


BMJ Open What are the challenges in the vaccination of migrants in Norway from healthcare provider perspectives? A qualitative, phenomenological study

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ABSTRACT

Background Migrant populations in the European Union (EU) suffer a disproportionate burden of infectious diseases and may be particularly vulnerable due to poor conditions in countries of origin or throughout transit to the host country. Given the rising level of migration into Europe, the vaccination of migrant populations has become a key priority, with European countries committing to equitably extending the benefits of vaccination to all. However, in Norway, little is known about the vaccination of migrant populations.

Objective The aim of this qualitative research study was to explore the process of vaccinating migrant populations in Norway and elucidate any challenges as perceived by healthcare providers. This involved exploring the challenges faced by healthcare providers in delivering vaccinations to migrants as well as potential barriers faced by migrants in accessing vaccinations in Norway, from the perspectives of healthcare providers.

Methods In June 2019, the authors conducted semi-structured interviews with seven healthcare providers who are involved in vaccinating migrants in South-Eastern and Western Norway. This included healthcare providers working in general practice, public health and infectious disease clinics, migrant health clinics, and local public health institutes.

Results An inductive, exploratory analysis identified key themes that were reviewed and analysed in light of existing literature. According to the informants, the Childhood Immunisation Programme is effective in including migrant children within the national vaccination schedule. However, gaps in vaccination appear to exist with regards to adult migrants as well as working migrants. There is currently no consistent or structured approach to vaccinating adult migrants in Norway, including no guidelines from governing bodies on how to organise vaccination to adult migrants in municipalities. Furthermore, reasons why adult vaccination is not prioritised were provided, such as tuberculosis screening and treatment taking precedence and the common assumption among healthcare providers that vaccinations are dealt with in childhood.

Conclusion The development of equitable immunisation programmes requires an understanding of the multifactorial barriers to immunisation, such as those posed by policies, structures and governance bodies, or lack thereof. It also entails understanding the

Strengths and limitations of this study

- This study illuminates some of the challenges with delivering vaccinations to migrant populations in Norway from a healthcare provider's perspective.
- Challenges exist in the vaccination of migrants in Norway, such as ensuring vaccination of adult and working migrants.
- There is currently no consistent or structured approach to vaccinating adult migrants in Norway.
- The voices of migrants are key in understanding their challenges and should be prioritised in future studies.

administration of such policies and the perspectives of those who are responsible for the delivery of vaccination, namely healthcare providers. This qualitative research study demonstrated that challenges exist in the vaccination of migrants in Norway and that they are coherent with those experienced throughout the EU, principally the presence of gaps in vaccinating adult migrants, working migrants and internal EU migrants. This research provides direction for future investigations and highlights the need for the inclusion of migrant status in the Norwegian Immunisation Registry.

INTRODUCTION

Migrant populations in the European Union (EU) suffer a disproportionate burden of infectious diseases.¹ Some subgroups of migrants may be particularly vulnerable to infectious diseases because of poor conditions in countries of origin where civil unrest or war has caused vaccination programmes to be interrupted, or in transit to the host country where access to healthcare is limited and migrants may be exposed to malnutrition, overcrowding and unsanitary conditions.^{2 3} Additionally, migrants within the EU may be under-immunised for vaccine-preventable diseases (VPDs).⁴ The European Centre for Disease Prevention and Control (ECDC) released targeted guidance for effective screening and vaccination of newly

arrived migrants, which states that there is a clear benefit to enrolling migrants in vaccination programmes and ensuring catch-up vaccination.² Furthermore, as part of the European Vaccine Action Plan 2015–2020, all EU countries have committed to meeting regional vaccination coverage targets, eliminating endemic measles and rubella, controlling hepatitis B infection and sustaining polio-free status in an effort towards creating a region free of VPDs.⁵ However, progress towards equitably extending the benefits of vaccination to all and meeting regional vaccination coverage targets has been slow, and there still exists significant gaps in understanding how to deliver effective vaccination services to diverse and mobile migrant populations in the EU.^{3 6–8}

In recent years, immigration to Norway has greatly increased.^{9 10} At the end of 2019, there were approximately 765 000 first-generation migrants in Norway, which amounts to about 14.4% of the total population in Norway.^{11 12} According to the Norwegian Institute of Public Health (NIPH), most new cases of tuberculosis (TB) and hepatitis B and half of new HIV cases occur among migrants in Norway.¹³ Although research studies on migrant health and migrant experiences with health services in Norway has grown in recent years, the NIPH claims that research on migrant health is still lacking.¹³ To date and to the best of the authors' knowledge, there has been no targeted research on the vaccination of migrant populations in Norway. In general, vaccination rates among the Norwegian population are high,¹⁴ but not all migrants are included in such figures, which may have led to the negligence of migrant-specific challenges.

Cultural factors, knowledge barriers, insufficient access to healthcare and vaccine hesitancy have been identified as common barriers to immunisation faced by migrants.¹⁵ In the Norwegian context, obstacles for migrant populations in accessing and navigating the primary healthcare system have been studied and are in parallel with challenges documented in the literature, such as conflicting ideas about the role of the doctor, language barriers and cultural differences.¹⁶ However, systems-related, provider-related and patient-related challenges with delivering vaccination programmes to migrants in Norway have not been studied. The development of equitable immunisation programmes requires an understanding of the multi-factorial barriers to immunisation, such as those posed by policies, structures and governance bodies and faced by both healthcare providers (HCPs) and migrants.⁷ As such, this qualitative research study aims to elucidate the challenges faced by HCPs in delivering vaccinations to migrants and migrants in accessing vaccinations in Norway.

METHODS

This qualitative, phenomenological study was conducted to explore the experiences of seven HCPs involved in the vaccination of migrants in Norway. The objective was to develop an understanding of the participants' perceptions

of vaccination of migrants in Norway, including challenges faced by HCPs in delivering vaccinations and potential barriers faced by migrants in accessing vaccinations.

Purposive sampling was used to select interview participants. Throughout June 2019, the researchers invited 23 HCPs working at different health stations (*helsestasjon* in Norwegian) or clinics, to be interviewed. In Norway, vaccination is primarily provided in these so called 'health stations'. Health stations are under municipal jurisdiction and are responsible for preventative health services, including national vaccination programmes. However, the organisation of the municipal health system varies based on community needs wherein some municipalities have health stations specialised for certain populations or issues, such as migrants and Norwegians who return to the country from travel. Therefore, the researchers reached out to clinics and a policy and research institute in the region that were involved in vaccination work, which included general practitioner clinics, public health/infectious disease/travel clinics, a public health institute and migrant health stations. HCPs were contacted via email and asked about their willingness to be interviewed for the study. All HCPs who agreed to participate were interviewed. As such, seven HCPs working at different health stations were interviewed; this included nurses and physicians from public health/infectious diseases/travel clinics, a public health and infectious disease institute, a migrant health clinic and a general practitioner clinic.

All interviews were conducted in South-Eastern Norway, except with one interview taking place in Western Norway. Interviews took place within the health station clinics. The interviews were approximately 1 hour in length and conducted in a semi-structured format using an interview guide (online supplemental file 1). The interviews included discussions on the process of how migrants obtained vaccinations in their respective municipalities and challenges faced by migrants and HCPs in this process. Interviews were audio-taped and transcribed verbatim, which was followed by an inductive, exploratory analysis that identified key themes from the perspectives of the HCPs. The data were transcribed and coded by hand. Themes were compared against the existing literature of vaccination in Norway and of vaccination challenges in Europe to ensure reliability and trustworthiness of the data.

At the beginning of interviews, key terms were defined and clarified for interview participants. The following definitions were applied:

- ▶ Immigrant: a person who makes a conscious choice to leave their country to seek a better life elsewhere.
- ▶ Refugee: a person who has been forced to leave their country in order to escape war, persecution or natural disaster, and is seeking protection in another country.
- ▶ Asylum seeker: a person who awaits a decision on the application for refugee status.
- ▶ Working migrant: a type of legal immigrant that is entering Norway to pursue work.

In this research study, the term ‘migrant’ refers to anyone who has moved from their home country to another, which encapsulates all the aforementioned subtypes.

The definition for VPDs was also clarified at the beginning of interviews; specifically, the ECDC definition was used.²

Identifiable or personal data were not audio-recorded nor transcribed to ensure anonymity of participants and, therefore, ethics approval was not required. All participants were fully informed about the study and verbal consent was obtained.

Author reflexivity statement

The lead author of this work is a white, middle-class, native English-speaking woman of European Canadian ancestry. Her limitations in this work is that she is not a migrant or Norwegian. She is aware that she views the challenges of migrants and those of Norwegian HCPs from an inherently outsider’s perspective and that by not being Norwegian, she does not have an in-depth, first-hand knowledge of the Norwegian healthcare system. However, she has worked with migrant populations and has dedicated her studies and work to causes of social justice and health equity. She views health as a human right and migration in a positive light, owing to her personal experiences as a daughter of immigrant parents and as a global health researcher undertaking critical discussions in the area of migration and health. Furthermore, throughout this research project, she had the support of a Norwegian and immigrant supervisor to support her in understanding the local Norwegian context and healthcare system.

Patient and public involvement

No patient was involved.

RESULTS

Participant quotes are available in online supplemental file 2.

Childhood Immunisation Programme

All HCPs agreed that the Childhood Immunisation Programme (CIP) in Norway functions well and captures all children, including migrant children, within the national vaccination schedule. Participants described how the CIP in Norway is well established and enforced by NIPH and the Norwegian law. The NIPH provides national recommendations for which vaccines to include in the programme, where to deliver vaccinations and who is responsible for providing the vaccinations.

Vaccine coverage and uptake among migrants

All participants acknowledged that Norway has been fortunate to have high vaccine coverage to date. All HCPs were in agreement that non-Western migrants, especially refugees, are very accepting of vaccination and should not be considered a public health concern. Although it was stated to be very rare, a few HCPs mentioned that those

that refuse vaccines are more likely to be Norwegians or migrants from Europe. The responses of the participants demonstrated that vaccine hesitancy does not appear to be a large problem at present.

Lack of data on migrant vaccination coverage

Most HCPs expressed that data on the vaccine coverage of migrants are needed to know whether there are gaps in vaccine coverage among migrants. Currently, the Norwegian Immunisation Registry, System for vaksinasjonskontroll (SYSVAK), does not stratify by migrant status. As such, HCPs were hesitant when discussing challenges faced by migrants in accessing vaccinations as perceived by health workers.

Organisation and coordination of vaccination for adult migrants

The Norwegian Directorate of Health provides national guidelines on vaccination for migrants, which includes what vaccines should be provided and to whom. However, municipalities are responsible for organising *how* to deliver vaccination to adult migrant populations, including where and by whom. Many HCPs felt that the guidelines for vaccinating adult migrants were sufficient and that they experienced no major challenges; however, a couple respondents experienced a number of challenges in their work. A couple interviewees felt that the system for vaccinating adult migrants within municipalities was ‘ad hoc’, involved ‘detective work’ and was not prioritised. Without a clear protocol or guidelines on how to deliver vaccines to adult migrants within municipalities and with no clear division of responsibilities among HCPs, a few respondents suggested that vaccination may not always be offered to adult migrants nor a thorough vaccine history completed. However, some HCPs did have organised systems for ensuring adult migrants were vaccinated in their municipalities. Regardless of their different experiences, many respondents stated that migrants who are lacking vaccinations are likely to be identified at some point when accessing healthcare services, but that it may be delayed and not done in the most efficient and effective manner. These responses suggested that although municipalities are responsible for organising a system for vaccinating adult migrants, the roles and responsibilities of HCPs may not be clearly outlined nor vaccination of adults prioritised within their municipalities.

Priorities in infectious disease control

All participants described that HCPs balance numerous tasks of which the vaccination of adults within municipalities is not a large priority. A few respondents explained that it is likely that Norwegian HCPs often assume that adults are vaccinated since most vaccinations are scheduled for childhood. Participants mentioned that HCPs that do not work directly in migrant health, such as general practitioners, may not remember to offer vaccinations to adult migrants attending their clinics.

Furthermore, a few respondents highlighted that screening, vaccination and treatment for TB is prioritised over adult vaccination. TB screening and follow-up is mandated by law wherein HCPs in refugee reception centres and in municipalities must follow specific protocol for documenting, screening and treating TB. On the contrary, clear and enforced protocol for documenting and providing adult vaccinations does not exist; respondents described how this can lead vaccinations to not be offered to some adult migrants nor rigorously documented in refugee reception centres and municipalities.

A gap in hepatitis screening of pregnant women was not mentioned by informants.

Working migrants vaccination challenges

There are no requirements to obtain vaccinations for working migrants; however, if they come from a country with a high prevalence of TB and intend on staying more than 3 months, then they must undergo screening for TB. Some participants described how this may be a potential gap in the system wherein many working migrants are not offered vaccination. It was noted by many HCPs interviewed that there are some working migrants that are permitted to continuously re-apply for short work permits and can, therefore, live in Norway for long periods of time without having to complete a health examination, including an assessment of vaccine history.

Many HCPs described that working migrants are being identified when contacting healthcare services and then being referred to full health screening. In other cases, some employers may require working migrants to complete a health examination. However, even if offered vaccinations, participants claimed that it is likely that working migrants would refuse since vaccinations are not free of charge for working immigrants and can be quite costly.

Financial challenges for migrants

All vaccines are free for infants, children and adolescents; however, there may be fees for adult vaccinations. Top priority vaccinations, such as MMR Vaccine (Measles, Mumps, and Rubella) and the polio vaccine, are free for refugees and asylum seekers and are provided on arrival. Hepatitis B and the Bacillus Calmette–Guérin (BCG) vaccine are also free for some migrants, depending on which country they come from. However, aside from these vaccinations, vaccines are not free of charge. It was mentioned by an HCP that additional vaccinations may not be accepted by refugees since they only receive some financial support from the state and vaccines are expensive. As mentioned above, working migrants need to pay for vaccines and that would likely be a burden given the high price for vaccines.

Education for HCPs on migrant health

It was stressed by some of the HCPs that there should be more education for HCPs on issues related to migrant health, such as how to use a translator effectively, cultural

humility, and how to discuss challenging topics, such as psychological trauma. Currently, there are no mandatory courses on migrant health within HCP education for both nurses and doctors.

Translators and navigating language barriers

Participant responses were divided on the use of translators in their clinical services. Some respondents described no challenges with obtaining and using a translator, stating that they always use one when needed and believe that their colleagues did the same. Alternatively, some HCPs had the impression that a number of HCPs do not use translators as frequently as they should. One participant believed that this was largely due to the lack of HCP knowledge around how to arrange a translator as well as how to navigate using a translator. A few participants also expressed that arranging a translator can be a ‘complicated’ process—it takes more time and would be easier to just not offer the service or even not see migrant patients to avoid this additional task. One participant stated that many HCPs see using a translator as a burden, as opposed to a necessity. A few HCPs felt that patients are not aware of their right to having a translator and that they are not charged for this service. One HCP felt that HCPs are not educating their patients on their right to having a translator.

DISCUSSION

This study illuminates some of the challenges with delivering vaccinations to migrant populations in Norway from an HCP perspective.

The inclusion of migrant children and adolescents in national vaccination schedules is a key feature of the ECDC guidelines (Hargreaves *et al*).^{2 17 18} Children are considered to be at greatest risk of contracting VPDs and represent approximately 25% of the total migrant population in the EU region.¹⁹ This research study has demonstrated that Norway’s national immunisation programme for children is comprehensive and inclusive of migrant infants, children and adolescents in Norway.

HCPs overwhelmingly agreed that it was difficult to identify inequities in immunisation given the lack of data on immunisation coverage in migrants. In fact, there is a lack of systematic data collection throughout European countries on immunisation coverage and determinants of non-immunisation among migrants.¹²⁰ To increase equity in immunisation provision, Boyce *et al* suggest that countries should disaggregate immunisation uptake data by key determinants of inequalities including ethnicity and migration status.⁷ Connecting data on the social determinants of health with vaccination coverage has immense potential for improving services and increasing vaccination coverage as has been demonstrated within a number of countries in the EU.^{7 21} Our research highlights the limitation of the current national immunisation registry in Norway and the value of integrating migrant status in

immunisation uptake data to direct future research and initiatives on migrant health.

Furthermore, it is evident that gaps exist in the vaccination for adult migrants. As described in the results, some municipalities have not designed a clear and coordinated system for ensuring that adult migrants are vaccinated. This can lead to a lack of clarity around the division of responsibilities among HCPs and vaccinations not being offered to adult migrants. This is coherent with findings from the ECDC that found a lack of clarity among HCPs regarding approaches to catch-up vaccinations in adult migrants.¹⁷ A quote by an Estonian HCP captures the issue perfectly: 'The completeness of adult migrant vaccination depends on the healthcare provider - if they consider vaccination as a priority'.¹⁷ This sentiment was echoed among Norwegian HCPs as many HCPs felt that vaccination was not always prioritised and offered to adult migrants. It is our suggestion to conduct further research on how to ensure that adult migrants are provided vaccinations. Furthermore, developing guidelines on where and by whom should vaccinations be delivered for adult migrants may be worth consideration.

Our research highlights the gap in providing vaccinations to working migrants in Norway. Europe-wide research completed by the ECDC has highlighted important yet frequently neglected dimensions of migration in the EU, such as labour migration and internal EU migration, which have been linked to measles outbreaks.¹⁸ In the ECDC dataset, internal EU migrants contributed relatively high numbers of hepatitis B and hepatitis C, demonstrating the importance of including internal and labour migrants within vaccination.²² In this research, numerous HCPs expressed that there were gaps in policies and care for working migrants, especially for those from within the EU and short-stay migrants. Further investigations and initiatives for screening and vaccinating working migrants should be considered by Norwegian decision-makers.

Our research demonstrates that vaccine hesitancy is likely uncommon among non-Western migrants in Norway, namely refugees and asylum seekers, but it may be a larger concern among migrants from within the EU. Many refugees and migrants arriving in Europe come from Middle Eastern countries where vaccines are widely accepted and coverage has traditionally been high.²³ This finding is important considering previous cases where infectious disease outbreaks were blamed on refugees and asylum seekers, such as during the rise of measles throughout the EU in 2018.²⁴ There is no evidence that justifies viewing refugees or asylum seekers as a public health threat and this fear is irrational and harmful.²⁵

Challenges appear to exist with some HCPs' motivation to use translators and their knowledge of how to arrange and effectively use translators in their clinical services. Given that translators are important for effective implementation of national vaccine policies,¹⁹ potential barriers to using translators described should be further explored to ensure providing appropriate and accessible healthcare.

None of the informants mentioned gaps in hepatitis screening of pregnant women, despite it being a well-known migrant health issue. We believe that this may be due to a lack of awareness of the issue by HCPs. Until 2018, Norway was among the few countries in Europe that did not test all pregnant women for chronic hepatitis B infection.

Limitations

Due to time constraints, this study did not interview migrants and, therefore, the study focuses on the challenges faced by HCPs as opposed to challenges faced by migrants. However, the voices of migrants are key in understanding their challenges and should be prioritised in future studies. There were a limited number of interviewees given that data collection was conducted during the Norwegian summer months where many are on holiday. This limits the ability to make generalisations. Nevertheless, the authors believe the research is representative, but not entirely comprehensive, of the challenges in vaccinating migrants in Norway as consistent themes emerged across the interviews. Moreover, the interviews were in depth providing quality content, and interviewees were from all different municipalities and working in different types of clinics throughout Norway, providing a wide range of perspectives. Future research should extend deeper into the topics described and gather information from a larger sample.

Interviews were conducted in English, but all participants spoke English well and no major language barriers were experienced during the interviews. The interview transcripts were coded by one researcher increasing the potential for bias into the research study; however, interviews were audio recorded, transcribed verbatim and systematically coded to maintain integrity and quality of the data. Lastly, there are types of migrants that were not discussed in this research study, such as family reunification immigrants, asylum seekers and undocumented or 'paperless' migrants, whose experiences with vaccination require further research.

CONCLUSION

This research provides new information on both the strengths and weaknesses of the practice of vaccinating migrants in Norway. The results are similar to challenges experienced throughout the EU, such as gaps in vaccinating adult migrants, working migrants and internal EU migrants.

Given the rising level of migration into Europe, the vaccination of migrant populations has become a key priority in Europe.² Findings from this study can be used to direct further research throughout Norway and countries with similar contexts. During this time of growing anti-immigrant sentiments and political agendas, there is an urgent need for the public health community to ensure that the needs of migrants are met and that HCPs are providing equitable, accessible, and effective services.

Contributors AS was responsible for the interviews, data collection, did the initial analysis, drafted the manuscript, contributed to the design of the study and analysed the data. JK designed the study, participated in the implementation, did the data analysis, critically reviewed the manuscript and also served as guarantor. Both authors had full access to the data and take responsibility for the integrity and accuracy of the analyses.

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