



Challenges to healthcare access for migrants in transit: A scoping review

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ABSTRACT

Background: Migrants in transit face numerous health challenges which are further exacerbated by barriers to accessing healthcare. Understanding these barriers is essential for designing effective health interventions and policies that ensure equitable healthcare access for this population. This scoping review aims to investigate the barriers and the existing health policies that complicate healthcare access for migrants in transit and to recommend alternatives to improve access.

Methods: This review scoped 26 papers between 2011 and June 2024, including grey literature, using the Arksey and O'Malley framework and the PRISMA-ScR checklist. The databases searched included Medline, Migration Research Hub, Science Direct, Biomed Central, OECD, and third-sector websites. Results were thematically coded using inductive and deductive analysis.

Results: 16 peer-reviewed articles and 11 grey literature reports were included in this review. 69% of research was centred in the low- and middle-income European countries, and 80% of primary research focused on healthcare provider and civil organization perspectives. 46% of the studies directly analysed the barriers to healthcare, which were categorized into dimensions of acceptability, availability, affordability and accessibility. Only 23% of articles discussed policies and potential solutions, but there were no studies evaluating implementation of these policies or solutions.

Conclusion: Despite the growing body of literature on migrant health, significant gaps remain in understanding the extent of healthcare challenges faced by migrants in transit. Future research is needed to inform policy, practice, and the development of more effective healthcare systems for migrants in transit.

1. Introduction

Since 2011, internal and international conflicts have driven some of the largest flows of displacement since World War II [Kilibarda, 2017]. By the end of 2022, the United Nations (UN) recorded 108.4 million irregular migrants worldwide, of which an estimated 35.3 million were refugees. In effect, more than one in every 74 people worldwide have been forced to flee their homes [Coumans and Wark, 2024]. Irregular migration is defined as “the movement of persons that takes place outside the laws, regulations, or internal agreements governing the entry into or exit from the State of origin, transit or destination” [International Organization for Migration, 2024]. With many people locked out of regular migration pathways, increasing numbers are turning to irregular migration - including the use of the asylum pathway - as the only viable option [International Organization for Migration,

2024].

Compared to economic migrants, irregular migrants face significantly greater risks throughout their journey. Inadequate legal protections and infrastructure leave them vulnerable to violence, exploitation, and abuse, and to an increased risk of communicable disease transmission [International Organization for Migration, 2024, Goldenberg and Fischer, 2023, Refugee and health, 2024]. This is further compounded by poor access to healthcare in countries of transit or temporary asylum [Ajzenman et al., 2022, Oelgemöller, 2017, Legido-Quigley et al., 2020]. Penchansky and Thomas conceptualize access to healthcare through five key areas of “fit” between patients and the healthcare system: availability, accessibility, accommodation, affordability and acceptability [Penchansky and Thomas, 1981]. *Availability* refers to the adequacy of services and personnel to meet patient needs, while *accessibility* encompasses physical access and travel costs

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[Penchansky and Thomas, 1981]. *Affordability* reflects the relationship between prices and the ability and willingness of patients to pay [Penchansky and Thomas, 1981]. *Accommodation* highlights how service delivery is organized, including appointment systems and teleconsultation services [Penchansky and Thomas, 1981]. And finally, *acceptability* captures the mutual comfort or cultural fit between patients and providers [Penchansky and Thomas, 1981]. In transit contexts, the services available often do not align with migrant needs, resulting in fragmented or absent care.

Currently, 44 UN member states have not signed the 1951 Refugee Convention and its 1967 protocol and many of these countries are known transit centres along “established” irregular migration routes [Janmyr, 2021]. A transit country refers to any country through which refugees and migrants pass on their way to their preferred country of asylum, and may be located anywhere between the country of origin and the country of destination [Kilibarda, 2017]. For the majority, however, the transit from their homes to destination countries represents a new reality of living on the move. It has been documented that transit can last from several months to several years [Armstrong et al., 2022].

Despite numerous studies describing the health profile of migrants, refugees, and asylum-seekers in destination countries, mostly in Europe, transit migration remains understudied. Most available evidence in this area is limited to small-scale regional surveys and case studies [Kilibarda, 2017, Coumans and Wark, 2024, Legido-Quigley et al., 2020, Huang et al., 2021, Žagar et al., 2019, Sweileh et al., 2018, Hacker et al., 2015, Lebano et al., 2020]. While some evidence syntheses exist on the subject, these are limited by region, and do not explore solutions or policy implementation [Kisa and Kisa, 2024, De Smalen et al., 2021, World Health Organization 2023]. The drivers for irregular migration are expected to increase in the coming decades, underscoring the urgency for research to focus on the unique challenges to healthcare access in transit settings and to explore potential solutions [World Health Organization 2023].

Given the paucity and heterogeneity of the existing evidence, a scoping review methodology was chosen for this study [Ouzzani et al., 2016]. The aim of this review was to scope peer-reviewed research and grey literature to investigate the challenges to healthcare access for migrants in transit settings globally and to recommend alternatives to improve access to healthcare. Our objectives were to:

1. Identify the barriers to accessing healthcare for migrants in transit settings worldwide through synthesis of the existing literature from 2011 onwards to facilitate improved access to healthcare.
2. Explore existing health policies for migrants in transit settings to derive potential solutions to dismantle barriers and improve healthcare access.
3. Explore patterns and gaps within the existing body of literature to facilitate potential future research and policymaking.

2. Methods

This scoping review utilized the Arksey and O'Malley framework, and the updated guidance of the Joanna Briggs Institute (JBI) [Arksey and O'Malley, 2005, Peters et al., 2020]. We conducted the review in four steps after identifying the research question: searching and identification of relevant studies, study selection, data extraction and data synthesis [Arksey and O'Malley, 2005, Peters et al., 2015]. This scoping review also followed the Preferred Reporting Items for Systematic Reviews and Meta-analyses – Scoping Review (PRISMA-Scr) guidelines to ensure a comprehensive and transparent search strategy [Page et al., 2021].

2.1. Screening

Three reviewers were involved in the screening process, where all had experience in the domain of public health. This review employed a

comprehensive search strategy to identify relevant studies published in English.

A research librarian was consulted during development of the study methodology for advice on selecting databases, and developing search terms. Five electronic databases were searched, including Medline, Migration Research Hub, Science Direct, Biomed Central and the Organisation for Economic Co-operation and Development (OECD) publications database. To maximize the sensitivity of the search, selected grey literature sources were also included, with forward and backward citation tracking, and hand-searching journal references. The grey literature sources included third-sector websites such as the Forced Migration Review website, *OpenMD*, and the International Organization for Migration (IOM) and World Health Organization (WHO) publication databases. These databases and websites were selected based off previous review studies on migrant health, and highest yield of relevant literature on a test-run of search terms.

The search process was conducted by the first two reviewers in two stages to ensure that the search was exhaustive and to minimise the risk of missing potentially eligible studies. The first stage focused on identifying English-language key words and Medical Subject Headings (MeSH) terms for migrants, health and transit through reading search strategies off other review studies on migrant health. These items were then combined by using Boolean operators in the search platform of each database. The final search strategies used for the electronic databases and third-sector websites are included in the Supplementary material.

Due to the large volume of studies yielded, and to save time and resources, the decision was made for single screening by the first reviewer with dual screening implemented at key stages. Titles and abstracts were exported by the first reviewer and subsequently moved into Rayyan; an open-source software designed to support scoping reviews [Ouzzani et al., 2016]. The first reviewer conducted an entire screening of titles and abstracts, with 20% independently checked by the second reviewer, using the “blind” function in Rayyan, with both the reviewers working separately. All conflicts were resolved through discussion with the third reviewer.

The remaining reports were single-screened using full text by the first reviewer, according to the inclusion/exclusion criteria. All exclusions were done in consultation with the second reviewer to eliminate bias. Where an evidence synthesis review was identified, the citations were hand-searched to include studies that were missed on the initial search. Data from the included records were extracted and organized in tabular form under thematic headings which were agreed on by the team members. Included studies were not critically appraised in this scoping review.

2.2. Study selection

Studies were selected based on specific criteria to ensure that the included studies were relevant. The final selection criteria are shown in Table 1 below:

2.3. Data extraction

Data were extracted from included studies using a standardized extraction form created by the first two reviewers. The extracted data included study design, methodology, key findings, research gaps identified and potential biases in the study, but only key findings related to the research question were analysed in keeping with the study objectives and within the remit of a scoping review. The form was piloted by the first two reviewers using a random sample of 10% of the included studies to ensure consistency and accuracy. The two reviewers independently charted the data, discussed the results and continuously updated the data extraction form in an iterative process.

Table 1
Inclusion and exclusion criteria for study selection.

Inclusion Criteria	Studies that focus on refugees, asylum seekers, undocumented immigrants, and irregular migrants of all ages in transit settings Studies that report on health system challenges, healthcare service access and health outcomes Studies that focus on systemic, social and logistic barriers to healthcare access Primary research articles (qualitative, quantitative, mixed methods research) Grey literature: government documents, reviews, commentaries, reports Articles published from 2011 to June 2024
Exclusion Criteria	Studies published in languages other than English Studies outside the years of consideration Studies with a focus on destination/host countries Studies outside the definition of migrants as discussed above (i.e., economic, labour and regular migrants, and medical tourists) Evidence-synthesis reviews (excluded to avoid duplication of primary study findings) Studies that do not investigate healthcare access or health challenges

2.4. Data synthesis and reporting

Data concerning type of migrant, geographical location, study design and barriers/facilitators to healthcare access were imported into Microsoft Excel for analysis. The extracted data were analysed manually by the first reviewer using both deductive and inductive thematic analysis approaches to identify common themes or patterns across the studies. The themes were then coded into categories and subcategories after consultation with the second and third reviewers according to Penchansky’s concepts of healthcare access [Penchansky and Thomas, 1981]. The *accommodation* concept was excluded from categorical analysis, as this was not addressed in the majority of included studies. Reflexivity was practiced throughout in the form of personal journaling by all reviewers, and debriefing sessions at every step of the process to ensure that potential biases and assumptions were acknowledged and mitigated.

2.5. Ethics

As this was a synthesis review of previously published literature, ethical approval was not required.

3. Results

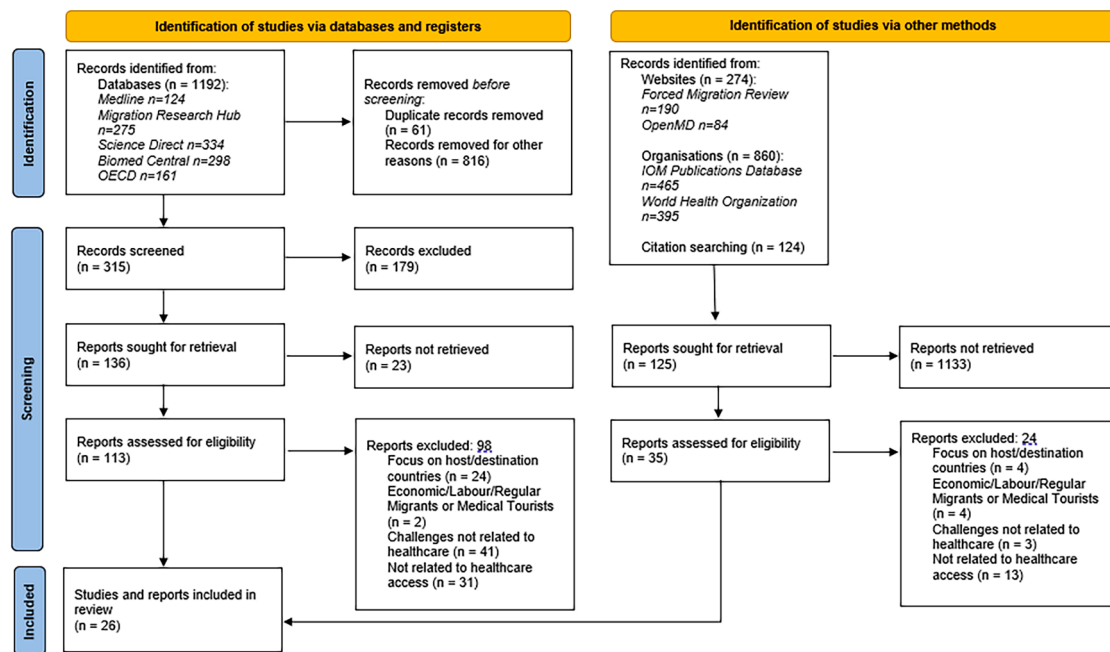
This review identified 1131 records from academic literature databases after duplicates were removed, and 1258 records from website searches. 2241 papers were excluded due to lack of relevance to the topic of interest. In total, 148 papers underwent full-text review, from which another 122 were excluded. Following screening, a total of 15 peer-reviewed journal articles and 11 grey literature studies (totalling 26 articles) were included for analysis. A PRISMA flowchart of the process is shown in Fig. 1 below:

The key findings from each study are outlined in Tables B.1 & C.1 in the Supplementary material.

3.1. Overall findings

The trend of research looking at migrants in transit is increasing, with majority of articles published between 2020 and 2024 (15 articles) [Allande, 2022, Gargano et al., 2022, Dumitrache et al., 2022, Farmakioti et al., 2023, Infante et al., 2022, Reddy and Berry, 2022, Stoesslé, 2022, Mamuk and Şahin, 2021, Joseph et al., 2020, United Nations Egypt 2022, Guadagno, 2020, Vearey et al., 2020, Lee et al., 2023]. Publications were from public health, epidemiology, sociology, and policy disciplines.

All included articles were centred on health-related challenges in either transit countries, or transit locations within destination countries. Five articles included other migrant populations in addition to transit migrants – ethnic minorities, regular migrants or migrants choosing not to move forward in their journey [Guadagno, 2020, Grotti et al., 2018, International Organization for Migration 2013, International Organization for Migration 2011, International Organization for Migration 2014]. One UN report, although not primarily health-focused, was included as it provided insight on healthcare access within a broader



Adapted From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71.

Fig. 1. PRISMA 2020 flow diagram to illustrate the search process.

context [United Nations Egypt 2022].

While European Union (EU) policy supports healthcare access for irregular migrants, practices remain haphazard, with studies reporting differing interpretation and implementation of rights at regional, institutional and individual levels.

3.1.1. Methodology and data collection

Among the 15 peer-reviewed articles, the majority (92%) employed qualitative approaches, including exploratory, descriptive/observational, ethnographic, case study, and Delphi method designs. Two studies used cross-sectional surveys. Five articles did not explicitly describe a study design, limiting clarity on their methodological approach. Data were primarily collected through individual interviews (73%), with the remainder using focus groups or other qualitative methods. Four studies included multi-country comparisons [Legido-Quigley et al., 2020, Žagar et al., 2019, Gargano et al., 2022, Grotti et al., 2018].

Among the 11 grey literature sources, five were situational analysis reports, two were field assessments, three were discussion articles, and one was a commentary.

3.1.2. Geographical areas of study

68% of research was from the low-to-middle income EU countries, with only eight studies conducted in South America, Africa and Asia [Legido-Quigley et al., 2020, Allande, 2022, Infante et al., 2022, Reddy and Berry, 2022, Stoesslé, 2022, United Nations Egypt 2022, International Organization for Migration 2011, Stoesslé et al., 2015]. The African region was especially underrepresented in the literature despite having a relatively higher proportion of migrants compared to the total population.

3.1.3. Study population

The grey literature and peer-reviewed studies differed in population focus. Grey literature commonly focused on refugees, asylum-seekers, and irregular migrants. In contrast, 80% of peer-reviewed articles primarily concentrated on healthcare workers, non-governmental organization (NGO) staff, and other stakeholders, with only five studies including irregular migrants directly. Only two studies specifically focused on female migrants [Mamuk and Şahin, 2021, Grotti et al., 2018], while the rest did not disaggregate data by age or gender. Participant groups were generally small across studies, with 69%

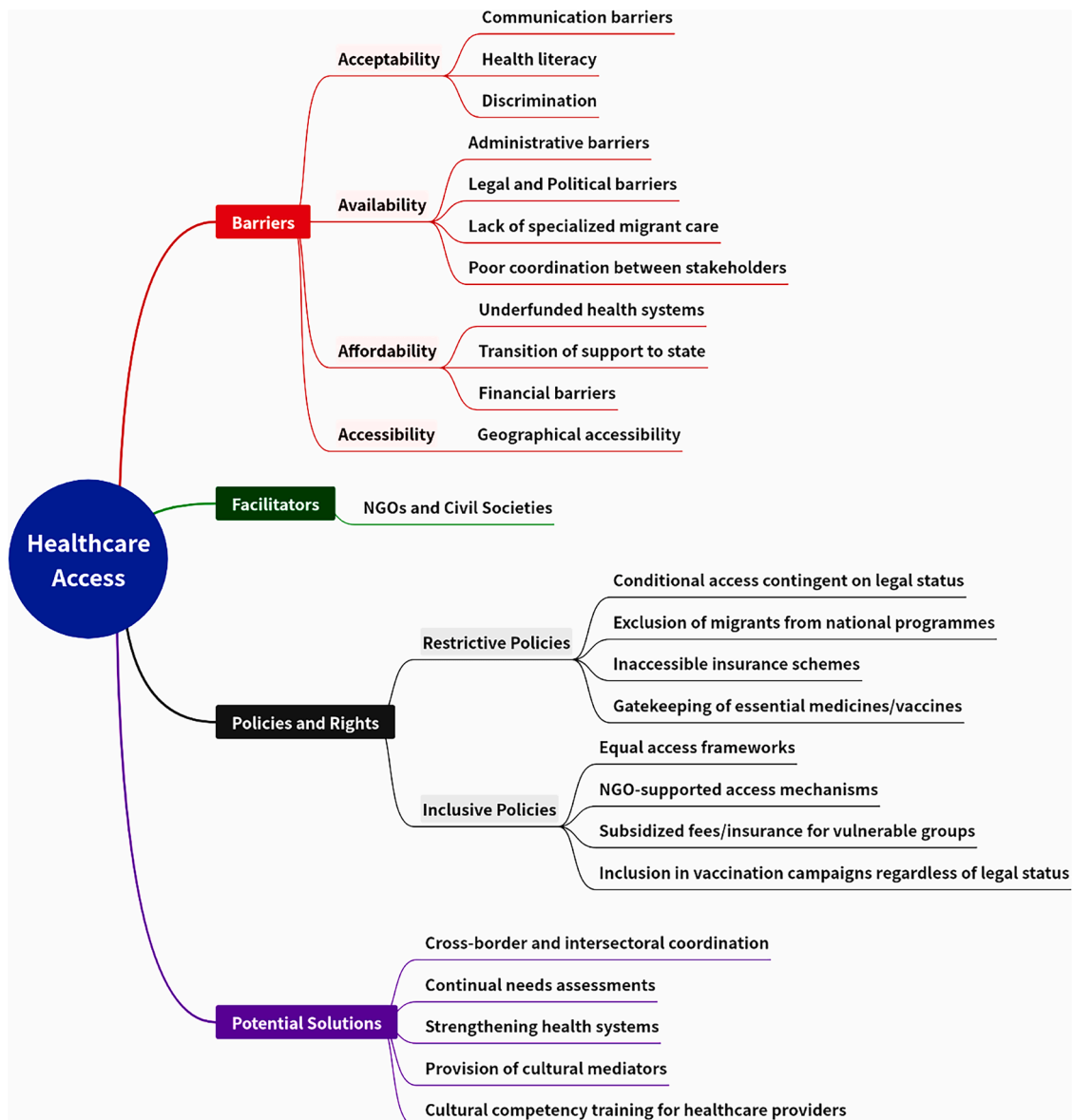


Fig. 2. Thematic map of key findings from included studies.

reporting fewer than 50 participants.

3.2. Thematic findings

The most studied health topics in the included articles were health-care access and policies influencing access rather than specific diseases. Three articles explored mental health [Allande, 2022, Gargano et al., 2022, Dumitrache et al., 2022], and two focused on sexual and reproductive health [Mamuk and Şahin, 2021, Grotti et al., 2018]. Four articles addressed the challenges of detecting and managing chronic diseases, while three highlighted difficulties in identifying infectious diseases due to the lack of routine surveillance systems [Infante et al., 2022, Reddy and Berry, 2022, Stoesslé et al., 2015]

The themes are outlined in the thematic map and chart in Figs. 2 and 3 below:

3.2.1. Access and barriers to care

46% of the studies provided some analysis of reasons irregular migrants experienced poor healthcare access. Major barriers to healthcare access included language barriers, financial barriers (including lack of health insurance) and administrative/legal barriers.

3.2.1.1. Barriers to acceptability of care

3.2.1.1.1. Communication barriers. Cultural and language barriers were seen to hinder migrants’ ability to navigate healthcare options, potentially compromising care quality [Legido-Quigley et al., 2020, Žagar et al., 2019, Dumitrache et al., 2022, Farmakioti et al., 2023, Reddy and Berry, 2022, Stoesslé, 2022, Mamuk and Şahin, 2021, Joseph et al., 2020, United Nations Egypt 2022, Guadagno, 2020, Vearey et al., 2020, Lee et al., 2023, Grotti et al., 2018, International Organization for Migration 2013, International Organization for Migration 2011, International Organization for Migration 2014, Sharma et al., 2024, Hémono et al., 2018, Shortall et al., 2017, Oberoi et al., 2013, Gunst et al., 2019, Kousoulis et al., 2016]. There was a lack of appropriate interpreters across most settings, with most interpreters coming from volunteer groups or NGOs [Žagar et al., 2019, Dumitrache et al., 2022, Farmakioti et al., 2023, Reddy and Berry, 2022, Joseph et al., 2020, International Organization for Migration 2013, Sharma et al., 2024, Gunst et al., 2019].

3.2.1.1.2. Health literacy. Even when healthcare was accessible, most migrants prioritized continuing their journey or seeking shelter over seeking medical treatment [Žagar et al., 2019, Shortall et al., 2017, Oberoi et al., 2013].

3.2.1.1.3. Discrimination. Discrimination and xenophobia from healthcare workers caused migrants to distrust the health system, reinforcing poor health-seeking behaviour [Reddy and Berry, 2022, Stoesslé, 2022, Mamuk and Şahin, 2021, United Nations Egypt 2022, International Organization for Migration 2013, International Organization for

Migration 2011, International Organization for Migration 2014].

3.2.1.2. Barriers to availability of care

3.2.1.2.1. Administrative barriers. Hospital referrals were limited, with some cases refused at hospitals. Five studies raised concerns about access to mental health and sexual and reproductive health services [Joseph et al., 2020, Lee et al., 2023, International Organization for Migration 2011, International Organization for Migration 2014, Gunst et al., 2019]. Access to dental, human immunodeficiency virus (HIV), and tuberculosis (TB) services were also reported as limited [Joseph et al., 2020, Lee et al., 2023, International Organization for Migration 2011, International Organization for Migration 2014, Gunst et al., 2019].

3.2.1.2.2. Legal and political barriers. Lack of awareness of entitlements among both migrants and healthcare providers was often cited [Dumitrache et al., 2022, Farmakioti et al., 2023, Infante et al., 2022, United Nations Egypt 2022, Gunst et al., 2019]. In most countries, identity documents were required to access healthcare, effectively gatekeeping healthcare from migrants [Legido-Quigley et al., 2020, Dumitrache et al., 2022, Infante et al., 2022, United Nations Egypt 2022, Stoesslé et al., 2015, Sharma et al., 2024, Gunst et al., 2019]. Fear of being reported to the authorities was cited as an important barrier to care-seeking, even in the absence of any reporting obligations [Žagar et al., 2019, Gargano et al., 2022, Oberoi et al., 2013].

3.2.1.2.3. Lack of specialized migrant care. Inadequate cultural and competency training resulted in healthcare workers being unfamiliar with migrant-specific conditions, leading to significant gaps in provision of dental, family planning and mental health services [Allande, 2022, Gargano et al., 2022, Dumitrache et al., 2022, Farmakioti et al., 2023, Joseph et al., 2020, Oberoi et al., 2013].

3.2.1.2.4. Poor coordination between stakeholders. Five studies cited weak coordination among NGOs and governments as one of the reasons delaying access to essential healthcare [Joseph et al., 2020, Lee et al., 2023, International Organization for Migration 2011, International Organization for Migration 2014, Gunst et al., 2019]. Poor communication among stakeholders also led to duplication of services for some health needs, but insufficient services for others [Joseph et al., 2020, International Organization for Migration 2011, Gunst et al., 2019].

3.2.1.3. Barriers to affordability of care

3.2.1.3.1. Underfunded health systems. Lack of human resources, infrastructure and scarcity of essential medicines were frequently cited as major barriers to healthcare provision [Legido-Quigley et al., 2020, Žagar et al., 2019, Allande, 2022, Farmakioti et al., 2023, Joseph et al., 2020, Guadagno, 2020, International Organization for Migration 2013, Sharma et al., 2024, Hémono et al., 2018, Shortall et al., 2017, Gunst et al., 2019]. Changes in EU policies also led to funding shortages for international NGOs that were previously catering to migrants, further

Barriers to Healthcare Access

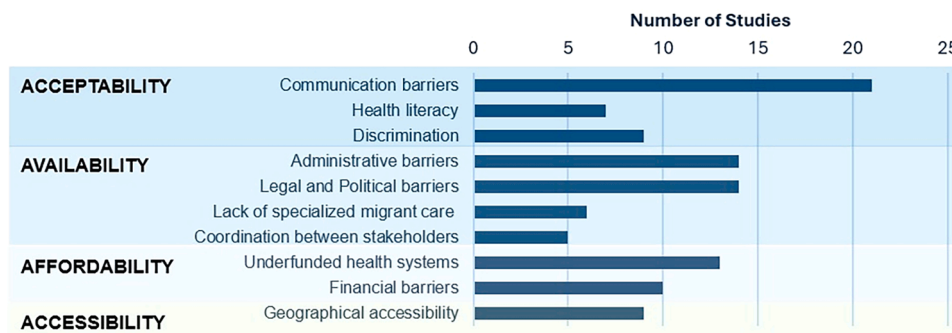


Fig. 3. Barriers to healthcare access identified across studies.

burdening state health systems [Joseph et al., 2020, Sharma et al., 2024, Hémono et al., 2018, Gunst et al., 2019].

3.2.1.3.2. Financial barriers. Financial obstacles limited access even to primary healthcare, with some countries excluding irregular migrants from national pharmaceutical subsidy programmes, or restricting coverage to only minimal treatments [Legido-Quigley et al., 2020, Infante et al., 2022, Mamuk and Şahin, 2021, Joseph et al., 2020, United Nations Egypt 2022, Vearey et al., 2020, Lee et al., 2023, Stoesslé et al., 2015]. Four studies found that access to both public and private health insurance was contingent on legal residency status or formal employment, leaving many irregular migrants without coverage [Legido-Quigley et al., 2020, Dumitrache et al., 2022, Mamuk and Şahin, 2021, Joseph et al., 2020].

3.2.1.4. Barriers to accessibility of care

3.2.1.4.1. Geographical accessibility. Migrant camps were mostly removed from general infrastructure and public transportation, leading to inability to reach health facilities [Farmakioti et al., 2023, United Nations Egypt 2022, International Organization for Migration 2011, Gunst et al., 2019]. In turn, irregular migrants are also a “constantly moving” population, leading to difficulty in continuation of care [Gargano et al., 2022, Dumitrache et al., 2022, Stoesslé et al., 2015, Hémono et al., 2018].

3.2.2. Facilitators

Voluntary organizations were reported to play an important role in providing basic healthcare or referring migrants to accessible primary and secondary facilities [Legido-Quigley et al., 2020, Allande, 2022, Infante et al., 2022, United Nations Egypt 2022, Lee et al., 2023, Grotti et al., 2018, International Organization for Migration 2014, Sharma et al., 2024, Shortall et al., 2017, Gunst et al., 2019, Kousoulis et al., 2016].

3.2.3. Health policies and rights

Only 23% of studies described policies on access to care for transit migrants, most of which were restrictive and intended to deter entry of new migrants [Legido-Quigley et al., 2020, Allande, 2022, Dumitrache et al., 2022, International Organization for Migration 2013, International Organization for Migration 2011, International Organization for Migration 2014].

Six studies reported new regularization frameworks in Greece, Croatia, and Mexico that aimed to include migrants in health insurance schemes - but migrants remained largely unaware of their entitlements to healthcare [Žagar et al., 2019, Allande, 2022, Farmakioti et al., 2023, Infante et al., 2022, Stoesslé, 2022, Hémono et al., 2018]. In Greece and Turkey, healthcare access was explicitly tied to legal status [Mamuk and Şahin, 2021, Joseph et al., 2020, Grotti et al., 2018].

Conversely, Egypt and Romania extended equal healthcare rights to migrants, including for vaccination campaigns and emergency care [Dumitrache et al., 2022, United Nations Egypt 2022]. In Southeast Asia, Thailand introduced a health insurance scheme for undocumented migrants, while Indonesia allowed migrants to access low-cost treatment at public facilities. Malaysia offered a 50% discount on medical fees for refugees registered with the United Nations High Commissioner for Refugees (UNHCR), but costs remain prohibitive [Legido-Quigley et al., 2020].

3.2.4. Potential solutions

Twelve studies put forward potential solutions for overcoming barriers, including health system reforms, interdisciplinary partnerships, cross-border coordination and inclusion of migrants in service planning [Legido-Quigley et al., 2020, Žagar et al., 2019, Gargano et al., 2022, Farmakioti et al., 2023, Joseph et al., 2020, United Nations Egypt 2022, Vearey et al., 2020, Lee et al., 2023, International Organization for Migration 2013, International Organization for Migration 2011,

International Organization for Migration 2014, Stoesslé et al., 2015, Hémono et al., 2018, Shortall et al., 2017, Oberoi et al., 2013, Gunst et al., 2019]. Several studies highlighted the importance of cultural competency, anti-stigma initiatives, and training for healthcare workers [Allande, 2022, Infante et al., 2022, Oberoi et al., 2013]. However, none of the studies assessed implementation or impact.

4. Discussion

This review examined the challenges to healthcare access faced by migrants in transit. The unique challenges to transit locations are the legal repercussions of seeking healthcare as undocumented migrants [Legido-Quigley et al., 2020, Dumitrache et al., 2022, Farmakioti et al., 2023, Infante et al., 2022, Mamuk and Şahin, 2021, Joseph et al., 2020, United Nations Egypt 2022, Vearey et al., 2020, Stoesslé et al., 2015, Sharma et al., 2024, Shortall et al., 2017, Oberoi et al., 2013, Gunst et al., 2019, Kousoulis et al., 2016]. Across diverse methodologies, populations and regions, the literature consistently highlights the urgent need for systemic reform to improve healthcare access for this vulnerable group.

Most existing research on healthcare access for migrants in transit has been concentrated within the EU nations, following the “EU migrant crisis” of 2015–2016 [Sharma et al., 2024, Gunst et al., 2019]. Due to migration policy changes and border closures in 2016, many migrants were left stranded in Greece and other Western Balkan countries – resulting in their healthcare systems having to respond to a new transit migration crisis [Gargano et al., 2022, Hémono et al., 2018]. A similar refugee crisis occurred in Southeast Asia from 2015, involving maritime migration across the Bay of Bengal and the Andaman Sea, but this region remains largely underrepresented in the literature. Most of the Southeast Asian countries are not state parties to the 1951 Refugee Convention and its 1967 Protocol and these countries lack formal management systems for irregular migrants, resulting in limited insight regarding their access to healthcare [Legido-Quigley et al., 2020].

Methodological constraints further shape the evidence base. Migrants in transit tend to be constantly on the move and change contact details frequently, which explains why most literature relies on perspectives from healthcare providers instead of from migrants [Reddy and Berry, 2022]. Urban migrants are often integrated into existing households, which makes finding them and isolating population data challenging [Orcutt et al., 2022]. Stoesslé [Stoesslé, 2022] also found that most healthcare providers were reluctant to discuss migrant healthcare, leading to small sample sizes across the literature. Even the two cross-sectional studies using migrants as a study population opted for snowball sampling due to the lack of statistical data on the size of the migrant population being studied [Armstrong et al., 2022, Infante et al., 2022].

Although there were non-healthcare themes surrounding access and policies identified from the literature, given the width of the topic, a deliberate decision was made to keep the focus on challenges to healthcare access.

4.1. Barriers to healthcare access

This scoping review highlights the similarities in barriers faced by migrants in transit across diverse regions, including Europe, Southeast Asia and Africa. While specific legal frameworks, economic conditions and political contexts differ, the fundamental barriers of communication, financial constraints, and administrative restrictions remain persistent. These barriers not only harm migrants but also pose broader public health risks to host communities through increased transmission of infectious diseases due to delayed or inadequate care [Huang et al., 2021, Ouzzani et al., 2016, Mamuk and Şahin, 2021, Guadagno, 2020, Grotti et al., 2018, Stoesslé et al., 2015, Sharma et al., 2024, Hémono et al., 2018, Shortall et al., 2017, Gunst et al., 2019, Kousoulis et al., 2016, Jaramillo Contreras et al., 2024, Ekmekci, 2017, Steel et al.,

2011].

The lack of formal interpreters, particularly for less common languages, appears to affect not only communication, but whether appropriate care is provided at all. Misdiagnosis, decreased symptom reporting and misunderstandings between healthcare providers and migrants suggest that language barriers directly undermine clinical decision-making and patient safety [Žagar et al., 2019, Dumitrache et al., 2022, Grotti et al., 2018, Oberoi et al., 2013, Gunst et al., 2019]. Limited awareness of how to navigate the healthcare system, together with low health literacy, further weakens engagement with care and contributes to poor adherence to treatment [Reddy and Berry, 2022, Mamuk and Şahin, 2021, Stoesslé et al., 2015, Oberoi et al., 2013, Gunst et al., 2019]. Establishing trust is particularly difficult in the transit context. Constant social deprivation and trauma appear to shape suspicion toward healthcare systems, reducing health-seeking behaviour [Žagar et al., 2019, Gargano et al., 2022, Reddy and Berry, 2022, Mamuk and Şahin, 2021]. Gender and cultural sensitivities continue to restrict access to sexual and reproductive health services, family planning and care for gender-based violence, which not only limits effective healthcare but also widens existing gender gaps within migrant populations [Joseph et al., 2020, Hémono et al., 2018]. Language and cultural barriers also foster discrimination by healthcare providers, which was further exacerbated by media racism against migrants, creating an environment that discourages healthcare utilisation [Kisa and Kisa, 2024, Stoesslé, 2022, Mamuk and Şahin, 2021, United Nations Egypt 2022, International Organization for Migration 2013, International Organization for Migration 2014, Jaramillo Contreras et al., 2024].

Irregular migrants who do not seek formal asylum are not entitled to international protection under the 1951 Refugee Convention, leaving them at the mercy of each country's policies [Kilibarda, 2017, Ekmekci, 2017, Steel et al., 2011]. In Europe, border closures, restrictive documentation and gatekeeping by healthcare staff place migrants' access to care largely at the discretion of both immigration systems and individual providers [Mamuk and Şahin, 2021, United Nations Egypt 2022, Lee et al., 2023, Gunst et al., 2019]. Fear of being reported to immigration authorities further discourages timely care-seeking, which increases health risks and worsens outcomes [Asch et al., 1995, Brenner et al., 2021]. Together, these factors suggest that migrants in transit remain highly vulnerable to external control over their healthcare access rather than being protected by stable systems of care.

The lack of specialized migrant care programs, particularly in relation to trauma-informed care and mental health support, appears to limit effective treatment for vulnerable migrant populations [Allande, 2022, Gargano et al., 2022]. This is significant because unmet mental health needs are associated with increased self-harm behaviour and poorer overall functioning in education, employment and social integration [Allande, 2022, Gargano et al., 2022]. At the service delivery level, fragmented data systems and inconsistent methods of patient information collection by NGOs limit continuity of care and contribute to disrupted care pathways [International Organization for Migration 2013, International Organization for Migration 2014, Shortall et al., 2017]. As migrants often avoid returning to the same facilities due to fear of reporting, weak coordination between NGOs and state healthcare providers further reduces the effectiveness of service delivery, increases the risk of incomplete treatment, and allows important health conditions to go unaddressed [Joseph et al., 2020, Gunst et al., 2019].

This review also reveals the sociopolitical drivers of inadequate healthcare policies for migrants, including nationalist anti-migrant sentiment and limited international cooperation. When migrant-specific health policies are weak or absent, states are unable to provide adequate protection during periods of crisis. More than any other crisis previously, the COVID-19 pandemic proved how essential it was to adopt migrant-inclusive policies [Guadagno, 2020, Matlin et al., 2021]. Widespread border closures left many migrants stranded in border quarantine centres or informal transit sites, where conditions severely limited infection control and access to international protection

[Guadagno, 2020, Matlin et al., 2021]. Delayed treatment and gaps in epidemiological data increased the risk of onward transmission to the community, ultimately increasing the disease burden and overall healthcare costs [Hacker et al., 2015, Guadagno, 2020, Matlin et al., 2021].

The findings on affordability and system capacity suggest that many states have relied heavily on NGOs to absorb migrant healthcare needs. When policy shifts redirected responsibility back to state-managed systems, as seen in Serbia and Greece, the withdrawal or scaling back of NGO services created significant gaps, especially in women's health services and chronic disease management [Joseph et al., 2020, Sharma et al., 2024, Hémono et al., 2018, Gunst et al., 2019]. These transitions occurred in the context of already underfunded health systems, with shortages of human resources and infrastructure, and were further compounded by limited political willingness to extend services to migrants [Legido-Quigley et al., 2020, Allande, 2022, Farmakioti et al., 2023, Infante et al., 2022, Reddy and Berry, 2022, Mamuk and Şahin, 2021, Joseph et al., 2020, Vearey et al., 2020, Hémono et al., 2018]. As a result, migrants were left caught between shrinking humanitarian support and overstretched public systems, with neither sector fully able to meet their healthcare needs. Despite free public healthcare in many EU countries and Mexico, persistent shortages of essential medicines often push migrants toward private or informal care, increasing out-of-pocket costs and encouraging inappropriate self-medication [Reddy and Berry, 2022, Mamuk and Şahin, 2021, Vearey et al., 2020, Stoesslé et al., 2015]. These delays not only worsen health outcomes but also contribute to higher overall healthcare expenditure when migrants eventually present with more advanced conditions, a pattern consistently reported in previous studies [Sweileh et al., 2018, World Health Organization 2023, Vearey et al., 2020].

Geographical barriers appear to significantly shape healthcare access for migrants in transit. The location of refugee camps far from secondary healthcare facilities and public transportation limits timely access to care and shifts the burden of transport costs onto migrants themselves [Kisa and Kisa, 2024, Farmakioti et al., 2023, United Nations Egypt 2022, International Organization for Migration 2011, Gunst et al., 2019]. This spatial separation also discourages follow-up and continuity of care. Additionally, the temporary nature of transit further complicates chronic disease management and disrupts medical record-keeping, making sustained care difficult to achieve [Gargano et al., 2022, Lee et al., 2023, Stoesslé et al., 2015, Hémono et al., 2018]. In this context, reluctance by some doctors to register migrants due to their transit status reflects how mobility itself becomes a barrier within healthcare systems, leaving migrants excluded from long-term care pathways [Dumitrache et al., 2022].

Although this review did not specifically examine mental health conditions, it is well-documented that migrants frequently experience mental health challenges in transit [Allande, 2022, Gargano et al., 2022, Reddy and Berry, 2022, Shortall et al., 2017]. Harsh living conditions in camps are also causing a shift in health needs from trauma and communicable diseases to non-communicable diseases (NCDs) and chronic mental health conditions [Joseph et al., 2020]. However, these emerging needs receive limited priority within migration health responses, even in destination countries, which suggests long-term health risks remain insufficiently addressed [Lebano et al., 2020, McNatt, 2020].

4.2. Facilitators for healthcare access

Civil society organizations and NGOs consistently emerge as the main facilitators for healthcare access for migrants across the literature, which suggests that formal health systems alone are currently insufficient to meet migrants' needs [Allande, 2022, Infante et al., 2022, United Nations Egypt 2022, Vearey et al., 2020, Lee et al., 2023, Sharma et al., 2024, Shortall et al., 2017, Gunst et al., 2019, Kousoulis et al., 2016]. The wide range of functions performed by NGOs – including

interpreter support, cultural mediation, provision of safe spaces for women, information dissemination and continuity of care during crises – shows how extensively migrant healthcare depends on non-state actors [Allande, 2022, Lee et al., 2023, Sharma et al., 2024]. Their role in providing accommodation, food and integration into local communities further reflects the scale of unmet basic needs [Infante et al., 2022]. This highlights the need for stronger integration between NGO services and formal health systems, as current arrangements leave migrant healthcare heavily dependent on external and often under-resourced providers.

4.3. Health policies and potential solutions

The included studies outline a patchwork of health policies affecting transit migrants, ranging from restrictive frameworks tied to legal status to more inclusive models [Joseph et al., 2020, International Organization for Migration 2013, Hémono et al., 2018, Shortall et al., 2017, Gunst et al., 2019, Kousoulis et al., 2016]. However, implementation was inconsistent, and even supportive frameworks often failed to result in actual access due to cost, administrative barriers, or poor awareness [Legido-Quigley et al., 2020, Žagar et al., 2019, Allande, 2022, Farmakioti et al., 2023, Infante et al., 2022, Mamuk and Şahin, 2021, Joseph et al., 2020, Vearey et al., 2020, Hémono et al., 2018]. Notably, no study formally evaluated policy outcomes, limiting understanding of real-world impact.

Although direct evaluation was absent, the identified barriers and facilitators suggest clear directions for policy reform.

First, administrative streamlining, such as reducing documentation requirements and decoupling access from immigration enforcement should be a core component of future policies. However, legal entitlement without awareness is insufficient [Žagar et al., 2019, Allande, 2022, Farmakioti et al., 2023, Infante et al., 2022, Stoesslé, 2022, Hémono et al., 2018]. New policies must be accompanied by practical, well-communicated pathways for access. Irregular migrants often rely on informal networks for information and support, making it critical to engage NGOs, community-based organizations, and migrant-led groups in dissemination and service-linkage [Allande, 2022, Infante et al., 2022, Vearey et al., 2020, Lee et al., 2023, Sharma et al., 2024, Gunst et al., 2019, Kousoulis et al., 2016]. Expanding access to primary care, essential medicines and vaccines, regardless of legal status, is a feasible and urgent step [Dumitrache et al., 2022, United Nations Egypt 2022].

Second, health systems should be integrated with broader social protection frameworks. Migrants in transit often face compounded legal, financial, and psychosocial challenges that are not addressed within siloed healthcare systems. Coordinated service delivery that links healthcare providers with legal assistance, social work, housing support, and documentation services can significantly improve both uptake and continuity of care [Legido-Quigley et al., 2020, Stoesslé et al., 2015, Hémono et al., 2018, Gunst et al., 2019]. This model has already been implemented by some NGO-led initiatives and offers a scalable framework for policy design [Allande, 2022, Infante et al., 2022, Sharma et al., 2024].

Third, several studies emphasized that health systems must address cultural and relational barriers to improve both access and quality of care [Legido-Quigley et al., 2020, Gargano et al., 2022, Oberoi et al., 2013]. Interpreter services and cultural mediation should be institutionalized as core health system functions, not outsourced, or dependent on NGO capacity. National strategies should incorporate mandatory training on cultural responsiveness, bias reduction, and clinical training on migrant-specific diseases [Allande, 2022, Gargano et al., 2022]. These interventions are actionable within existing public health and professional development frameworks and do not require system-wide reform [Sharma et al., 2024].

Finally, the absence of formal policy evaluation should not preclude forward movement. Cross-country comparisons in this review reveal promising practices that could inform pilot initiatives or further

research [Legido-Quigley et al., 2020, Žagar et al., 2019, Gargano et al., 2022, Grotti et al., 2018]. Standardizing data collection on migrant health would enable more rigorous tracking of policy impact over time [Oberoi et al., 2013]. Regional cooperation, especially in transit corridors, is essential to avoid fragmentation and ensure continuity across borders [Legido-Quigley et al., 2020, Shortall et al., 2017].

5. Strengths and limitations

The overall aim of this scoping review was to map the literature and provide a broad overview of access to healthcare for migrants in transit. To the best of current knowledge, this is the most comprehensive review that has been performed for this topic, encompassing both original research studies and grey literature. This review expands on existing literature by focusing on the unique healthcare challenges faced by migrants in transit, particularly in underrepresented regions like Southeast Asia and Africa. Unlike prior reviews, it highlights the impact of shifting policies and the exacerbation of barriers during the COVID-19 pandemic while attempting to provide a global perspective and actionable solutions to address healthcare inequities.

The scoping review methodology does not entail quality assessment; hence, the quality of the included studies was not analysed in this review. Although the literature has been comprehensively presented, there have been methodological and content-related limitations. The bulk of the literature search and screening were conducted only by the first author, which may have led to the exclusion of relevant studies. A restriction to English-language publications may have excluded important studies and limited the global representativeness of the findings. Since most of the papers originated from Europe, the findings may be limited in their applicability to other countries where healthcare services may be distributed differently. Additionally, most studies relied on small sample sizes and provider perspectives instead of migrant voices, limiting the depth of insight into the lived experiences of migrants in transit.

6. Research gaps and future direction

Despite the growing body of literature on migrant health, significant research gaps remain in understanding the full extent of healthcare challenges faced by migrants in transit. In addition, there is limited attention to how these challenges intersect with broader systems of oppression, such as racism, sexism, ageism, cultural marginalization, and other forms of discrimination, which can compound barriers to healthcare access. Addressing these intersecting factors is critical to developing a more nuanced understanding of migrant health needs. Future research should prioritize including the perspectives of migrants themselves. As previous studies have suggested, comprehensive studies on mortality, morbidity, emergency room use, information sources and structural barriers to healthcare are needed [Sweileh et al., 2018, De Smalen et al., 2021, Orcutt et al., 2022]. The effectiveness of current policies and practices related to healthcare access should also be studied in detail to identify best practices and potential areas for reform. This includes evaluating the implementation of migrant-inclusive policies and their impacts on health outcomes. By addressing these gaps, future research can provide valuable insights that inform policy, practice, and the development of more effective healthcare systems for migrants in transit.

7. Conclusion

Migrants in transit face a range of complex and interrelated barriers that restrict their ability to access essential healthcare services. These challenges, stemming from language and cultural differences, legal restrictions, economic instability, and fear of deportation, often leave migrants without the care they urgently need. Furthermore, healthcare systems in transit countries frequently lack the resources or frameworks

to accommodate the specific health needs of this transit population. The lack of international regulations governing migrant health also means that states are left to create their own migrant-related policies. Addressing these issues requires comprehensive, multi-level strategies that involve collaboration between governments, international organizations, healthcare providers, and civil society. Policy reforms are essential to ensure legal protections and healthcare access for migrants in transit, regardless of their immigration status. Simultaneously, healthcare systems must be strengthened to provide culturally competent and accessible care that is tailored to the needs of migrants. The findings from this scoping review underscore the need for further research to develop effective solutions and interventions that can mitigate the barriers identified. Ultimately, ensuring equitable healthcare access for migrants in transit is not only a matter of human rights but also critical for global public health.

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CRedit authorship contribution statement

Vidya Gopinadhan: Writing – original draft, Software, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Tee Wen Li:** Validation, Investigation, Formal analysis. **Vanja Kovacic:** Writing – review & editing. **Cecilio Tang:** Writing – review & editing, Funding acquisition. **Norman Sitali:** Visualization, Supervision, Conceptualization.

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

Vidya Gopinadhan reports article publishing charges was provided by Médecins Sans Frontières. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Supplementary materials

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