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Mapping health systems' responsiveness to refugee and migrant health needs



WHO Health and Migration Programme

The WHO Health and Migration Programme brings together WHO's technical departments, regional and country offices, as well as partners, to secure the health rights of refugees and migrants and achieve universal health coverage. To this end, the Programme has five core functions: to provide global leadership, high-level advocacy, coordination and policy on health and migration; to set norms and standards to support decision-making; to monitor trends, strengthen health information systems and promote tools and strategies; to provide specialized technical assistance, response and capacity-building support to address public health challenges associated with human mobility; and to promote global multilateral action and collaboration.



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Foreword

This mapping review has been developed to help countries to build capacities to address the health needs of refugees and migrants, thus promoting universal health coverage. The 2019 WHO Global Action Plan: Promoting the Health of Refugees and Migrants is aligned with the United Nations 2030 Agenda for Sustainable Development, WHO's Thirteenth Global Programme of Work and the global compacts on refugees and on safe, orderly and regular migration. It was developed in close collaboration with the International Organization for Migration and the United Nations High Commissioner for Refugees.

However, WHO cannot achieve its goals unless the world addresses the health needs of refugees and migrants, who have the same fundamental human right as others to the enjoyment of the highest attainable standard of health. Many come from societies affected by war, conflict and economic crisis and lead insecure lives on the fringes of society. They may also face discrimination, poverty and poor housing and may have difficulty in accessing education, employment and health care.

Responding to the needs and vulnerabilities of refugees and migrants requires culturally sensitive and effective care that recognizes and responds to all their needs across the life course, including noncommunicable and

communicable diseases and trauma from injuries and violence. Women should have access to sexual and reproductive health-care services and rights and are at risk of sexual and other forms of gender-based violence, abuse and trafficking. Unaccompanied children are particularly vulnerable and need special consideration.

There is a need globally for good-quality, robust and resilient health services that are culturally and linguistically sensitive and that can respond to the needs of refugees and migrants. To achieve these goals, national health policies, and supporting legislative and financial frameworks, should promote migrants' right to health, embracing health as an integrating force in society. Services should be responsive to the languages and the unique health problems of refugees and migrants, and these services should be provided by an adaptable, well-trained and culturally competent workforce.

Today our experience of the COVID-19 pandemic has shown us the consequences of vulnerability, with higher rates of infection and deaths amongst the poor and the disadvantaged, including refugees and migrants, who have also been hit hard by economic lockdowns. The world must also work now to achieve vaccine equity, encompassing refugees and migrants, if the pandemic is to be brought under global control. Our health systems must

be able to respond equitably to the needs of all.

Effective health monitoring and data collection are essential for understanding the health needs of refugees and migrants, including public health implications, and for assessing health system capacity and priority setting to ensure that the care of refugees and migrants is integrated into the overall health system.

This mapping review considers the models of care adopted to support the health needs of refugees and migrants in 18 countries engaged in their local integration or third-country resettlement; it identifies four main models: mainstream, specialized-focus, gateway and limited. It examines the strengths and weaknesses associated with each model. It is hoped that the review will provide an overview of the different settings in which health workers interact with refugees

and migrants and help countries in providing these services in their specific context. It is also hoped that the review will support the development of the global competency standards for health workers providing services to refugees and migrants.

WHO will continue to work with countries to help to build the capacity and resilience of health systems in order to ensure that high-quality people-centred health services are provided for all, including refugees and migrants. It is hoped that this mapping exercise will help to remove the barriers all too often seen for refugees and migrants in accessing quality health services.



A handwritten signature in black ink, appearing to read 'D. Jakab'.

Dr Zsuzsanna Jakab
Deputy Director-General
World Health Organization

Preface

Refugees and migrants have the same fundamental human right to the enjoyment of the highest attainable standard of health as all people. However, they often face real challenges in accessing health-care services. Refugees and migrants require culturally sensitive and effective care that recognizes and responds to their physical and mental health needs, including any impacts of a hazardous migration journey, and takes account of barriers such as language.

This review considers migration to be a key determinant of health, to which national health policies, strategies and plans must be able to respond. The key priority is to achieve universal health coverage, which requires more resources to be spent on health globally, particularly on primary health care. Adaptable, well-trained and culturally competent health workforces are also required, and the review is also designed to provide a foundation for development of global competency standards for health professionals providing services to refugees and migrants.


How well are countries progressing in achieving these goals and supporting the health needs of refugees and migrants? This mapping review attempts to answer this question by considering the models of care adopted in 18 countries engaged in local integration or third-country resettlement of refugees and migrants. It is hoped that understanding these

models will help countries to consider, in their own contexts, the type of health services that could be provided to refugee and migrant populations to ensure safe, effective and culturally sensitive care.

The newly established WHO Health and Migration Programme is committed to support implementation of the WHO Global Action Plan: Promoting the Health of Refugees and Migrants through global leadership and advocacy; setting norms and standards on health and migration; developing guidance and tools; and promoting an information and research agenda to generate and exchange evidence-based information to support policy development and decision-making. The Programme also aims to promote global collaboration and multilateral action for migration and health by working across the United Nations system, including with the United Nations Network on Migration and other intergovernmental and nongovernmental mechanisms.

WHO will continue to work with countries to provide universal health coverage and quality people-centred health services to all, including refugees and migrants. It is hoped that this mapping exercise will help to achieve these goals.




Dr Santino Severoni
Director, Health and
Migration Programme

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This multicountry review (Mapping health systems responsiveness to refugee and migrant health needs) and the accompanying literature review (Common health needs of refugees and migrants: literature review) inform the development of the refugee and migrant health Global Competency Standards for health workers, which will set a benchmark for the health workforce in providing culturally sensitive care to refugees and migrants.

PHM also greatly appreciates and values the in-kind contribution by the Migration Council Australia as well as the financial support by the German Federal Ministry of Health and the Universal Health Coverage Partnership, which made the production of this report possible.

Abbreviations and acronyms

GDP	gross domestic product
GP	general practitioner
IOM	International Organization for Migration
NGO	nongovernmental organization
SSN	<i>Servizio Sanitario Nazionale</i> (Italian National Health Service)
SUS	<i>Sistema Único de Saúde</i> (Unified Health System, Brazil)
UHC	universal health coverage
UNHCR	United Nations High Commissioner for Refugees



Executive summary

Countries with large refugee and migrant populations have adapted their health systems in different ways to accommodate the needs of these populations. This review identifies four models of care in response to the migration trends and health needs of refugees and migrants and discusses the various strengths and weaknesses associated with each model:

- mainstream, where the health system accessed by the general population is used;
- specialized-focus, where a separate stream of services designed to meet the specific health needs of refugee and migrant populations is the first point of contact;
- gateway, where only basic checks may be available but entry to the main health services is provided; and
- limited, where basic health services are provided by external actors.

A number of countries have opted to integrate refugees and migrants within the mainstream health system, which is accessed by the general population and typically delivered through a combination of public and private providers. Other countries provide specialized-focus services that are intended to meet the specific health needs of refugee and migrant populations. A gateway system may provide some basic services but does not offer comprehensive primary care

services; rather it provides information and referrals to primary health care and other health services.

Finally, some countries have adopted a limited model of care where basic health services, including acute health care, are provided by external actors such as charities, nongovernmental organizations (NGOs) and international organizations. These services are often provided with the permission of the host country, with different funding arrangements in place. Most countries highlighted in this review have opted for a combination of different models of care, with the most common combination being mainstream and limited.

This document provides an overview of the levels of health care accessible by refugees and migrants within the different models of care adopted by a selection of countries with significant refugee and migrant populations. All the countries described in this review have a publicly funded health-care system, and all are moving towards universal health coverage (UHC), but their health workforces differ significantly in terms of size, skill and composition. The models of care for refugees and migrants are generally funded through the state or by NGOs and are dependent on a trained, capable and responsive health workforce. Many low- and middle-income countries face critical shortages in health professionals because of a

migration of health workers to another country (brain drain), or attrition within the country of health professionals moving into other roles.

This review is designed to support the development of the Global Competency Standards for Health Workers Providing Services to Refugees and Migrants. While health worker competencies are integral in ensuring that culturally responsive care is provided to

refugee and migrant populations, it is recognized that the behaviours of health workers are shaped and constrained by the health systems in which they operate. It is hoped that the different models of care outlined in this review will help to contextualize various types of health services provided to refugee and migrant populations and provide an overview of the different settings in which health workers interact with refugees and migrants.



Overview

As this multicountry review indicates, service models for refugees and migrants tend to reflect in part the size of the population, the dynamics and volume of people crossing borders and the capacity and commitment of the host country to provide for the health needs of its refugee and migrant population.

Migrant populations in host countries are made up of either people who have chosen to settle permanently in a new country or those forming part of a temporary labour force. Pull factors associated with the country of resettlement – such as employment opportunities, stability and social support – feature strongly in decision-making about migration. Refugees, by comparison, generally enter a country as a result of push factors related to their country of departure, such as civil unrest, discrimination or environmental degradation. Unlike regular migrants, whose entry into countries can be managed through regulatory control, asylum seekers sometimes enter countries in surges or mass population movements.

The United Nations High Commissioner for Refugees (UNHCR) describes three durable solutions for refugees: (i) voluntary, safe repatriation to their country of origin, (ii) local integration and (iii) resettlement in a third country (1). Of these, resettlement to a third country is the least-used option and has

also been reduced by changes linked to the SARS-CoV-2 (COVID-19) pandemic.

This report describes the models of health care used in hosting countries that are sites for local integration, including for third country resettlement.

Critical features for any model of health care for refugees and migrants include:

- the ability to deliver comprehensive care, including catch-up primary care for those who have come from countries with weak primary health-care systems and so may not have received a full suite of childhood vaccinations or routine screening for preventable conditions such as cervical cancer;
- ability to expand to deal with rapid surges in demand as new populations arrive as services with little surge capacity can become overwhelmed if demand increases, especially as refugees arriving in these circumstances have often experienced serious health issues (2);
- ability for patients to move across primary to tertiary sectors;
- accessibility; and
- affordability.

Through a rapid literature review and consultations with experts, four models of health care that are used for refugees and migrants have been defined. The report outlines how these

models operate using case studies from different countries that are engaged in local integration or third country resettlement of refugees. Some countries use the same model for refugees and migrants, but many

have specific models for refugees, which reflects the fact that they have developed systems that can be scaled up to meet surges in demand when migrant populations increase.

Models of care for refugee and migrant populations

This review provides an overview of different models of care developed by various countries to service refugee and migrant populations. The characterization of different models draws on Feldman's 2006 framework of primary health-care services for refugees and asylum seekers, which identifies three types of service: gateway, core and ancillary (3). This review has adopted the following terms to describe four models of care.

Mainstream services. This refers to use of the primary health-care services accessible to the general population, generally delivered through a combination of public and private providers. Feldman characterized these as core services, involving full registration with a general practice (3). In some countries, refugees and migrants may be able to access mainstream services immediately, while in others there is a mandatory waiting period. The health workforce for this model is the country's usual workforce for primary health care.

Specialized-focus services. These provide a separate stream of services to meet the health needs of refugees

and migrants. Examples of specialized-focus services include health services for migrants who are not able to access publicly funded health care. The health workforce for this model can vary from specialized nurses and doctors to specifically trained allied or health assistants.

Gateway services. These support entry into primary health care by providing information and referrals to other health services. Gateway services may provide basic health checks but do not offer comprehensive primary care services. Governments of host countries can deliver gateway services both onshore and offshore. Gateway services may be delivered by health workers performing sets of prescribed health assessments or may be longer-term but transitional services.

Limited services. This refers to the provision of basic health services, including acute health care, by external actors such as charities, NGOs and international organizations such as the International Organization for Migration (IOM) and the UNHCR. These services are often provided in agreement with the host country, with varying funding

arrangements in place. Limited services are often provided by volunteer health workers and patient support workers in

the charity sector. The health workforce turnover in this sector is high.

Ambulatory care

While the models described here are staffed by health-care providers, migrants may seek health care in alternative or complementary health-care systems, or from non-standard or unregistered care providers. Although all countries described here have a publicly funded health-care system and all are moving towards UHC, many have very diverse ambulatory care systems.

In addition to the formalized models of health-care delivery described in this document, the ambulatory care system may also include:

- clinicians in private practice who also hold government-funded positions;
- alternative practitioners, who may or may not be regulated;
- small business owners such as pharmacy owners, who may sell medications directly to consumers with or without prescriptions;
- independent non-health-care providers who on-sell pharmaceuticals from other providers, such as veterinarians; and
- independent diagnostic service providers (including pathologists and radiologists).

Health workforce

All the models described above are dependent on a trained, capable and responsive health workforce. Many low- and middle-income countries face critical shortages in health professionals because of the brain drain from migrating to another country or attrition within the country of health professionals moving into other roles. Models of care for refugees and migrants are generally funded through the state or by NGOs.

Meeting a surge in demand often requires redeployment of health professionals from other areas of the health system. In many low- and middle-income countries, this is not feasible as the workers are already fulfilling critical health-care roles. As a result, surges in demand are sometimes met by recruiting international health workers for a short period through NGOs, which often are working outside the health-care system of the country.

Mainstreamed models of care

This section highlights selected examples of mainstreamed models adopted by countries, including the Islamic Republic of Iran, South Africa, Sweden and Uganda.

Mainstreamed health-care models are generally the most efficient, equitable and accessible for refugees and migrants. Challenges can exist when the country has an overburdened health workforce or limited resources, as refugees and migrants may find themselves displaced by the local

population when attempting to access services. Health-care systems with insufficient workforce may also struggle to provide culturally responsive care, which can require more time, investment and resources. Mainstream models of care may not have the capacity to expand rapidly when there are mass movements of people, and in public health crises, migrant populations can be hard to reach via public health messaging, particularly for immunization programmes.



The Islamic Republic of Iran

Refugee and migrant population (millions) ⁽⁴⁾	No. of doctors (per 10 000 people) ⁽⁵⁾	No. of nurses and midwives (per 10 000 people) ⁽⁶⁾	No. of pharmacists (per 10 000 people) ⁽⁷⁾
2.7	15.84	4.43	2.93

Refugee and migrant population

The Islamic Republic of Iran hosts a significant number of refugees, largely resident in the country for two or three generations. Based on Government estimates in 2014, there were over 950 000 Afghan refugees and more

than 28 000 Iraqi refugees living in the Islamic Republic of Iran ⁽⁸⁾. As of 2019, there were almost 1 million refugees registered with UNHCR living in the Islamic Republic of Iran ⁽⁹⁾.

Health system and financing

The Islamic Republic of Iran's health system is delivered through a mix of public and private providers, with the Ministry of Health and Medical Education responsible for national health policy and the education and training of health-care personnel ⁽¹⁰⁾. Primary, secondary and tertiary health services are provided through a network of public facilities overseen by a province's medical university. Each province has at least one medical university, with most Iranians accessing primary health-care centres before being referred to secondary hospitals where necessary ⁽¹⁰⁾. Primary health care in rural areas in the Islamic Republic of Iran is provided at a local level through health houses. Health houses are staffed by local community health workers, who provide basic primary health care for the village as well as surrounding settlements. Each

health house services, on average, 1500 people in its village and surrounding settlements ⁽¹¹⁾.

Health care in the Islamic Republic of Iran is financed by a blend of public and private expenditure, with the Islamic Republic of Iran spending around 6% of its gross domestic product (GDP) on health ⁽¹²⁾. In 2014, the Iranian Government launched its Health Transformation Plan, which included a number of reforms aimed at increasing universal health insurance coverage and reducing out-of-pocket payments ⁽¹³⁾. According to official Government estimates, over 90% of Iranians are covered by some form of health insurance ⁽¹¹⁾. One of the largest providers of public health insurance in the Islamic Republic of Iran is the Social Security Organization, which covers all workers employed in the formal sector,

excluding Government and military personnel, who have access to different insurance schemes. The Organization manages clinics and hospitals providing free or low-cost health services to policy holders (77). However, in 2017, out-of-pocket payments still made up about 42% of the Islamic Republic of Iran's health expenditure (74).

Model of care

The Islamic Republic of Iran has adopted a mainstreamed model of care to service its refugee and migrant population since the introduction of its Universal Public Health Insurance programme in 2015, which enables all refugees registered with UNHCR living in the Islamic Republic of Iran to access the same level of health services as Iranian citizens (76). Refugees can enrol in the programme at local government offices and can then receive care at government hospitals and public clinics. The scheme is jointly funded by the Iranian Government and UNHCR, as well as other donors. Premiums for the most vulnerable refugees are covered by UNHCR, while other refugees can access the scheme by self-paying premiums (76).

Afghan migrants with legal residence permits can purchase health insurance and access the same primary health-

There is limited research on the Islamic Republic of Iran's health workforce, although one study suggests that the density of health personnel in the Islamic Republic of Iran is adequate when compared with similar countries, although shortages in most health worker categories persist (75).

care services as Iranian citizens. However, it is noted that it is not mandatory to present identification cards when seeking medical treatment in the Islamic Republic of Iran, so irregular migrants (who reportedly constitute the largest proportion of Afghans living in the Islamic Republic of Iran) may also be able to unofficially access the same health services even without documentation (77).

While maternal care in the Islamic Republic of Iran has experienced improvements in recent years, migrant women still experience barriers to access and disparities in quality of care. Migrants can access antenatal visits, which are included in primary health care, at public health centres without charge. However, one study reported experiences of discrimination and mistreatment by Afghan mothers at university hospitals in Tehran (78).



South Africa

Refugee and migrant population (millions) ⁽⁴⁾	No. of doctors (per 10 000 people) ⁽⁵⁾	No. of nurses and midwives (per 10 000 people) ⁽⁶⁾	No. of pharmacists (per 10 000 people) ⁽⁷⁾
4.20	9.05	13.08	2.72

Refugee and migrant population

South Africa has a sizeable population of refugees and asylum seekers, with over 89 000 refugees registered with UNHCR and more than 188 000 asylum seekers (9). The most common countries of origin for refugees include Bangladesh, the Democratic Republic of the Congo, Ethiopia, the

Republic of the Congo, Somalia and Zimbabwe (19). In 2019 South Africa's migrant population totalled around 4.2 million, with migrants arriving from a range of countries including Lesotho, Mozambique, Namibia, the United Kingdom and Zimbabwe (20).

Health system and financing

Health care in South Africa is largely provided by the public sector, with primary, secondary and tertiary care delivered at a provincial level by various departments of health (21). These provincial departments employ the health workforce in South Africa, while health policy development is the responsibility of the national Ministry of Health (21). Approximately 84% of the population in South Africa access Government-run public hospitals and clinics for health care, with the remainder accessing private facilities (21). In 2012 the South African Government introduced the National Health Insurance Policy, which was designed to achieve UHC for all South Africans by creating a single fund to purchase health-care services for the

population from both private and public providers (22). Funding for National Health Insurance would be created by pooling of private and public health-care funds, with additional costs covered through taxation (22). National Health Insurance will be rolled out in phases over 14 years and documents released to the public by the South African Government indicate that refugees will be able to register for the scheme (22).

As with many other African countries, South Africa faces a shortage of skilled health workers as a result of their migration out of the country (23). South Africa has a number of bilateral agreements with other countries, including Cuba, the Islamic Republic of Iran and Tunisia, to support the training and exchange of health

workers. South Africa's agreement with Cuba saw nearly 500 Cuban doctors working in South Africa at any one time and the number of South African medical students training in Cuba reached over 3000 in 2015 (23). Medical students receive full scholarships and are expected to return to practise in the South African public sector for the same amount of time as spent training in Cuba.

The Employment of Foreign Health Professionals in the South African

Model of care

South Africa has adopted, in theory, a mainstreamed model of care for its refugee and migrant population, but there is a complex legislative environment with significant variation in practice. In general, however, refugees and migrants can access free primary health care in South Africa but are subject to means-testing to access higher levels of care (25). In some cases, irregular migrants must pay full fees to access hospital services.

The Refugees Act 1998 entitles refugees to the same basic health services as South African citizens. However, other South African laws, such as the Immigration Act 2002 and the National Health Act 1998, contain sections restricting access to health

Health Sector Policy (2010) informs South Africa's approach to recruiting health professionals who are not South African citizens or permanent residents, including formal refugees. Foreign health professionals are employed on fixed-term contracts only and, if employed in the public sector, are restricted to health facilities in designated underserved or rural areas in South Africa unless an exemption is granted (24).

care for refugees in what has been described as "inconsistent language" creating "contradictory and confusing situations for patients and medical practitioners" (26). This has resulted in medical administrators determining a patients' status before health care can be provided (26). Other challenges identified by refugees and migrants accessing health care in South Africa include language barriers, long waiting hours and negative and discriminatory attitudes of health-care workers, particularly at public health facilities (27).

Refugees and migrants in South Africa, regardless of their documentation status or nationality, have the right to access treatment for HIV and tuberculosis (25).

Sweden

Refugee and migrant population (millions) ⁽⁴⁾	No. of doctors (per 10 000 people) ⁽⁵⁾	No. of nurses and midwives (per 10 000 people) ⁽⁶⁾	No. of pharmacists (per 10 000 people) ⁽⁷⁾
2.00	39.84	117.60	7.73

Refugee and migrant population

Sweden has a sizeable refugee cohort relative to its overall population. In 2019 there were 253 787 refugees and 27 999 asylum seekers registered with the UNHCR living in Sweden (9). Sweden experienced a peak in migration in 2015–2016, receiving more than 162 000 asylum seekers, with Syrians being the largest individual group (28).

Immigration levels fell from 2016 onwards after the Swedish Government tightened border controls and implemented legislative changes for asylum seekers, restricting the ability to obtain a residence permit (28). Through UNHCR, Sweden resettles 5000 refugees a year (29).

Health system and financing

Sweden has a decentralized health system that provides UHC, with 21 regional councils responsible for providing health care to local residents (30). Patients initially seek treatment at local health centres (*vårdcentral*) before being referred for specialist treatment if necessary. In 2005 Sweden introduced a health-care guarantee stating that patients should not have to wait more than 90 days after an initial examination to be seen by a specialist. The 90-day guarantee also applies for operations and treatment, if necessary (30). If the guarantee cannot be met, care is offered elsewhere with no additional costs. Dental care is also provided free of charge to residents up to the age of 23 years by regional councils, with the state

subsidizing dental care for those over 23 years (30).

Health care in Sweden is largely funded through regional and local taxes, with public spending accounting for 84% of total health expenditure (31). Spending on health makes up approximately 11% of Sweden's GDP (31).

Sweden's health workforce is relatively large for its population. Approximately 16% of all physicians in Sweden work in primary care settings (32). International medical graduates and internationally educated nurses also make up a significant proportion of Sweden's health workforce, the majority coming from Germany, Hungary and Poland (33). The majority of international

physicians and nurses reported using their intercultural competence at work, including explaining cultural

differences to patients from migrant backgrounds (33).

Model of care

Sweden has adopted a mainstreamed model of care for refugees and asylum seekers. Resettled refugees with residence permits can access the same level of health care as Swedish citizens (34). Adult asylum seekers are entitled to emergency health care and dental

care, as well as health care that is critical (35). Maternal and obstetric care is also provided to asylum seekers. Children and young people under the age of 18 years seeking asylum can access the same level of health care as Swedish citizens (35).

Uganda

Refugee and migrant population (millions) ⁽⁴⁾	No. of doctors (per 10 000 people) ⁽⁵⁾	No. of nurses and midwives (per 10 000 people) ⁽⁶⁾	No. of pharmacists (per 10 000 people) ⁽⁷⁾
1.70	1.68	14.69	0.012

Refugee and migrant population

Uganda hosts the largest refugee population in Africa and is considered to have adopted a progressive approach to refugee management (36). In September 2020 the refugee and asylum seeker population in Uganda exceeded 1.4 million, although the total refugee and migrant population is estimated to be closer to 1.7 million (37). The majority of refugees and asylum seekers living in Uganda are from the Democratic Republic of the Congo and South Sudan (38). Refugees in Uganda are either self-settled or live in settlements where basic health and education services are provided by the Ugandan Government and aid agencies (39). More than 80% of refugees in Uganda live in settlements in a refugee-hosting district (40).

Uganda's approach to refugee management is enshrined in the Refugees Act 2006 and Refugee Regulations 2010. Among other entitlements, including the right to work and access to social services, the legislation grants each refugee family a piece of land for their exclusive agricultural use (39). Another important component of Uganda's refugee policy is the Self-reliance Strategy introduced in 1998, which aimed to integrate social services for refugees and host communities. Prior to the Strategy, refugee and host communities received services in parallel, with services for refugees of higher quality, which caused resentment from host communities. The Strategy integrated local services with mixed success, including a reduction in medical referrals by refugees (39).

Health system and financing

Health care in Uganda is delivered by a mix of public sector, non-profit-making and for-profit providers. Uganda's health-care system operates on a referral basis, which gatekeeps access to tertiary care. At the district

level, health care is provided by health centres and village health teams. Patients are then referred to district hospitals for more severe disorders, with district hospitals referring patients on to regional hospitals where needed;

the highest level of care is provided by national referral hospitals (41). However, the system is complicated by the challenge of self-referrals, which is not unique to Uganda, whereby patients bypass lower levels of care such as district hospitals to present directly at national hospitals, causing congestion (42). Other challenges include poor road networks and limited numbers of ambulances to transport patients (42). Quality of care varies significantly throughout Uganda, particularly within the private sector, which is largely unregulated (43). In addition to non-profit-making and for-profit providers, services in the private sector may also be delivered informally by traditional practitioners and one-person ventures (44). The health-care system is financed through a combination of out-of-pocket payments, tax revenue and donor funding. Uganda spends around 9% of its budget on health but out-of-pocket payments account for over 70% of total domestic health financing (45).

Model of care

Uganda has a mainstreamed model of care for its refugee and migrant population, who can access the same level of health services as Ugandan citizens. However, access to quality reproductive care remains challenging for both Ugandan citizens and refugees.

The health workforce in Uganda is considered inadequate, with higher skilled health providers more strongly represented in urban areas (43). Approximately half of the health workforce is employed in the public sector (46). Uganda has experienced an increased rate of outward migration for general practitioners (GPs), compared with inward migration, which is attributed to unattractive employment conditions, particularly in rural areas (46). In 2015 Uganda entered into an agreement with Trinidad and Tobago to send nearly 300 Ugandan health workers there in exchange for assistance exploiting recently discovered oil fields (47). However, unlike Uganda, Trinidad and Tobago does not face a shortage of health professionals. Facing public backlash, the agreement was suspended in 2017 (48).

Camp-based and urban health facilities are highly understaffed, with refugee women reporting experiences of corruption, discrimination, language barriers and limited privacy during delivery care (49).

Mainstreamed and limited models of care

While some countries have fully integrated their refugee and migrant populations into mainstream health systems as discussed above, other states have adopted a combination of mainstreamed and limited models of care. Some of these countries (Brazil, Colombia, Egypt, Indonesia, Italy, Pakistan, Sudan and Thailand) are highlighted in this section.

These countries effectively have two streams of service models. Limited models of care are pragmatic solutions used in resource-poor countries, or countries facing a surge of arrivals (as seen in some European and Middle-East countries). As limited models offer a bare-bones form of health care, they are easily scaled up in response to sudden

influxes. Limited models of health care have obvious shortcomings in that their suite of services will not cover all health-care needs. The services often rely on volunteers, and clinical governance may be lacking, posing safety risks for clinic users. Limited models of service delivery tend to integrate poorly or haphazardly with mainstream services, resulting in safety risks for people who require acute transfers to hospital or medications beyond the basic nature of those offered by the clinic. Users of limited models of care are often obliged to seek supplemental care in the unregulated ambulatory health-care sector, through alternative medicine providers or from under-the-counter dispensers of pharmaceuticals.

Brazil

Refugee and migrant population (millions) (4)	No. of doctors (per 10 000 people) (5)	No. of nurses and midwives (per 10 000 people) (6)	No. of pharmacists (per 10 000 people) (7)
0.80	21.64	101.20	6.83

Refugee and migrant population

Brazil has one of the most diverse migrant populations in the world and continues to receive waves of migrants from various countries. The largest migrant populations come from Portugal, followed by Bolivia, Italy, Japan and Paraguay (50). In 2010 large numbers of Haitians arrived after an earthquake in January of that year (51). Other refugee populations include Colombians, Syrians and, most recently, Venezuelans (51). The Brazilian

Government has estimated that there are more than 224 000 Venezuelans living in Brazil as a result of the deteriorating political and economic situation in their home country, with a portion of Venezuelan asylum seekers officially recognized by the Brazilian Government as refugees (52). As of 2019 there were 32 844 refugees in Brazil registered with UNHCR and 207 276 asylum seekers (9).

Health system and financing

Brazil introduced its universal health-care system, the Unified Health System (*Sistema Único de Saúde* (SUS)) in 1988. Following reforms in 1996, health care in Brazil was largely decentralized, with states and municipal governments responsible for managing and financing health care. Before the SUS was introduced, half of the population had no health coverage, but by 2010, over 75% of Brazil's population relied on the SUS for their health care (53). The expansion of the SUS meant that between 2002 and 2013 there was almost universal access to critical health services, including immunizations,

although health inequalities across geographical regions persisted (54). A core component of the SUS is the Family Health Programme (*Programa Saúde da Família*), which provides free primary health care to over 55% of the population. The Programme involves multidisciplinary teams of doctors, nurses and community health workers providing primary health care to residents within their defined geographical areas (55).

Health financing in Brazil has experienced challenges in recent years. Considering Brazil has a universal health-care system, public spending



on health has been relatively low, with individuals paying large out-of-pocket costs (54). In 2016, the Federal Government approved austerity measures to freeze spending for two decades, further shrinking resources allocated for health expenditure (56).

Brazil's health workforce faces a number of challenges, including a shortage of primary care professionals and specialists as well as inappropriate distribution of doctors between health-

care levels and geographical areas (57). In response to the shortage in doctors, Brazil introduced the More Doctors Programme (*Programa Mais Médicos*) in 2013. The programme resulted in over 17 000 doctors, predominantly from Cuba, delivering primary care in underserved areas of Brazil (58). However, the bilateral agreement between Cuba and Brazil was terminated in November 2018 (58).

Model of care

Brazil has a mainstreamed model for legal migrants, who are guaranteed the same access as Brazilian citizens to health services through the equal rights enshrined in Article 5 of the Brazilian Constitution (59). Documented refugees and asylum seekers can access public hospitals for emergency care and basic health units (*unidades básicas de saúde*) for primary health care, including specialist referrals (60). Children of refugees and asylum seekers

can receive free vaccinations from public health centres (60).

For newly arrived Venezuelan refugees and asylum seekers, a limited model is used. Support is jointly provided by the Brazilian Government and the IOM and includes the relocation of families from their point of arrival in the northernmost state of Roraima to other states in Brazil to support better access to health care (61).

Colombia

Refugee and migrant population (millions) (62)	No. of doctors (per 10 000 people) (5)	No. of nurses and midwives (per 10 000 people) (6)	No. of pharmacists (per 10 000 people) (7)
1.80	21.85	13.31	Not available

Refugee and migrant population

Colombia has a sizeable refugee population, in addition to significant numbers of internally displaced people. UNHCR estimated there were more than 7.9 million internally displaced Colombians in 2019, who had been forced to leave their homes by the armed conflict between the

Government and guerrilla groups but had not sought asylum in another country (9). In addition to these internally displaced people, there were almost 1.8 million Venezuelans living in Colombia by the end of 2019 and less than half had regular status (62).

Health system and financing

Health care in Colombia is largely provided by the public sector. Colombia introduced its General System of Social Security in Health (*Sistema General de Seguridad Social en Salud*) in 1993, which made health insurance mandatory nationally. Citizens enrol in different schemes depending on their employment status. Workers employed in the formal sector are required to register for the Contributory Insurance Scheme; this excludes military personnel or teachers, who are covered by a separate scheme. The unemployed and self-employed are covered by the Subsidized Insurance Scheme, which is means tested. The schemes seek to entitle citizens to the same benefits (63). In 2020 approximately 97% of the population had access to health insurance (64).

Colombia's health-care system operates on a referral basis, with the primary care system (*atención primaria en salud*) being the main point of entry into the health system apart from emergency situations (64). Referrals are required to access other levels of care. Services developed within national programmes are free, including child and maternal health care and extended immunization programmes (65). Hospitals and clinics are organized in tiers of complexity, with low-complexity facilities providing primary health care; medium-complexity facilities providing basic specialized services such as gynaecology and paediatrics; and high-complexity facilities providing complex medical and surgical specialties (65). Colombia's health-care system is primarily financed publicly, and out-of-pocket payments

are relatively low, making up only 15.9% of total health expenditure (65).

Since 2007 Colombia has had a mandatory social service in place for graduates of medicine, nursing, dentistry and bacteriology, which requires periods of service before

graduates can practise their profession. The service (*Servicio Social Obligatorio*) helps to allocate health professionals to deprived urban, rural and remote areas (66). Primary health-care physicians constitute at least 40% of Colombia's health workforce (66).

Model of care

Colombia does not have a policy for universal access to health care for all migrants. Instead, most of its guidelines confer limited health-care access for Venezuelan immigrants and return migrants, specifically Colombians returning from Venezuela (67). State and local-level administrations are expected to support the affiliation of both groups to either the contributory or the subsidized health insurance scheme in Colombia but only if they possess the necessary documentation (67). Migrants from Venezuela can access free emergency medical care at government facilities in Colombia (68) but most are unable to access

primary health care through the public health system. Consequently, there is a limited model for the support of this group in Colombia, with the Colombian Red Cross providing primary care through mobile health units (68). As an effort to regularize Venezuelans in Colombia, in February 2021 the Colombian Government granted Temporary Protection Status to Venezuelans for a period of 10 years. The Temporary Protection Status will provide Venezuelans with access to services through the national health system, as well as access to the job market and the legal right to practise any type of occupation in the country (69,70).

Egypt

Refugee and migrant population (millions) (4)	No. of doctors (per 10 000 people) (5)	No. of nurses and midwives (per 10 000 people) (6)	No. of pharmacists (per 10 000 people) (7)
0.50	4.52	19.26	4.57

Refugee and migrant population

Egypt is both a transit and a destination country for migrants, hosting over 200 000 refugees in March 2018. The

majority of these are from the Syrian Arab Republic, followed by Eritrea, Ethiopia, South Sudan and Sudan (71).

Health system and financing

Egypt's health-care system involves a multitude of public and private actors, with wide geographical disparities in access to health infrastructure (72). The system is considered highly fragmented, with historically low levels of Government investment in health, although the 2014 Constitution of Egypt committed to doubling spending on health from 1.5% to 3% of GDP (73). In 2018 Egypt passed the Universal Health Insurance Law as part of efforts to achieve UHC and ensure that all Egyptians have access to quality health services. The full implementation of this policy is to take place over 15 years (74).

Currently, the health-care system in Egypt is financed through a

combination of out-of-pocket payments, private health insurance, social health insurance, government revenue and health taxes (75). While over 60% of Egyptians are covered by social health insurance, quality issues and limited availability of services at public facilities means that individuals tend to pay out of pocket to access private health care, with out-of-pocket payments accounting for around 62% of total health expenditure in 2016 (75).

Egypt's health workforce has experienced a brain drain in recent years, with some estimates indicating that more than 60% of Egyptian doctors now work outside of Egypt, predominantly in the Gulf countries (76).

Model of care

Egypt has different models of care, including mainstream and limited, for refugees and asylum seekers. In 2016

the Egyptian Government signed two Memoranda of Understanding with UNHCR, granting refugees and asylum



seekers of all nationalities free access to Egypt's health system, including public primary, secondary and emergency health care (77). As a result, they have the same level of health-care access as Egyptian citizens.

A limited model is also employed in Egypt, with the IOM also providing health care to migrants living in Egypt, including referrals to specialized services where appropriate. The IOM covers the cost of medical bills, medication and hospital stays for migrants in need (78).

Indonesia

Refugee and migrant population (millions) (4)	No. of doctors (per 10 000 people) (5)	No. of nurses and midwives (per 10 000 people) (6)	No. of pharmacists (per 10 000 people) (7)
0.40	4.27	24.15	0.85

Refugee and migrant population

Indonesia is generally regarded as a transit country for refugees and asylum seekers rather than a permanent destination for those arriving there. The lengths of their stays are, however,

increasing, as the backlog of refugees awaiting resettlement grows (79). In December 2019 approximately 13 657 refugees in Indonesia were registered with UNHCR (80).

Health system and financing

Indonesia has a decentralized health system, with local government responsible for planning and service delivery. The central Ministry of Health holds a regulatory function and is responsible for the health workforce and the oversight of social insurance schemes. At the local level, provincial and district/municipality governments are separately responsible for the operation of hospitals and health services more broadly in their respective territories.

The health system in Indonesia is funded by a mixture of public and private expenditure, with the private sector contributing a majority share (81). In 2014 Indonesia introduced its universal National Health Insurance Programme (*Jaminan Kesehatan Nasional*), which pools contributions from the Government and members under a single agency responsible

for administering the scheme. The Programme is designed to cover all residents of Indonesia, including foreign nationals living in Indonesia for at least six months, who are also required to register with the Programme (82). Under the Programme, patients must first seek care at a primary health-care centre (*puskesmas*) before being referred to a hospital or specialist service, unless it is an emergency.

Indonesia's health workforce is experiencing challenges with an imbalanced distribution of health providers between urban and rural areas (83). The Government has attempted to remedy this through a temporary employment programme (*pegawai tidak tetap*) where primary care physicians, who are predominantly new medical graduates, are rotated to work in rural and remote areas; however, they may not necessarily speak the



local language (84). The ratio of health-care professionals to the population is lower in Indonesia than the average in south-east Asia (83). Nurses and

midwives represent the largest proportion of health-care providers in Indonesia.

Model of care

Indonesia has a mainstreamed model for documented foreign nationals living in the country for at least six months, who are required to register in the National Health Insurance Programme. They can then use it to access the same health services as Indonesian citizens. For refugees supported by IOM, UNHCR and other charities, Indonesia uses a limited model. Refugees can only access primary care services through the IOM,

which provides funding for refugees to seek treatment at primary health-care centres, third party providers and private clinics (85). They cannot access the publicly funded hospitals. Refugee children are included in national vaccination campaigns. For example, oral polio vaccines were provided to children of refugees and migrants during the National Immunization Day in 2016 (86).

Italy

Refugee and migrant population (millions) (4)	No. of doctors (per 10 000 people) (5)	No. of nurses and midwives (per 10 000 people) (6)	No. of pharmacists (per 10 000 people) (7)
6.30	39.77	57.40	10.95

Refugee and migrant population

Italy is a reception, transit and destination country for refugees and migrants. Because of its geographical position, Italy is a key point of entry for African migrants arriving in Europe (87). A sizeable number of refugees and migrants arrive by sea, with the leading source countries for sea arrivals being

Algeria, Côte d'Ivoire, Iraq, Sudan and Tunisia (88). As of 2019, the number of refugees in Italy registered with the UNHCR reached over 207 000 (89). Other significant migrant populations living in Italy include Albanians, Moroccans and Romanians (90).

Health system and financing

Italy has a decentralized health system, in which the National Government is in charge of controlling and administering the health budget, while regional governments are responsible for planning and delivering health services, largely through local health authorities. Italy provides UHC through the Italian National Health Service (*Servizio Sanitario Nazionale* (SSN)), which provides essential services largely free of charge, although some services, such as dental care, require out-of-pocket payments (91). The National Government is responsible for defining the national benefits package covered by the SSN. The SSN automatically covers all Italian citizens and foreign residents, but access to services varies significantly between regions (91).

Health care is delivered through a mix of public and private providers. Primary care in Italy is typically provided by GPs, although there has been a shift in recent years towards an integrated, multidisciplinary approach, with GPs and other health professionals moving to group practices (91).

The SSN is predominantly funded through national and regional taxes (92); Italy spent around 9.1% of its GDP on health in 2015 (91). Italy's health workforce is characterized by a relatively high number of doctors. However, the medical workforce faces a number of challenges, including the ageing demographic of the doctor workforce and outward migration of medical professionals, with around one in seven new medical specialists in Italy



leaving to work abroad (93). There is limited research on the role of migrant health professionals in Italy, but their presence is thought to be small, with foreign workers representing around 5% of Italy's nurses and less than 3% of doctors (94).

In 2014, in response to large-scale arrivals of refugees and migrants by sea, Italy developed a contingency plan to help to ensure the effective and coordinated management of an influx of refugees and migrants. The plan was co-developed by the Regional Health Authority of Sicily and the WHO Regional Office for Europe to identify the roles and responsibilities

of the key actors involved and clarify all phases of the reception process in Italy, with the aim of shifting from an emergency response towards a systematic and coordinated approach (95). In addition to the identification of main stakeholders, other important components of the contingency plan included descriptions of common medical conditions encountered among the refugee and migrant populations and details of information flows between the actors involved. There is potential for Sicily's contingency plan to be applied in other settings to manage large migration flows (95).

Model of care

Italy has adopted different models of care, including mainstream and limited, for its refugee and migrant population. In theory, based on the Legislative Decree No. 286, all legal migrants living in Italy are eligible to register for the SSN, which will provide them with the same access to health-care services as Italian citizens (96).

However, irregular migrants (with the exception of migrant children younger than 17 years of age without documentation) are not permitted to register with the SSN (96). Instead, irregular migrants can apply for a temporarily present foreigner card (*Stranieri Temporaneamente Presenti*) to access free essential health care (97).

The card is valid for around six months and can be renewed. Irregular migrants can access primary care, preventive care and maternal care at no cost through this system, with other types of care, including chronic disease treatment and secondary care, also available but at an additional cost unless fees are waived (96).

Limited services for irregular migrants are also provided in Italy. For example, Sicily has dedicated clinics run by Médecins Sans Frontières to provide primary care and social assistance to irregular migrants; there is no obligation on health-care workers to report irregular migrants to authorities (87).

Pakistan

Refugee and migrant population (millions) (4)	No. of doctors (per 10 000 people) (5)	No. of nurses and midwives (per 10 000 people) (6)	No. of pharmacists (per 10 000 people) (7)
3.30	9.80	6.68	1.58

Refugee and migrant population

Pakistan has a significant refugee population, with over 1.4 million Afghan refugees living in Pakistan in August 2020 (98). Between 2002 and 2018, Pakistan facilitated the voluntary repatriation of more than 4 million refugees from Afghanistan (98). The sizeable population of Afghan refugees living in Pakistan can be attributed to

a number of factors, including the long history of migration between the two countries; the 1979 Soviet invasion of Afghanistan, which triggered a mass exodus; the high birth rate among Afghans; and the fact that children of refugees born in Pakistan are still considered refugees and do not have Pakistani citizenship (99).

Health system and financing

Health care in Pakistan is provided by both the public and private sectors. The Pakistani Government is the largest provider, delivering free health services at public facilities while private for-profit providers and local NGOs play a smaller role in health service delivery. Primary health care is provided through basic health units and rural health centres (100). Pakistan's Lady Health Workers programme also serves as the first point of contact for primary health care. The programme was introduced in 1994 and involves female community health workers, who are attached to a Government health facility, providing essential primary health-care services to populations living in rural and urban slum areas (101). In 2015 Pakistan

introduced the Prime Minister's National Health Programme –which was rebranded as the Sehat Sahulat Programme in 2019 – to help support access to UHC for people living below the poverty line (102). The Sehat Sahulat Programme is a cashless insurance scheme, providing eligible households earning less than US\$ 2 a day with a card to access up to 300 000 PKR (US\$ 1873) for priority health-care services and 60 000 PKR (US\$ 375) for secondary health-care services (103). By October 2018, about 3.2 million families had been enrolled in the programme, with plans to expand coverage to a total of 11 million families in Pakistan (104). As the Sehat Sahulat Programme is still in its infancy, there is a degree of uncertainty



regarding its funding and associated expenses. Pakistan has historically low levels of spending on health, with health expenditure making up only about 2.8% of GDP (101).

Pakistan faces a shortage in qualified health professionals, with demand expected to grow significantly. Attrition of health workers is high for various reasons; for example, some female doctors may not rejoin the labour market after getting married (105).

Model of care

Pakistan has adopted different models of care, including mainstream and limited, for its refugee population. Afghan refugees have the same level of access to primary, secondary and tertiary health care at Government-run facilities as citizens of Pakistan (106). Primary care is typically accessed through basic health units, where patients are charged a nominal fee

Additionally, migration of Pakistani doctors to Canada, the United Kingdom and the United States of America continues to impact the size of the health workforce in Pakistan (105). In 2018 Pakistan released its national Human Resources for Health Vision, which recognized the importance of providing standardized, integrated, people-centred health services devoid of stigma and discrimination (105).

for services (107). For Afghan refugees living in camps near the border with Afghanistan, basic health care is provided by international organizations and NGOs such as the International Catholic Migration Commission (108). There is limited research on the quality of and access to health care for refugees and migrants living in Pakistan.

Sudan

Refugee and migrant population (millions) (4)	No. of doctors (per 10 000 people) (5)	No. of nurses and midwives (per 10 000 people) (6)	No. of pharmacists (per 10 000 people) (7)
1.20	2.62	6.95	0.25

Refugee and migrant population

As a result of a series of armed conflicts in the surrounding region, as well as natural disasters including flooding, Sudan hosts one of the largest refugee populations in Africa (109). Sudan has an open border policy, with new arrivals granted refugee status. The leading countries of origin for refugees are the Central African Republic, Chad, Eritrea, Ethiopia, South Sudan, the Syrian Arab Republic and Yemen (109).

At the end of January 2021, UNHCR estimated that there were over 1 million refugees and asylum seekers living in Sudan, in addition to over 2.5 million internally displaced people (109). Refugees in Sudan live in urban areas, camps and rural out-of-camp settlements across the country, with many living in locations with weak infrastructure and inadequate services (110).

Health system and financing

Sudan has a decentralized health system, with the Federal Ministry of Health responsible for national health planning and state governments responsible for planning at the state level and budget allocation (111). The health system in Sudan operates on a referral basis, with most patients accessing primary health care through basic health units before being referred to health centres and hospitals for further treatment if necessary. However, there are significant disparities in access between urban and rural areas (112). Consequently, because of the low quality or limited availability of health services at primary and secondary care

levels, many patients in Sudan present directly to hospitals (112).

In 1995 Sudan introduced the National Health Insurance Fund to provide access to basic health services through a network of providers throughout the country. However, under 44% of the Sudanese population was covered by 2016 (113). Health care in Sudan is largely financed by out-of-pocket payments, which represented 75.5% of total health expenditure in 2014 (113). As a result of decentralization, the private sector is increasingly playing a larger role in service delivery as public facilities experience budget cuts (111). Overall,

Sudan spends around 5% of its GDP on health (113).

In addition to being disproportionate to Sudan's population size, the health workforce is characterized by an uneven geographical distribution, with more health professionals in urban settings, in particular the Khartoum State where approximately 62% of specialist doctors and 58% of technicians are based (114).

Model of care

Sudan has adopted different models of care, including mainstream and limited, for its significant refugee and migrant population. Sudanese families returning from other countries such as Algeria, Ethiopia, Libya and Niger can access health care through the National Health Insurance Fund after a joint agreement was signed between the Sudanese Government, the European Union and the IOM in 2019 (116). Refugees living in urban areas can access primary health care at public facilities but often face higher fees because of their refugee

The brain drain of health professionals is another challenge, with high numbers of Sudanese physicians emigrating to the Gulf States, Ireland, Saudi Arabia and the United Kingdom (114). Sudan has bilateral agreements with Ireland and Saudi Arabia, with over 3000 physicians practising in Ireland and an estimated 15 000 Sudanese physicians practising in Saudi Arabia (115).

status, with language barriers also presenting a key challenge (110).

For refugees living in camps and out-of-camp settlements, primary health care is provided by third-party actors including international organizations, NGOs and charities. Approximately 70% of Sudan's refugee population lives in out-of-camp settlements, which are primarily located in remote and underdeveloped areas, and it is estimated that less than 50% of refugees living outside of camps have consistent access to quality health care (110).

Thailand

Refugee and migrant population (millions) (4)	No. of doctors (per 10 000 people) (5)	No. of nurses and midwives (per 10 000 people) (6)	No. of pharmacists (per 10 000 people) (7)
3.60	8.05	27.59	5.53

Refugee and migrant population

Thailand has a significant refugee and migrant population. As of December 2019, there were nearly 2.8 million registered migrant workers in Thailand, from a range of countries including Cambodia, the Lao People's Democratic Republic and Myanmar, in addition to an unknown number of irregular migrant workers (117). However, as a result of the COVID-19 pandemic, it is estimated that around 10% of all documented migrant workers

have left Thailand to return to their home countries (117). Thailand had 475 000 registered stateless people and approximately 5000 refugees and asylum seekers from around 40 different countries in 2019 (118). In February 2021 Thailand was hosting nearly 92 000 refugees from Myanmar in nine temporary shelters run by the Thai Government along the Thailand/Myanmar border (119).

Health system and financing

Thailand has a decentralized health system, with a complex multilevel network of health-care providers. The Ministry of Public Health is responsible for formulating and implementing health policy, with health centres providing primary care and hospitals providing secondary care through a referral system (120). In 2002, the Thai Government introduced UHC with the entire population covered by three public health insurance schemes: the Civil Servant Medical Benefit Scheme (for civil servants and their dependents), the Social Health Insurance Scheme (for workers employed in the private

sector) and the Universal Coverage Scheme (covering the remaining 75% of Thailand's population) (120). Individuals covered by the Civil Servant Medical Benefit Scheme and private health insurance have free choice of health-care providers, whereas policy holders of the remaining schemes must access registered providers for care (120).

Health care in Thailand is largely funded through taxation, with out-of-pocket payments, social health insurance and private health insurance premiums contributing a small proportion. In 2012 about 4.5% of Thailand's GDP was spent on health (120). Like other countries,



Thailand's health workforce experiences imbalances in its distribution between urban and rural areas. This is of

particular concern as approximately 54% of the Thai population resides in rural areas (121).

Model of care

Thailand uses different models of care for its refugee and migrant population. Since 2001 migrant workers with work permits can enrol in Thailand's voluntary migrant health insurance scheme, which requires an annual premium of around 2200 baht (US\$ 71) (122). Through the scheme, eligible migrants can access the same level of health services as Thai citizens, with some exceptions (renal replacement therapy and aesthetic surgery are not

covered) (122). The scheme was later opened to irregular migrants, with an estimated 1.3 million migrants enrolled by 2015 (122).

For refugees living in camps and immigration detention centres, services are delivered through a limited model with aid agencies from different countries providing support and organizations such as IOM and UNHCR providing emergency health care and assistance (123).

Mixed models of care

In addition to wholly mainstreamed and mainstreamed and limited models of care, some countries have adopted a mix of the four models of care in various combinations. A selection of these countries (Australia, Canada, Germany, New Zealand, Turkey and the United States) are highlighted in this section.

Gateway models are an efficient mechanism to provide catch-up primary health care for newly arrived refugees and migrants. Because they do not provide comprehensive care, they are necessarily only short-term models. If they are appropriately networked with the tertiary sector, they offer a safe and resilient model that can rapidly expand to manage surges in flows of migrants for short periods of time.

Specialized-focus models of care offer dedicated comprehensive primary care to refugees and migrants. While specialized-focus models of care can be very acceptable to patients, since they often offer advocacy services and usually provide interpreters, they routinely suffer from bottlenecks, and hence there can be significant barriers to access. Specialized-focus models do not have the same capacity as limited or gateway models to expand rapidly under surge conditions. They are well suited to the care of complex health conditions such as mental ill health, disability and care for older people. They require careful management and continued attention to exiting patients who are recovering or no longer in need of the service.



Australia

Refugee and migrant population (millions) ⁽⁴⁾	No. of doctors (per 10 000 people) ⁽⁵⁾	No. of nurses and midwives (per 10 000 people) ⁽⁶⁾	No. of pharmacists (per 10 000 people) ⁽⁷⁾
7.50	36.78	125.50	8.81

Refugee and migrant population

Australia is a highly multicultural country, with nearly 30% of the population born overseas (124). In 2018–2019 Australia accepted 18 762 visa holders through the Humanitarian Programme, which includes both refugee visas and special humanitarian

visas (125). Refugees referred by UNHCR for resettlement are given priority for the refugee visa category, while the special humanitarian category requires applicants to be proposed for the visa by an Australian citizen, permanent resident or organization.

Health system and financing

Australia's health system utilizes a mix of public and private providers, with overall responsibility for health care divided between federal, state/territory and local governments (126). The Federal Government is responsible for setting national health policies and administering Medicare, Australia's universal public health insurance scheme. State and territory governments are responsible for managing public and community-based primary health services and public hospitals. Local government also provides some community and home-based health services.

Medicare is the cornerstone of Australia's health system, providing subsidized access to primary health care and free treatment in public hospitals. While access to Medicare is available to all Australian citizens and permanent

residents, as well as individuals from countries with reciprocal health agreements living in Australia, many Australians also have some form of private health insurance. In August 2020 about 44% of the population had some form of private patient hospital cover (127). Australia's health system is financed by a combination of public spending, private for-profit and non-profit-making funding, and out-of-pocket payments. In 2016–2017 Government spending constituted around 68% of total health expenditure, and health spending continues to represent approximately 10% of Australia's GDP (128).

Australia's health workforce is substantial, although coverage across regional and remote areas remains an issue, with patients experiencing difficulties in accessing clinical and

specialized services located close to home (129). Overseas-trained health professionals make up a significant proportion of Australia's health

Model of care

Australia's approach to health care for refugees and migrants is predominantly mainstreamed, although there are specialized-focus, gateway and limited services. Migrants living in Australia can access services under Medicare if they come from a country that has a reciprocal health-care agreement with Australia. Recognized refugees and other humanitarian entrants can also access Medicare as permanent residents and are entitled to the same level of care as Australian citizens. Upon arrival, it is generally recommended that newly arrived refugees visit a GP for a refugee health assessment, which involves a comprehensive physical examination, catch-up immunization, pathology screening and referrals, if needed (131).

For refugee and migrant patients with limited or no English proficiency, medical practitioners in Australia can access Government-subsidized interpreting services via telephone or on-site. Historically, the uptake of this service in GP consultations has been low, although it has been increasing in recent years as a result of Government advocacy (132). This lack of use is attributed to a range of factors, including the time-intensive nature of consultations involving interpreting services and associated financial costs (133).

workforce, with 33% of medical practitioners working in Australia receiving their initial qualification overseas (130).

Australia also provides some specialized-focus and gateway services for its refugee population, with state and territory governments also delivering health services specifically tailored to refugee health needs. For example, the New South Wales Government runs its Refugee Health Service, which delivers a range of health services for newly arrived refugees and asylum seekers, including health assessments, referrals and home-based visits (134). Refugees and other humanitarian entrants living in Australia can also access counselling services through the Forum of Australian Services for Survivors of Torture and Trauma, which is a network of specialist rehabilitation agencies working with survivors of torture and trauma (135). Support services are available in all eight states and territories in Australia.

Australia uses a limited model for asylum seekers living in immigration detention and community placement. The Federal Department of Home Affairs contracts external service providers to provide a limited range of health services to this group (136). However, many asylum seekers on temporary visas are eligible for Medicare and can, therefore, access the same level of health services as Australian citizens and permanent residents (137).

Canada

Refugee and migrant population (millions) ⁽⁴⁾	No. of doctors (per 10 000 people) ⁽⁵⁾	No. of nurses and midwives (per 10 000 people) ⁽⁶⁾	No. of pharmacists (per 10 000 people) ⁽⁷⁾
8.00	23.11	98.80	11.24

Refugee and migrant population

Canada has a significant refugee and migrant population, coming from a diverse range of countries including China, India, Nigeria, Pakistan and the Philippines (138). In 2019 Canada resettled over 30 000 refugees (138). The leading source countries for refugees

resettled in Canada are Eritrea, Iraq, the Islamic Republic of Iran, Somalia and the Syrian Arab Republic (139). Since the end of the 2000s, refugee resettlement in Canada has been predominantly conducted through private sponsorship resettlement schemes (140).

Health system and financing

Canada's health system is decentralized, with the Federal Government largely playing a strategic role in setting national standards for health funding and Medicare (Canada's publicly funded health-care system), while the provinces and territories are responsible for funding, delivering and administering UHC. Provincial and territorial governments have their own health insurance plans, which cover necessary hospital and doctor's services on a pre-paid basis. Coverage can differ between provinces and territories. Free emergency care is also provided by all provinces and territories (141).

The dominant model of primary care in Canada remains private fee-for-service physician practices, with GPs acting as gatekeepers to additional levels of care including diagnostic tests and specialist

referrals (142). However, in northern regions of Canada and in Indigenous communities, nurse-led primary care is more common (142). While Canada has UHC, there remain major gaps in Medicare, including mental health care, dental care and vision care (142).

The health system in Canada is financed by both public and private funding, with around 70% of health expenditure financed through taxation (142). Canada has a substantial health workforce. However, the distribution of physicians and nurses is uneven across the country, with rural and remote areas experiencing chronic shortages (142). The number of foreign-trained doctors and nurses working in Canada has steadily increased in recent years (143). In contrast to low-income countries experiencing a brain drain in health

professions, Canada is at risk of a “brain waste”, with medical professionals facing challenges accessing internships

and residency training because of high competition and difficulty with credential recognition (143).

Model of care

Canada uses a phased model of care (gateway/mainstream) for its refugee population. Refugees are initially enrolled in the Interim Federal Health Program, which includes basic coverage for doctor's visits, inpatient and outpatient hospital services and limited vision and urgent dental care (144). Refugee claimants, also known as asylum seekers, are also eligible for coverage in the Interim Federal Health Program until a decision has been made regarding their status. After around three months, refugees become eligible for provincial or territorial health coverage, which allows them to access a range of services under Medicare as determined by the province or territory's health insurance plan, thereby receiving the same level of health care as Canadian citizens and permanent residents (145).

Migrants can access the same universal health insurance as Canadian citizens

by enrolling in the health insurance plan provided by the province or territory in which they reside (146). However, coverage for migrant workers on temporary visas in Canada is uneven and dependent on specific employers. Some provinces, such as British Columbia and Québec, have temporarily expanded public health insurance to uninsured people during the COVID-19 pandemic (147).

Some challenges that migrant populations face in accessing health care in Canada include the limited use of interpreting services by providers and inadequate knowledge of the available free or subsidized health services (148). Financial barriers, in addition to migration status and acculturation stress, also create hurdles to utilizing health services, particularly for migrant women seeking maternal health care in Canada (146).

Germany

Refugee and migrant population (millions) ⁽⁴⁾	No. of doctors (per 10 000 people) ⁽⁵⁾	No. of nurses and midwives (per 10 000 people) ⁽⁶⁾	No. of pharmacists (per 10 000 people) ⁽⁷⁾
13.10	42.49	132.40	6.47

Refugee and migrant population

Germany has a sizeable refugee and migrant population. It is a significant host country for refugees, with the leading countries of origin for refugees and asylum seekers being Afghanistan, Eritrea, Iraq, the Islamic Republic of Iran and the Syrian Arab Republic (149). In 2019 it was estimated that the refugee population living in Germany was approximately 1.1 million (9). In addition

to refugees and asylum seekers, there is a large migrant population from Turkey, who arrived in Germany through the Gastarbeiter (foreign worker) programme, which began in the 1960s. It is estimated that 2.5 million people living in Germany have a Turkish background, with around 700 000 Turkish migrants holding German citizenship in 2011 (150).

Health system and financing

In Germany, responsibility for health care is shared between the Federal Government, state governments (Länder) and civil society organizations. The health-care system is characterized by free choice of providers and a clear institutional separation between public health services, ambulatory care and hospital care (151).

Health insurance is mandatory for citizens and permanent residents, either through the statutory health insurance system (*Gesetzliche Krankenversicherung*), which covers about 85% of the population, or private health insurance (151). The statutory health insurance system funds the majority of health care in Germany

and includes both sickness funds, which collect contributions from their members to pay for health-care providers; and associations of physicians. Sickness funds are self-regulating and independent, providing a comprehensive set of benefits to their members with minimal out-of-pocket payments. Premiums for members are calculated based on income (152). Hospitals are financed by a combination of state funding and contributions from sickness funds, self-pay patients and private health insurers (151).

Germany's health workforce is substantial; however, it is projected that existing services will not be able to keep up with growing demand (153).

The difference in the density of doctors between urban and rural regions is a growing concern alongside the ageing nature of the clinician workforce, with projecting a shortage of doctors in the future (154). Germany's health workforce

has a significant proportion of migrant workers. Poland is the most common country of origin, with one in five migrant health workers being Polish, followed by Czechia, Hungary and Slovakia (153).

Model of care

Germany employs a phased gateway/mainstream model of care for its refugee and asylum seeker population, who have different levels of access to the health-care system depending on the stages of application for asylum and length of time spent in Germany. Entitlements for asylum seekers are provided under the Asylum Seekers' Benefits Act (*Asylbewerberleistungsgesetz*), which was introduced in 1993. Upon arrival, asylum seekers living in reception centres are entitled to basic health care provided by the centre, including medical examinations. After

spending 6–12 weeks at reception centres, individuals are relocated to municipalities where they receive restricted access to health care, including treatment of acute and painful conditions, emergency care and vaccinations. Finally, after receiving a decision on their application and being granted a long-term residence permit, which can take anywhere from 12 to 48 months, individuals receive a health insurance card providing unrestricted access to health-care services as for German citizens and permanent residents (155,156).

New Zealand

Refugee and migrant population (millions) ⁽⁴⁾	No. of doctors (per 10 000 people) ⁽⁵⁾	No. of nurses and midwives (per 10 000 people) ⁽⁶⁾	No. of pharmacists (per 10 000 people) ⁽⁷⁾
1.10	35.90	124.50	7.19

Refugee and migrant population

New Zealand is a highly multicultural country, with migrants coming from a range of different countries including Australia, China, India and the Philippines ⁽¹⁵⁷⁾. New Zealand has a relatively small refugee population, having recently increased its

annual quota in the Refugee Quota Programme from 750 to 1500 places from July 2020 ⁽¹⁵⁸⁾. The leading countries of origin for refugees entering New Zealand via the Programme are Afghanistan, Colombia, Myanmar and the Syrian Arab Republic ⁽¹⁵⁹⁾.

Health system and financing

Health care in New Zealand is delivered by a mix of public and private providers. The Ministry of Health is responsible for developing policy for the health and disability sector, while the district health boards are responsible for planning, managing, providing and purchasing health services for their respective districts ⁽¹⁶⁰⁾. These services include primary care, hospital services and aged care. There are 20 district health boards across New Zealand ⁽¹⁶¹⁾.

The Health and Disability Services Eligibility Direction 2011 establishes the eligibility criteria for groups of people who can receive health and disability services that are either partially or fully funded publicly. Health providers are

responsible for checking the eligibility of patients accessing Government-funded care. Groups eligible for publicly funded health care include New Zealand citizens and permanent residents, some Australian citizens and permanent residents, and some classes of visa holders. Refugees, protected people and applicants for refugee and protection status are eligible ⁽¹⁶²⁾. The health and disability system in New Zealand is mainly funded from general taxation ⁽¹⁶³⁾.

New Zealand has a highly skilled health workforce but continues to face shortages in local staffing, with a heavy reliance on overseas-trained health professionals ⁽¹⁶⁴⁾.

Model of care

New Zealand uses a phased gateway/mainstream model of care for its refugee population. Refugees resettled through the Refugee Quota Programme receive health screenings and immunizations while waiting to travel to New Zealand. Upon arrival, refugees receive a six-week orientation at the Mangere Refugee Resettlement Centre, which is located in Auckland,

a major city on New Zealand's North Island. The orientation includes health and mental health assessments and initial treatment (165). After completing orientation, refugees are settled in regions throughout New Zealand where they can access the same level of publicly funded health care as New Zealand citizens.

Turkey

Refugee and migrant population (millions) ⁽⁴⁾	No. of doctors (per 10 000 people) ⁽⁵⁾	No. of nurses and midwives (per 10 000 people) ⁽⁶⁾	No. of pharmacists (per 10 000 people) ⁽⁷⁾
5.90	18.49	27.11	3.52

Refugee and migrant population

Turkey hosts the world's largest refugee population, with over 3.6 million Syrian refugees and around 400 000 refugees and asylum seekers from a range of

other countries (166). Turkey also has sizeable migrant populations from Azerbaijan, Bulgaria, Germany and Iraq (167).

Health system and financing

Health care in Turkey is largely provided through the public sector, with the national Ministry of Health responsible for both health policy and service delivery (168). Historically, the health system in Turkey was highly complex and involved a multitude of actors, but since 2003 a number of reforms have been introduced as part of the Health Transformation Programme (168). Primary, secondary, maternal and child care are mainly provided by the Ministry of Health. Following the transfer of public hospitals to Ministry control, health-care facilities and dispensaries were also transferred in 2005 (168). The Ministry of Health is also the sole provider of preventive services, delivered through population health centres and family health centres.

Turkey introduced its compulsory General Health Insurance System (*Genel Sağlık Sigortası*) in 2008, which covered around 80% of the population by 2010

(169). Under the System, eligible health services are purchased by the Social Security Institution, which is funded through employer and employee contributions, as well with government support (168). Services financed by the Social Security Institution include inpatient and outpatient emergency care, dental care and preventive health care (169). Primary care visits are free of charge and individuals are encouraged to seek treatment with their family physician or at primary health facilities instead of presenting directly at hospitals, although a 2011 review noted that there was no formal referral system in place where physicians might gatekeep access to higher levels of care (168).

Turkey's health workforce continues to face shortages, particularly for physicians. Further, the significant influx of Syrian refugees in Turkey has strained the capacity of Turkey's primary

health-care system. In response, in 2014 the Turkish Government began training Syrian health professionals to work in the health system, in order to help to ensure that the needs of Syrian refugees were addressed (97). This training was formalized in 2016 through the Refugee Health Programme, which is supported by WHO and other donors. Training is delivered by WHO in collaboration with the Turkish Ministry of Health and includes familiarization with the Turkish health-care system and common medications, as well as on-the-job

training (170). Initially, Syrian doctors and nurses who received training were only allowed to practise in refugee camps or clinics operated by NGOs (170). This was later expanded to migrant health centres established under the Ministry of Health's authority. At the time of writing, nearly 2000 Syrian health professionals have been trained through the programme and about half have been hired by the Ministry of Health to deliver services through the migrant health centres (171).

Model of care

Turkey has adopted specialized-focus and gateway models of care for its Syrian refugee population. Syrians with temporary protection status, which requires registration with UNHCR or the Turkish Government, can access the same level of primary and secondary health services as Turkish citizens (172). These services are provided free of charge at hospitals and migrant health centres, as discussed above, which employ Syrian health professionals to help to ensure culturally responsive care. There were 183 migrant health centres across 29 provinces in Turkey in June 2019 (173). Irregular migrants do not have the same level of access to health-care facilities, although a presidential decree

issued in response to the COVID-19 pandemic has now temporarily granted all individuals, regardless of their health coverage, access to personal protective equipment, diagnostic testing and medical treatment (174). Irregular migrants are recorded as stateless people when accessing health-care facilities in Turkey.

A small proportion of Syrian refugees live in temporary accommodation, including government-run camps and refugee centres, where basic primary health care is provided by the Government through the Disaster and Emergency Management Authority, with referrals provided to public hospitals when needed (175).

United States

Refugee and migrant population (millions) ⁽⁴⁾	No. of doctors (per 10 000 people) ⁽⁵⁾	No. of nurses and midwives (per 10 000 people) ⁽⁶⁾	No. of pharmacists (per 10 000 people) ⁽⁷⁾
50.70	26.12	145.50	9.25

Refugee and migrant population

The United States is a highly multicultural country with a significant refugee and migrant population. Over 40 million people living in the United States were born overseas, with almost every country in the world represented among migrants in the United States (176). The leading countries of origin for migrants living in the United States include China, El Salvador, India, Mexico

and the Philippines (176). Approximately 23% of all migrants in the United States are unauthorized (176). The United States resettled 30 000 refugees in the fiscal year 2019, with the leading countries of origin for refugees being Afghanistan, the Democratic Republic of Congo, Eritrea, Myanmar and Ukraine (177).

Health system and financing

The health system in the United States is highly complex, involving many public and private actors. The system is decentralized, with state governments responsible for funding and managing public health functions, although this responsibility is devolved to the county level in some states (178). The health-care system in the United States is characterized by limited government involvement and the dominance of private actors.

The United States does not have universal health insurance coverage, although passage of the Patient Protection and Affordable Care Act in 2010, alongside other initiatives, resulted in almost 92% of the population being

covered by different public and private health insurance programmes (179). Approximately 55% of the population is covered by some form of employer-sponsored insurance and those aged 65 years and older are covered by Medicare. Medicare provides cover for about 18% of Americans and is primarily targeted towards low-income households (179). In 2018 around 8.5% of the population lacked health insurance (179). Patient interactions with the health-care system in the United States vary significantly, depending on whether individuals are insured or uninsured. Insured individuals will generally see their primary care practitioner first, although some may seek treatment directly with a specialist.

The health-care system in the United States is financed by a mix of private and public funding, with public spending accounting for 45% of total health spending in 2017 (179). The United States spends more than any other member country of the Organisation for Economic Co-operation and Development on health care, but its health outcomes, in particular avoidable mortality and morbidity from chronic diseases, are worse than the Organisation's average (180). The

health workforce in the United States has benefited from inward migration of health-care professionals, with a significant proportion of foreign-trained doctors and nurses, although it is noted that a growing proportion of these health workers are American citizens who studied abroad, mostly in the Caribbean, before returning to the United States (143). In 2018 over 2.6 million migrants, including 314 000 refugees, were employed in the health workforce in the United States (181).

Model of care

The United States has adopted different models of care, including mainstream and specialized-focus, for its refugee and migrant population. Under the Affordable Care Act, adult refugees without children are generally eligible for Medicaid. Refugees who do not qualify for Medicaid are eligible for a limited specialized-focus service through the Refugee Medical Assistance during their first eight months in the United States, after which they can apply for private medical insurance. Refugee Medical Assistance is federally funded and provides refugees with the same benefits package as Medicaid recipients (182).

Access to health care in the United States for migrant populations more broadly is largely dependent on their immigration status and insurance status. Migrants make up nearly 30% of uninsured individuals living in the United States and it is estimated that half of uninsured immigrants lack documentation (183). These migrants are not eligible for Medicaid or other health insurance programmes provided by the Government (184). However, uninsured migrants can access basic health-care services at community health centres, regardless of their immigration status, in the same way as uninsured American citizens; services are provided free of charge or at a reduced cost depending on their income (185).

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