earthquake. This discontinuance meant only a few practices in Christchurch had enrolled refugee children at the time of conducting this research. As per the table below, the pattern of resettlement is different in each location. Some sites (Auckland, Waikato, Manawatu, and Nelson) have resettled quota refugees for more than ten years, whereas Dunedin and Invercargill are relatively new settlement locations (Immigration New Zealand, 2019). There are two notable points regarding Table 3 below. Firstly Ashburton, Timaru and Blenheim are new resettlement locations, established after this research was conducted. Secondly the drop in total resettlement numbers between 2019 – 2021 reflects the on-going COVID-19 pandemic that resulted in the quota resettlement programme being paused, as were the other refugee pathways to NZ entry.

**Table 3**

*Refugee Quota Settlement by Region*

<b>Nationality</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>
Auckland	234	185	103	86	106	131	53
Waikato	116	115	175	165	161	103	33
Manawatu	115	113	157	162	143	101	38
Wellington	212	277	245	243	168	92	26
Nelson	75	89	127	127	117	88	23
Christchurch	1	3	14	11	47	97	34
Dunedin		94	196	182	178	90	10
Invercargill				44	87	69	

Ashburton							9
Timaru						16	2
Blenheim						10	14
<b>Total</b>	<b>753</b>	<b>876</b>	<b>1017</b>	<b>1020</b>	<b>1007</b>	<b>797</b>	<b>242</b>

*Note. Adapted from <https://www.immigration.govt.nz/documents/statistics/statistics-refugee-and-protection.pdf>*

In line with ID, the term “participant” is used to refer to sample members due to its neutrality (Thorne, 2016). Participants included healthcare practitioners who have a lead role in vaccinating former refugee children, primarily vaccination nurses.

### **3.4 Recruitment and sampling**

#### **3.4.1 Location**

Participants were recruited through general practices with a high proportion of enrolled patients being of refugee status. These practices were all situated in one of the eight New Zealand resettlement locations as of 2019: Auckland, Waikato/Hamilton, Manawatu/Palmerston North, Wellington, Nelson, Christchurch, Dunedin, and Invercargill.

#### **3.4.2 Sampling**

Purposive sampling was used to achieve maximum variation (Thorne, 2016). This method aims to identify study participants who will bring a wide range of experience to provide rich data and detail to the research (Patton, 2015). Consistent with ID methodology, purposive sampling provides an effective approach to identify and seek out those who are best equipped to inform the researcher about the subject matter being explored (Patton, 2015). To achieve maximum variation among participants, workplace characteristics were considered such the health clinic’s geographical location. Wrap-around health services, such as free consultations for those with refugee status, was an inclusion consideration along with the general practice’s vaccination performance, and high versus low in comparison to the national immunisation rate. The strategy also included practitioner characteristics such as age, years of vaccination experience and years of experience vaccinating children with refugee backgrounds. Demographic information was collected from each participant to ensure variation and guide further recruitment. Participant inclusion criteria comprised of being 18 years or older, proficient in English, and having a lead role in administering childhood vaccinations and experience vaccinating children with refugee backgrounds.

An ethics amendment (15 August 2019) was submitted to include snowball sampling in the recruitment strategy. Like purposive sampling, snowball sampling is a type of non-probability sampling where a recruited participant identifies other participants who may be suitable for the study (Fisher & Bloomfield, 2019). Snowball sampling is an effective technique for conducting research with a small population who are difficult to locate or identify (Noy, 2008). This challenge arose during this study's recruitment phase and is described in detail under *recruitment challenges* below.

### **3.4.3 Recruitment strategy**

The Immunisation Advisory Centre's (IMAC) networks were utilised to select the general practices. Recruitment of vaccination nurses was conducted by the lead researcher and supported by Ms Donna Watson, a project manager at University of Auckland, who has strong networks and previous experience recruiting nursing staff from general practices. Contact with suitable general practice clinics was first initiated by phone call to the practice managers. The purpose of this was to determine the suitability of the practice and request access to recruit participants. This initial phone call was followed-up with an email with information about the study including a practice manager information sheet (Appendix D) a participant information sheet (appendix E) and a consent form (appendix F). Follow-up phone calls were made after four weeks if the general practice had not responded. Forty-six general practices were contacted across all eight resettlement locations. Following the addition of snowball sampling, a web-based search of refugee health networks was conducted and services such as Well South Dunedin and Invercargill were approached and asked to recommend general practices that met the study criteria.

### **3.4.4 Sample size**

Although ID can be used in research with any sample size, most studies are relatively small, and this is true of most qualitative research. The interpretive paradigm is concerned with developing a depth of understanding and knowledge as opposed to breadth. As there is no objective justification for sample sizes in ID (Thorne, 2016), sampling and data collection was concurrent and continued until data saturation was reached. Thorne (2016) defines data saturation as the point at which no new themes or information emerges from the data. Thus, the researcher can justifiably provide a rich description of participants' experiences of vaccination with refugee children, which meaningfully contribute to the research findings (Guest, Bunce, & Johnson, 2006).

### **3.4.5 Challenges and amendments to recruitment and sampling strategy**

Recruiting participants took longer than anticipated due to extenuating circumstances, which are detailed below. Participant recruitment is a long-standing issue in qualitative research. This is particularly apparent when recruiting healthcare providers, where recruitment is challenged by unprecedented workloads related to patient acuity and other practice demands (Broyles et al., 2011; Hysong et al., 2013). The initial intent was to recruit a minimum of two vaccination nurses with experience vaccinating refugee children, with representation across the eight refugee resettlement locations in New Zealand. Two primary challenges were identified during this process:

1. Identifying general practices and participants who met the inclusion criteria
2. Lack of participant's capacity to engage in research at that particular time

Twenty-three participants initially expressed an interest in participating in the research, 19 of these completed a consent form. Four subsequently declined to participate citing work priorities and no further response was received from one participant on follow-up. During the period of recruitment there was an increased demand on primary healthcare services, particularly on vaccination services. There were three predominant reasons for this. 2019 saw an outbreak of measles across New Zealand, with 2191 confirmed cases between 1<sup>st</sup> January 2019 and 15<sup>th</sup> January 2020 (Ministry of Health, 2020a). Gaining access to South Island general practices was particularly difficult, with many practice managers citing an increase in influenza over the recruitment period.

According to the Ministry of Health, a near record level 1.3 million doses of influenza vaccines were distributed in the first couple of months of the winter period (Ministry of Health, 2019a). This meant that many general practice clinics were unable to release nursing time to support the research. At the end of 2019, a decision was made to place recruitment from South Island clinics on pause until 2020 and add snowball sampling and oversample from areas that have higher numbers of quota refugee resettlement such as Auckland and Wellington. Early 2020 then saw the emergence of COVID-19 and participant interviews were once again paused.

### **3.5 Data collection**

Data was collected through the use of semi-structured interviews; a traditional qualitative data collection method that is common in ID research (Thorne, 2016). In line with tenets that underpin ID, semi-structured interviews provided flexibility in questioning to enable a deeper understanding of lived experiences within an individual context. A strength of these interviews was that interviewees were able to respond in their own words, as opposed to responding to pre-determined responses (Polit, Beck,

& Hungler, 2001). The use of open-ended questions evoked in-depth responses that are meaningful to each individual participant.

### **3.5.1 Interview process**

A review of the literature concerned with immunisation in former refugee populations determined the interview schedule that guided the interviews. To ensure the questions were appropriate, interview questions were reviewed by an advisory committee and tested by two pilot participants. The advisory committee consisted of members from organisations such as the Immunisation Advisory Centre (IMAC), Ministry of Business, Innovation and Employment (MBIE), the Mangere Refugee Resettlement Centre (MRRC) and Auckland University of Technology (AUT). Feedback on the interview schedule was received by three members of the committee, including research supervisor. Feedback was sought after the first pilot interview which resulted in the slight rephrasing of questions nine and ten to increase clarity. It was recognised that due to the complex wording of question number ten, which was related to refugee caregiver-level factors that influence vaccination uptake, the researcher offered some examples of factors that may influence vaccination uptake. On reflection this was noted to be a leading question as it elicited a response where the participant simply agreed with the examples offered by the researcher. The question was reworded, and leading examples were removed, before being tested in the second pilot interview.

The interview guide was evaluated again during the second pilot interview and no further changes were required. See Appendix (B) for a copy of the final interview schedule. As the interview guide did not change significantly after the pilot, researcher and research supervisor deliberations led to the decision to include both pilot interviews in the final data analysis. Their inclusion was considered appropriate given the interviews and recruitment challenges, outlined in the paragraphs above, which meant several participants were not able to complete interviews.

Interviews were conducted between 18<sup>th</sup> June 2019 and 13<sup>th</sup> July 2020. Each interview lasted between 30 and 70 minutes and was audio recorded (with the participant's permission). Notes were also taken by the researcher. Due to the participants' competing work commitments, the scheduling of interviews was determined by the interviewees' availability. Three interviews were conducted outside of normal working hours at the request of the participants; the remainder were conducted during normal business hours. Participants from Auckland and Hamilton engaged in face-to-face interviews held at their place of work. Due to the logistical challenges regarding travel and travel restrictions imposed associated with COVID-19, all other interviews with

participants from Palmerston North, Wellington, Dunedin, and Invercargill were conducted via Zoom, a remote video conferencing platform.

Prior to organising an interview date and time, each participant was emailed a copy of the participant information sheet to review (Appendix E) and a consent form to sign and return to the researcher (Appendix F). An audio-recorder was used during the interview to enable the researcher to transcribe each interview verbatim. Each participant was made aware and consented to being recorded, which was reiterated at the time of interview. Participants also completed a short demographics form (Appendix G), which captured individual participant and general practice information.

Throughout each interview brief handwritten notes were taken by the researcher. These notes formed reference points to seek further clarification during a natural pause, thereby avoiding interrupting the participant's initial train of thought. Thorne (2016) describes that health professionals may experience a sense of "nakedness" when they first engage in qualitative research. This experience arises from not having their usual repertoire of conversational tools at hand to guide participants in intended directions (Thorne, 2016, p125). A conscious effort was made to avoid the use of what Thorne describes as value laden prompts "That's good, "I agree", or "I understand" (Thorne, 2016, p125). Instead, a repertoire of "good questions" was compiled with the view that these could be drawn on throughout the interview. Thorne (2016) also noted that it may take time and practice to develop competent qualitative research interviewing skills, particularly for health professionals who interview regularly in the course of their practice. Initial transcripts were reviewed with particular scrutiny of the researcher's responses, which were also subjected to critique by the research supervisor.

### **3.6 Data Analysis**

A tenet central to ID research is that data collection and analysis are inductive. That is, knowledge must be inductively generated from within the data and in considering the context of the data (Thorne, 2016). In this study, a reflexive thematic analysis (TA) approach was used to aid this process of deriving themes or patterns from within data. Thematic analysis has become a widely used tool for analysing qualitative data (Terry, Hayfield, Clarke, & Braun, 2017). TA involves more than simply summarising the data; it is about interpreting and making sense of the data. There are many different approaches to thematic analysis, some of which are more suited to a particular methodology (Terry et al., 2017).

The approach used for this research was Braun and Clarke's TA approach, which was first published in 2006 (Braun & Clarke, 2006). Braun and Clarke now refer to this approach as reflexive TA (Braun et al., 2018). Reflexive TA differs from other TA approaches in terms of the underlying philosophy and procedures for theme development. Reflexive TA is theoretically flexible, meaning it is independent from any particular epistemological or ontological base and can therefore be used within most theoretical frameworks (Terry et al., 2017). This flexibility makes TA particularly suited to novice researchers (Terry et al., 2017). Reflexive TA was selected partly because of the flexibility, but also because it suits questions related to people's views and perceptions (Braun et al., 2018). Reflexive TA was also selected because it offers a clear framework for doing thematic analysis. Braun and Clarke (2012) outline six phases in their TA approach. In doing so, they acknowledge that that TA is not a linear process, but an iterative and reflective process that develops overtime and involves moving back and forth between the phases throughout the process (Braun & Clarke, 2012).

#### *Phase 1: Familiarisation with the data*

According to Braun and Clarke (2012) this first phase involves becoming fully immersed in the data. Familiarisation was achieved through listening to the audio recordings multiple times, often while out walking, and reading and re-reading the data, making notes in the margins. To aid the familiarisation step, the researcher also completed the audio-transcriptions, as opposed to using a professional transcriptionist. Thorne (2016) encourages researchers, particularly those that are new to research, to engage in the transcription process as a way of familiarising themselves with the data.

#### *Phase 2: Generating initial codes*

Coding is the initial process of 'sorting' the data (Thorne, 2016). This involves generating and assigning labels or "codes" to the interview text that have some relevance to answering the research question. There was no initial coding dataset, therefore, an inductive approach was utilised which is a data-driven approach to coding. The initial phase of coding was done manually by using highlighters and coloured pens to make notes in the transcript margins. Coded text was highlighted, and corresponding codes written in the margins. After this initial step, QSR NVivo® version 11 Pro was used to manage the coded data sets. The first three transcripts were line-by-line coded to ensure that none of the data was missed. This initial coding step generated 147 codes, which were entered into a codebook. The first phase of coding generated predominantly descriptive and in-vivo codes. Subsequently, the codebook

was reviewed, and any similar or duplicate codes were merged (refer to Appendix H). The entire dataset was then coded, and the codebook was continuously reviewed throughout this process, which saw some of the codes moving from descriptive to analytics codes.

#### *Phase 3: Generating initial themes*

This active phase involved a continuous cycle of reviewing the codebook, looking for similarities, categorising the initial codes and sorting them into themes and subthemes. As recommended by Braun and Clarke (2006), visual representations were used to aid this process. These tools included using post-it notes and mind maps (appendix I and J) to explore linkages between different codes and to begin the process of grouping the codes into themes and subthemes. This first phase resulted in nine different theme constructs.

#### *Phase 4: Reviewing themes*

This phase is formulated through two levels. The first level involves reviewing all the coded data to ensure that it fits into the themes. During this process, a few duplications across themes were discovered and an initial theme, 'Navigation of health services', was broken down into smaller components due to the large amount of associated data. The second level involves reviewing the validity of the themes against the entire data set (Braun & Clarke, 2006). At this level, the mind maps were refined (appendix K) and discussed with the research supervisor. During this process of reviewing subthemes and recoding additional data, one theme was dissolved, and one new theme was developed. Braun and Clarke (2006) state the need for recoding at this stage is to be expected due to the on-going organic process.

#### *Phase 5: Defining and naming themes*

This step is concerned with capturing the 'essence' and determining the 'story' of each theme. Braun and Clarke (2006) describe that the integrity of a theme can be tested by being able to capture the scope and content of each theme in a couple of sentences. This review process continued until the narrative of each theme and subtheme was clearly identified in relation to the overall research question. The final step of this process was to name each theme.

#### *Phase 6: Writing up*

The last phase involves the final analysis and write-up, which is shown in chapters two and three of this thesis. Braun and Clarke (2006) emphasise the importance of

providing a concise, coherent, logical, non-repetitive and interesting account of the data. Each theme description was supported by evidence using data extracts in the form of participant quotes. The final write-up moves beyond describing the data to analysing it in relation to the research questions and contextualising the analysis to the current literature.

### **3.7 Establishing Trustworthiness in Qualitative Research**

As Thorne (2016) points out, the matter of rigour, or trustworthiness, is a complex and challenging topic in qualitative studies. Many authors argue that the methods of validity and reliability used in quantitative research do not fit with the philosophical assumptions and aims that underscore qualitative work. Due to the somewhat emergent design and analysis of ID studies, attention to rigour is critical throughout each stage of the research process (Thorne et al., 1997). Rigour, or the quality of qualitative research, can be assessed using a variety of methods and criteria, including Lincoln and Guba's criteria for determining trustworthiness in qualitative research, introduced in the 1980s (Morse, 2015). Guba and Lincoln (1985) refined this concept of "trustworthiness" in qualitative research by introducing four criteria: credibility, transferability, dependability, and confirmability. These four criteria will be defined and discussed in relation to the research.

#### **3.7.1 Credibility**

Guba and Lincoln (1985) consider that credibility is akin to internal validity. In this study, peer debriefing was employed to improve credibility of findings. Regular peer debriefing with research supervisors helps to ensure researcher biases are recognised to minimise the impact on the data analysis. This process is particularly useful in ID studies where it may be difficult to turn off the 'clinical mind set' (Thorne, 2016). Lincoln and Guba suggest credibility can be achieved through member checking, which they described as "the most crucial technique for establishing credibility" (Lincoln and Guba, 1985, p. 314). The purpose of member checking is to take data and interpretations back to the participants to confirm the credibility of the findings (Creswell & Miller, 2000). This process was achieved through emailing the research participants a written summary of the emerging themes and subthemes for them to review and provide feedback on. However, no feedback was returned and only two responses were received thanking the researcher for the information.

In critiquing the process of member checking, a recent review of psychology research articles concerned with member checks found that common problems include a lack of response from participants and little or no substantive changes in research findings

(Thomas, 2017). The review concluded that there was little evidence that routine member checks enhanced the credibility or trustworthiness of qualitative findings.

### **3.7.2 Transferability**

Transferability is a form of external validity whereby the research findings may be transferred to another context (Guba & Lincoln, 1985). While generalisability is not the goal of qualitative research, transferability suggests that the research findings ring true to a wider population and therefore can be applied in different contexts (Thorne, 2016). Purposive sampling is one method to improve transferability. As described earlier, purposive sampling was used to ensure a wide variation of participants were sought from across the refugee resettlement locations in NZ. 'Thick description' is achieved by describing the research context and presenting the findings in as much detail as possible. This presentation includes detailing the study setting, process of data collection and using participant quotes so that their voices are clearly embedded within the findings. Readers are provided with enough descriptive evidence to make their own assumptions about whether the research findings are transferable to different contexts (Guba & Lincoln, 1985).

### **3.7.3 Dependability**

Dependability is related to consistency or replication of the research findings (Guba & Lincoln, 1985). To achieve dependability, Tobin and Begley (2004) state that researchers must ensure the research process is logical, traceable and well documented. One method for demonstrating dependability is an audit process, which is discussed below. Guba (1981) and Morse (2015) both suggest that dependability is interwoven with credibility and therefore these concepts do not need to be separated.

### **3.7.4 Confirmability**

Confirmability relates to researcher bias, and includes the ability of a researcher to process and present research findings that are free from overt researcher bias. Guba and Lincoln (1985) suggest two methods to improve confirmability. These are the use of an audit trail and researcher reflexivity. Thorne (2016) discussed tracking reflections and the need to acknowledge and document the preconceived ideas the researcher holds about a phenomenon before engaging in the study. Field notes were kept throughout the entire course of this study, particularly during the data collection and analysis process. Reflections were noted immediately after each interview, and after transcribing and reviewing each transcript. These notes were then discussed in meetings with the research supervisor.

In qualitative research there is no researcher objectivity; the assumption is the researcher's personal context and values will affect various parts of the research, from data collection to data analysis (Dodgson, 2019). Reflexivity is about self-awareness and acknowledging your role in the research, including ways in which research bias can affect the study. According to Berger (2015) the researcher must be especially cognisant of their position as an insider, or outsider, and of any similarities or differences between themselves and the participants. Berger (2015) also highlights that these must be made known to the reader.

In this study there were shared experiences between the researcher and participants that had the potential to affect data collection and analysis. Similar to the research participants, the researcher also shares a clinical background as a registered health professional. Although the researcher has no direct experience working in general practice clinics, there is a shared experience of working for tertiary level health care services. The researcher, therefore, had a degree of understanding about the experiences and complexities of working within a health setting that influences complete objectivity. Different tools were utilised to assist critical reflection and acknowledge potential biases. These research tools included keeping a detailed reflexive journal and extensive discussions with the research supervisor about any potential biases. This potential was particularly evident when analysing interview data concerned with informed consent and being mindful of the need to remain impartial and open. A Social Identify Map was another reflexivity tool used to determine the researcher's positionality within the research context (Jacobson & Mustafa, 2019).

### **3.8 Ethical considerations**

Ethical considerations are central to all research methodologies and research must be registered with the host institution. This research is part of a larger multi-methods study that is funded through the Health Research Council. Ethics approval for the qualitative part of the study was granted by the Auckland University of Technology Ethics Committee on (AUTEC reference number 19/4). An ethics amendment application was submitted to AUTEC 6 August 2019 to include the following:

1. Expansion of inclusion criteria for healthcare providers to include doctors as well as vaccination nurses.
2. Addition of snowball sampling to the recruitment and sampling strategy.

This amendment was approved 15<sup>th</sup> August 2019 (AUTEC reference number 19/4).

#### ***3.8.1 Management of data***

Data management refers to the tracking, organising and sorting of information in a way

that is accessible throughout the data collection and data analysis process (Thorne, 2016). Bazeley (2013) highlights the importance of having an explicit data management plan that is independent from the data collection process. This expectation aligns with Auckland University of Technology's Code of Conduct for Research (Auckland University of Technology, n.d.). As this research involved semi-structured interviews, the primary sources of data were audio-recorded transcripts and field notes. Throughout the data collection and analysis process, field notes were kept in a separate notebook and stored in a locked drawer along with written consent forms. Original audio files and transcripts were kept electronically in a password protected computer file and on a password protected USB stick that was also kept in a secure location. In line with Auckland University of Technology Ethics Committee (AUTEC) ethical principle number 18 concerned with the final storage of data and consent forms, all audio-recorded transcripts and consent forms will be transferred off the researcher's computer and stored within AUT premises for at least six years before being destroyed.

Thorne (2016) highlights the importance of having a plan to organise and sort the data, including tracking transcription, filing, and coding. Qualitative research tends to generate large cumbersome data due to its reliance of text, such as with interview transcripts. This study generated fourteen individual interview transcripts between 9 and 15 pages long. Thorne (2016) acknowledges that novice researchers can easily get bogged down in the detail due to the sheer volume of the data and advocates the use of qualitative research software to assist with organising and sorting qualitative data. For this reason, computer software (QSR NVivo® version 11 Pro) was used to assist with the management of coding and categorisation of data.

### **3.8.2 Informed consent**

Prior to their participation, all participants were sent a participant information sheet (PIS) and a consent form. This documentation detailed the research, including how the participant's interview data would be used and who to contact should they have further questions. Prior to their involvement in this study, participants were required to complete and return their consent form. All participants were made aware that participation was voluntary, and they could withdraw their consent to participate should they choose too. At the commencement of each interview, the research aims were re-stated, and participants verbally consented to participate and have their interviews audio-recorded.

### **3.8.3 Participant confidentiality**

The identity of research participants is only known to the researcher and research supervisor, and this confidentiality has been maintained throughout the research process and final report. Participant identifiers were used instead of names to safeguard identities in the coding and write-up phases of this research. Any personally identifiable material was removed, or not used in the results.

### **3.9 Concluding comments**

This chapter provided the rationale for selecting ID as the chosen research methodology. Consistent with ID methodology, the research design uses an inductive approach that is orientated towards clinical practice. This chapter also provided an overview of the methodological and theoretical underpinnings of the research design and methods utilised for recruitment, data collection and analysis. In line with interpretivism, this inquiry sought to understand each participants' experiences through an interactive process. This chapter describes aspects of academic rigour that were utilised to address researcher bias and establish trustworthiness during this process. This chapter concludes with ethical considerations. The following chapter will describe the findings that were generated through the process of thematic analysis.

## Chapter Four: Results

This chapter outlines the demographic characteristics of the participants and the results of the research. Five themes were derived from the data, illustrating providers' perspectives on the factors that influence vaccination uptake among refugee children and strategies to improve service delivery.

### 4.1 Demographic characteristics of participants

Fourteen participants were successfully recruited to participate in this research. Forty-six general practices were contacted across all eight (current at the time of recruitment) refugee resettlement locations in New Zealand: Auckland, Christchurch, Dunedin, Hamilton, Invercargill, Nelson, Palmerston North, and Wellington. Of the 19 individuals who initially expressed interest and completed a consent form, four subsequently declined due to the COVID-19 outbreak and no response was received from one participant after follow-up contact. Seven of the eight resettlement locations were represented in this research. Due to resettlement being suspended following the September 2010 earthquake, no-one was recruited from Christchurch as there were very few practices with enrolled refugee children. As a result of the pause in settlement to Christchurch, Invercargill was established as a new refugee resettlement location in 2017. Participant demographic characteristics are summarised in Table 4.

**Table 4**

Demographic characteristics of participants	n=14
<b>Provider characteristics</b>	<b>n (%)</b>
Participant's age	
18-29 years	1 (7)
30-39 years	1 (7)
40-49 years	4 (29)
50-59 years	4 (29)
60 years and over	4 (29)
Gender	
Female	13 (93)
Male	1 (7)
Ethnicity	
Māori	0 (0)
New Zealand European	9 (64)
Pacific Islander	2 (14)
Asian	1 (7)
Middle Eastern, Latin American, African	1 (7)
Other	1 (7)
Role	
Registered Nurse	13 (93)
Doctor	1 (7)
Location	
Auckland	4 (29)

Christchurch	0 (0)
Dunedin	1 (7)
Hamilton	2 (14)
Invercargill	1 (7)
Nelson	1 (7)
Palmerston North	2 (14)
Wellington	3 (21)
Authorised vaccinator	
Yes	14 (100)
No	0 (0)
Years of immunisation delivery experience	
Less than one year	0 (0)
1-4 years	1 (7)
5-9 years	1 (7)
10 years and over	12 (86)

## 4.2 Summary of themes

Five key themes were derived from the data through the process of thematic analysis and are represented below. The first three themes describe factors that influence vaccination uptake for former refugee children across three different levels: The refugee caregiver level, provider level and the systems level. The first theme *resettlement priorities and challenges* describes challenges faced by refugee caregivers in accessing immunisation services, within the context of resettlement. The second theme *knowledge as a driver for change* describes how possessing, or lacking, knowledge about refugee concerns has corresponding positive or negative impacts on forming therapeutic relationships with, and delivering health services to, former refugees. The third theme *working within the system* describes contextual conditions that impacts on access to and provision of immunisation services for children with refugee backgrounds. The fourth theme; *To understand and to be understood* describes challenges in communication and understanding that are influenced by, and exist, across all levels. The fifth theme; *the service needs to change* describes participants' thoughts and experiences of the current service and ideas for improvement. Nestled within each theme are several subthemes. Participant quotes were used to support themes and subthemes and participant identifiers were used to protect participants' identity. The five themes and subthemes are summarised in Table 5.

**Table 5**

Themes and subthemes

<b>Themes</b>	<b>Subthemes</b>
<b>Resettlement priorities and challenges</b>	Knowledge barriers and familiarity of New Zealand healthcare systems Willingness to vaccinate Access barriers Integrating into NZ society Competing resettlement priorities
<b>Knowledge as a driver for change</b>	Having the knowledge (or not) Acquiring knowledge It's a shared effort Going above and beyond Desire for knowledge
<b>Working within the system</b>	Structural barriers and enablers Resourcing and capacity Pathway of entry into New Zealand Opportunistic moments Continuity of care Fragmented information technology
<b>To understand and to be understood</b>	Communication and access Consent and patient autonomy Two-way relationships Access to interpreters Lack of culturally appropriate resources Navigating communication challenges
<b>Service needs to change</b>	Future consequences Desire to do better Ideal service design

#### **4.2.1 Resettlement priorities and challenges**

This theme is related to perceived caregiver-related barriers and facilitators to receiving vaccinations. Most participants reported that former refugees view vaccinations positively and want to have their children vaccinated; however, they encounter obstacles in accessing immunisation services in a timely manner.

##### **4.2.1.1 Knowledge barriers and familiarity of New Zealand healthcare systems**

Participants highlighted that many former refugees lack knowledge and awareness of the NZ health system, immunisation schedule and vaccine preventable diseases. This knowledge gap was perceived to be barrier to vaccination uptake amongst former refugees, particularly for recently resettled refugees; most of whom needed to complete catch-up immunisations. Many participants acknowledged that former refugees need to become acquainted with the NZ health system, as service access and delivery is usually significantly different to their countries of origin. A lack of

understanding and familiarity of primary care services and how systems work, results in barriers to navigating services. This is evidenced by situations where refugees misunderstood service provision or were not aware of the need for vaccinations as per the NZ Immunisation schedule. Low awareness of the need for vaccinations was highlighted as a key barrier to immunisation uptake.

*Sometimes I think the family doesn't fully understand that they are booked in and they need to come again or why they're coming because they think they have had an immunisation. (HCP2)*

It was also reported that refugees often just arrive at the practice without having an appointment. Another participant recollected situations where refugees misunderstood the purpose of outreach immunisation services and thought if they were being seen at home then they did not need to attend the practice. These misunderstandings were identified as problematic as they often led to delays in immunisation uptake.

Health literacy was identified as a contributing factor to knowledge and awareness of vaccinations. Limited health literacy was viewed as the by-product of three constraints including: former refugees' precarious health care experiences in countries of origin; lack of underlying knowledge of vaccine preventable diseases and being unfamiliar with preventive health measures.

*I think it's not a common thing in some countries where people have come from to have kind of that proactive health care, it's more a reactive thing that people go to the doctor when they're sick. (HCP2)*

Participants recognised that health literacy was contextual. For example, some participants stated that former refugees have sound knowledge of vaccines and diseases, which supported their immunisation uptake. Within the context of a Western medical system, however, their knowledge was impeded by their lack of familiarity with vaccine names, diseases, and the NZ Immunisation schedule.

*I think our varicella vaccine being brought in was a bit of a challenge, because the name's not overly familiar and a lot of our families particularly haven't really heard of chickenpox before. (HCP6)*

Participants stated that varying levels of awareness and understanding about immunisation were shaped by refugees' entry pathway into NZ, and the supports that were available and accessed during resettlement. Quota refugees were perceived to have increased awareness of immunisations due to the initial six weeks spent in the

Mangere Refugee Resettlement Centre and the resettlement support offered through Red Cross. Conversely, one participant stated that refugees who came through the family reunification scheme tended to have higher health literacy than quota refugees. Low awareness of immunisations was noted to impact health seeking behaviour and delay immunisation uptake in non-quota refugees, as one participant stated that

*... some of them [family reunification refugees] are just healthy, they don't have any health issues so they won't come. (HCP12)*

#### **4.2.1.2 Willingness to vaccinate**

Participants noted that former refugee caregivers exhibited a sense of trust and willingness to have their children vaccinated, often more so than other families within the practice. As stated by one participant:

*I think refugee families are a lot more responsive to taking up immunisations. (HCP9)*

While two participants noted that some former refugee caregivers required further information to dispel anti-immunisation social media rhetoric, the overwhelming viewpoint was that when offered the opportunity, former refugee caregivers wanted their children to be vaccinated. Those interviewed perceived that these positive immunisation views were often the result of witnessing the impact of disease and illness in their countries of origin:

*They have seen disease in the past and so they understand that we're offering them the opportunity to prevent their children getting sick. (HCP14)*

This sentiment was shared by another participant who expressed that due to previous health experiences, parents want their children protected, despite having poor knowledge of Western diseases:

*You could say that they have very poor knowledge of the diseases, but that doesn't get in the way because they have knowledge of disease and they want their children protected against anything that's available, so that's why buy-in and uptake is good. (HCP1)*

Willingness to vaccinate was considered a key facilitator to access and immunisation uptake. Therefore, the participants concurred that if former refugee families were not arriving for their scheduled immunisation appointment, it was not due to the caregivers not wanting their children immunised but indicated other uptake barriers.

*What we noticed was that they were really open and welcoming of that given the opportunity that there was, there was never any decline on their part or any resistance, with our experience anyway. If there was reluctance to come or they hadn't arrived it was about something else altogether, it wasn't fear of vaccines or what might happen as a result of the vaccines it was always about something else that was inconsequential to that. (HCP7)*

#### **4.2.1.3 Access barriers**

Although immunisation events are free for children under the age of 18, participants highlighted those refugees face significant financial and logistical barriers in accessing preventative healthcare services from general practice. These access barriers were often cited as the primary reason behind low uptake of vaccinations in refugee populations:

*It's not that your immigrant groups don't want to take advantage of this, it's because it's difficult for them so they're in an unhappy position. They don't have enough money, they don't have enough transport, they have other things going on in the household that prevent them from bringing a child to the doctor. (HCP1)*

Transportation and the geographic distance between home and the general practice were frequently cited barriers. A lack of transportation meant that some families walked to the practice or took public transport, the latter presenting a financial barrier. Participants also stated that often the family would only have one car which was needed to get one of the parents to work. Therefore, families would have to wait until the parent returned home with the car to take a child to the general practice.

Those interviewed also noted that some refugee families live a distance from the general practice they are registered with. Having to travel further was noted in some cases to be due to their local general practises not accepting new patients. Unfortunately, additional travel costs were incurred by the former refugee families as highlighted by the following participant:

*Transport is a bit of an issue for many people and particularly in our area, because you know because we are one of the only practices [in the area] still accepting patients, they might be living quite a distance from us and they have to get you know transport which is expensive and then you've got to take the whole family with you on the transport as well. So that's quite a big barrier I think for the patients. (HCP2)*

#### **4.2.1.4 Integrating into Aotearoa New Zealand society**

Participants perceived that access to preventative healthcare services became easier as former refugees became more acquainted with NZ society. For this reason, many participants stated that they encouraged caregivers to learn English, gain employment, and become involved in community groups. Red Cross is primarily responsible for supporting quota refugees upon resettlement to integrate into NZ society. This integration includes supporting access to health care services.

Participants noted that Red Cross was often involved in the early stages of care to support enrolment with the practice and at times a Red Cross worker would provide transport or be a liaison figure between the practice and the refugee family.

Participants spoke about many other local community services that support refugee families to integrate into their local communities, including, but not limited to, sports organisations, local community centres, Refugees As Survivors and Citizens Advice Bureau.

Those interviewed perceived that community engagement and interacting with others in the wider population supported former refugees' health care access. In turn, accessing health services increased awareness of the health system and normalised going to the doctor for vaccinations. Participants noted that access was generally easier for children who were born in NZ to refugee parents (second generation refugee children) as their parents had often been in NZ longer and were therefore more connected with society.

*I would say probably the second generation is easier to do in some respect because I think their parents have an understanding, because they're connected with other groups that other New Zealanders are in, they may have been followed up through Plunket and that sort of thing as well, so people are kind of aware. They connect with other Kiwis as well and kind of know that it's normal at five months that you have to come and see the doctor for your immunisations.*  
(HCP2)

#### **4.2.1.5 Competing priorities on resettlement**

During the early resettlement period, former refugees face competing priorities such as: learning English; adjusting to a new country and culture; attending school; finding employment and managing other complex mental and physical health needs.

Participants concurred that immunisation might not be a priority for some former refugees during this initial resettlement phase.

*Immunisation of the children was really not a priority, not because it wasn't*

*important but because there were other things that had to be dealt with first.*  
(HCP1)

Clashes with time and scheduling, such as compulsory English classes, were also identified as a barrier. Lastly, participants noted that refugee children may have other pressing health needs that were prioritised over immunisations.

*It's just that when they arrive they've got a lot of other needs that we have to work through, we're sort of trying to do a lot of things all at once for these families and it's hard to prioritise. Is it their teeth? Is it their hearing?... it could be vision ... it could be just general health issues that are important to them, and I'm not aware where vaccinating comes in the refugees' priorities ... is that a priority for them ... or is it getting all these other things sorted out.* (HCP11)

#### **4.2.2 Knowledge as a driver for change**

This theme encompasses the effectiveness of individual nurse, physician and administration staff approaches to immunisation. Participants described how possessing, or lacking, knowledge about refugee concerns has corresponding positive or negative impacts on forming therapeutic relationships with, and delivering health services to, former refugees. Participants also identified practitioner attributes that facilitate vaccination uptake, highlighting the importance of networking.

##### **4.2.2.1 Having the knowledge (or not)**

Having sound knowledge of vaccination processes, patient needs, and refugee culture and experience was considered an enabler for effectively working with former refugees. Conversely, a lack of knowledge was considered a potential barrier to immunisation delivery for former refugee children. Lack or absence of knowledge was either explicitly recognised by participants, or it was implicitly implied, through their answers. Participants highlighted knowledge in these following areas as important factors in supporting immunisation delivery: knowledge and understanding of refugee healthcare needs and entitlements; knowledge of culture, language, and refugee experiences; knowledge and awareness of services that support former refugees, and practical knowledge around creating immunisation catch-up schedules for former refugee children. Areas of knowledge and the subsequent impact on immunisation service delivery as identified by participants is summarised in Table 6.

**Table 6**

*Areas of knowledge in relation to immunisation service delivery for refugee children*

<b>Area of knowledge</b>	<b>How it supports service delivery</b>
Awareness of refugee healthcare needs and entitlements	Supports healthcare access
Knowledge of culture, language and refugee experiences	Assists with building rapport, trust and positive relationships between health provider and the former refugee family. Also enables effective communication with refugee patients, particularly those with limited English.
Knowledge and awareness of services that support former refugees	Enables health professionals to support further former refugee further integrate into New Zealand society, which was viewed as an influencing factor for immunisation uptake.
Practical knowledge around creating immunisation catch-up schedules for former refugee children	Promotes health provider confidence in creating catch-up schedules thus reducing time delays and missed opportunities.

Awareness of needs and entitlements includes awareness of the different visa categories and the implications of these on accessing services. Less than half of participants stated that they were familiar with these pathways of entry i.e., pathways for quota refugees, asylum seekers, family reunification and CORS. Participants were often aware of the importance of providing culturally competent care in fostering relationships with their refugee families and improving access and immunisation delivery. Some participants acknowledged that their lack of cultural knowledge; or the lack of knowledge within the practice, could create barriers with refugee families.

Having knowledge of non-governmental organisations and other community services that support refugees was considered an important aspect of providing care to refugee families. Being connected with their community was considered to assist integration and some participants stated that they felt it was their responsibility to link refugees with community organisations that would benefit them. Knowledge of community services was variable. Creating catch-up schedules for refugee children was an area that was identified by many participants as “tricky”. A number of participants stated they lacked the expertise and confidence to manage the process of catch-ups schedules independently.

#### 4.2.2.2 Acquiring knowledge

This subtheme considers how participants acquire knowledge for working with refugee children and managing catch-up vaccination schedules. Most participants stated that they have not received any formal training for working with former refugees.

*So, we haven't had any training ... like the nurse's training of what we are specifically looking, what we specifically need to know, we haven't had anything, in fact some of nurses have probably had nothing at all (HCP13).*

Three participants mentioned receiving CALD training (training to work with culturally and linguistically diverse groups) and described having a positive experience of this:

*It's really good that will help you know the culture and how to approach them. It's really good, so all of my staff are having that because that's my requirement. (HCP12)*

Some participants considered that access to formal education and training was a system-related issue in that it is something that should be organised and provided by the health service. Whereas other participants expressed that individual practitioners should take a self-directed approach to accessing training and education resources.

*I think you've got to be proactive and look for and attend the training. So, I've always kept up to date and have done a couple of other little papers. (HCP6)*

Many respondents described acquiring knowledge through their prior experiences as opposed to attending formal training or research. When participants were asked what informs their own practice and ways of working with former refugees, they described how experiential knowledge was gained through their own migrant background; volunteering; previous experiences working with culturally diverse populations, and overseas experiences. One participant recounted how knowledge within the practice develops overtime, enabling them to streamline their processes with each new family.

*We've kind of learnt as we've gone along about different cultures and what's acceptable and what's not. (HCP9)*

Participants described drawing on documented information sources, particularly when creating catch-up immunisation schedules. These sources include: the MOH's Immunisation Handbook; immunisation information stored on the National Immunisation Register; resources sent from the Immunisation Advisory Centre; protocols that individual practices had developed, and overseas resources obtained

from the internet and information sent through from the Mangere Refugee Resettlement Centre (for quota refugees).

*I mean we usually get quite a good report from Mangere that comes when they enrol and so it's a case of you know making sure we have a good read of that so that we can get an idea of what the background is, so that we can treat appropriately. (HCP9)*

#### **4.2.2.3 It's a shared effort**

In describing delivery of immunisation services to former refugee populations, one participant commented that *"It's a shared effort"* (HCP5). Networking, including sharing of knowledge and expertise, was considered an essential component of administering immunisations for refugee children. For example, creating and delivering catch-up schedules was often identified as the most challenging component of immunisation delivery. Many participants viewed this as a collective process which, at times, required input from multiple different sources including other members of the healthcare team; local service providers such as Red Cross; public health nurses; pharmacy; leaders in the refugee community and immunisation coordinators.

National services such as the Immunisation Advisory Centre, Mangere Refugee Resettlement Centre or the National Immunisation Register also provided valuable input to catch up immunisation planning. One participant spoke of engaging with local members of the refugee community, including the imam to support the family in making immunisation decisions. In particular, the Immunisation Advisory Centre was considered an essential partner for supporting healthcare professionals with immunisation delivery:

*They're [IMAC] always readily at hand if we want to phone and talk about anything and thinking oh my goodness here they are for their vaccine appointment, but they've actually turned up two days early, is it going to make a difference? IMAC are always really good at knowing exactly what's okay and what's not okay. (HCP7)*

Some participants stated that they develop the catch-up schedules within their own practice with the support of IMAC and MRRC. An immunisation coordinator employed by the DHB or PHO was some participants' preferred option due to finding the original MRRC plan lacked clarity regarding the required catch-up schedule. A perceived lack of confidence and knowledge was also cited as reasons to refer to an immunisation coordinator:

*I don't know whether it's our incompetence, I mean strictly speaking we should be able to work what they need given the information. I think and I'll probably speak for the other nurses too, we kind of just need that, maybe support and confidence about what we actually need. I mean we are getting better at it, we do know the schedule, but when you've got somebody that needs their catch-up schedule, they've had some vaccines here and there; we kind of really appreciate the support from the immunisation coordinator that gives us the confidence to know that that is exactly what they need. Because it is quite confusing, it is quite complicated. (HCP13)*

This viewpoint was shared by another participant who also expressed that the immunisation coordinators have the tools to work out the catch-ups schedules:

*I suppose we could kind of work it out ourselves, but it takes quite a lot of time, but also they're just they're doing it, they've got the tools of exactly what needs to be done, so we sort of feel a bit more confident putting it through them. (HCP11)*

#### **4.2.2.4 Going above and beyond**

Participants described going above and beyond their conventional medical roles to support former refugees. These additional tasks included supporting former refugees to access community support groups and providing toys and other donated items such as homeware. Participants also assisted former refugees navigate other aspects of health care such as accessing the pharmacy:

*We quite often take somebody around the corner to the pharmacy and show them how it works there, rather than just sending them out with a piece of paper that we don't know, you know, they don't know what to do with that piece of paper. So, we walk them through the process the first time round and it's time consuming, but in the end it means that next time they come they know 'oh with this piece of paper I'm supposed to walk round the corner to here and pick up my medicine. (HCP2)*

A sense of responsibility was described by some participants as the motivator to encouraging refugees' contact with community services that will be beneficial, particularly during the early resettlement period. Some participants acknowledged that former refugees were a vulnerable population that require extra time and support to ensure they have equitable access to health services.

*We just have that mentality towards trying to help them, that they are vulnerable, that we do need to give them equitable access and take that extra time to explain things and reassure them. (HCP14)*

As part of supporting former refugees to achieve equitable access, participants described having to take on an advocacy role to drive positive changes.

*Something that I have battled for over 10 years with our PHO is to get extra funding to help reduce the barriers for refugee patients getting access to health care within their local area of where they live. (HCP2)*

#### **4.2.2.5 Desire for knowledge**

Developing knowledge was considered an important component of improving immunisation delivery services for former refugee children. Many participants welcomed new knowledge and ways of working. Participants identified multiple areas where individual and practice knowledge could be increased to improve service delivery. One highlighted example was the need for more training to increase health professional's cultural awareness and familiarity around the refugee experience.

*If we focus as I said on training more health professionals to work with them, that will increase the chances of them coming and dealing with somebody who understands and is familiar with their cultures and with their needs and can address their concern. (HCP5)*

The participant went on to emphasise that this cultural awareness was crucial in patient-centred care and building effective relationships with their former refugee patients, thereby breaking down access barriers to primary healthcare services:

*If we are not on the same page, I'm not familiar with you, I cannot deal with you, I'm not trained to deal with you, I'm not familiar with your culture, and there is no common background to stand on so we can't have a productive relationship. (HCP5)*

Participants identified that their increased knowledge and confidence in managing the immunisation process with former refugees would reduce time delays by not having to involve a "middleman" such as an immunisation coordinator. This time lag was noted by one participant when discussing how they use their immunisation coordinator for any catch-up programmes.

*It's kind of like a backup as to what's needed and it's verification, but again there's another time thing, we're losing time a lot between all these processes, but when we get it back from her it's actually a really good plan. I guess that could be left out if we were sure that what we got through from the [Mangere] Refugee Resettlement Centre was accurate. I'm not saying they're not accurate, I guess it's just verification. (HCP11)*

Participants presented different mechanisms by which they could up-skill by gaining further knowledge. Some suggested formal training held by the PHO or DHB. Others suggested that local services like Red Cross could hold events where members from the refugee community are invited to share their experiences. Developing knowledge through experience, as opposed to formal training, was preferred by some of those interviewed:

*More training might be really helpful, but really it's probably more about a little bit of life experience and wisdom. (HCP7)*

There was consensus that general practices tend to work in silos despite participants expressing strong desire to share knowledge and information with other health providers who work with former refugees.

*I think it's been left up to each individual Medical Centre to manage as best they can. (HCP11)*

Some of those interviewed highlighted their interest in the results from this research, citing that a motivator for participating was to see what other practices were doing and how they may implement some of the ideas to improve service delivery.

*I am very interested to see the results of this whole thing and follow it through and keen to apply any extra knowledge that we can, you know because we just do what we do and probably what we've always done, but you're talking to so many different practices that might do things way better and we'd like to know if there's things that you think we could do to improve. (HCP14)*

#### **4.2.3 Working within the system**

This third theme includes contextual factors that are beyond the control of the individual health professional or refugee caregiver. These factors include structural barriers and facilitators that occur at different levels of the health system including individual general practices; primary health organisations; district health boards; and Ministry of Health and government level.

##### **4.2.3.1 Structural barriers and enablers**

Participants described different interventions used within their practice to minimise the impact of identified structural barriers. Many of these interventions were targeted at minimising transportation barriers previously identified as one of the main access barriers for refugee caregivers. Some participants stated that the former refugees had

access to taxis and other financial aid resources through their PHO to mitigate access barriers. Another participant stated that her practice held an outreach immunisation event in the community closer to where many former refugees live.

*We organised some outreach immunisation programs, we went out into the community, because we did find that it was... not only was it hard for some of our refugee patients to get into the clinic, but also getting an interpreter at the right time that suits them, and transport and stuff was a bit of an issue. (HCP10)*

The restricted weekday practice open hours presented a barrier to accessing immunisations, particularly in the early resettlement stages when refugee families have other resettlement priorities to manage. A participant identified that compulsory English language classes have potential to impede access to health services during the practice's opening hours.

*When refugees move to [resettlement location], I'm not sure if it's everywhere, but they attend compulsory English language school and that goes from I think 9:00 till 3:00 every day of the week, like Monday to Friday. And we operate 8:30 to 5:00, so all of their appointments, unless they're going to miss the classes, which they're not supposed to, have to be like between 3:30 and 5 o'clock. So appointment times might be a bit of an issue here. (HCP10)*

During the initial resettlement period, refugees often require multiple appointments with the general practice, especially to complete catch-up immunisations. Other participants noted complexities in allocating appointment times that worked in with the needs of refugee families.

*I think it's around you're looking at the complexity for the family because the parents might be doing English language classes, the children are going to school, and how do you get a time that works conveniently for them because there's so many things that they have to be doing so that's quite complex. (HCP8)*

#### **4.2.3.2 Resourcing and capacity**

Funding was identified as a key contributor to supporting healthcare access and service delivery for former refugees. On initial enrolment with the practice, refugees received special funding which included free healthcare visits. The length of time that the funding extended, however, was different between practices, ranging from six months to life. In some instances, there appeared to be a direct correlation between the length of the funding period and the length of time refugees remained enrolled in the practice, which resulted in a disruption to continuity of care:

*We noticed that as soon as they were ineligible for the six-month PHO funding that they'd move to another practice because we didn't get the low-income funding here, so they moved to another practice and then we wouldn't see beyond that. (HCP7)*

Most participants stated that their practices receive extra funding for approximately two-years after the refugee family first settles into an area. There was recognition, however, that former refugees are more likely to experience on-going and higher health needs than the general population.

*The fact of the matter is and I personally feel this quite strongly is that we should follow the UK model where all people who come in as refugee are refugees for life and the children of refugees are recognised as having special needs as well that this should be recognise in a structured manner so that they know that they have a right to extra support because they go on needing extra support for a long time. (HCP1)*

Funding was also considered an enabler where practices were able to target either the refugee population, or an individual family, to provide extra supports such as transportation. One participant described how the PHO targets access barriers through a VIP programme, where an individual could receive financial support to address access barriers.

*They also have what's called the VIP program, if we identify a vulnerable person in the community, which could include a new former refugee or whatever else, if they're struggling to come to the doctor because of lack of money, or because they've got a debt, that can put them off coming. So they will have a voucher system where they can get their debt paid up to a hundred and fifty dollars and get that appointment free, and get a pharmacy voucher to be able to take to the pharmacy. (HCP14)*

Across the participant cohort, there were differences in how much time was able to be dedicated to former refugee patients. Some participants stated that their time is limited to the standard consult, whereas other practices had resources to support longer appointment times. The standard consultation time for an immunisation event with former refugee children was perceived to be too short. Refugee families tend to be larger, have more complex health needs and often require an interpreter. Lack of time created a barrier to facilitating understanding between the former refugee caregiver and the health professional. Having dedicated time and longer appointments was an enabler to building rapport and supporting immunisation delivery, particularly for the first visit:

*I think that we develop quite good rapport easily with a long appointment you know for their initial appointment and being really thorough, allowing plenty of time and being really thorough with that, it sets the scene for what happens further down the track and the patients relationship with the practice and the GP in particular, that pays off and I've expressed that particularly to the PHO because that's been our experience. (HCP2)*

Lack of time was identified as being one of the main challenges health professionals encounter when delivering immunisation programmes to former refugees. Participants described the process of immunising former refugee children, from first enrolment through to creating the catch-up schedule and the immunisation events, was particularly time consuming.

*One of the main challenges for any practice nurse is time, time to oversee the whole process and make sure that it's been done, because we've got other unvaccinated children that we're also trying to get up to date, it just takes that dedicated time without the interruptions of the normal workday. It's the biggest challenge for any practice nurse. (HCP11)*

Participants noted that more time was required in the early stages of resettlement and enrolment with the general practice. The first contact with refugee families was noted to be the most “*time demanding*”. One participant stated that families needed extra input for the first three months, and this reduces once they are familiarised with the system. With regards to immunisations, the extra input required was largely concerned with provision of catch-up vaccinations. Additional time was particularly required for non-quota refugees that did not go through MRRC (i.e., family reunification, asylum seekers).

*For people that come through Mangerie, there's generally a lot of support, and a lot of work has already been done, but it's the others, the refugee-like migrant, and the ones that have come under family reunification because there's nothing - there's nothing set up for them. (HCP8)*

The next stage of the immunisation process involves recalling refugee patients for their immunisation appointments. This process was also time consuming due to the complexity in contacting and communicating with parents who often do not speak English. As one participant mentioned, this requires extra time and resources to effectively manage recalls.

*People have trouble giving that extra time involved with chasing people down and trying to get them in. By the time you've tried to call parents and tried to call the support worker and tried to then give reminder phone calls. I think, you*

*know, you have to have adequate time and resources to do that, which we do, but I think a lot of practices would struggle. (HCP2)*

#### **4.2.3.3 Pathway of entry into Aotearoa New Zealand**

There are currently four main pathways used by refugees entering NZ: through the UN quota refugee scheme; family reunification; newly established CORS, or as an asylum seeker. Less than half of participants interviewed had knowledge of these different visa categories. Some participants were not aware there were refugees who did not go through MRRC (quota refugees). Participants who were aware of the different visa schemes noted inequities in access and support due to former refugees entering NZ on unevenly funded pathways. Quota refugees were viewed as being the primary recipients of health information and services. Their higher-level support is due to spending time at the Mangere Refugee Resettlement Centre which is followed by resettlement support by Red Cross who facilitate access to general practices. Non-quota refugees, however, do not have access to the same support to enrol with their local GP clinic. Often these clinics do not get notified or receive any information about non-quota refugees:

*In Mangere at least we have some files so I can catch up with that and recall them, but for those youngsters that just came in reunited with family, it's not until they come in here and sometimes we just don't know. So, I think there's that gap there. (HCP3)*

Consequently, several participants reported times when there were delays in completing catch-up vaccinations with non-quota refugees. These delays were often related to this group not having the same resettlement support to enrol at a local general practice, and the practice not receiving any notification regarding the person or their health status. Another participant noted the extra responsibility families take on when supporting a former refugee through the reunification programme and this can potentially lead to delays:

*I think maybe for family reunification if I think back there's a slight burden on the family that's supported them, there's a lot of time needed, they've got to get banks and schools and that entire sort of stuff sorted. So sometimes I think that can get a bit overwhelming, especially I notice the first and second appointments are usually pretty good, by the third one they've been here a few months and I know that there can be some family strain, especially if they're living in a small house together, that can be a bit of a delay there. (HCP6)*

#### 4.2.3.4 Opportunistic moments

Several participants described administering vaccinations to refugee children opportunistically, such as when the child is at the clinic for a non-scheduled immunisation appointment. One participant stated that up to 60% of their immunisation events with refugee children are opportunistic. Alongside administering immunisations, participants described using opportunities when the family was present to educate and promote immunisations and recalls. Several participants also recounted missed opportunities to engage with a former refugee for an immunisation event. This situation occurred when a child could, or should, have been vaccinated but this did not eventuate due to multiple factors including other medical priorities; lack of communication between health care providers; and lack of processes.

*When we have new families and you see, 'Yep there's immunisations' and you have a look at the child and they've got rotten teeth or-- so they need-- and they're in pain. So, there's other things that are kind of a priority to be dealt with. (HCP8)*

Missed opportunities also occurred when a child attended the clinic for another reason and the attending healthcare professional was not informed of overdue vaccinations, or there was no documentation at hand to alert the practitioner to unsuccessful vaccine recall approaches. These communication challenges and lapses in continuity of care were the outcome of not having clear overarching practice processes in place. This situation was particularly evident in larger practices where a patient may see multiple health providers.

*The problems that we have here I would imagine might be a little bit different to the smaller practices, because here a family might come in one day and one person sees them, and no one else who's been trying to get hold of them for a long time knows that they're even here. So, in a smaller practice at least you'd know. (HCP7)*

#### 4.2.3.5 Continuity of care

Continuity of care was identified as being an essential component of efficient immunisation delivery for former refugees, particularly in minimising missed opportunities. This continuity was noted by one participant when reflecting on why they have a high rate of vaccination coverage amongst their former refugee patients:

*The continuity of care because it is just me so I get to know the families. I could say it would easily be disjointed, or, because every task I can see, and the doctor and I work quite closely together we don't kind of have those as many I*

*guess missed opportunities where they've been and gone and 'Oh if I'd seen that in so and so's task list or something. (HCP6)*

Participants described many ways in which their practice procedures have changed over time to improve continuity of care including establishing a protocol or care plan; utilising electronic alerts; engaging with Red Cross; and allocating a dedicated person to oversee a refugee family or specific process:

*Well initially we found that our best laid plans didn't come to pass because there were so many opportunities for missed communication... So what we ended up doing was the moment the refugee family was registered with us we'd allocate them to a nurse as well as a GP, and the nurse would make contact with a Red Cross worker that they were with, make sure that all the contact details are there, establish how to contact them and that means that if ever they came into the practice they'd be an alert telling whoever invited them in which nurse was in charge so the nurse could come and say hello to them, see how things are going. (HCP7)*

One participant described how their health practice uses a refugee template that is updated regularly and shared by all members of the team. This template emerged from a project that utilised a holistic approach to address refugee health needs and includes determinants such as language barriers and access to transportation.

*There was a project I think years back and we have got this refugee template so all the nurses, doctors, enrolled nurses, clinical assistants, they have to fill in this. If any refugee is coming into our PHO, the receptionist has to make sure they fill every detail nicely and if they are having some language barriers they have to be put to the nurses so they can be helped... It's a holistic approach on the template, so it's not only immunisation; it talks about every aspect of their life. (HCP4)*

Over half of the participants interviewed described how their health practice had created a dedicated role to coordinate refugee care. This role, often a nurse, was responsible for coordinating the initial enrolment stages with the general practice. Coordination tasks included liaising with MRRC to retrieve patient notes, reviewing those notes and writing a comprehensive patient summary that was then stored on the electronic practice management system. In response to missing many former refugees' catch-up immunisations, some participants described how their practice centralised the role of coordinating immunisation scheduling and recalls by assigning this task to one person to manage.

Participants reported that electronic alerts effectively promote continuity of care, opportunistic immunisations, and communication between health professionals. An

alert entered on a former refugee's electronic file indicates when follow-up is required by a particular practitioner. For example, during a new refugee patient's initial enrolment, an entry is made to alert the practitioner responsible for coordinating catch-up immunisations. Another participant described how their practice uses electronic alerts to link all family members together, so when a child is due an immunisation an alert is triggered across the family group,

#### **4.2.3.6 Fragmented information technology**

Some participants noted that missed opportunities to vaccinate occurred as early as when the former refugee enrolled at the practice, due to the practice not being aware of their immunisation needs. These omissions often occurred due to challenges in retrieving timely or accurate information from the MRRC. Retrieval delays were attributed to glitches in the interface between systems and processes for sharing electronic information, such as between MRRC and the practices' electronic Practice Management System (PMS). Information delays could also occur between the electronic PMS and the National Immunisation Register (NIR).

While some participants described a seamless transfer of information between MRRC and the practice through GP2GP notes, others commented that there was a lack of processes for coordinating this information transfer. In the latter situation, it was up to the individual practice to ensure the electronic information sent from MRRC was manually entered into their PMS, thereby ensuring recalls are set-up.

*It is relying on us to make sure it's set up, it's like they haven't just arrived and the information's on the NIR, which is obviously national, so the NIR wouldn't know about them. It's kind of up to us to give them the information, or to set up those recalls, so I think if that link was missing, that's where people would miss out. (HCP13)*

Fragmentation within the information sharing systems and processes resulted in one general practice missing approximately 60 former refugees' catch-up immunisations. This oversight occurred because an automatic recall had not been set up in the electronic PMS and the practice was unaware this had to be entered manually.

*I don't know if it's the computer system that we have here, but when we get the notes through from Mangere, the immunisations come through, but the age-appropriate schedule is not selected for the catch-up immunisations, not like when you enrol a brand new baby. So you don't know that that person will be due immunisations unless you physically, like you've been told that person has*

*been enrolled and you go into the notes and you check, so that's how we missed quite a few. (HCP10)*

Participants identified the NIR as a key resource in supporting immunisation delivery. The NIR is a national database that stores information about previous immunisations that have been administered and immunisations that are due. Participants described getting regular reports from the NIR which enabled them to keep on top of their recalls. Practices that utilised Medtech as their PMS described a seamless transfer of information between the electronic PMS and the NIR. This transfer of information, however, did not appear to occur as efficiently in practices that used a different PMS.

*...Because of how the system is for NIR and the imms [immunisations] there's no plans that are correct, so there's nothing there. A problem that we've had for eight years, is that we will record the immunisations, but because of the systems, it's not actually fed back all the time to NIR, because of the PMS system that we use which is Profile, which is a general one when compared to MedTech. (HCP6)*

The participant quoted above and below, stated that immunisation information can appear to be accurate in the practice information system, but due to the type of system, information may not be fed back accurately to the NIR. In this event, the practice is required to also keep paper records, so that if a patient moves to another practice there a hard copy detailing immunisations given. There was also concern expressed that immunisations may have been missed because they were not accurately recorded across the two systems.

*So my concern only around this was as we came down to it and I thought oh my goodness there's probably a lot of immunisations that haven't been recorded correctly over the years and probably just from my experience when I first started, not having that knowledge or experience with the I.T. side of things and not realising that things weren't being, information wasn't messaging through. (HCP6)*

One final reported IT communication glitch occurs when changing providers' name on the NIR after a patient transfers to another clinic. As one participant noted, the system requires the new GP details to be manually updated, otherwise the practice will continue to receive immunisation information about a child enrolled with another practice:

*... other issue that we've had actually with NIR, so when somebody transfers to another clinic we often will stay the same provider, so that responsibility will still remain with us as that child's due, or if they've moved say four years ago and the NIR - I only found out recently, manually update that... So when somebody*

*transfers out of here and I will say to NIR a child is transferred to another clinic, but we don't know the specific GP, so they can't actually change that until it's manually being changed to the new GP. So, we only know the clinic and then so they might have their 11-year-old imms at school, and they'll be messaged to us even though that child was transferred four years ago, so that record is kind of not accurate. (HCP6)*

#### **4.2.4 To understand and to be understood**

During the participant interviews about immunisation delivery, a key theme that emerged was the capacity of caregivers and the health professionals to navigate communication barriers in order to understand each other. This need was particularly evident when participants spoke of the challenges concerned with managing vaccine recalls; contacting the practice to make or cancel appointments; and obtaining informed consent. Building “*two-way relationships*” between the health care provider and the former refugee families was considered crucial to supporting communication, as was accessing resources such as interpreters and culturally appropriate written resources.

##### **4.2.4.1 Communication and access**

Language challenges were perceived as a major barrier to accessing general practices and immunisation services. The act of making an appointment was recognised as challenging for former refugees who need to be able to negotiate phone systems and connect with someone who understands them.

*I would think communicating with us, getting hold of us and making sure that they're getting hold of the right person so that someone's listening to them and understands. Negotiating phone systems and silly protocols would just be I think it must be mind boggling for them sometimes, which is what we're trying to navigate here. (HCP7)*

This sentiment was shared by another participant who also described difficulties former refugees have with making appointments.

*...It must be difficult to make that appointment, it's probably like a brick wall there where we can't ring them and neither can they ring us because they have to explain to a receptionist about them wanting to make an appointment. (HCP11)*

These challenges were seen as the reason former refugees turned up to the practice without an appointment. ‘Drop-ins’ do not fit with most general practises’ service delivery model. Recognising the difficulties refugees encounter when making appointments, health providers are then required to make decisions about whether to try and fit them in. This dilemma was described by participants who saw that ‘fitting

them in' potentially creates further misunderstanding as it conflicts with supporting families to become accustomed to the 'by appointment only' model of care.

Recalls and reminders were regarded as a crucial tool in supporting immunisation uptake with former refugee children.

*Children come because we call them, not because the parents are aware they need to be vaccinated, we are the ones with that knowledge. (HCP1)*

The process of delivering and receiving recalls, however, was viewed by participants as being complex and time consuming due to language barriers. Conventional methods of sending reminders and recalling children for immunisations often involved sending letters or making phone calls to the caregivers. The onus is then on the caregiver to receive and respond to this recall, which is where the process was recognised to "fall down" for refugee families who do not have English comprehension.

*I think for us it's the language barrier, you know we have the way we normally would send out a reminder to people is send them a text, send the parents a text message, send them a letter, give them a phone call, but we can't do any of those things with our refugee population. (HCP2)*

Participants described occasions where communication glitches between practice staff and refugee caregivers resulted in the latter having misunderstandings on how health services are provided. These misconceptions led to subsequent delays and administrative challenges. Participants recounted times where the wrong child turned up for the appointment, or the parents turned up to the immunisation appointment without the child. Two participants described occasions where children would turn up for their immunisation appointment without their parents, resulting in these appointments needing to be rescheduled.

*Sometimes it can be a little bit challenging in appointments sometimes as children come along without the parents for their immunisation appointments and unfortunately we have to tell them if they're under 16 we can't immunise you, you have to have a parent or a caregiver with you, but they come in on their own because they speak English, but my mum or dad doesn't. (HCP10)*

#### **4.2.4.2 Consent and patient autonomy**

Challenges with gaining consent were highlighted by several participants. The legal and professional obligations of obtaining consent were well understood and participants reported using whatever tools they had at their disposal to support this consent process.

*I mean legally we're not allowed to immunise them if they don't have a parent or a caregiver who understands, you know has an understanding of why they're there as well. (HCP10)*

Participants acknowledged, however, that the process of gaining consent is complex due to language barriers and limited understanding between the health provider and the refugee caregiver.

*And you know they're giving consent to have the immunisations, but you always wonder well do they really understand or are they just saying that 'yeah we're supposed to do this and that's okay', but do they actually understand that there will be side effects and do they understand what, I'm sure they don't understand what illnesses they're getting, you know what diseases they're getting vaccinated against. (HCP2)*

Processes used to obtain consent appeared to be subject to innovative approaches each practice uniquely designed. Some participants reported they used written consent forms, while others did not use them with their refugee population due to the language barriers. One participant reported their consent process included mailing immunisation information for caregivers to pre-read. Another participant described looking for body language confirmation cues, such as a nod of their head, as a sign of consent.

The inability to obtain informed consent was viewed as a barrier by some participants, leading to potential delays with vaccine administration. As one participant stated, there are occasions where a family might need to be rebooked because the practitioner was unable to obtain informed consent.

*... because there was that language barrier, we then had to send them away because we couldn't communicate with them well enough to be able to get the informed consent for immunising the child. (HCP9)*

The participants' narratives highlighted notable gaps in the consent process. In pondering the need to streamline the consent process, one participant stated that it was a *"tricky one"*. While initially considering the possibility of having an overarching consent form signed at the first meeting, she then reflected that obtaining informed consent is not a one-time event but instead an on-going process.

#### **4.2.4.3 Two-way relationships**

Participants spoke about the importance of building rapport and establishing a *"two-way relationship"* thus fostering communication and understanding between

themselves and former refugee patients. Building rapport with children and caregivers was considered a pivotal enabler of healthcare access. Participants highlighted that families choose to come back if they have a relationship with the provider, irrespective of whether they speak the same language.

*I see that the most important thing for me is to have a rapport with these people, because if they know you and you know them then they will come back. Even if the interpreter is not, you know if you don't really get much from the interpreter, they actually understand you, your body language, your determination, your caring, you know they come back to see you. (HCP3)*

Participants described different ways in which they fostered relationships with former refugee children and caregivers. Longer first appointment, offering rewards and utilising different communication strategies were some of the methods used. One participant spoke about the practice staff giving special attention to refugee children including giving them treats. Another participant highlighted the importance of understanding patients' concerns and taking a proactive stance to ensure individuals are involved their care.

*I get high response. People are willing to listen, you have to be motivational, you know instead of just giving 'must do must not', just kind of like see what's the concern, why are you not interested, like see something what will make him get interested. You know, involve them with the care, involve them with the process. I think that's very crucial to make it kind of like a two-way relationship instead of me just giving orders to come here. (HCP5)*

Participants perceived that some former refugees seek out healthcare professionals who were a "match" in terms of language and culture. There was evidence that refugees will choose to travel further to access more culturally appropriate practices where staff spoke similar languages or were of similar backgrounds. As one Arabic-speaking participant noted:

*Some of them are living far away and they register with us because of the language. (HCP5)*

#### **4.2.4.4 Access to Interpreters**

Having access to interpreters was generally considered an enabler to providing immunisation services to refugees. Interpreters were viewed as a key resource in being able to effectively communicate with former refugee parents/ caregiver and obtain informed consent.

*I mean in order to do it ethically we can't just give them an injection and not explain to them what we're doing. We need to have that informed consent, so having interpreters is a big [emphasized] part of it. (HCP9)*

Beyond simply assisting with communication, interpreters were also considered to have a role in supporting relationships between the practice and the refugee family, particularly during the initial appointment. The interpreter's role also extended to supporting healthcare staff with understanding cultural norms and behaviours.

*Because they come from a variety of backgrounds, I tend to ask the interpreter if there's anything in particular that I should be aware of, and as far as culture goes with like you know don't touch the head type of thing. (HCP9)*

Participant responses about interpreters' skills and availability were divided. Some participants described seamless access to skilled interpreters, whereas others stated they did not have access to interpreters. Occasions when accessing or working with interpreter services had caused significant delays were also reported. These situations included: a male interpreter being booked for a female patient; the interpreter not showing up; difficulty making the initial booking, and the length of time it took to obtain an interpreter.

Some participants also noted interpreters varied in regard to skill and ultimate interpretation quality; the latter highly dependent on the level of comprehension between interpreter and refugee. For example, differences in dialect and length of time an interpreter had been living in NZ was considered to impact on understanding between a newly arrived refugee and the interpreter. Quality of the interpreting process was also brought into question, with concerns that supplying answers for patients replaced translation. Specialised translator training was seen to build the necessary skills and largely remediate this concern.

*Before we used to have interpreters that we just used to ring who we knew spoke the language, but that they hadn't had the right training, and there was multiple occasions when you could tell that they weren't actually interpreting, they were kind of answering for the patient what they thought, rather than just listening to what we say, ask the patient, get the reply and tell me directly, that's what it's meant to be. But the latest training seems to have been a lot better; we get a better quality of interpreting. (HCP14)*

Despite the preference for using face-to-face interpreters, many participants described how their practice had moved away from this model of interpreting and were using a phone interpreting service. Funding was the primary barrier behind using face-to-face

interpreters. While there were some advantages in using phone interpreters, such as having access to a wider range of languages, there were also many challenges, with one participant describing it as a 'make do' approach.

*So yeah, I mean we don't have anything else other than Language Line to use sometimes, so it's never good, but we tend to end up making do, it's the best we've got. At the moment we don't have facilities to have face-to-face interpreters, we don't have the ability to pay for those and nor do the family. (HCP2)*

Participants frequently commented that the quality of the phone call was often a challenge due to poor reception or background noise. Participants also noted there was potential for miscommunication if an interpreter was not physically present to observe body language. Therefore, there were some reservations expressed “*what you want translated ...is translated well*” when an interpreter was not physically present to read visual cues:

*I find it's more difficult than an in-person interpreter, I think because, I don't know if it's because they can't see your facial expressions or it's hard to explain how to do some things, like having to explain to someone how to use a nasal spray or something like that is quite hard through the phone. (HCP10)*

#### **4.2.4.5 Lack of culturally appropriate resources**

The lack of information resources presented in the refugees' own language was seen as a barrier to supporting communication, improving health literacy, and obtaining informed consent. This deficit also meant that health providers were more reliant on interpreters. Participants highlighted that it is not uncommon for refugees to have limited proficiency in written English. The wording in current parent immunisation resources is therefore often too complex, making the information inaccessible to many former refugees.

*It would be good to have more information about immunisations, because I mean I have this 'Let's talk about immunisation' booklet that I have used on occasions in the past, I tend not to use it because it's just too wordy and it's not really helpful for the refugee population. (HCP14)*

Furthermore, it was suggested that a lack of culturally and linguistically appropriate information was further adding to the inequity between refugee and non-refugee families:

*... it's actually really hard and I don't think they get nearly as fair a deal knowing how to look after their children. There's nothing written, not in many languages, you know in some of the easy languages you can find stuff in Spanish or something like that, but you know a lot of the languages, particularly our Burmese population, there isn't anything available that I have found. (HCP2)*

#### **4.2.4.6 Navigating communication challenges**

All participants described at least one communication strategy that they, or their practice, use to support communication and understanding between health providers and their former refugee children and caregivers. In the absence of an interpreter, many participants described using additional communication tools such as translation apps:

*Sometimes I've used apps on my phone when I haven't had an interpreter, like Google Translate, that can work sometimes, but it's a bit hit and miss. (HCP14)*

At times, family members would translate information where an interpreter was not available. Sometimes the children themselves would be used to translate information to their parents or caregiver:

*We don't have interpreter services, so they normally bring somebody who is able to talk in English, so it could be his parents or normally the children are there to interpret for the adults accompanying them. (HCP4)*

Some participants described the advantage of being able to speak the same language, or having access to colleagues who spoke a similar language to their refugee population:

*In our clinic we have the staff who speak different languages. So that's myself and the main GP here we speak Arabic, and a high percentage of the refugee are from there, Arabian descent, so that's what makes it easy for us. (HCP5)*

Participants also utilised overseas resources they retrieved from internet sources, including translated immunisation leaflets. Sign language and visual aids were also used to support communication.

There were several different strategies utilised by practices to support the process of managing recalls and phone bookings. Many involved the utilisation of technology such as text messaging and emails which refugee caregivers could then translate through their own devices or applications.

*The other thing is with obviously with the new technology now we've got e-mail. We often get their e-mail addresses, so if we send them an email reminder or a text reminder...even if they don't understand it they're able to interpret it through their own channels, or some of them have got translating apps... I think that's been really useful having email addresses and text messaging, because it's not so much that they think 'oh I don't know what this is'. They've got technology too that they can access to translate the messages we send. (HCP13)*

The use of overseas resources was cited by a couple of participants. Resources included information sheets translated into different languages sourced from international health organisations such as NHS websites (United Kingdom National Health Service). One general practice used an online appointment reminder translation tool from the New South Wales Multicultural Communication Service to translate appointment letters into different languages.

*So there's a really good website from New South Wales and it's New South Wales Refugee Health Service, and there's an appointment reminder translation tool. So, I will send that out, and what's really good about this, because you try and do a telephone, ring them, there's no point texting unless it's in their language, but this appointment reminder translation tool is excellent because it gives you the type of appointment. So if it's immunisation, and then you can put in the language for it to be interpreted in, so I use this quite a lot of late and particularly for our Columbian refugees. (HCP8)*

Other creative measures used to demystify health information were also described. One participant explained how her practice places a green sticker dot on all health information including the immunisation letters sent out to their refugee population. The green dot alerts caregivers that it is a medical letter, which they can then get translated:

*So, we sent out letter and when we do it we send out letters with a little green sticker on it and when they first moved [to the city], I don't know if it's like that everywhere, but the refugee people have just said if there's a green dot on it, it's a medical thing and they take it into the Red Cross who will translate it for them. (HCP10)*

#### **4.2.5 The service needs to change**

This theme describes participants' thoughts and experiences of the current service and ideas for improvement.

##### **4.2.5.1 Potential consequences**

The current system employed by general practices to deliver immunisation services to refugee communities is not fit for purpose with both refugee and individual healthcare professional needs being unmet. Under the current approach, there is potential for

practices to become overwhelmed if refugee numbers increase. Some participants stated that they were able to manage only because they have low number of former refugee patients. These providers added that it would become problematic if their numbers increased or they received a sudden influx of newly registered former refugee patients.

Throughout the discussions, every participant was able to identify at least one barrier or challenge that impacted on their ability to deliver efficient and timely vaccination services to former refugee children. Completing catch-up immunisations within the recommended timeframe was one of the main challenges, as one participant noted:

*I think the biggest challenge is getting that whole vaccinating process done in a timely manner, it's not usually very timely. There always seems to be a time-lag (HCP11)*

There was acknowledgement that if these barriers were not addressed that future consequences could include outbreaks of vaccine preventable diseases.

*Now you're getting these previously eradicated diseases like mumps and measles, you heard about the measles outbreak in New Zealand, so you know it's coming back. So if you're not spending time on addressing these concerns and educating patients and you know addressing these barriers, I think we will face problem in the future. (HCP5)*

Furthermore, the same participant stated that this risk is increasing as New Zealand is expected to take on an increasing amount of quota refugees.

*You are putting a light on you know an issue that needs to be addressed. Is better to contain the challenges because they get more and more, and as I said the number is increasing. New Zealand is a very open country for refugees so we are getting quotas every year and the more people come, the more issues we will have. (HCP5)*

#### **4.2.5.2 Desire to do better**

Along with identifying gaps and challenges in delivering immunisations to former refugee children, there was a notable desire to do better. While many participants expressed that service provision to former refugees was generally “good”, they recognised there was still “room for improvement” and more could be achieved. One participant reflected on the value of this interview process in allowing opportunity to think about current systems and reflect on how they can improve.

*I'm thinking on the spot here, because sometimes we don't have time to think, when you're at work you're just going from one thing to another, so we've never formally sat down like we are today and discuss the whole proceeds.... it's been quite a productive time to talk about it because it's brought to my mind thoughts about maybe how we could improve this. (HCP11)*

Participants discussed both extrinsic and intrinsic factors that support their desire for service improvement and increasing uptake of immunisations. Extrinsic factors include such things as meeting national immunisation targets and improved working conditions.

From a values-driven perspective, participants expressed an altruistic desire to make a difference. When discussing influencers for working with former refugees, one participant described prior experiences nursing sick children as motivating her to want the best for former refugee families. Although working with former refugees was viewed as challenging, it was also considered a rewarding area to work, with participants expressing a commitment to supporting refugees and improving services for them.

*...it's a challenging population to be honest with you, but it's very rewarding if you work with them it's you know helping someone to kind of like a overcome all this horrible experience, it is very rewarding so I think more need to be done in this area. (HCP5)*

#### **4.2.5.3 Ideal service design**

Many participants recognised that the current system does not meet the needs of their refugee patients. Participants highlighted how their health practice had made service changes, and employed creative measures, to enable access and support immunisation delivery for refugee children. Throughout the interviews, participants came up with many ideas to improve delivery of immunisation services to children with refugee backgrounds. These ideas have been grouped together into four key areas: overcoming linguistic and cultural barriers; health promotion and education; reducing access barriers, and time, cost, and information system efficiencies (Table 7).

**Table 7** Summary of strategies suggested by participants (N=14) to improve service delivery for former refugees

Area of improvement	Detail	Recommendations/ Ideas for improvement
Overcoming linguistic and cultural barriers	<p>Potential strategies to support both health professionals and former refugee caregivers overcome linguistic and cultural barriers included:</p> <ul style="list-style-type: none"> <li>• Developing resources and communication strategies,</li> <li>• Opportunities to support social integration into New Zealand society,</li> <li>• Networking with refugee specific organisations and increasing cultural training for health professionals.</li> </ul>	<p><b>Access to interpreter</b></p> <ul style="list-style-type: none"> <li>• Access to qualified interpreters for all immunisation appointments when required.</li> <li>• Use interpreters to support administrative tasks – phone bookings.</li> </ul> <p><b>Resources</b></p> <ul style="list-style-type: none"> <li>• Translated immunisation appointment letters</li> <li>• Tailored system for booking appointments, reminders and recalls.</li> <li>• Visual resources including immunisation calendars</li> </ul> <p><b>Refugee Liaison/ key worker</b></p> <ul style="list-style-type: none"> <li>• Refugee liaison role</li> <li>• Increase workforce of clinical and non-clinical staff with refugee or migrant background</li> <li>• Dedicated community refugee nurse role that acts as a liaison between former refugees and the PHOs</li> </ul> <p><b>Training</b></p> <ul style="list-style-type: none"> <li>• Cultural training for health professionals</li> <li>• Mechanisms to support integration of refugee caregivers into NZ society</li> </ul>
Health promotion and education	Strategies aimed at increasing health education and awareness of the need to immunise for former refugee caregivers.	<p><b>Mass media</b></p> <ul style="list-style-type: none"> <li>• Mass media campaigns including social media.</li> <li>• National broadcasts of national and international rates of vaccine preventable diseases</li> </ul> <p><b>Resources</b></p> <ul style="list-style-type: none"> <li>• Digital and interactive resources on immunisations and vaccine preventable diseases.</li> <li>• Culturally responsive educational resources on immunisations and diseases</li> </ul> <p><b>Education events</b></p> <ul style="list-style-type: none"> <li>• Community immunisation information event run in partnership with Red Cross and the Primary Health Organisation</li> </ul>
Reducing access	Related to physically	<ul style="list-style-type: none"> <li>• Community immunisation events</li> </ul>

barriers	accessing the practices, including distance of clinic, transport and reducing waiting times	<p>for former refugees</p> <ul style="list-style-type: none"> <li>• Increase clinic opening hours to include after-hours and weekend clinics</li> <li>• Separate maternal and child health clinics</li> <li>• Nurse led clinics</li> <li>• Drop-in clinics</li> </ul>
Time, cost and information system efficiencies	Strategies aimed at improving health service delivery including streamlining health services, electronic interface, promoting continuity of care, and reducing time demands.	<p><b>Information sharing</b></p> <ul style="list-style-type: none"> <li>• Information/communication systems to provide timely and accurate collection and sharing of information</li> <li>• Platforms to support regional information sharing on healthcare provision for refugees, including immunisation delivery</li> </ul> <p><b>Streamlining processes</b></p> <ul style="list-style-type: none"> <li>• Opportunistic immunisation delivery at locations beyond general practices (e.g. after-hours medical centres, hospitals, etc.).</li> <li>• Immunisation information is streamlined at source i.e. from MRRC to the NIR</li> </ul> <p><b>Funding</b></p> <ul style="list-style-type: none"> <li>• Increase funding to enable longer appointment times where required</li> </ul> <p><b>Training</b></p> <ul style="list-style-type: none"> <li>• Practical training and supports for health professionals around creating immunisation catch-up schedules for former refugees</li> </ul>

### Overcoming linguistic and cultural barriers

The majority of ideas suggested by participants were aimed at overcoming linguistic and cultural barriers and improving education and health promotion. Ideas aimed at overcoming these barriers included having better access to interpreters, cultural training for health providers and resources available in different languages. Over half the participants identified benefits in having a refugee liaison role. The ideal candidate would possess a refugee background and required language skills, with the ability to be an intermediary between former refugee families and the practice.

*I think it would be awesome to have - and if I translate back to when I worked in Australia, they had Aboriginal health care workers. So, it was somebody who spoke the language and who taught incorporate it kind of like some cultural things that was unique to them. So if we could have like an Afghani, a Colombian, a Somali healthcare worker who was a trusted person in the community, they would be ideal to be that liaison social worker kind of person,*

*but attached to those new families, a little bit different to how Red Cross do it.*  
(HCP6)

One participant stated that having a former refugee health worker was an “*ideal world*” scenario.

*I think what would be really good is to have people maybe... I'm just thinking having people from that background to be working in health and around immunisations you know in an ideal world.* (HCP8)

Similarly, another participant expressed that a key worker role would also be beneficial in supporting access to GP clinics, establishing trust and liaising with other agencies.

*I think key worker's the best because they can do whatever is you know, because the key worker has established trust for these people, because trust is one that you need to establish with this kind of people... Then transport that can be liaised by the key worker and communication.* (HCP12)

It was noted that this refugee support / keyworker role would not necessarily require a health background as the plan involves working alongside health providers.

Participants thought ideally this role would be based in the GP clinic, however, many acknowledged that it would most likely sit within the PHO or DHB.

Due to their parents' limited awareness of vaccination processes, recalls were considered a key facilitator in delivering immunisations to refugee children. Many participants acknowledged, however, that communication challenges often impeded refugee caregivers' use of existing recall systems. Suggestions for improvement include a recall process that uses text messaging or emails. These messages could be translated by an app the refugee caregiver would most likely already have installed on their device. A second improvement suggestion was concerned with translated appointment/reminder/recall letters, and a third idea was to use a translator to do phone bookings with refugee patients.

#### Health promotion and education

Conceptualising Western preventive health measures in relation to disease prevention is a challenge for many former refugees. To address this knowledge deficit, participants suggested targeted health promotion and education interventions. The aim would be to increase refugees' health literacy and autonomy in making informed decisions.

*Most of them are coming from areas where their primary care is basically zero, so there is no need or there's no insight of the need for immunisation. So health education is another thing that we have to work on to increase their literacy and awareness of the need for immunisation. (HCP5)*

This identified need could be met by providing culturally and linguistically appropriate resources in different languages. Supplied information would include immunisation leaflets, digital resources, videos, and other visual resources such as an immunisation catch-up calendar.

*I think having more resources would be wonderful, you know having resources for just language resources to tell people what they're having you know, the same as we do in English - why it's important to have immunisations, what are the potential complications afterwards, or the side effects and how to look after children. We give that out to all our kids, but when you don't speak that language and you don't have any understanding that makes it tricky. (HCP2)*

One participant suggested that it would be helpful if there was a “refugee version” of the Well Child Tamariki Ora My Health Book (Well Child Book). The current version is a useful tool for both caregivers and health professionals to share and record relevant information. This resource, however, was considered less useful for refugees in regard to language and context. For example, catch-up immunisations do not have a space to be recorded in the immunisation pages. For this reason, many participants stated that refugee children were either not given a copy, or their parents would not use the supplied copy due to the mismatch of language and culture.

*So most new babies have the Well Child Book, but most of our new refugee children don't have it. If it's second generation then they do have it, but the immunisations that they've had, like for the refugee children that sort of just moved to New Zealand, if they're 5 or 6 or something, their catch-up schedule is not the same as what a new baby born in New Zealand would have, so it doesn't actually fit in the immunisation pages of the well child book. It would be great if they could have some form of that though, it would make it so much easier. (HCP10)*

The same participant commented that, in addition to holding a record of catch-up immunisations, a refugee version could be used for all other health related matters.

*It would be really cool if there was like a version of that that could be created for catch-up [immunisations], but also all health-related things that people could actually keep themselves would be really helpful. (HCP10)*

Another innovative idea suggested by one participant involved utilising technology to support education about immunisations:

*I've talked recently in a cool little health hub which had kind of like iPads and interactive information where we could say to you 'Oh look here's, we'll take you in here and here's a really good resource in your language that you can watch a video' and that kids could see why we're doing things, so that it's kind of a family education around immunization, but also just health and like I said before like the respiratory illness and constipation that sort of stuff, if there was a room and we could say 'you can come in, you've got half an hour in there with a person' you could go through and just have the time to do that, that would be pretty cool. (HCP6)*

Participants suggested that public health awareness could be increased through national broadcasting of immunisation and vaccine preventable disease figures, and through mass media campaigns.

*You have to make sure the public is aware of any vaccination. So I think the awareness should be very into the media, shopping centre, pharmacy. I think the awareness is very important and I think when you're going for the cinemas or movies they should bring these immunizations so in the movies, everybody is so ready you know 'I want to see what's going to happen', so I think you have to get that add before it, so everybody's so into it like they get engrossed and then they will understand why. (HCP4)*

#### Reducing access barriers

Participants also discussed several ideas aimed at reducing access barriers for former refugee families. One suggestion was to extend practice open hours and include weekend clinics to support those families who have competing priorities such as school, work and English language classes during traditional opening hours. Two participants suggested that a drop-in clinic may reduce administrative barriers related to booking appointments. Some participants deliberated whether running an immunisation clinic in the community, closer to where people live, would reduce access barrier and support immunisation uptake.

*I don't know if it would be worth considering having vaccinations available at a place like the Community Centre, where a nurse could go in or a public health nurse or somebody. Obviously they'd need to have the technology on which to record everything so that it gets to the NIR. But similar to the Cervical screening outreach team, I'm part of that program as well, helping people that are just not responding to recalls from general practice. So, we can offer to go into their homes or to meet the community centre to get them up to date. Maybe there's something like that in a Community Centre focus that we could introduce alongside the general practice. (HCP14)*

A similar idea was presented by another participant who suggested a separate refugee clinic, highlighting the need to consider the time of day.

*It could be you could have two nurses, two clinics... just for one hour from four to five. Then you can get the interpreter, you get the child after school, you get the parent that's not at English class. So, it's got to be a time that's not during the regular day, and not too late, before they have dinner, because you've got to think about children and their families... So finding a time that's ideal for a family dealing with all the challenges in their world. (HCP8)*

Two participants reflected on the success of clinics they had established to catch up on former refugees' missed immunisations:

*One of the things that we did was that outreach clinic, going to them in the community. That was such a big success, and you know and it made things a lot easier and a lot more accessible for a lot of our refugee families. So perhaps looking at being able to do you know funded clinics out in their communities. (HCP9)*

#### *Time, cost and information system efficiencies*

A significant challenge identified by participants was the time required to establish catch-up schedules for former refugee children. Several participants stated this would be easier to manage if the information was streamlined from the MRRC and went straight through to the NIR.

*What we are wondering is if when they were screened at Mangere (Mangere Refugee Resettlement Centre) that the immunisation information could be streamlined at source, maybe so that it could either go straight onto the NIR (National Immunisation Register) from there or there could be an absolutely table of what's due, a lot more clearer than what we do now. So it seems like it's going through one screening process up there [MRRC]...We then send it away, so you've got the work done up there and then we're putting it through our immunisation coordinators down here. So it's almost like we've got a middle man in the middle that would be quite good to cut out, if we could just have a clearer picture of what we needed. (HCP13)*

This sentiment was shared by another participant who expressed that if there was a way of streamlining the process from MRRC, this would result in less missed opportunities.

*If there was some way that we could get through the information like the immunisation information from Mangere (Mangere Refugee Resettlement Centre) and that it would automatically create records in our system, it would mean that less people would be missed, because we could check our recall list rather than having to rely on people to remember to go in and check if they're due for any immunisations. (HCP10)*

Importantly, participants underscored that whatever strategies were used must be cost effective and achievable within the time restraints. One participant highlighted these cost and time constraints when discussing strategies to improve service delivery. A number of participants also emphasised that potential strategies required critique to ensure they did not create further fragmentations in the system, and they did not inhibit former refugees' engagement with their primary healthcare provider:

*I think in a way you don't want - I'm thinking maybe not having to be external from their primary healthcare provider, so it doesn't become fragmented. So at least their primary healthcare provider knows what's happening in terms of healthcare and the immunisations for this child and for its family. So yeah, so it's with the same healthcare provider. (HCP8)*

This cautious view was particularly evident when participants spoke of utilising outreach services, which participants shared mixed views on.

*I initially wondered whether the whole process will be better done through an outreach team who visited at home, but on the other hand that doesn't engage them into the healthcare with us, so they're not sort of seeing us. (HCP11)*

#### **4.3 Concluding comments**

The results of this study identified five main themes that illustrate the healthcare providers' experience of providing immunisation services to children with refugee backgrounds. The themes also outline health providers' perspectives on factors that influence vaccination uptake for refugee caregivers, as well as the structural constraints that impact both health providers and refugee caregivers. The results highlight the influencing factors that exist across all three levels: refugee caregivers, health provider, and system levels. Many of these factors interconnect with each other, within and across each of the levels, as outlined in the theme; '*To understand and to be understood*'. Highlighted within these themes is the importance of provider-patient relationships, and the barriers and enablers to achieving trustworthy '*two-way relationships*' between healthcare providers and refugee families.

Several barriers were identified in the results. Participants' perceptions of constraints at the refugee level include a lack of knowledge and awareness of disease and vaccines; language and access barriers, and competing resettlement priorities. Health provider level barriers were primarily concerned with a lack of cross-cultural knowledge; inexperience with creating catch-up schedules; lack of time, and paucity of resources including interpreters and written material. Identified system level

barriers included resource constraints; ineffective resettlement processes; inequities in certain refugee pathways; and challenges in sharing information between services. The discussion section that follows will address these emergent findings in more depth, contextualising the results within the relevant literature.

## Chapter Five: Discussion

### 5.1 Introduction

The aim of this vaccination-uptake study was two-fold: (1) To explore the perceptions held by healthcare professionals about factors that influence complete and timely vaccination uptake for refugee children upon resettlement in NZ, (2) to identify strategies to increase vaccination uptake within general practice settings. Previous research has primarily focused on barriers to accessing immunisation services from the unique refugee perspective. Emerging international research, however, is widening the lens to include the health provider viewpoint. While some NZ studies have focused on refugees' utilisation of health services, vaccination research within this population concentrated on coverage rates and risk of VPDs as opposed to utilisation. To the best of the author's knowledge, this vaccination-uptake study is the first to examine health providers' perspectives in Aotearoa New Zealand. Their first-hand experiences provide unique understandings of both the system and provider-level enablers and barriers to delivering vaccination programmes to former refugees in Aotearoa New Zealand.

The findings of this study indicate that immunisation uptake in refugee children is influenced by factors that transverse all three levels: caregiver, provider, and systems. These determinants include caregiver-level factors such as: competing priorities on settlement; knowledge of health systems and vaccines, and access barriers such as transport. Provider-level aspects include networking; knowledge and skills of health professionals, and time required to complete immunisation processes with refugee children. System-level influencers include resettlement policies that underpin local systems delivering immunisation programmes to refugee children such as resourcing, existing infrastructure and practice processes. Communication and understanding between health professionals and refugee patients are fundamental tenets that are positively, or negatively, influenced by the presence or absence of determinants at each of the three levels described above. Finally, there was a strong desire amongst participants to improve the responsiveness of the primary care system, particularly in the delivery of immunisation services for refugee families.

The findings from this study were reviewed within the context of the relevant literature. This review contextualised and identified four main discussion points. The first discussion point is related to the healthcare encounter between health providers and refugee families. Within this encounter, there are enablers and barriers to providing immunisations for children with refugee backgrounds. Five inter-related factors are

highlighted as potential influencers of health outcomes in refugee children. These are: provider-patient relationships, cultural understanding, communication, lack of resources and time. The second discussion point is concerned with system level factors that influence access to, and provision of, immunisation services for refugee caregivers and providers. The third point relates to the wider socio-political contexts surrounding resettlement that influence access to general practice yet are beyond the control of the health system and individual. The fourth and final discussion point compares participants-perceived factors against the literature focused on the refugee voices. Enmeshed within these discussions points are the participants' proposed strategies to improve the system.

### ***5.1.1 The Healthcare Encounter***

The healthcare encounter is concerned with the environment, including interpersonal, cultural, and physical elements, wherein the health provider and the refugee family meet. The discussion in the following paragraphs includes barriers to, and enablers of, providing immunisation services to children with refugee backgrounds. Participants in this study identified six inter-related factors that influenced their practice with refugee families: provider-patient relationships; trust; cultural understanding; communication: access to resources, and time.

Positive provider-patient relationships were viewed as key to healthcare encounters with refugee caregivers and their children. This study highlighted that health providers have a vital role in supporting access to primary health care services, and in disseminating information about vaccines. Health professionals' recommendations are universally regarded as key determinants in increasing vaccination uptake in both general (Nowlan et al., 2019) and refugee and migrant populations (Kowal, Jardine, & Bubela, 2015; Napolitano et al., 2018). Similarly, this vaccination-uptake study found that refugee caregivers passively accept vaccinations based on provider recommendation and vaccination recalls, as opposed to actively pursuing immunisations. This finding is mirrored in a Canadian-based study into decision-making by Bhutanese, South Asian and Chinese migrant mothers. The authors identified that these mothers received vaccine information almost exclusively from healthcare providers (Kowal et al., 2015).

A key finding of this vaccination-uptake study is centred on developing trustworthy provider-patient relationships to secure former refugees' long-term engagement with the practice. This sentiment is echoed by Richard et al. (2019) who identified that building relational connections between refugee and provider is integral to primary

health care practice. Interrelated aspects of communication, trust and cultural understanding are essential to building relationships between providers and the refugee family (Richard et al., 2019). Healthcare providers' knowledge of cultural safety is widely recognised as pivotal to providing patient-centred, effective and equitable care to refugees (Lau & Rodgers, 2021). Consistent with international research, this vaccination-uptake study highlighted cultural aspects with potential to evoke misunderstandings that impede healthcare delivery. This disruption may extend to trust between refugee caregivers and healthcare providers. These cultural aspects include language discordance; unacknowledged cultural needs and experiences; differing provider-patient expectations and lack of culturally appropriate resources (Chiarenza et al., 2019; Davidson et al., 2004; Richard et al., 2019; Szajna & Ward, 2015; Vito, Waure, Specchia, & Ricciardi, 2015).

Providing culturally competent care may include managing refugee expectations. Akin to prior research by Mkanta et al. (2017) and Richard et al. (2019), participants experienced that, at times, refugees had unrealistic expectations that were unable to be met by the NZ health system. These unmet expectations included short wait times, expecting all services for free and the resolution of complex medical issues in one visit. Participants also described occasions where refugee families did not meet practice expectations. For example, many participants described refugees turning up at the practice without making an appointment. Differing expectations were attributed to refugees' attempts to understand and navigate the NZ healthcare system, including facing administrative barriers when making appointments.

Participants described having a role in educating and supporting refugee caregivers to navigate the NZ health system, while also being aware of the challenges refugees face. This conundrum may create a point of conflict for health care providers as they have to choose between trying to fit in a family in who has just turned up or supporting them to navigate the system, thereby rebooking them for another time. Richard et al. (2019) also uncovered incongruities between refugee patients and providers expectations. These authors emphasised that forging trustworthy relationships with refugees involves respecting and managing differences in expectations to avoid unmet needs. Key to building trust is healthcare providers managing their own expectations in providing care to refugees.

Healthcare professionals' lack of knowledge and skills to provide culturally competent care to refugees has been frequently cited in the literature (Mortensen, 2011; Socha &

Klein, 2020; Szajna & Ward, 2015). Varying levels of knowledge about the refugee experience was evident across participants in this vaccination-uptake study. Knowledge deficits were mainly concerned with the different visa categories. Less than half of the participants were aware of the different resettlement pathways for refugees. Of the four pathways: quota refugees; asylum seekers and convention refugees; family reunification, and CORS (New Zealand Immigration, 2021c), participants were most aware of UN quota refugees. Participants in areas where refugee resettlement was more established (i.e., Auckland, Wellington, and Waikato) demonstrated greater understanding of the different visa categories than other participants in more recently establish locations.

Participants recognised the need for further refugee-specific training to support providers' cultural knowledge; however, less than half had engaged in formal cultural training. Instead, they described drawing on knowledge from their own prior experiences, including previous volunteer roles, overseas experience, and their own migrant backgrounds. A similar finding was also reported in a NZ study by Richard et al. (2019). Vaccination-uptake research participants who had engaged in education or training completed this though formal postgraduate qualifications, refugee forums run through Red Cross and Waitemata DHB eCALD® Services training. There were conflicting views between participants regarding who was responsible for ensuring training. While most thought learning opportunities should be provided and supported by the practice and wider PHO, others expressed that individual healthcare professionals should take a self-directed approach to training and up-skilling.

Despite acknowledging their learning needs, participants did not elucidate why they had not engaged in cultural training. Prior studies by Richard et al. (2019) and Woodley and Williams (2012) identified that primary healthcare professionals' main barrier to accessing training is lack of allocated time due to busy work schedules. Interestingly, some vaccination-uptake research participants identified a preference for acquiring experiential knowledge as opposed to engaging in formal training. As discussed above, access to refugee-specific training can be intermittent and can be further complicated by uncertainties concerned with health professionals' learning needs and education providers. This identified learning gap calls for further NZ research on access to refugee-specific training, which includes looking at barriers encountered by health professionals and non-clinical staff working in primary health settings.

Highlighted in this study are difficulties providers can encounter when accessing interpreting services in general practice settings. Participants' experiences support Nakken et al. (2018) discovery that interpreters are strong enablers of communication between refugee families and health providers, particularly when delivering vaccinations and obtaining consent. Interpreters were also considered to have a role in facilitating relationships between the practice and the refugee family and providing cultural support for staff. However, in line with findings from a previous study (Shrestha-Ranjit, Patterson, Manias, Payne, & Koziol-McLain, 2017), access to interpreters to support care provisions with refugees in NZ primary care settings was challenging. Complications with engaging interpreters were also identified as a major barrier to refugees' access to health systems in international research (Bischoff & Denhaerynck, 2010; Chiarenza et al., 2019; Szajna & Ward, 2015). Vaccination-uptake research participants reported challenges with utilising interpreters that included: lack of accessibility to interpreters; interpreters not turning up; unmatched gender-preferences, and compromised interpretation quality.

Many practices represented in this study had moved to using phone and language line interpreting services, citing funding constraints. Participants, however, reported dissatisfaction with this service. Expressed concerns included: poor call quality (e.g., bad reception or background noise); interpreter distracted by background activity thus not fully engaged in the call (e.g., school pick-up, shopping), and lastly, accuracy concerns as information is translated without health provider or refugee caregiver visual cues. Similarly, a US study involving 92 adults with refugee backgrounds also reported refugees' low levels of satisfaction with phone interpreters, indicating higher preference for onsite interpreters. Furthermore, 65.9% of participants in this US study believed they would have received better care if there was no language barrier (Mkanta et al., 2017).

The risk of miscommunication is heightened by the lack of culturally and linguistically appropriate resources to support refugee caregivers navigate unfamiliar health services and make vaccination decisions. The paucity of health resources in refugees' native languages is seen as a potential threat to their confidence in the health system (Vito et al., 2015). A finding from this vaccination-uptake study highlighted conventional methods of health education and promotion, such as: current immunisation leaflets; the Well Child Health Book, and appointment letters, were less effective at reaching former refugees due to both linguistic and cultural barriers. After-immunisation care leaflets

were also included in this information mismatch. One participant reflected on how this information gap creates further inequities between refugee and non-refugee families.

Challenges with access to both interpreters and multilingual information resources led to practices developing their own communication strategies, or having to use family members, including children, to interpret medical information. The use of family members as interpreters has been highlighted by another study (Shrestha-Ranjit et al., 2017) that reported that this had become common practice when communicating with Bhutanese refugee women in NZ primary care settings. The researchers acknowledged this was not by choice and many GPs and nurses found using family members to be challenging and inappropriate. Other strategies included “make do” methods to communicate immunisation information to refugee caregivers; methods employed included the use of Google translate, interspersed with visual imagery, body language. MacFarlane et al. (2014) acknowledged these strategies have some measure of effectiveness but advised caution due to the potential to compromise access, trust, and provider-patient relationships.

Another key finding of this vaccination-uptake study related to communication challenges between providers and refugee caregivers. Specifically, the complexity of obtaining informed consent from refugees with limited English. Consent is fundamental to the provision of immunisations and is embedded in ethical obligations such as supporting individual autonomy (Nowlan et al., 2019). This requirement is legally mandated within The Code of Health and Disability Services Consumers Rights (Health and Disability Commissioner, n.d.). The legalities of obtaining consent were well understood by study participants. The process of informed consent requires effective and reciprocal communication between health professionals and refugee caregivers. This study revealed that some general practices were under-resourced to meet these ethical and legal obligations, which sometimes resulted in a missed immunisation event. These findings are congruent with Rubens-Augustson et al. (2018) study that found the inability to obtain vaccination consent from refugee caregivers led to time delays and, in some cases, resulted in a missed immunisation event.

In addition to supporting immunisation delivery, communication is recognised as a key factor in establishing trust and building relationships between refugees and providers (Lawrence & Kearns, 2005; Richard et al., 2019; Rubens-Augustson et al., 2018). In the absence of a common language, study participants described communicating through other non-verbal methods including the use of body language, a willingness to

listen and showing compassion. These experiences are consistent with Carroll et al. (2007) and Patel et al. (2021) that emphasised the use of non-verbal cues such as nodding and smiling, and taking time to both listen to refugees' stories and understand their culture. The researchers identified these factors as key to promoting comfort and trust between healthcare providers and refugees during a health encounter. Mirroring findings from Richard et al. (2019) NZ study, vaccination-uptake participants highlighted taking time to understand individual refugee's journey as essential to building relationships. Investing in the relationship heightened participants' awareness of barriers refugees encounter when accessing immunisation services; then called the health providers to action. The strategies they employed to address these barriers will be highlighted later in the discussion.

Lack of time was highlighted by study participants as impeding the delivery of effective, culturally competent care to refugees. This finding is underscored in other research which found providing primary care to refugees was time consuming and created high workloads for health providers (Piselli et al., 2019). This discovery was echoed by vaccination-uptake study participants who noted delivering care to refugees involved extra time, had added complexities, and often required healthcare staff to go above and beyond their conventional medical roles to support their patients. The participants expressed a sense of responsibility to address needs across the wider social determinants of health, which is akin to other NZ research findings (Richard et al., 2019). These broader dimensions included: supporting community engagement; securing employment and education support; access to English lessons; assisting with financial challenges, and helping refugees navigate health services such as accessing the pharmacy.

Findings from this study suggest that healthcare providers in general practice settings are under-resourced to provide effective, timely and culturally competent immunisation services to refugee families. This outcome is congruent with a prior NZ based study which explored perspectives of primary healthcare professionals providing care to refugees in mainstream general practice (Richard et al., 2019). These health provider experiences also resonate with Farley, Askew, and Kay (2014) who identified there are benefits, and ways to optimise, delivering immunisation services within general practice settings. These optimisations include imbuing flexibility to enable innovative client-centred responses to the multidimensional needs of their refugee patients.

Despite the need to assume multidimensional roles, study participants described their work with refugee families as rewarding. Those interviewed were motivated by their desire to enhance service provision to this group. Emerging from this study was participants' strong motivation to improve service delivery; a change process that appeared to have two drivers. Firstly, an altruistic desire to make a difference in the lives of former refugees whom participants saw as having residual post-resettlement vulnerabilities. Secondly, a desire to improve the health systems in which providers and refugees meet, to enable health providers to do their job more effectively.

### **5.1.2 Access to and provision of immunisation services**

Findings from this study indicate system level factors such as: funding; transport; resourcing; system processes, and administrative barriers, impact both utilisation of vaccination services and providers' ability to provide effective vaccination services to children with refugee backgrounds. Participants described system-level challenges they encounter in delivering immunisation programmes including fragmented service delivery; lack of protected time to manage catch-up schedules, and lack of appropriate health infrastructure and processes to facilitate information sharing between services. Similar findings from Richard et al. (2019) were noted. Other identified challenges cited in the international literature include missed vaccination opportunities due to ineffective processes, and difficulty recalling refugee children due to language barriers (WHO Regional Office for Europe, 2019). Continuity of care has been recognised as important in the provision of primary health care services to former refugees (Parajuli & Horey, 2019).

Vaccination-uptake study participants described the importance of having good processes in places to support continuity of care, including the effective use of the electronic PMS, to minimise missed vaccination opportunities. A similar finding was reported by Taylor et al. (2017) who noted that effective use of internal systems and electronic interfaces enabled systematic approaches for communication with families, identifying unmet needs and monitoring practice targets. Two other approaches aimed at minimising missed opportunities included having a dedicated role to manage catch-up schedules for new refugee patients and developing practice protocols for refugee patients to ensure all staff are on the same page with regards to supporting refugee patients.

Of importance to note, study participants identified unique challenges related to the sharing and coordination of electronic immunisation information between the Mangere Refugee Resettlement Centre, the general practice, and the National Immunisation

Register. The NIR is a computerised information system that holds immunisation information of children immunised in NZ from 2005. While the NIR has been credited for improved monitoring of uptake and timeliness of the NIS vaccines (Nowlan et al., 2019), this study's findings highlight challenges related to the coordination of immunisation information between MRRC and the NIR, which have resulted in subsequent delays in completing catch-up immunisations. These findings align with Richard et al. (2019) research that highlights a lack of processes and universal health infrastructure to support effective sharing of health information between services. Improvement suggestions included that immunisation information could be streamlined better at source i.e., from MRRC straight onto the NIR.

This vaccination-uptake study also identified, when the practice did not use Medtech, there were reported information inaccuracies between the NIR and the practice's PMS. These findings are significant for multiple reasons. They offer insight into how immunisations may be missed by the practice during the early enrolment phase, and also during the transfer of electronic data between the PMS and the NIR. Accurate reporting of immunisation data is also required for appropriate surveillance monitoring, and for making informed policy and practice decisions. These finding may also shed some light on previous research by Grant et al. (2011) who found that immunisation coverage was higher in practices that used Medtech for their practice management system, as opposed to one of the three alternatives. Lastly, this finding is particularly important considering proposed changes under the new Quota Health Service Delivery Model. The plan is to move health screening and immunisations off shore (New Zealand Immigration, 2020). There is also a pending upgrade of the current NIR to a new approach titled the National Immunisation Solution (Ministry of Health, 2021a). There is need for robust planning to ensure that the system is not fragmented further with this change in model of service delivery.

According to the MoH immunisation guidelines for vaccinating refugee and migrants, health providers' need to complete an initial vaccination status assessment for adults and children, and plan a catch-up schedule accordingly (Ministry of Health, 2020b). Akin to previous research by Mahimbo et al. (2017), this vaccination-uptake study highlighted that healthcare professionals situated in general practices lack expertise and confidence in implementing catch-up schedules for newly arrived refugees. Creating catch-ups schedules was viewed as a collaborative effort, often involving other team members, external colleagues (i.e., immunisation coordinator), and services (i.e., IMAC). Primary reasons for requiring this collaboration included not having a clear

catch-up schedule from MRRC, and providers' lack of expertise and confidence in developing and initiating catch-up schedules. Through the health provider lens, this collaborative approach to creating catch-up schedules for refugee children appears to be working well. Participants recognised, however, there are inefficiencies which have led to time delays. For example, while utilising immunisation coordinators was considered a key support for determining appropriate immunisation catch-up schedules for children with refugee backgrounds, participants also recognised this approach involves using a "*middleman*" between MRRC and the practice, which adds extra time.

Utilisation of vaccination services among children with refugee backgrounds is influenced by system level challenges. In line with international research these challenges include administrative barriers to booking appointments; geographical distance of the practice, lack of caregiver response to recall letters and phone calls, and clinics' restricted hours (Brandenberger, Tylleskär, Sontag, Peterhans, & Ritz, 2019; Guruge et al., 2018). Participants also reported that lack of caregiver response to recall letters and phone calls. Propositions from this vaccination-uptake study that aim to reduce access barriers are supported by international research and WHO strategies. These ideas include after-hours clinics and drop-in times (WHO Regional Office for Europe, 2019), electronic recall and reminder notifications (Julie Jacobson Vann et al.) and provision of transport. Vaccination-uptake research participants also highlighted the importance of continuity of care and a collaborative team approach in the provision of immunisations to refugee populations. A similar conclusion was reached by (Parajuli & Horey, 2019). Many NZ practices have adopted new processes to support continuity of care between refugee families and providers. Over half the practices represented in this vaccination-uptake study have a dedicated role managing the immunisation process for newly arrived refugees.

The first three to six months after refugees enrol with a practice was viewed as the most resource intensive. In addition to requiring longer appointments times to support the healthcare encounter (relationships and immunisation event), participants highlighted the need for staff-protected time to review the initial documentation received from MRRC. This review determined appropriate catch-up plans prior to organising for families to attend the clinic. Taylor et al. (2017) conducted research on best practice in achieving high rates of childhood immunisation in NZ. The authors' highlighted staff-protected time and a collaborative team approach were evident in high achieving practices. Participants emphasised the need for increased funding to provide primary health services to the refugee community. Funding discrepancies across the

general practices involved in this study were evident. Initial funding covered at least the first six months, with one practice receiving permanent funding for their refugee population. Most practices described receiving funding for two years, which enabled the provision of longer appointment times. The Auckland-based general practices received additional funding for extended consultations and to provide wrap around services for up to ten years. This discrepancy was caused by inequitable regional funding allocations to support refugees' resettlement and is likely to result in inequities in care.

### ***5.1.3 Socio-political contexts of resettlement***

A key finding from this research was the influence of the wider socio-political context. These influencers include NZ government resettlement policies concerned with access to, and provision of, immunisation services for refugee children. These overarching policies are considered beyond the control of the individual refugee family, the healthcare provider, and the wider health system. Complicating health provision for NZ refugees is confusion over health entitlements, which is confounded further by inequities in how resettlement resources are allocated to different visa categories. Quota refugees have a dedicated resettlement programme which includes an initial orientation period and a coordinated resettlement approach. During this period, refugees are provided with: initial catch-up vaccinations; information on health services, and support with accessing a general practice (Ministry of Health, 2017). There is no systematic state-sponsored settlement support, and only limited health screening, available for those arriving under other humanitarian visa schemes such as family reunification and asylum seekers (Kennedy et al., 2020). This vaccination-uptake study found less than half of those interviewed knew of the different visa categories or understood that these differences created inequities in health care access. Those participants cognisant of the different entry pathways noted multiple barriers for non-quota refugees. These barriers negatively impacted on the availability of resettlement support in ways that extended beyond the individual refugee family, to include the wider family unit and the general practice's healthcare provision. This study found that extra responsibilities assumed by families supporting others through the family reunification programme, and early settlement period, can lead to resettlement stress, and thus add to immunisation delays. The early resettlement period is focused on meeting needs such as education, finding employment, accessing health services, and learning English. There is limited research exploring the impact of the resettlement process on family relationships or on resettlement outcomes for family reunification refugees in NZ. Findings from this study, however, are supported by

McCleary's (2017) US study. The author reported that the first year of resettlement can be overwhelming and stressful for both the newly settled refugees, and the families supporting them. Recommendations arising from this vaccination-uptake study both support, and are supported by, McCleary (2017) who proposed family-friendly resettlement policies that respond to the unique family relationship needs of reunified refugees.

General practices are less resourced to support non-quota refugees, particularly regarding immunisations. Quota refugees commence immunisation catch-up, and have an established catch-up plan, before leaving MRRC (Ministry of Health, 2017). This plan, along with other information from their initial health screening, is sent to the relevant general practice when refugees enrol (Ministry of Health, 2017). As there is no systematic health screening for non-quota refugees, the responsibility for implementing catch-up schedules for asylum seekers and family reunification refugees remains with the primary health care service. Participants reported that Red Cross notifies the practice of any new quota refugee enrolments. In contrast, general practices are mostly only made aware of non-quota refugees when they first present to the practice. The absence of a health history has led to delays in completing catch-up immunisation with non-quota refugees. This problematic delay was highlighted in a study focused on a Wellington-based primary care service. Study authors, Kennedy et al. (2020), reported that refugee-like migrants (including family reunification refugees) waited longer for their first immunisation consultation than quota refugees (95 days versus 39.4 days). The study also found quota refugees had, on average, one less immunisation consultation at the health service under-study; most likely due to their catch-up immunisation programme commencing at MRRC (Kennedy et al., 2020).

Participants in this vaccination-uptake study perceived many non-quota refugees are unaware that they require catch-up vaccinations and therefore will not seek out health services unless they are unwell. This health event may not occur for some time after arriving in NZ, thereby adding to delays in receiving catch-up immunisations. The participants perceived this inequity was related to the difference in settlement support provided by the government. The immunisation schedule is only determined when non-quota refugees register with a general practice. Research into non-quota refugees' utilisation of NZ healthcare is very limited. A Dutch study, however, noted significantly higher GP registration rates by undocumented migrants receiving voluntary agency support, than those without this support (Schoevers et al., 2010).

Previous research has identified that refugees typically have limited knowledge and awareness of the need for vaccinations (Burke et al., 2015; Rubens-Augustson et al., 2018). This knowledge deficit is compounded by non-quota refugee being unaware of the need to register with a general practice to receive vaccinations. Bloom and Udahemuka (2014) also found that asylum seekers and convention refugees in NZ encounter significant barriers in accessing healthcare services. These barriers related to knowledge gaps about both healthcare needs and associated health entitlements. Lack of inclusive resettlement policies and ineffective administrative procedures for non-quota refugees appears to have a corresponding negative impact on immunisation uptake within this population. To reduce these identified health inequities, further research regarding health utilisation and immunisation uptake across the various refugee visa categories is recommended.

#### ***5.1.4 Comparing provider perspectives with those of refugees***

Participants' perspectives were compared with those of refugees from previously published research to explore if there is a shared understanding. Provider perceived challenges that exist for refugee caregivers were similar across all practices and consistent with research from the refugee community. These included: language, financial and transport barriers; limited health literacy; lack of knowledge (about diseases, vaccinations and the health system of the host country); lack of cultural training amongst healthcare providers; lack of culturally responsive and linguistically appropriate resources, and lack of resettlement support (Abdi, Menzies, & Seale, 2019; Guruge et al., 2018; Kowal et al., 2015; McComb et al., 2018). Likewise, there were a number of similarities in provider-perceived enablers of vaccination uptake for refugee caregivers. These included: provider-patient relationships and recommendations; use of reminder systems; having interpreters present during appointments, and having community support (Abdi et al., 2019; Guruge et al., 2018).

Social disconnection was highlighted as a barrier to accessing healthcare services, particularly for refugee groups that had been dispersed across different locations (Guruge et al., 2018). Interestingly, participants in this study highlighted the importance of social integration in supporting uptake of immunisations. Participants particularly emphasised the importance of connecting newly arrived refugees to refugee and migrant specific organisations. Abdi et al. (2019) also found this connection was important from a refugee perspective and highlighted that these ethno-specific community organisations have a greater role to play in supporting healthcare access and disseminating health information.

Some participants recognised that refugees had certain expectations about the NZ healthcare system that were not met. Refugees may be influenced by their experiences accessing health care in their home countries. For example, expecting shorter wait times, expecting to have medical issues resolved in one appointment and expecting more services and services to be free. These findings mirror those from prior international research. Guruge et al. (2018) found that Syrian refugee mothers had pre-arrival perceptions and expectations about Canada's health systems which were not met by their actual experience. In particular, Guruge et al. (2018) noted that these mothers perceived the healthcare response of their health concerns to be slow compared to what they had experienced in Syria pre-war.

An interesting finding was that none of the participants in this vaccination-uptake study reported that low-vaccination uptake in children was due to anti-vaccine beliefs from their refugee caregivers. Instead, participants stated that refugee caregivers are very receptive to vaccinations, often more so than other families within each of the practice settings. Willingness to vaccinate was considered a key facilitator to vaccination uptake in refugee children. This is a positive finding and a departure from existing research in NZ and globally which has identified parental concern over vaccine safety as a key barrier to immunisation uptake in general (non-refugee specific) families (Lee & Sibley, 2020; Turner et al., 2017).

Similar findings have been uncovered during refugee-specific research, including Abdi et al. (2019) study concerned with East African refugees and migrants living in Australia. These researchers found that refugees were generally appreciative of vaccinations and appeared unconcerned about potential vaccine risks outside of those associated with the injection process or effectiveness of the vaccine. Their research also suggested that the low vaccination status of the East African community is not due to anti-vaccine beliefs, but to conflicting resettlement priorities (Abdi et al., 2019). This finding is consistent with our participants' views that often vaccinations are not considered a priority due other competing resettlement demands (i.e. having to balance finding a job, attending English classes, enrolling children in school and housing). Abdi et al. (2019) referred to this as a 'lack of motivation due to competing priorities'. In contrast, vaccination-uptake research participants understood delays related to lacking knowledge of importance or need, as opposed to a lack of motivation. They suggested that vaccine acceptance is heightened in refugee families, due to personal experiences of diseases in their country of origin. This discovery resonates with health provider perspectives reported in a Canadian study (Rubens-Augustson et

al., 2018), and mirrors Burke et al. (2015) finding that past experiences of refugee mothers influenced their desire to protect their children, including from future diseases through vaccinations.

Findings from this vaccination-uptake study are significant in many respects. Firstly, they highlight the awareness healthcare providers have of the challenges faced by refugees in accessing general practices and vaccinations. Having awareness of the challenges is a crucial first step in being able to appropriately respond to them, as many practices had attempted to do. When reflecting on participants' personal and environmental characteristics, it was noted that this awareness appeared heightened when a participant had shared experiences (i.e., their own migrant background), and their general practice had larger numbers of enrolled refugees and was located in regions that had resettling refugees longer (e.g., Auckland, Waikato, and Wellington). Secondly these findings highlight differences in parental attitudes between refugee and non-refugee families and add further weight to the notion that refugees' prior experiences in their country of origin, and during transit, influence vaccination decision making behaviour. Notably, study participants highlighted that refugee caregivers generally want their children vaccinated to protect their health. Therefore, a key influencer of vaccination coverage rates among children with refugee backgrounds is concerned with access and engagement with health services in their host country. A similar conclusion was reached by Nowlan et al. (2019) who stated that access barriers are a bigger predictor of immunisation coverage than vaccine refusal.

## **5.2 Strengths and limitations**

This qualitative study used purposive sampling to identify participants from different localities across Aotearoa New Zealand. This method recruited a diverse group of healthcare professionals who brought wide-ranging experiences to this study, adding rich data and depth to the findings. GPs and practice nurses (PNs) provided in-depth descriptions based on their experience working in a general practice located in one of seven current NZ resettlement locations. As discussed previously, the eighth and only other location, Christchurch, was not represented due to current restricted refugee settlement.

Previous research in this space has tended to focus on local regions or PHOs. Therefore, a key strength of this study was the comprehensive overview of vaccination services across the national resettlement centres located in both North and South Islands of NZ. The gathered data described practice similarities and highlighted practice variances which added depth to the findings.

Another key strength is that this study detailed current issues that impact immunisation service delivery to refugee children from the perspectives of healthcare professionals. The participants were actively involved in providing immunisation services to refugee children. Their hands-on experiences enabled rich and detailed data of enablers of service delivery and practice-based evidence on potential service improvements.

A methodological strength of this study is the use of semi-structured interview questions which allowed the participants to respond in their own words. Open-ended questions evoked responses that were meaningful and culturally salient to participants. The flexibility enabled participants to raise topics that were not considered in the initial research design. This form of interviewing is used when researchers do not have a clear idea of what they do and do not know (Polit et al., 2001). Therefore, this method was particularly advantageous as there is scant research on influencers of immunisation uptake in refugee children upon settlement in NZ. The interview process was perceived to add value to the participants by providing them an opportunity to talk openly; having time and space to reflect on their experiences, and on the experiences of their refugee patients. One participant commented that the interview process provided her with an opportunity to think about the current systems and reflect on how they can be improved.

As with all research, there were limitations that need to be considered. Recruitment remained a key challenge, resulting in a smaller than expected sample size. Recruitment for this study started in April 2019 and concluded in July 2020. During this time period, two events impacted recruitment: 2019 measles outbreak and 2020 COVID-19 pandemic. The latter resulted in NZ moving to a level four lockdown in March 2020. Both events resulted in increased demand on primary healthcare services, particularly on vaccination services during the measles outbreak. Twenty-three participants initially expressed an interest in participating; however, only 14 ended up participating. Lack of time and support from practice management was a primary reason for being unable to commit.

These challenges created a barrier to participating in the research, but also exposed a potential consideration related to the characteristics of those that did participate. Some participants were highly motivated to engage in this research. When their workload precluded them from doing so during working hours, their desire to contribute saw them making their personal time available for interviews. This commitment exemplified

a key finding that emerged during this study; altruism which saw participants going above and beyond their conventional medical roles to support their refugee patients. The participants all expressed a strong desire to improve services delivered to refugee populations. This proactive participant voice is reflected in the findings. Thus, the resulting findings may be influenced by the characteristics, motivations, and managerial support specific to recruited participants. Previous studies have shown that altruism is a factor in why people choose to participate in research (Carrera, Brown, Brody, & Morello-Frosch, 2018). The researcher is cognisant that this research did not gather the insights and experiences of those unable to participate due to increased work demands or lack of management support.

The qualitative nature of this study means that the findings cannot be generalised to the wider population. Due to the nature of this enquiry, a closer relationship between the researcher and the participant is forged. While considered a strength in gathering rich data, being immersed in the interview process creates potential for the researcher to become too subjective, which has the potential to distort findings (Carr, 1994). The potential for research bias is an inherent weakness in interpretive studies, as the data must be interpreted to accurately reflect the views of participants, not the researcher (Grant & Giddings, 2002). However, it is expected that the researcher is actively involved in the data analysis (Braun et al., 2018). Researcher bias was addressed through method steps to ensure rigour, such as reflexivity and member checking, however, this should still be considered when reading and interpreting the findings.

Lastly, the researcher acknowledges that this study is based solely on perspectives of healthcare professionals. Therefore, perceived challenges at the refugee-level are interpreted through the lens of healthcare professionals, not from the refugee community. Further research centred on lived experiences within the refugee community will complement the health practitioners' voice, enabling informed improvements to vaccination systems at both national and local levels.

### **5.3 Implications for policy and practice and recommendations for future research**

Through the healthcare providers' lens, findings from this study provide a deeper understanding of the factors that influence vaccination uptake in refugee children. These influences included: predisposing factors unique to the refugee family; practice and/or system issues and processes; patient-provider relationships; providers' skills and knowledge; availability of resources, and mandated resettlement policies. These factors are often complex and interrelated. Improving refugees' access to responsive

quality health services will require strategies that address a broad spectrum of these identified needs. Some of these issues exist beyond the health practises' control. PHOs and general practices, however, need to identify and address barriers within their control to reduce disparities in immunisation uptake for refugee children.

High vaccination coverage within communities is required to prevent outbreaks of VPDs and keep other vulnerable members of the community safe, particularly those who are too young and those for whom vaccination is medically contraindicated (World Health Organisation, 2020). Therefore, providers have a unique responsibility to maximise both public and individual health through the promotion and delivery of immunisations (Schwartz & Caplan, 2011). Findings from this study support, and are supported by, other research which suggests that refugee caregivers passively accept vaccinations based on provider recommendations (Kowal et al., 2015). This vaccination-uptake study uncovered that a trustworthy provider-patient relationship positively contributed to former refugees' long-term engagement with the practice. This relationship was also found to be a key determinant of vaccination uptake for children with refugee backgrounds. Continuity of care, cultural understanding, effective communication including non-verbal cues and compassionate care emerged as important factors in helping to develop trustworthy, client-centred relationships between healthcare providers and refugees. Cultural understanding often involved taking the time to listen to refugees' stories, understand their unique challenges, going above and beyond conventional medical roles and, at times, navigating differences in expectations. Improvements at the service level are needed to support healthcare providers with building relationships and delivering culturally competent care to refugees. This requirement includes having access to multilingual and culturally appropriate immunisation resources; qualified interpreters; cultural training, and adequate time.

Immunisation uptake, which is primarily based on health provider recommendations and recall systems, becomes increasingly problematic when access barriers exist for refugees. For example, recall and reminder systems not being accessible to refugee families due to language barriers. Addressing refugees' access barriers, alongside system challenges faced by providers, is of crucial importance. Many strategies suggested by research participants have also been employed, or recommended, in previous research. These innovations include after-hours and drop-in immunisation clinics; utilising mobile and e-technology for vaccination recall and reminder notifications and improving infrastructure to support inter-service networking and

communication (Julie Jacobson Vann et al.; Richard et al., 2019; WHO Regional Office for Europe, 2019). The lack of comprehensive demographic and health data on refugees has also been highlighted in NZ research (Kennedy et al., 2020; Mortensen, 2011). The current information deficits create difficulties when attempting to accurately identify immunisation coverage amongst refugees. This information gap is also apparent when trying to determine differences in health access and status between different refugee groups (i.e., UNHCR quota and non-quota) as there is inadequate surveillance data from both of these areas (Charania et al., 2018; Kennedy et al., 2020).

The World Health Organisation (2019) stipulated the need for increased monitoring and evaluation of immunisation coverage in refugee and migrant specific groups. This global body also recommended that primary health care practices routinely collect refugee specific characteristics on enrolment to support surveillance of refugee health outcomes. In this study, data collection and recording were inconsistent across the different practices, with only one recording all refugee-specific data, and one practice having not recorded refugee status at all. An Australian workshop involving immunisation, refugee, and migrant health stakeholders, recommended maintaining a consistent dataset across primary care, disease surveillance, and hospital and death records. This data system would collect, monitor and evaluate migrant and refugee immunisation coverage, thus leading to the identification of at risk communities (Kpozehouen et al., 2016). The recommended minimum dataset would include information related to: country of birth; migration status; year of arrival; language spoken, and interpreter requirements (Kpozehouen et al., 2016). Including visa category in the dataset is also recommended to help evaluate the different challenges encountered by refugees who enter through different pathways. Accurate data collection is imperative for future policy planning and implementation of strategies.

While there is clear need to address provider and system level challenges, strategies to improve immunisation uptake in children with refugee backgrounds should contain multi-level interventions that focus purely on health. Measures such as immunisation targets, surveillance data, infrastructure and recall systems do not empower refugee communities to make decisions about their own health care (Nichter, 1995). Strategies should also include steps to elicit a demand for vaccinations as *“It is only when vaccinations are recognised as a perceived need and demanded by the community, that they become community development resources”* (Nichter, 1995, p. 619). Immunisation uptake strategies should aim to educate refugees on vaccine

preventable diseases (VPDs), immunisations, and NZ health services. Further research is recommended to uncover mechanisms for increasing public health awareness of immunisations and VPDs as they relate to the refugee community, particularly for those non-quota refugees who do not go through MRRC.

There is also a recognised need from participants and prior research for further cross-cultural training of health providers (Mortensen, 2011). Findings also suggest that timeliness of vaccinations may be improved through the upskilling of health providers in relation to creating catch-up schedules for refugees and migrants. This finding is unexplored in the literature and therefore warrants further research into the process of managing immunisation catch-up schedules, including provider knowledge and confidence. One question to be explored further is whether current training modules are suitable for general practice settings. Training considerations include time constraints and recognised preference for experiential learning by some healthcare professionals. There also needs to be further thought and consideration into how information can be shared between practices, PHO's and regions. This initiative is particularly important given the six new resettlement locations across the country.

Two predominant areas were identified by study participants as targets for improving immunisation services to children with refugee backgrounds. Firstly, recommendations focused on remediating cultural and linguistic challenges, and secondly, emphasis was on increasing education and health promotion for refugee caregiver. The most cited recommendations were concerned with access to interpreters for all immunisation appointments, development of refugee liaison roles, and access to culturally and linguistically appropriate resources. Many of these strategies have also been identified in prior research (Burke et al., 2015; Napolitano et al., 2018; Rubens-Augustson et al., 2018; Wilson et al., 2018). Access to skilled interpreter services mitigates the impact language and knowledge barriers have on access, building relationships and on providers being able to obtain informed consent (Rubens-Augustson et al., 2018). The right to effective communication, the right to be fully informed and the right to make informed choices and give informed consent is stipulated in The Code of Health and Disability Services Consumers' Rights (Health and Disability Commissioner, n.d.). Echoing findings by (Nakken et al., 2018) participants noted a preference for face-to-face interpreters, particularly in the initial few months of enrolment.

Other potential solutions included greater involvement of clinical or non-clinical staff with refugee backgrounds. Several participants proposed a refugee liaison or navigator

type role. Similarly, it was suggested that increasing the primary healthcare workforce with clinical and nonclinical staff who have a migrant or refugee background would be beneficial. A similar recommendation has been made in prior national and international research (Harding, Seal, Duncan, & Gilmour, 2017; Mortensen, 2020). The need for further culturally responsive resources to support refugee families navigate the health system were also suggested. Considering the number of diverse refugee ethnicities within NZ's relatively small population, capitalising on existing overseas resources, rather than reinventing them from scratch, makes fiscal sense. These resources include translated information sheets on vaccine preventable diseases and electronic tools for translating appointment letters. Some healthcare providers are already utilising these overseas tools with success. Further investigation into the relevancy of these overseas resources to the Aotearoa New Zealand context would be of value. Suggestions aimed at improving refugee caregivers' understanding and awareness of vaccinations include the provision of vaccination leaflets, visual resources such as immunisation calendars, and digital resources such as videos and user-friendly web-based information. Emerging from this study, participants' suggestions included adapting the Well Health Child Book so that it is fit for purpose and linguistically and culturally appropriate. Proposed revisions include refugee and migrant specific information such as catch-up immunisations. Other solutions included community-based immunisation information events, developing an interactive health hub, mass media promotion through cinemas and television to improve public health awareness on vaccinations.

Further research is recommended that has a focus on co-designing these service improvements with input from refugee communities and providers. Qualitative research that focuses on refugees' experiences of accessing NZ health services would also be a valued addition to the body of knowledge, because at present these are largely unexplored. Refugees' unique perceptions of access to health services, including vaccination uptake, will also contribute to what is known about refugee-specific strategies from other NZ key stakeholders. To avoid any untoward impacts on the refugee community, and the wider population, these strategies need to be evaluated against what is already known within the international literature. For example, participants suggested mass media campaigns as a strategy to improve vaccination coverage. While similar campaigns have been found to have some positive influence within both refugee and non-refugee communities (Napolitano et al., 2018), international research suggests caution as there is also evidence that media

campaigns can also provoke vaccine hesitancy amongst parents/caregivers (SAGE Working Group, 2014).

From a policy perspective, the Refugee Resettlement Strategy's myopic focus on quota refugees means non-quota refugees are unfairly disadvantaged, including not having access to the same health care entitlements as quota refugees. This study supports other NZ researchers who argue that all refugees should be acknowledged in the Refugee Resettlement Strategy (Bloom & Udahemuka, 2014). If this change occurs, the outcome measures outlined in the current strategy will need revision to reflect differences across visa categories. For example, the current Refugee Resettlement Strategy's success indicators are individualised measures. Outcomes are based on employment, education, housing, and utilisation of GP services. These individual measures do not include collective outcomes. For example, the complexities of family reunification visa entry are not currently captured, nor are measures concerned with family stability as an indicator of successful resettlement. Research that maps out cost versus short-term and long-term implications, including health outcomes, of a similar resettlement programme for non-quota refugees would be beneficial. This information would provide evidence as to whether this approach would be successful in improving existing outcome measures for non-quota refugees.

This study highlights health providers' informed perspectives on barriers and enablers of immunisations for children with refugee backgrounds. Participants illuminated both challenges and promoters of providing preventative primary care services to refugee families. This study also highlights inconsistencies between general practices regarding the following: resource allocation (time, funding, access to interpreters); data collection; practice processes, and provider knowledge and expertise. It is unclear what, if any, impact these inconsistencies have on health outcomes for refugees. Gaining further information on resources vis-a-vis outcomes would require a larger longitudinal study. Despite drawbacks related to increased cost and time, a study of this nature would provide valuable information regarding patterns and changes to refugee health outcome, including immunisation coverage over time (Kanengoni, Andajani-Sutjahjo, & Holroyd, 2018).

Despite the best efforts of the individual healthcare provider, practices in this study were under-resourced to provide effective and culturally competent care, including immunisation services to refugee families. This deficit has recently been raised in research by Richard et al. (2019) whose findings challenge the mainstream general

practice model, and question whether it is fit for purpose to provide primary health care services to refugees. This vaccination-uptake study adds to the debate about whether or not the general practice model can be responsive to the high needs of the refugee population. Farley et al. (2014), however, describe general practices' key advantage as being flexibility, which enables healthcare providers to respond innovatively to the needs of their refugee patients. Many participants in this study described how their practice, or PHO, had developed unique strategies to reduce barriers and improve refugees' access to immunisations. These innovations ranged from creative low-cost communication strategies to developing practise procedures to reduce access barriers. This "bottom-up" approach demonstrates commitment at the local level to improve the responsiveness of immunisations services for children with refugee background and their caregivers (Mortensen, 2011).

Individualised general practise responses to refugee concerns meant practices are operating in isolation from each other. Prior research highlighted the lack of across-practice co-ordination, in combination with provider-practise isolation, can exacerbate the difficulties health providers encounter when caring for refugees, particularly as refugee health is a field that changes rapidly (Phillips, Smith, Kay, & Casey, 2011). Currently, there is potential for general practices to become overwhelmed, particularly if refugee family numbers increase, or there is sudden influx of new refugees all requiring catch-up immunisations at the same time. Richard et al. (2019) have previously noted that some general practices disengaged from voluntarily taking on refugee patients as a response to challenges experienced in providing care to refugees. This disengagement occurred during the early implementation stages of the refugee resettlement programme in their region. This timeframe is particularly noteworthy as this vaccination-uptake study identified the early resettlement period as the most challenging and resource demanding for healthcare providers. These challenges were due, in part, to medical-related complexities (i.e., complex medical presentations), immunisation-specific complexities (i.e., creating catch-up schedules) and refugee-specific challenges existing across the wider social determinants of health (i.e., transportation issues; language and literacy challenges; cultural differences, and access barriers). There is a critical need to address these challenges as there are five new resettlement locations being established throughout Aotearoa New Zealand, two of which (Blenheim and Timaru) have already begun resettling refugees (New Zealand Immigration, 2021c). This vaccination-uptake research supports Mortensen (2011) argument for a national level overarching framework to address the specific needs of refugee groups, particularly with regards to immunisation delivery.

Several barriers described in this vaccination-uptake study are not unique to refugees. NZ literature suggests that the refugee population, and those of Māori or Pacific ethnicity and from areas of socioeconomic deprivation, encounter the same access barriers. These shared obstacles include: financial and transport barriers; limited health literacy, and communication challenges with health providers due to language and/or cultural differences (Walker, Ward, & Gambitsis, 2019). An indicator for further research is whether access improvements aimed to meet the needs of the refugee population will also improve access for other ethnically diverse groups.

The current NZ health system reforms will bring about change, along with a planned review of the UNHCR Quota Refugee pathway and the upgrading of the National Immunisation Register to the National immunisation Solution. Thus, it is essential that these changes are responsive to needs of both the refugee community and healthcare providers who work alongside them; encompassing wider community services that support both refugees and health care services. From a health provider perspective, participants recognised that any new strategies must consider cost-effectiveness, achievability within time constraints and not fragment the system any further. While strategies should focus on reducing inconsistencies across general practices when providing services to refugees; flexibility is the keystone to enabling local-led innovation.

Going forward, opportunities to co-design solutions with the refugee community, healthcare providers and other key stakeholders will ensure new implementations are responsive to stakeholders needs. In considering new policy initiatives concerned with refugee health research and health strategies, it is essential to capture the refugee voice in a way that is culturally relevant, and participant driven. An integrative review of knowledge concerned with NZ migrants and refugees health was conducted by Kanengoni et al. (2018). These authors found that existing research on refugee health has been informed by Western research paradigms and was biased towards the knowledge perception of healthcare providers. Knowledge acquired within this research paradigm, is then translated into recommendations that may, or may not, resonate with the refugee population. (Kanengoni et al., 2018) also noted that policy initiatives are informed by health providers' perspectives and not those of migrant and refugees. These findings further strengthen recommendations for culturally informed research that explores the refugee perspectives of accessing and receiving immunisations through general practice settings in Aotearoa New Zealand.

## **Chapter Six: Conclusion**

New Zealand is due to accept over 2000 refugee each year. This number includes UN quota refugees, convention refugees, family reunification and CORS. The experience of forced migration means that many children with refugee backgrounds will be under immunised and therefore at risk for vaccine preventable diseases. These children require catch-up immunisations upon settlement in New Zealand. However, despite the availability of publicly funded vaccinations, inadequate access to primary healthcare services remains a problem. This is evidenced by lower vaccination uptake amongst refugee communities than host populations. Several studies on the inequities of childhood immunisation have examined the influence of socio-economic factors. Whereas there is less known about how health and political systems affect these disparities. This is the first study in New Zealand to explore primary healthcare providers' perspectives of factors that influence vaccination uptake for children with refugee background. This study underpins the importance of the role of health providers in the delivery of immunisation services to their refugee community. The study also revealed that the success of the health provider in achieving high vaccination coverage is determined by the system in which they work. There are multiple factors within the healthcare system and wider socio-political system that can amplify or alleviate the challenges faced by providers and the social determinants of health experienced by children and caregivers with refugee backgrounds. These include having adequate resources to disseminate information to refugee caregivers, access to interpreters, funding and time allocation, inclusive resettlement policies, culturally competent staff and having adequate electronic data management systems and processes to support information sharing and continuity of care. Therefore, improving access and service provision will require multi-level strategies that address this broad spectrum of issues. Lastly, the refugee population is not a homogeneous population. Refugee status is not inherently race, sex, gendered, religion or class based. It's a status of circumstance. Therefore, a one-size fits all approach is not going to improve health outcomes. Building a more culturally responsive immunisation service will require input from across the refugee community, including non-quota refugees, as well as health providers and key stakeholders.

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Zimmerman, C., Kiss, L., & Hossain, M. (2011). Migration and health: a framework for 21st century policy-making. *PLOS Med*, 8(5). doi:<https://doi.org/10.1371/journal.pmed.1001034>

## Appendices

### Appendix A: Ethics approval letter



**AUT**

TE WĀNANGA ARONUI  
O TĀMAKI MAKĀU RAU

#### Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology  
D-88, Private Bag 92006, Auckland 1142, NZ  
T: +64 9 921 9999 ext. 8316  
E: [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz)  
[www.aut.ac.nz/researchethics](http://www.aut.ac.nz/researchethics)

28 February 2019

Nadia Charania  
Faculty of Health and Environmental Sciences

Dear Nadia

Re Ethics Application: **19/4 Exploring immunisation inequities among refugee children in New Zealand: A qualitative study**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 28 February 2022.

#### Standard Conditions of Approval

1. A progress report is due annually on the anniversary of the approval date, using form EA2, which is available online through <http://www.aut.ac.nz/research/researchethics>.
2. A final report is due at the expiration of the approval period, or, upon completion of project, using form EA3, which is available online through <http://www.aut.ac.nz/research/researchethics>.
3. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form: <http://www.aut.ac.nz/research/researchethics>.
4. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.

Please quote the application number and title on all future correspondence related to this project.

AUTEC grants ethical approval only. If you require management approval for access for your research from another institution or organisation, then you are responsible for obtaining it. You are reminded that it is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard.

For any enquiries, please contact [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz)

Yours sincerely,

Kate O'Connor  
Executive Manager  
Auckland University of Technology Ethics Committee

## Appendix B: Interview schedule

### Interview guide - vaccination providers

**Research question:** What are health providers' perspectives on the factors influencing vaccination uptake in refugee children?

### Report building

Can you please start by telling me a little bit about yourself, your role and a brief description of this clinic/general practice?

Prompt: Nursing experience, current role in service, Size of practice, Practice hours, General population served (demographics), District and membership of PHO etc

### Interview Questions

*I'd like to start by asking you some general questions about your experiences working with children (under the age of 18 years old) with refugee backgrounds. This includes children (first-generation) or children of parents (second generation) who entered New Zealand on various refugee visa schemes, including the quota programme, convention refugees/asylum seekers, family reunification/refugee family and CORS (community organised refugee sponsorship).*

1. What do you think are the main health issues for children with refugee backgrounds in New Zealand?
  - a) What factors do you think support or hinder access and uptake of healthcare services for refugee families/children in general?
2. Can you tell me about how an individual's refugee status is determined, recorded and what it means regarding healthcare?
3. What local and national services are available to support children and families with refugee backgrounds to access healthcare services?
  - a. Are you aware of any models of care for working with children with refugee backgrounds? (i.e., wrap-around care packages, specialised clinics, integration into mainstream health services, etc.)
    - i. Which, if any, of these does your practice use? Can you describe your experiences with using them? What works/doesn't work? What other models would be better?
  - b. What subsidised healthcare services are specifically available for children with refugee backgrounds?
  - c. What particular resources are available for addressing the general health needs of children with refugee backgrounds? (i.e., using translators, outreach services, written material in different languages, etc.)
  - d. Are there any services or resources that you would like to see that aren't currently available that would better support children with refugee backgrounds in general?

*I'd like to ask some specific questions about experiences you've had with immunising children with refugee backgrounds. This refers to children who have either moved to New Zealand on a refugee visa (first-generation) or are children born in New Zealand of caregivers with a refugee visa (second-generation). This also includes children or their parents who entered New Zealand on different refugee visa schemes, including*

*the quota programme, convention refugees/asylum seekers, family reunification/refugee family and CORS (community organised refugee sponsorship).*

**System Level**

4. Can you please describe the process for organising and conducting an immunisation event when a child attends the clinic for a vaccination?
  - a. What tasks are involved with an immunisation event for a child? (i.e., sending reminder letters, making appointments, parental education, administering vaccines, entering data in the PMS, etc.)?
    1. Who is responsible for each of these tasks?
  - b. What is the process for entering and retrieving immunisation data from the Practice Management System (PMS) and the National Immunisation Register (NIR)?
  - c. Do you use any additional electronic tools apart from the PMS to manage scheduling and recalls for immunisation events? Can you describe these to me?
  - d. How do you record or schedule future immunisation appointments for a child? (i.e. well child/Tamariki Ora book)
  - e. What happens in instances where the child is “late” or “overdue” for immunisations?
  - f. Does this process differ for a refugee child?
  - g. Are there any other services involved in this process? i.e. school nurses, outreach team, public health nurses
  - h. What are the biggest issues/barriers/difficulties you face in this process? Why? Are any of these issues specific to the refugee population? (e.g., language, communication, etc.)
  - i. What are some enablers/things worked well in this process? Why? Are any of these issues specific to the refugee population?
  - j. Do you have any suggestions of how this process could be improved?
5. If a refugee child was born overseas and now resettled in New Zealand and enrolled at your clinic/general practice, can you please tell me about how their catch-up immunisation schedule is created, recorded and managed?
  - a) What, if any, immunisation documentation do they bring to the visit?
  - b) How is their vaccination history recorded on the PMS and on the NIR?
  - c) How do you manage communication and follow-up for future immunisation events? Is this different from how you would manage communication and follow-up with non-refugee populations?
  - d) Any suggestions for improvement? What can we do differently to streamline this process?
6. Can you describe a time when an immunisation event with a refugee child went well and what factors contributed to this?
7. Can you describe a time when an immunisation event with a refugee child was challenging and what factors contributed to this? How were these challenges resolved?
8. Are you aware of any existing strategies nationally to improve vaccination uptake among children? What about for refugee children specifically?
  - a) What about in your DHB region? Or your practice?
  - b) What’s working/not working? Suggestions for improvement with these current strategies?

**Practice level**

9. Can you identify any barriers for you in offering immunisation services to your former refugee patients ? How do you try to solve these challenges?
  - a) What resources (e.g., information, materials, etc.) are available to support healthcare providers with immunisation delivery for children with refugee backgrounds? (Ask for examples of resources to take with you)
  - b) Any suggestions for improvement?

**Parent/caregiver level**

10. In your experience what challenges may children and families with refugee backgrounds face with regard to completing timely immunisations?
  - a. What supports can refugee children and caregivers get from your service or the wider health service with regards to completing immunisations?
  - b. What resources (e.g., information, materials, etc.) are available for refugee caregivers to help them make immunisation decisions for their children?
  - c. Can you describe any differences depending on whether the refugee child was born overseas or in New Zealand (i.e., first- versus second-generation)? Any differences depending on what refugee visa are on (i.e., quota programme, asylum seeker, family reunification, community sponsorship)?
  - d. Any suggestions for improvement?
11. Are there any other factors that you think may influence complete and timely vaccinations among children with refugee backgrounds?
  - a. Consider systems, provider and caregiver level.

**Suggestion Solutions**

12. Can you think of any new/innovative strategies that could be implemented to improve age-appropriate vaccinations for refugee children (prompt: consider systems, provider and caregiver level)?
  - a) Any strategies to help with education/awareness of vaccines? To improve access and utilisation of immunisation services? Etc.?
13. Do you have any additional comments?

Thanks for your time!

## Appendix C: Flyer used for recruitment



### Flyer/Advertisement – Health Care Provider

Do you play a lead role in administering childhood vaccinations?  
Are you 18 years of age or over and proficient in English?

If you answered yes to the above, please consider participating in a research study focused on the experiences of accessing and utilising immunisation services for children with refugee backgrounds. The research is being conducted by researchers at Auckland University of Technology. Please note that some information will be used to fulfil the requirements to obtain a post-graduate qualification (Masters of Public Health) for one of the involved researchers.

If you choose to take part in the research, a semi-structured interview and/or a focus group discussion will be conducted that will last about 1-2 hours. It will be held at a convenient time and location, and a voucher (koha) will be offered in recognition of your time. Participation in the research is completely voluntary and any information you share will be kept confidential by the researchers.

I hope you will please consider participating and contributing your valuable knowledge to this research study. If you would like more information or are interested in being part of the study, please contact: Lara Cavit [Larisacavit@gmail.com](mailto:Larisacavit@gmail.com) or 021 816 871



## Appendix D: Practice Manager Information Sheet

The logo for the Auckland University of Technology (AUT) features the letters 'AUT' in a bold, white, sans-serif font against a black rectangular background.

TE WĀNANGA ARONUI  
O TAMAKI MAKAU RAU

### Request for Access Invitation

#### **Project title:**

Exploring immunisation inequities among refugee children in New Zealand: A qualitative study

**Project Supervisor:** Dr Nadia Charania

**Researchers:** Dr Nadia Charania, Lara Cavit

---

Dear Practice Manager/ Nursing Manager/Equivalent,

Kia ora, my name is Dr Nadia Charania, and I am a Senior Lecturer at the Auckland University of Technology (AUT). I am inviting you to be a part of and assist in recruiting participants for a research initiative being undertaken by researchers from AUT.

This study aims to explore factors associated with the access and uptake of immunisations and develop strategies to improve age-appropriate vaccinations among refugee children post-resettlement in NZ, from the perspectives of users and providers. The findings from this research will be used to produce various outputs, such as research reports, journal articles, and presentations to help guide policy and practice regarding vaccination policies and practices for children with refugee backgrounds in New Zealand.

Participants will be asked to complete a brief demographic form and participate in an interview and/or focus group discussions that will last approximately one hour to explore their perceptions about vaccine-preventable diseases and vaccines, their experiences with accessing and utilising immunisations services, and strategies to improve age-appropriate vaccination rates among refugee children. Interviews and/or focus group discussions will take place at an agreed time and place to minimise disruption to your service. A koha will be offered to participants in recognition of their time and contribution.

Recruitment for this study is being supported by the Immunisation Advisory Centre and AP Nikki Turner is a Named Investigator on this research project. We are kindly asking you to please be involved in our study by allowing us to recruit eligible participants and, if space permits, allowing us to conduct interviews and/or focus group discussions on-site. We hope for your help with informing eligible participants about our study and allowing us to post a flyer advertising the study at your office. We are specifically aiming to recruit health care providers from your general practice who play a lead role in administering childhood immunisations and has experience vaccinating refugee children.

Additional details about this research are included in the attached Participant Information Sheet and Consent Form. Please contact us if you would like additional information or have any questions and/or concerns.

Thank you for your time and consideration.

Sincerely,

Dr. Nadia Charania

#### **Project Supervisor contact details:**

Dr Nadia Charania

Department of Public Health

Auckland University of Technology

[nadia.charania@aut.ac.nz](mailto:nadia.charania@aut.ac.nz)

09 921 9999 ext 6796

#### **Researcher contact details**

Lara Cavit

[Larisacavit@gmail.com](mailto:Larisacavit@gmail.com)

021 816 871

*Approved by the Auckland University of Technology Ethics Committee on 28 February 2019 AUTEC Reference number 19/4*

## Appendix E: Participant Information Sheet



TE WĀNANGA ARONUI  
O TĀMAKI MAKĀU RAU

### Participant Information Sheet – Health Care Provider

#### Date Information Sheet Produced

18 June 2020

#### Project Title

Exploring immunisation inequities among refugee children in New Zealand: A qualitative study

#### An Invitation

Kia ora, my name is Dr Nadia Charania, and I am a Senior Lecturer at the Auckland University of Technology (AUT). I am inviting you to participate in a research initiative funded by the Health Research Council that aims to understand how caregivers with refugee backgrounds utilise and experience immunisation services for their child(ren) post-resettlement and develop strategies to sustain age-appropriate vaccinations for children with refugee backgrounds post-resettlement.

Your participation in this study is completely voluntary and you may stop participating at any time prior to the analysis of data, for any reason, if you so decide. Your decision to stop participating, or to refuse to answer particular questions, will not affect your relationship with the researchers or AUT. As a health care provider, your decision to participate will not affect your employment in any way. In the event you withdraw from the study and you participated in an interview, it may be possible to destroy all records. However, if you participated in a focus group discussion, it may not be possible to destroy all records, as such, you will be offered the choice between having any data identifiable as belonging to yourself removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible. It is not expected that any issues related to conflicts of interest will arise.

#### What is the purpose of this research?

This study aims to explore factors associated with the access and uptake of immunisations and develop strategies to improve age-appropriate vaccinations among refugee children post-resettlement in NZ, from the perspectives of users and providers. The findings from this research will be used to produce various outputs, such as research reports, journal articles, and presentations to help guide policy and practice regarding vaccination policies and practices for children with refugee backgrounds in New Zealand.

#### How was I identified and why am I being invited to participate in this research?

Recruitment to this study is being supported by Donna Watson from the Immunisation Advisory Centre (IMAC). You have been invited to participate in this study directly by the researchers or by your Practice Manager or equivalent who has allowed us to recruit eligible staff members for this study. You have been invited to participate in this study because you are a health care provider who takes a lead role in administering childhood immunisations at the general practice with experience vaccinating refugee children, are 18 years or older, and are proficient in English.

To participate and be included in this study, you must sign a Consent Form please. Anyone who chooses not to sign the consent form will not be included in this research.

#### What will happen in this research?

This research involves an interview and/or a focus group discussion that will be held at an agreed venue or via a digital platform (e.g., Zoom, Skype, etc.) at a time that is most convenient for you and the other participants. During this interview and/or focus group discussion, she will ask you a range of questions related to vaccine-preventable diseases and vaccines, experiences with immunising refugee children, how you record vaccinations given overseas and develop appropriate catch-up schedules. We would like to get your overall thoughts about the barriers and enablers of vaccinating refugee children, related policies and practices, and strategies to improve age-appropriate vaccination rates. Please note that you are advised to not mention any identifiable information regarding refugee children during the interview and/or focus group discussion to protect their privacy and confidentiality. With your permission, the interview and/or focus group discussion will be audio-recorded and notes will be taken.

### What are the discomforts and risks?

It is not anticipated that you will experience any notable risks or discomfort from your participation in this study.

However, if you experience any discomfort from participating in this study, AUT Health Counselling and Wellbeing is able to offer three free sessions of confidential counselling support for adult participants in an AUT research project. These sessions are only available for issues that have arisen directly as a result of participation in the research, and are not for other general counselling needs.

To access these services, you will need to:

- Drop into our centres at WB219 or AS104 or phone 921 9992 City Campus or 921 9998 North Shore campus to make an appointment. Appointments for South Campus can be made by calling 921 9992
- Let the receptionist know that you are a research participant, and provide the title of my research and my name and contact details as given in this Information Sheet

You can find out more information about AUT counsellors and counselling on <http://www.aut.ac.nz/being-a-student/current-postgraduates/your-health-and-wellbeing/counselling>.

If you are unable to access AUT counselling services, you can contact the national free Healthline service on 0800 611 116.

### What are the benefits?

It is anticipated that your comments will provide important insights to help guide policy and practice to improve age-appropriate vaccination rates among refugee children in New Zealand and potentially other developed Western countries that accept refugees. The research findings will be shared nationally and internationally by producing journal articles and conference papers and presentations. A koha will be offered in recognition of your time and contributions. Please note that some information will be used to fulfil the requirements to obtain a post-graduate qualification (Masters of Public Health) for one of the involved researchers (Lara Cavit).

### How will my privacy be protected?

If you agree to participate in an interview, all of the information you supply during the interview will be held in confidence and your name or any personally identifiable information will not appear in any report or publication of the research.

If you agree to participate in a focus group discussion, please note that your identity will be disclosed to the other participants involved due to the nature of being part of a focus group discussion. However, each participant will be asked to please keep the identity of their fellow participants and the discussion confidential. Your input from the focus group discussion will be coded to remove any personally identifiable information.

All data collected will be safely stored using password protection and only members of the research team will have access to this information. Where someone is employed to assist with transcribing the interviews and/or focus group discussions, they will be required to sign a confidentiality agreement to protect your information. All research materials will be stored in a locked cabinet in a restricted access office at AUT and archived for six years following completion of the study. After the six-year retention period, all related information will be permanently deleted from research computers, and any hard copies will be shredded and destroyed. Confidentiality will be provided to the fullest extent possible.

**What are the costs of participating in this research?**

There is no cost for you to participate in this research. Your time commitment may be between 1 to 2 hours. Timing may vary depending on how long the interview and/or focus group discussion may take.

**What opportunity do I have to consider this invitation?**

We kindly ask you to please consider our invitation to participate in this study and provide a response within four weeks to Lara Cavit, [Larisacavit@gmail.com](mailto:Larisacavit@gmail.com) or 021 816 871. If we haven't heard back after that time, Lara will follow-up with you once to see if you are still interested in participating.

**How do I agree to participate in this research?**

If you agree to participate in this study, please review and sign the attached Consent Form.

**Will I receive feedback on the results of this research?**

After the study has finished, we will send a summary report of the findings to the address you have provided if you indicate (on the Consent Form) that you would like a copy of this report.

**What do I do if I have concerns about this research?**

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Nadia Charania, [nadia.charania@aut.ac.nz](mailto:nadia.charania@aut.ac.nz), 09 921 9999 ext 5430.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, Kate O'Connor, [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz), 09 921 9999 ext 6038.

**Whom do I contact for further information about this research?****Researcher Contact Details:**

Lara Cavit, [Larisa.cavit@gmail.com](mailto:Larisa.cavit@gmail.com), (p) 021 816 871

**Project Supervisor Contact Details:**

Dr Nadia Charania, [nadia.charania@aut.ac.nz](mailto:nadia.charania@aut.ac.nz), (p) 09 921 9999 ext 5430

*Approved by the Auckland University of Technology Ethics Committee on 28 February 2019  
AUTEK Reference number 19/4*

## Appendix F: Consent Form

The logo for Auckland University of Technology (AUT) is displayed in white text on a black rectangular background.

TE WĀNANGA ARONUI  
O TĀMAKI MAKĀU RAU

### Consent Form – for Focus Group Discussions with Providers

**Project title:**

Exploring immunisation inequities among refugee children in New Zealand: A qualitative study

**Project Supervisor:** Dr Nadia Charania

**Researchers:** Dr Nadia Charania, Donna Watson, Lara Cavit

- I have read and understood the information provided about this research project in the Participant Information Sheet dated \_\_\_\_\_.
- I have had an opportunity to ask questions and to have them answered.
- I understand that notes will be taken during the focus group and that it will also be audio-taped and transcribed.
- I understand that information I supply during the focus group discussion will be held in confidence and personally identifiable information will not appear in any report or publication of the research.
- I understand that research findings may be used for publications and presentations.
- I understand that the identity of my fellow participants and our discussions in the focus group is confidential to the group and I agree to keep this information confidential.
- I understand that research findings may be used to fulfil the requirements to obtain a post-graduate qualification (Masters of Public Health) for one of the involved researchers.
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- I understand that if I withdraw from the study then, while it may not be possible to destroy all records of the focus group discussion of which I was part, I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- I agree to take part in this research.
- I wish to receive a copy of the report from the research (please tick one): Yes  No

**Participant's signature:** .....

**Participant's name:** .....

**Participant's Contact Details:**

.....  
.....  
.....  
.....

**Date:** .....

*Approved by the Auckland University of Technology Ethics Committee on 28 February 2019  
AUTEK Reference number 19/4*

*Note: The Participant should retain a copy of this form*

## Appendix G: Demographics Form

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### Demographic Form – Health care provider

*For use by research members only*

Study Participant Number: \_\_\_\_\_

Date: \_\_\_\_\_

#### Practice Characteristics

- 1) Name of enrolled General Practice (*please fill in the blank*)  
\_\_\_\_\_
- 2) Location of practice (*please fill in the blank*)  
\_\_\_\_\_
- 3) Practice Management System (PMS) system used (*please fill in the blank*)  
\_\_\_\_\_
- 4) Number of enrolled patients (*please fill in the blank*)  
\_\_\_\_\_
- 5) Number of patients of refugee backgrounds (*please fill in the blank*)  
\_\_\_\_\_
- 6) Number of doctors at practice (*please fill in the blank*)  
\_\_\_\_\_
- 7) Number of nurses at practice (*please fill in the blank*)  
\_\_\_\_\_
- 8) Does this practice have current staff shortages? (*please circle one*)
  - a. Yes
  - b. No
- 9) Vaccination performance of clinic (*please circle one*)
  - a. High performing (>93%)
  - b. Low performing (<93%)
- 10) Does this practice charge for an immunisation appointment? (*please circle one*)
  - a. Yes
  - b. No
- 11) Does this practice have specific immunisation clinics or appointments? (*please circle one*)
  - a. Yes
  - b. No
- 12) Does this practice have any specialty services for people with refugee backgrounds? (i.e. wrap-around refugee services, subsidised fees, etc.) (*please circle*)
  - a. Yes
  - b. No

(*If Yes, please state what service is offered*) \_\_\_\_\_

**Provider characteristics**

13) Age at your last birthday: *(please circle one)*

- a. 18 - 29 years
- b. 30 - 39 years
- c. 40 - 49 years
- d. 50 - 59 years
- e. 60 years and over

14) Sex: *(please circle one)*

- a. Female
- b. Male

15) Ethnicity: *(please circle as many as apply)*

- a. Māori
- b. Pacific Islander
- c. Asian
- d. Middle Eastern, Latin American, African
- e. New Zealand European
- f. Other *(please state)*: \_\_\_\_\_

16) Are you an authorised vaccinator? *(please circle one)*

- a. Yes
- b. No

17) Number of years of immunisation delivery experience? *(please circle one)*

- a. Less than one year
- b. 1 – 5 years
- c. 5 – 10 years
- d. 10 years and over

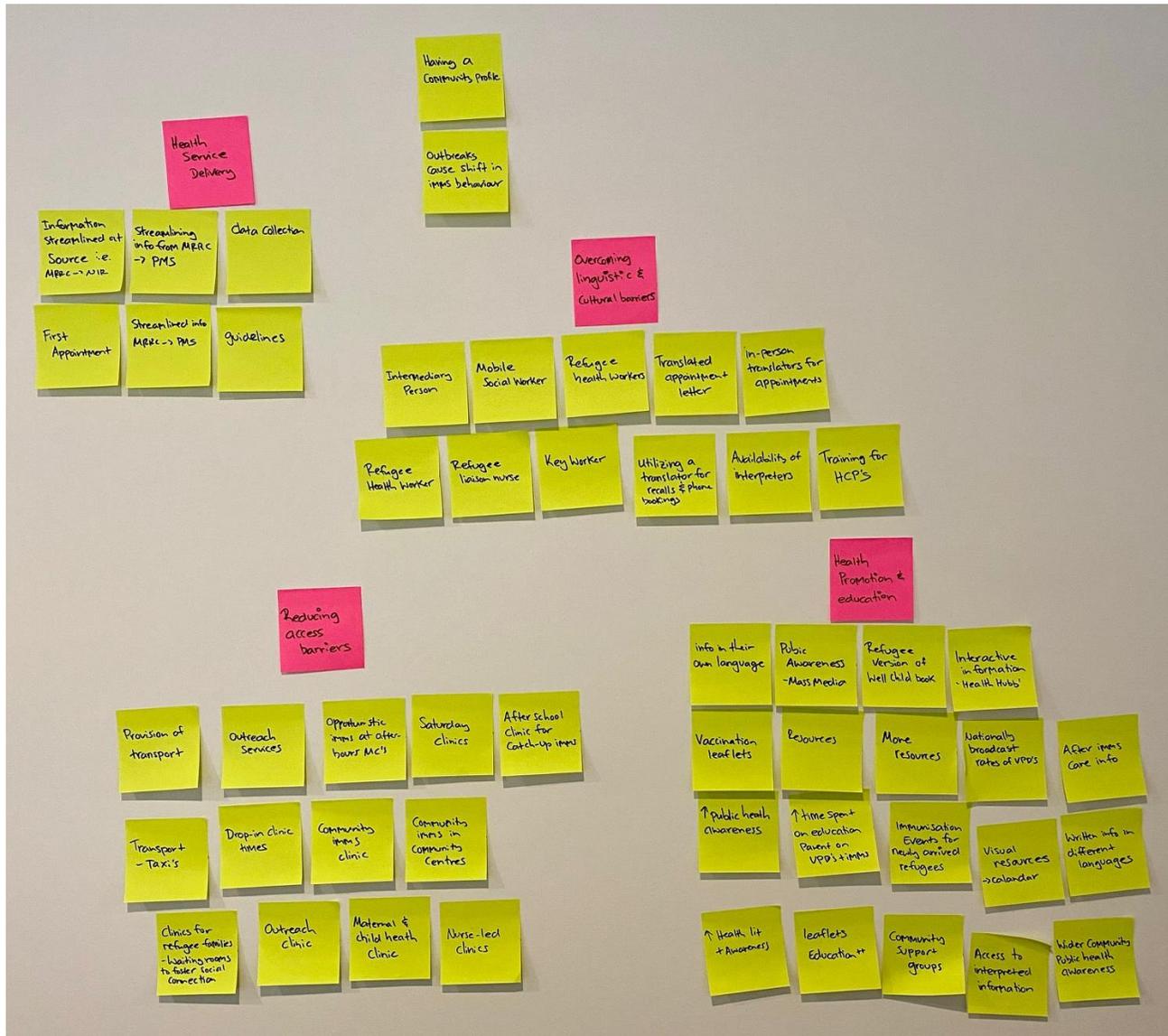
## Appendix H: Example of coding logbook

### Coding Framework version 2

Initial code	Notes	New codes	Level
Expectations of healthcare	Relates to perceived refugee caregivers' expectations of health service	Provider - patient expectations	Former refugee/ Health provider
Immunisation not a priority	Relates to competing priorities during the early resettlement period	Competing resettlement priorities	Former refugee
Providing reassurance	relationships between nurse/GP and family	Building relationships	Health provider
sensing frustration	Expectations of health service	Provider - patient expectations	Former refugee
working through challenges	Similar to "trying hard" or "doing our best" - Related to the personal attributes of the health provider ?Going above and beyond	Attributes of healthcare provider	Health provider
"shared effort"	Networking. Relationships and working with team members and local services	"Shared effort"	Health provider
being involved	relationships between nurse/GP and family	Building relationships	Health provider
Using IMAC for support	Networking - merge with code 7, 22, 39.	"Shared effort"	System or Health provider
Own migrant background	Own migrant background in relation to gaining knowledge, experience or relationship building	Experiential knowledge	Health provider
knowledge of cultural issues	Education and awareness for healthcare professionals	Building relationships or knowledge	Health provider
building trust	relationships between nurse/GP and family	Building relationships	Health provider
"buy-in"	Wanting to immunise	Perceived attitudes towards vaccinations	Former refugee
lack of infrastructure to facilitate shared information	Internal systems and processes	Internal systems and processes	System

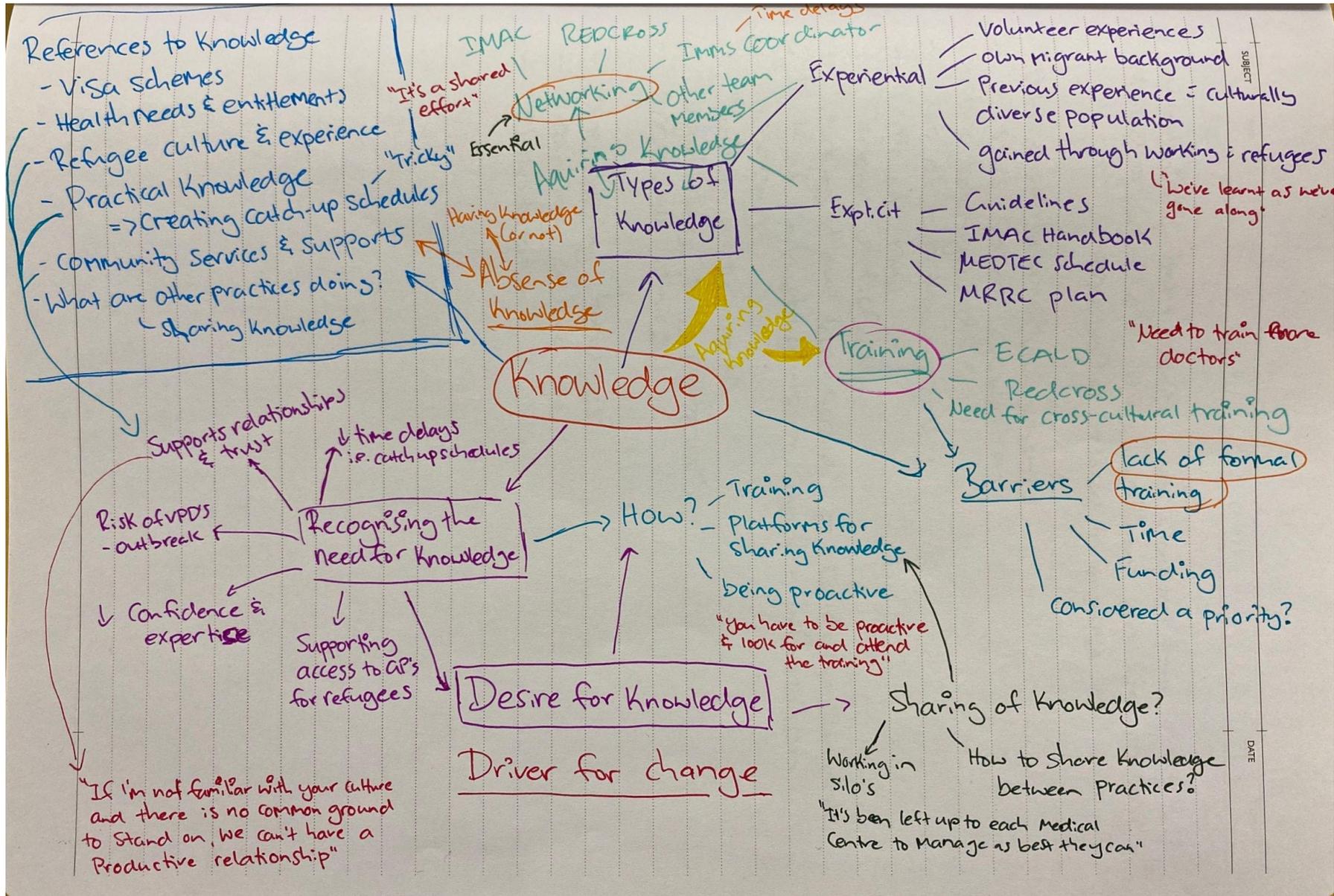
# Appendix I: Generating initial themes

Development of theme: The service needs to change



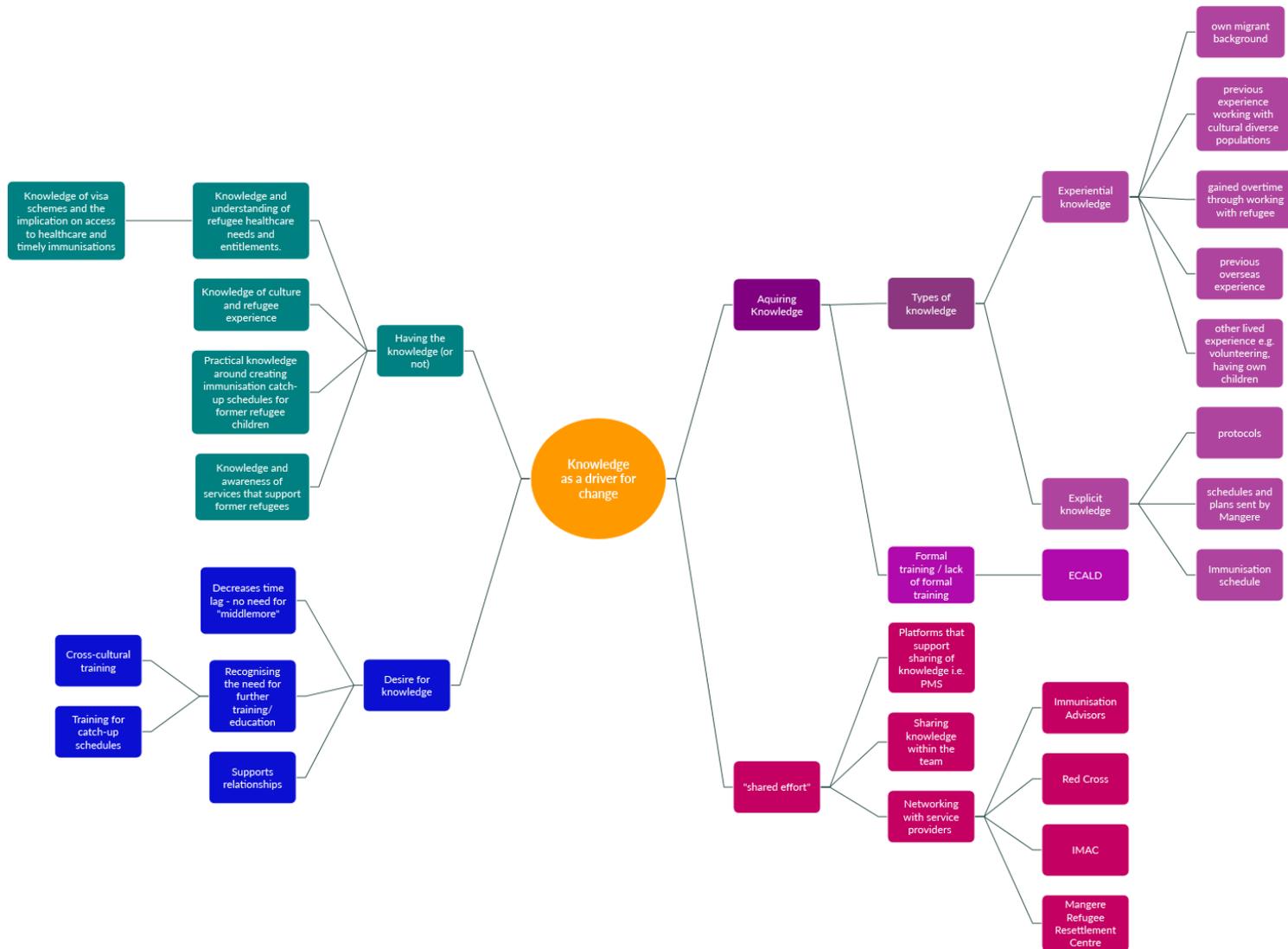
# Appendix J Initial mind map

Development of theme: Knowledge as a driver for change



## Appendix K: Refined mind map

Theme: Knowledge as a driver for change



## Appendix L: Mapping out final themes



## **Appendix M: Abbreviations**

CORS	Community Organisation Refugee Sponsorship Category
IOM	International Organisation of Migration
ID	Interpretive Description
IMAC	Immunisation Advisory Centre
INZ	Immigration New Zealand
MRRC	Mangere Refugee Resettlement Centre
MBIE	Ministry of Business, Innovation and Employment
MOH	Ministry of Health
NIR	National Immunisation Register
NIS	National Immunisation Solution
NZ	Aotearoa New Zealand
PMS	Practice Management System
RFSC	Refugee Family Support Category
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
VPD	Vaccine Preventable Disease
WHO	World Health Organisation