BMJ Global Health

Primary healthcare models for refugees involving nurses: a systematic review and narrative synthesis

Andreas W Gold ,[1,2] Clara Perplies ,[2] Louise Biddle,[2,3] Kayvan Bozorgmehr[1,2]

To cite: Gold AW, Perplies C, Biddle L, *et al*. Primary healthcare models for refugees involving nurses: a systematic review and narrative synthesis. *BMJ Glob Health* 2025;**10**:e018105. doi:10.1136/bmjgh-2024-018105

Handling editor Seema Biswas

► Additional supplemental material is published online only. To view, please visit the journal online (https://doi.org/10.1136/bmjgh-2024-018105).

Received 4 November 2024
Accepted 17 February 2025

[1]Section Health Equity Studies & Migration, Department Primary Health Care & Health Services Research, Heidelberg University Hospital, Heidelberg University, Heidelberg, Germany
[2]Department of Population Medicine and Health Services Research, School of Public Health, Bielefeld University, Bielefeld, Germany
[3]Socio-Economic Panel, German Institute for Economic Research Berlin, Berlin, Germany

Correspondence to
Andreas W Gold;
andreas.gold@med.uni-heidelberg.de

ABSTRACT

Introduction Primary healthcare (PHC) is key to addressing the health and social needs of refugees. Nurses are often part of multidisciplinary teams in PHC, but little is known about their roles and responsibilities in refugee healthcare. We aimed to synthesise the existing knowledge about models of care (MoC) for refugees in primary care settings which involve nursing professionals.

Methods Systematic review, searching PubMed, CINAHL and Web of Science for scientific literature, as well as Google Search and Scholar, Microsoft Bing and DuckDuckGo for grey literature. We included publications that reported MoC for refugees in primary care which involve nursing professionals. Following a relevancy rating, we extracted information about structural components (setting, target population, available services, funding and workforce composition), and inductively coded the roles and responsibilities of nurses within these models. Data were synthesised using qualitative and narrative synthesis.

Results We included 120 publications in the review. Of these, 67 (56%) provided in-depth insights into MoC and nurse involvement and were included for narrative synthesis, yielding 49 MoC mainly from high-income countries. Most MoCs identified to set up parallel healthcare structures (specialised-focus services) that refugees can access for a limited period of time or targeting specific conditions in a vertical approach. However, some of the MoCs we studied focus on referral support as gateway services or are embedded in mainstream services. Nurses in these models typically experience a high degree of autonomy within defined responsibilities, encompassing clinical, administrative, educational and coordinating tasks.

Conclusions Nurses take on key roles in parallel healthcare structures for refugees, and specially trained nurses are well positioned to facilitate the integration of refugees into mainstream healthcare. Future research into the long-term impact of existing models, identifying best practices and defining competency requirements for healthcare workers/nurses in refugee care may foster evidence-based policy and practice improvements.

PROSPERO registration number CRD42020221045.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Navigating and accessing a new healthcare system can be challenging for refugees; language and legal barriers often exacerbate these challenges. Primary healthcare is key to addressing the needs of refugees, but evidence on models of care (MoC) involving nurses is scarce.

WHAT THIS STUDY ADDS

⇒ This systematic review provides an overview of the MoC for refugees and the related tasks and roles of nurses. Its main findings are that the MoC identified are often pilot projects or ad hoc structures, and in many cases form a parallel structure to the existing health system to which refugees have access for a limited period of time. Nurses are not only involved in clinical care but also in coordination and health education. General recommendations for the development and implementation of MoC for refugees, including a common curriculum for healthcare workers in this area, are still lacking.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Our review maps different MoCs involving nursing professionals in the realm of refugee health. We demonstrate the diversity of potential approaches, giving practitioners and policy-makers looking to set up or expand existing services an overview of potential applications for their specific contexts. Future research should focus on identifying best practices and assessing the long-term impact of these MoCs. In addition, further research is needed to understand the roles of nurses in ensuring access and continuity of care, and the specific competencies they need to fulfil these roles.

INTRODUCTION

Forced migration around the world is at an all-time high.[1] At the same time, the global agenda to achieve Universal Health Coverage (UHC) is far from being reality, with many people around the world still struggling to meet their basic health needs.[2] Despite the ambition of UHC, asylum seekers and refugees (ASR) in receiving countries often face limited service provision, inadequate health information and barriers to accessing healthcare.[3 4] Access to health services depends not only on eligibility but also on the ability to

navigate health systems. As this can vary widely depending on individual characteristics and experiences as well as the availability of support structures, there is a demand for models of care (MoC) tailored to the needs of those who are or have been affected by conflict and insecurity.[5–7]

Primary healthcare (PHC) is key to transforming health systems for the benefit of both the individual and the health system and to achieving a situation where no one is left behind.[8–10] PHC systems are characterised by multidisciplinarity and the ability to meet diverse health needs, which often means that the professional roles of health workers may need to change or be adapted to fulfil the tasks envisaged.[8] Nurses are an important part of such multidisciplinary PHC teams, often being at the frontline and playing a key role in expanding, linking and coordinating care.[11–13] The key role of nurses in improving continuity of care and promoting health equity for different populations is well documented, particularly in the care of patients with specific (chronic) health conditions[10 14–16] or for underserved populations in remote rural areas.[16–19] Existing evidence syntheses show that countries have developed different service models for refugee health.[12 13 20–23] A WHO report from 2021 described four types of refugee services: mainstream (same service as for the general population), specialised-focus (separate stream of services), gateway (support entry in mainstream services) or limited services (provision of basic health services).[21] Despite well-documented contributions of nurses in other PHC settings and growing evidence on MoC for refugees, there is yet little systematic evaluation of nurses' involvement in services provided to refugees from a healthcare-organisational perspective. As, to our knowledge, there is no systematic evidence synthesis on this topic, we sought to address the following questions:

a. What are key characteristics of MoC for refugees in primary care settings that involve nurses (with respect to their structure, health services available, health conditions and populations targeted, funding, responsible institution and workforce composition)?
b. Which type of service according to the WHO framework (mainstream, specialised-focus, gateway or limited services) were implemented?
c. What is the scope of practice and the role of nurses described in the models?

METHODS

Design

We conducted a systematic literature review drawing on the Joanna Briggs Institute's Manual for Evidence Synthesis and its suggestions for mixed-methods systematic reviews.[24] The reporting follows the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses.[25]

Protocol registration

We searched the International Prospective Register of Systematic Reviews (PROSPERO) and the Cochrane database for protocols that matched the title, aim and objectives. We could not identify any ongoing or published systematic review about healthcare delivery for refugees in a primary care setting with a focus on nurses' involvement. We registered a protocol for this review with PROSPERO (ID: CRD42020221045).

Search strategies

To develop the search blocks and terms for the review, we used the PICo approach, whose components are population (P), phenomenon of interest (I) and context (Co).[26] Table 1 shows the PICo scheme and gives an overview of the search term categories we used. An experienced librarian from Heidelberg University Library assisted in the development of the search strategy.

We conducted the search in three scientific databases (PubMed/MEDLINE, CINAHL and Web of Science/Knowledge) and included articles published before September 2023 (last search on 31 August 2023). The search terms were extended and adapted either with truncations or synonyms or both within the initial search strategy. Depending on the databases, Medical Subject Headings (MeSH) and text words (tw) were integrated within the search terms whenever this was possible. The full search terms for all databases can be found in online supplemental file 1.

From our previous work in the field of refugee health service provision, we were aware that relevant MoC may not be published in the academic literature, but instead described in field reports from non-governmental organisations (NGOs), government documents or other grey literature. In order to capture these, we searched Google Scholar, Google Search, Microsoft Bing and DuckDuckGo because of their ability to identify governmental and institutional reports and other important sources of grey literature.[27 28] We were aware of its potential pitfalls and the risk of bias due to the intransparent algorithms and so-called bubble effects, as internet search engines tailor results to inferred user preferences based on non-reproducible criteria.[29] Therefore, the search was conducted in a way to avoid personalisation of search results by deleting browser cookies and logging out of any existing user accounts. We conducted these searches in April 2021, limited the search to PDF files and took the first 100 results as sorted in the standard relevance ranking into account.[30] These searches were conducted separately for each of the included languages (English, Spanish, French and German). The detailed search terms used can be found in online supplemental file 1. We applied the same eligibility criteria as for the results identified via scientific databases and were able to add 10 additional papers. In January 2025, we additionally conducted a pragmatic hand search within the first 100 results in Google Scholar, using the identical search term from our grey literature search, to account for potentially relevant papers published since our initial search. This yielded eight additional papers. In total, 20 papers were identified via hand search (figure 1).

Table 1 PICo, PubMed search terms and inclusion criteria

PiCo		Exemplary search term categories (PubMed)	Inclusion criteria
Population	► Refugees[129]	► Refugees [MeSH] ► Asylum seek* ► Forced migra*	► Refers to refugees or IDP as defined by IOM[129]
	► Internally displaced persons[129]	► Internally displaced person ► IDP*	
AND			
Phenomenon of interest	► Model of care[20] (including nurses in the workforce)	► Model of care ► Health care delivery [MeSH] ► Models, Nursing [MeSH] ► Nursing Services [MeSH] ► Models, Organisational [MeSH]	► Evidence on or conceptional insights into models of care/ healthcare delivery among refugee or IDP populations AND ► including reports about the involvement of nurses (in full-text)
AND			
Context	► Delivery of healthcare in a primary care setting[130 131]	► Primary Health Care [MeSH] ► Ambulatory care [MeSH] ► Primary Care Nursing [MeSH]	► primary care setting (as defined in the WHO-Definition[130 131])
Study designs /publication types	► All relevant study designs (qualitative studies, quantitative studies, mixed-methods studies) ► Original articles and review articles, including systematic and narrative reviews (of qualitative and/or quantitative research), as well as full research reports ► Secondary literature with a focus on healthcare delivery for refugees in a primary care setting (eg, discussion papers, theoretical papers, conceptional papers, commentaries)		
Language	► English, Spanish, French, German		

Study selection and data extraction

After identifying and eliminating duplicates, we used a three-stage screening process to eliminate non-relevant articles at the title, abstract and full-text screening stages according to the predefined inclusion criteria (table 1). If no abstract was available, papers were automatically transferred to the full-text screening stage. Included papers were then reviewed against inclusion criteria for

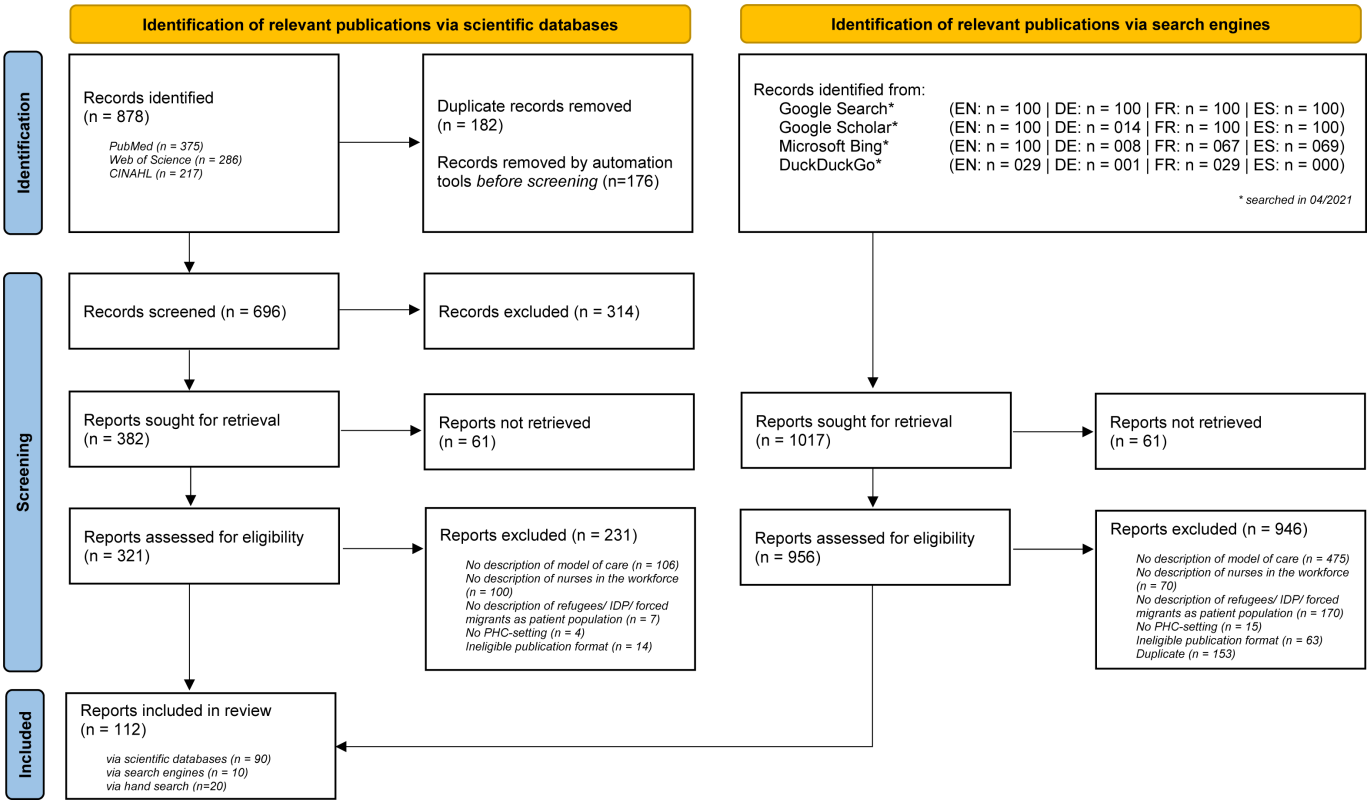

Figure 1 PRISMA flow diagram.

their eligibility in the full-text stage. Reasons for exclusion were recorded (figure 1). Data from included papers were extracted according to a predefined extraction matrix (online supplemental file 2) based on the review questions.

All stages of screening and data extraction were carried out in duplicate, and any discrepancies were resolved by discussion and agreement between the researchers involved. For records identified through scientific databases, we used Covidence[31] for the entire screening and extraction process; records identified through search engines were added for data extraction after de-duplication and screening using MS Excel 2019.

Relevance assessment

We used a sensitive search strategy and broad inclusion criteria to identify a high number of relevant studies. To assess the relevance of the included publications, two reviewers performed a relevance assessment in duplicate.[32] As a result of the relevance assessment, we grouped the included publications into three categories: (high relevance): detailed description of a MoC and nurse's involvement, (medium relevance): detailed description of a model of care and insights into nurse's involvement, (low relevance): publications that met the inclusion criteria but did not provide in-depth insights. Any discrepancies were resolved by discussion and agreement between the researchers involved. In deviation from our review protocol and as the focus of our review is mainly on the description of key features of the MoC identified, an assessment of the methodological quality of the studies was neither appropriate nor possible due to the lack of applicability and comparability of existing scoring systems.

Data analysis and synthesis

We restricted our analysis and synthesis on publications we classified with high and medium relevance to keep the review feasible.[32] Based on our comprehensive extraction matrix, we further synthesised and tabulated the extracted information on the structure, health services available, health conditions and populations targeted, funding, responsible institution and workforce composition of the identified MoC. Based on this, we categorised the identified MoC into mainstream, specialised-focus, gateway and limited services according to the WHO framework.[21]

From the publications that we considered to be highly relevant for answering our review questions, we obtained in-depth insights into the involvement of nurses in 28 MoC (out of 40 publications).[33–72] In the first step, we identified repeatedly mentioned roles and tasks performed by nurses and clustered them to get an overall impression of their scope of practice using MS Excel 2019. In the second step, we synthesised the extracted role descriptions and inductively formed overarching categories using MS Excel 2019 and MAXQDA 2022.[73] Furthermore, we used a large language model to check for further overarching categories of role descriptions we may not have covered in our manual synthesis process. For this purpose, we pasted the same extracted role descriptions into ChatGPT 3.5[74] and prompted: what roles of professional nurses could be identified from the following statements? Subsequently, the results of our manual synthesis were compared with the output from ChatGPT by the first author.

Patient and public engagement

Perspectives of refugees, healthcare professionals and health decision-makers on care provision were gathered through qualitative interviews and workshops as part of the RESPOND project and contributed to the scope of this review. However, patients and the public were not directly involved in the active stages of the systematic literature review. The results of this review will be disseminated through social media activities, newsletters, the project website and short communications on key findings, for example, in policy briefs.

RESULTS

Search results

Systematic database searches identified 878 publications. After removing duplicates, 696 remained. Based on title and abstract screening, 314 publications were excluded. Full texts of the remaining 382 were sought for detailed assessment against the inclusion criteria (table 1), but 61 could not be obtained. After reviewing the 321 available full texts, 90 publications met the inclusion criteria. Additionally, 10 publications were identified through search engines and 20 through hand searches. In total, 120 publications were included (figure 1), with 67 providing detailed insights into existing MoC and the role of nurses (assessed with high to medium relevance). These 67 publications formed the basis of the narrative synthesis. Brief descriptions of the remaining 53 publications (Frameworks and Concepts (n=9), Reviews (n=13), Study Protocols (n=2) and papers rated with low relevance (n=29)) are available in online supplemental file 3.

Characteristics of included publications with medium to high relevancy

We identified 49 different MoC described across 67 publications. Most MoCs were covered by a single publication, while two models had more than three publications each (table 2). Seven publications provide an overview of different MoCs.[39 40 46 50 51 70 75] The topics covered are diverse, with 52 publications (78%) focusing primarily on describing and evaluating a specific MoC. Consequently, the methodological approaches vary widely: 10 publications (15%) report results from quantitative studies, 13 from qualitative studies (19%) and 15 from mixed-methods studies (22%). The remaining 29 publications (43%) cover case reports and other publications without stating an explicit scientific methodology.

Figure 2 shows the geographical distribution of these 49 MoC. Reporting on aspects related to MoC implementation, such as barriers and facilitators, is relatively rare and has been reported in 19 publications (28%).[33–35 41–44 46 51 52 54–56 59 61 68 69 72 76]

Table 2 Overview of the identified 49 MoC included in the narrative synthesis

MoC-name	MoC-type	Main focus	Country	Available health services	Workforce composition
Companion House[52]	Specialised-focus	Mental health, general health	AU	Counselling, medical care, community development, advocacy, casework, education and training for stakeholder organisations	Counsellors, doctors, nurses
Refugee Health Queensland[41 98]	Gateway	No specific focus	AU	Initial health assessment, assisted linkage to local providers, capacity building for local providers and back-up service for complex cases	Nurses, physicians, administrative staff, interpreters
Mater Refugee Health Service[56]	Specialised-focus, mainstream	No specific focus	AU	Comprehensive health assessment (by RHN), general healthcare, recall services, referral support, interpretation services, capacity-building activities for primary care services	General practitioners (GP), specialised refugee health nurses
Mater CALD Healthcare Coordinator Service (M-CHooSe pilot)[66]	Specialised-focus, mainstream	Care coordination	AU	Health education, coordination, general healthcare (eg, vaccinations, assistance, chart review, follow-up)	Colocated nurses working together with the practice clinic team
Coffs Harbour Refugee Health Clinic[83]	Specialised-focus, gateway	No specific focus	AU	Comprehensive refugee health assessment, diagnosis and treatment of medical conditions, referral to specialist physicians, other health services and GPs, interpreting services	Nurses, physicians, administrative staff, clinical nurse consultant
Monash Health Refugee Health and Wellbeing (MHRHW)[44 47 48 84]	Specialised-focus, gateway	No specific focus	AU	Health assessments, primary healthcare (immunisation, referrals, case management for clients with higher needs), specialist services (internal medicine (with a focus on infectious diseases), psychiatry, paediatrics—supported by refugee health nurses; capacity building and secondary consultation; community development; 'Refugee Health Nurse on Triage'—service; RHN Liaison service at an ED	GPs, refugee health nurses (RHNs), infectious diseases physicians, paediatricians, bicultural workers, community development workers, psychiatrists, counsellors and pharmacists/RHN Liaison Service at an emergency department (ED): refugee health nurses (RHN)
Multidisciplinary and equity-oriented model of Group Pregnancy Care for women of refugee background.[95]	Mainstream	Reproductive & maternal health	AU	Group pregnancy care (Health information), individual antenatal visits, support and referrals to health, maternity, and early childhood services	Two midwives, a bicultural family mentor, interpreters, a maternal child health nurse, a parent support worker
Refugee healthcare in regional Australia[65]	Mainstream	General health	AU	Refugee health assessment, ongoing medical care, coordination of specialist treatment	Local health district-based refugee health nurse, GPs
Optimising Health and Learning Programme[59]	Specialised-focus, gateway	Screening and Assessment; Case Management	AU	Routine comprehensive health screening, screening for a range of health conditions, coordination of initial and ongoing healthcare, culturally and linguistically appropriate service provision, integration of physical, developmental and psychological healthcare	Nurses, medical staff
Victorian maternal and child health service[54 55]	Mainstream	Maternal and child health	AU	Postnatal and maternal primary care (support, information and access to professional advice), detection of problems in a child's health and development, parent and community groups, referrals, interpreting services, capacity building	Maternal and child health nurses, midwives, community workers, professional interpreters
Refugee Health Programme (RHP)[62]	Specialised-focus, gateway	No specific focus	AU	Disease prevention and management, health promotion and education, referral, interpretation services	Specialised nurses (RHN)
NSW Refugee Health Service[85]	Specialised-focus, gateway	No specific focus	AU	Health assessments, treatment, referrals to GPs in the community, referral, follow-up, health promotion projects in the community, interpreting services	Physician, refugee health nurses, interpreters

Continued

Table 2 Continued

MoC-name	MoC-type	Main focus	Country	Available health services	Workforce composition
Maternal and Child Health Programme in Victoria[60]	Mainstream	Maternal and child health	AU	Antenatal care, regular child health and developmental checks, screening and referral to additional services if required, assessment and support related to maternal health	Midwives, general practitioners, community-based maternal and child health nurses, refugee health nurses
New South Wales Refugee Health Services[50] (overview of various models of care)	Specialised-focus, gateway	Screening and assessment	AU	Medical assessment, coordination/assistance in navigating the medical and social system, counselling, education	Refugee health nurses, medical doctors and allied health providers
UNHCR MHPSS at Cox Bazar[86]	Specialised-focus, gateway	Mental health	BD	Mental state examination, psychoeducation, psychosocial support integrated into primary care services, outreach health visits and health counselling by community health workers, group psychosocial activities (peer support groups, community psychoeducational workshops), referrals from the community to health centres and from health centres to district-level hospitals (if needed)	Medical team leaders, physicians, senior staff nurses, medical officers, medical assistants, health educators, a national psychiatrist, community health workers, community psychosocial volunteers
The Ponton[61]	Specialised-focus, gateway	General health	BE	Individual-tailored and GP-based healthcare	Family doctors, nurses, physiotherapists and psychologists
Mosaic Refugee Health Clinic (MRHC)[87]	Specialised-focus, gateway	Reproductive and maternal health	CA	Women's health services: pregnancy and postpartum care, family planning, family health services, tropical disease care, health education and help accessing social services and interpreters, mental health services, connect the patient to a family physician within their community	Family physicians, obstetricians and gynaecologists, paediatricians, internal medicine specialists, chronic and infectious disease nurses, psychologists, social workers and specially trained front-desk staff.
Newcomer Health Clinic in Nova Scotia[88]	Specialised-focus, gateway	Screening and assessment	CA	Initial health assessments (incl. screening for infectious diseases), comprehensive primary care services, chronic disease management, preventive care, patient education, interpreter services, linkage to local providers for ongoing primary care, information about other health services in the community	Family physicians, registered nurses and administrative support
BridgeCare Clinic[35 36 49]	Specialised-focus	Physical health: infectious diseases (tuberculosis)	CA	Medical screening, health education (including information on navigating the health system), immunisation, tuberculosis screening, latent tuberculosis infection (LTBI) treatment, interpreting services, outreach, laboratory services	Primary care nurse, nurse practitioners, physician, outreach worker, interpreters - nurse-led, multidisciplinary service
New Canadians Health Centre (NCHC)[76]	Specialised-focus, gateway	No specific focus	CA	Preventative and clinical services (medical screening, treatment of acute health concerns, prenatal care and family planning, referrals to specialist care), mental health services (assessments, counselling, referrals), and settlement and integration support (including health navigation, referrals to community programmes and services)	Physicians (family physicians, paediatricians, internal medicine and infectious disease specialists), nurse practitioners, health navigators and support workers, administrative staff
REseau de SAnté et MIgration (RESAMI)[37 53 63 64 67 93]	Specialised-focus, gateway	No specific focus	CH	Health assessment, primary healthcare, immunisations, information on disease prevention and health promotion (including information about the Swiss healthcare system), case management for asylum seekers with heavy disease burden; referral to specialised care	Nurses (advanced nurse practitioners), administrative team, physicians, interpreters - nurse-led, multidisciplinary service

Continued

Table 2 Continued

MoC-name	MoC-type	Main focus	Country	Available health services	Workforce composition
Healthcare for asylum seekers in federal asylum centres and in collective accommodation of the cantons in Switzerland[39 40] (overview of various models of care)	Specialised-focus, gateway	General health	CH	Health information, nurse-led consultations, medical consultations, vaccinations, referrals, interpreting services	Nurses, physicians (General practice, internal medicine, paediatrics), interpreters (via telephone), security and social worker
Mobile clinics in conflict-affected communities[51] (overview of various models of care)	Specialised-focus	General health, focus on infectious diseases	CM	General consultation, testing and treatment of communicable diseases, sensitisation on health events especially with the outbreak of COVID-19, consultation for HIV, HIV testing, counselling with referrals, search for loss-to-follow cases and in some cases ARV administrations, antenatal care, vaccination, family planning services, referral	Medical doctor, nurses
Central Clearing Clinic Berlin[99]	Gateway	Mental health	DE	Psychiatric assessment, immediate emergency contacts, psychiatric support, referral to outpatient clinics of psychiatric hospitals, pharmacological treatments, psychotherapeutic short-term group programme; interpreting services	Nurse, psychiatrists (adult and child), interpreters
Outpatient Clinic in an urban emergency accommodation (Cologne)[38]	Limited/gateway	No specific focus	DE	Basic medical care, first health contact point for refugees (complementary rather than parallel structure to the regular healthcare system), drug therapy, referrals	Physicians, nurses, social worker
Interdisciplinary outpatient clinic for asylum seekers[77]	Specialised-focus	General health, paediatrics, mental health, gynaecology and obstetrics	DE	Primary care, paediatric care, perinatal and postnatal care, psychosocial care, referral to specialists, interpretation services	General practitioners, paediatricians, gynaecologists, psychologists, tropical medicine specialists, medical students, midwives, nurses
Würzburger Modell[90 91]	Specialised-focus, gateway	No specific focus	DE	Health assessments, medical care, referrals, psychotherapy	Nurses, specialised medical doctors (general health, paediatrics, tropical medicine), volunteering psychotherapists and trauma therapists
Healthcare provision for asylum seekers in German reception centres[75] (overview of various models of care)	Specialised-focus	No specific focus	DE	Provision of primary healthcare, gynaecology, paediatrics, dentistry and/or dermatology depending on location/model of care; few sites provide psychosocial care	Doctors, paramedics, nurses, medical assistants, social workers (at some outpatient care clinics)
Interdisciplinary outpatient clinic for immigrants and refugees[94]	Specialised-focus, mainstream	Care coordination	DK	Coordinated care (health assessment, formulating shared action plan, coordinating network meetings)	Seven nurses, four doctors, and two social workers, medical interpreters
PCU at Centre de Premier Accueil de La Chapelle[89]	Specialised-focus, gateway	No specific focus	FR	Nurse's examination / check-up, mental health assessment, general healthcare, psychiatric consultations, coordination of care/referrals, follow-up, translation service	Nurse, general practitioner, psychiatrist, interpreters

Continued

Table 2 Continued

MoC-name	MoC-type	Main focus	Country	Available health services	Workforce composition
Irbid NCD programme (MSF)[33 34]	Limited	Physical health: non-infectious diseases	JO	Clinical examination, medical consultation, health education, behaviour change counselling, individual-based and group-based mental health and psychosocial support (MHPSS), a home visit service for house-bound patients, social work services, physiotherapy services	Physicians, nurses, trained health educators, psychosocial counsellors, pharmacists, physiotherapists, social workers, home care team
MSF NCD clinic in Shatila[42]	Limited	Physical health: non-infectious diseases	LB	Case management, patient support and education counselling, integrated mental health, health promotion, medication, referral	Physicians, nurses, trained health promotion personnel, psychologists, social workers.
UNRWA primary healthcare reform[78]	Specialised-focus	Physical health: non-infectious diseases	Near East	Maternal, child and non-communicable disease (NCD) services, support for self-management, community empowerment	Multidisciplinary family health team (FHT), staffed by doctors, midwives and nurses
UNRWA NCD care in refugee camps[79]	Specialised-focus	Physical health: non-infectious diseases	JO, LB, SY, PS	Health promotion, Screening for NCDs; Implementation of treatment protocols; Case Management, prevention of secondary complications.	Laboratory technicians, medical officers, doctors, nurses
Dunedin Refugee Resettlement Programme[96]	Mainstream	General health	NZ	Support to navigate the health systems (by volunteers), general healthcare, interpretation services	General practitioners, practice nurses, cross-cultural health navigators from the local primary healthcare organisation and Red Cross volunteers
Newtown Union Health Service[92]	Specialised-focus, gateway	No specific focus	NZ	Health screening for acute and chronic illnesses, catch-up immunisations, referral to appropriate psychological services, support with accessing social care, routine primary care, interpreting service	Physicians, primary care nurses, social workers
Newborn health interventions by IMC in South Sudan[80]	Specialised-focus	Neonatal care	SS	Neonatal care; study intervention: Clinical training for facility-based and community-based health workers, Supportive supervision, Distribution of medical commodities, Strategic planning workshop	Community health worker, traditional birth attendants, skilled birth attendants (midwives, nurses), management staff
Primary Health Care project (Malteser International)[100]	Limited	No specific focus	TH	Treatment (chronic health conditions, small surgery facility including eye surgery and dental care, services for Mother and Child and Adolescent Health); preventive services to promote behaviour change; referral mechanism to secondary and tertiary care	Midwives, nurses, laboratory technicians, community health workers (local staff, Thai-registered professionals)
Ban Napho Refugee Camp[81]	Specialised-focus	No specific focus	TH	Preventative and curative care and supplementary feeding services, home visits, health education sessions, traditional therapy, care services for patients with psychological and psychiatric problems, family planning services, physiotherapy and rehabilitation, Sanitation and Vector Control	Doctors, nurses, paramedics, public health workers, Laotian refugee traditional healers
ARC health programme at Site II South camp[58]	Specialised-focus	No specific focus	TH	Care provision, drug monitoring; skills training for IDP with the objective of healthcare management, teaching, and services being delivered by IDP staff	Nurses, physicians, physician assistants, public health experts, administrators and drivers (humanitarian and IDP staff)
Assessment Service and Resource Centre[45]	Gateway	Screening and assessment	UK	Assessment, screening, treatment for immediate medical problems, prescribing, follow-up, vaccination, help with exemption from charges form, assignment to local GP after initial assessment, provision of patient-held records, interpretation service	Physician, nurse, receptionist, specialised health visitor, interpreters

Continued

Table 2 Continued

MoC-name	MoC-type	Main focus	Country	Available health services	Workforce composition
Project: London (Médecins du Monde UK)[101]	Limited	No specific focus	UK	Information, advice and practical support to access mainstream health services (register with a general practitioner, access specialist services such as dental care or counselling), one-off treatment for most infections and acute conditions, limited provision with drugs through private prescriptions	Physicians, nurses, trained volunteers
Acorns and Edith Cavell Practice (nurse-led PMS pilots)[46] (overview of various models of care)	Mainstream	General health	UK	Patient-focused care; improving access to services; community development and patient empowerment	Nurses, GPs, midwives, child services
Respond Integrated Refugee Health Service[72]	Specialised-focus, gateway	Screening & Assessment	UK	Health and well-being assessments, infection screening and onward care planning, online multidisciplinary team (MDT) fora to support professionals working with the most complex of cases.	GPs, accommodation providers, outreach nurse ('respond nurse'), multidisciplinary network
Mental Health Screening of Newly Arrived Refugees in Colorado[57]	Specialised-focus, gateway	Screening and assessment	USA	Routine health screening (including Tuberculin skin tests, collection of stool samples, physical examinations), mental health screening, referrals	Case manager (resettlement agency), primary care nurse, primary care physician, psychologist or psychiatrist
Comprehensive refugee health screening and assessment programme (University of Colorado)[43]	Gateway	Screening and assessment	USA	Comprehensive screening and assessment (including mental health), vaccination, interpretation service, follow-up and referral	Physicians, nurses, interpreters, administrative coordinator, health screening coordinator, medical assistant, psychologist
Refugee Health Assessment Programme[71]	Specialised-focus, gateway	Screening and Assessment	USA	Initial health interview and health assessment, mental health screening, laboratory analysis, medication reconciliation/ initiation of medical treatment, specialty referral care, warm hand-offs as needed for mental/behavioural health issues	Case managers from local resettlement organisation RN/ medical assistant, Nurse Practitioner, interpreter, community health worker
International Family Medicine Clinic (IFMC)[68–70]	Specialised-focus, mainstream	No specific focus	USA	comprehensive, culturally sensitive care; initial health screening, follow-up visits, referral service	Physicians, nurse practitioners, residents, registered nurse care coordinator, social worker, clinical psychologists, doctoral students, clinical pharmacist, interpreters
Home healthcare—pilot project [97]	Mainstream	Home healthcare in older age	USA	Routinely screening for depression and anxiety; educational strategies to assess and teach chronic disease and medication management; connect patients with community resources; promote access to preventive care services and aim to decrease avoidable use of the ED and hospital	Nurses, physical therapists, occupational therapists, medical social worker

Full table with additional information on setting, target population, funding and responsible institution: online supplemental file 4.
AU, Australia; BD, Bangladesh; BE, Belgium; CA, Canada; CH, Switzerland; CM, Cameroon; DE, Germany; DK, Denmark; FR, France; GPs, general practitioners; JO, Jordan; LB, Lebanon; MoC, models of care; NZ, New Zealand; PS, Palestinian Territories; SS, South Sudan; SY, Syria; TH, Thailand.

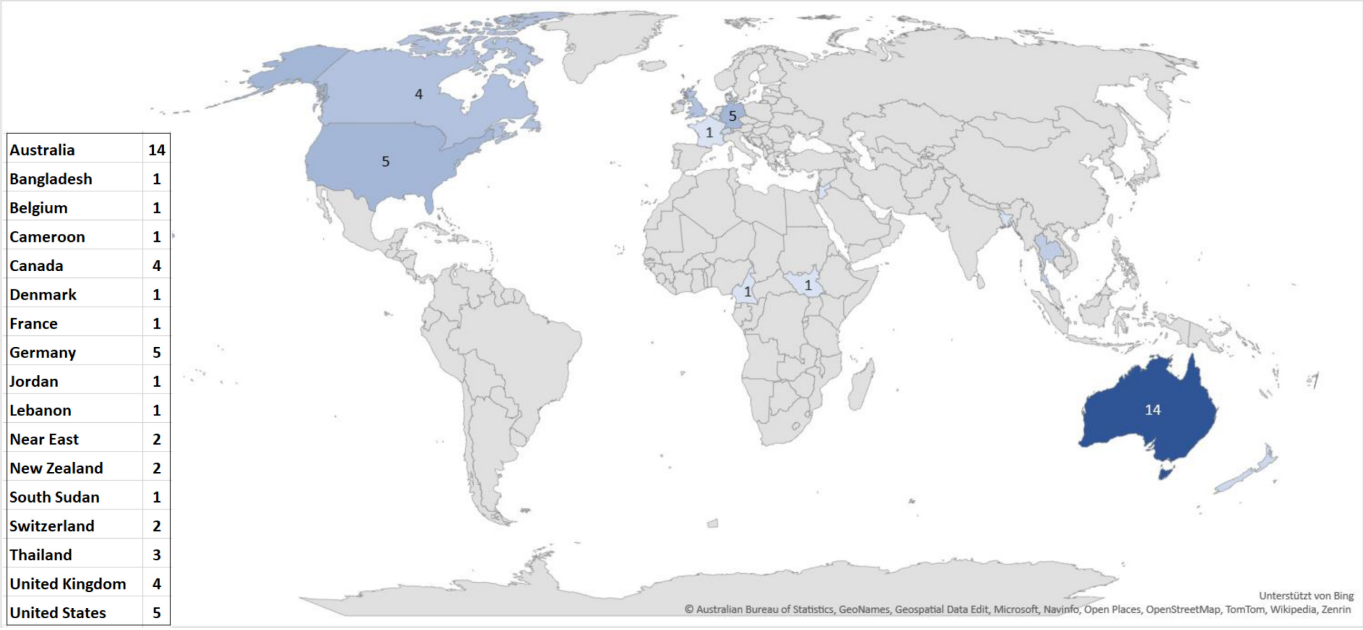

Figure 2 Geographical Distribution of the described 49 MoC (based on 67 publications).

Models of care

Type of service

According to the WHO framework,[21] most of the MoC included could be characterised as specialised-focus services,[35 36 49 52 58 75 77–82] often combined with a gateway service[37 39 44 47 48 50 53 57 59 61–64 67 71 72 76 83–93] or linked to mainstream services.[56 66 68–70 94] However, there are also mainstream services explicitly incorporating refugee-sensitive approaches.[54 55 60 65 95–97] Few MoC function predominantly as gateway services.[41 43 45 98 99] Limited services are rather rarely described[33 34 38 42 100 101] or not labelled as such.

Available health services

The availability of health services varies by MoC and is influenced by different factors such as setting, target population and funding (table 2, online supplemental file 4). Most MoCs include comprehensive health assessments and screenings. MoC which could be characterised as specialised-focus services provide comprehensive care within their particular focus and usually for a defined period of time, such as the first 6–12 months after arrival. Many MoCs also include activities for health education and capacity-building among ASR, as well as case management and referral support services. Several MoCs also target providers in mainstream healthcare, offering training on refugee health issues or acting as a liaison service. Refugee-sensitive MoC within mainstream services often include specific assessments, tailored health information, interpretation services and referral support when necessary. Gateway services function as referral agents, connecting patients with healthcare providers for further treatment but not offering direct care. Limited services, commonly found in refugee camps, often focus on specific conditions, such as diabetes care.

Targeted health conditions, population and setting

The identified MoC target various health conditions or (sub)populations and offer a wide range of health services. Each MoC often has a distinct focus, such as addressing newly arrived refugees, specific geographical populations or refugees with particular diseases. 45% (24) of the MoC focus their work on general health issues[39 40 46 61 65 77 96] or do not state a distinct focus of the MoC.[37 41 44 47 48 53 56 62–64 67–70 75 76 83–85 89–93 98] Other MoCs focus primarily on specific conditions or groups: 10% (5) on reproductive, maternal and child health[54 55 60 80 87 95] (mainly embedded in mainstream services), 8% (4) on non-communicable diseases[33 34 42 78 79] (all located in humanitarian settings in the Near/Middle East), 6% (3) on mental health,[52 86 99] 4% (2) on communicable diseases[35 36 49 51] and 2% (1) on home healthcare in older age.[97] 14% (7) of the MoCs concentrate their work on screening and assessment,[43 45 50 57 71 72 88] while another 6% (3) of the MoCs focus on care coordination and case management[59 66 94] without a distinct focus on a specific health condition.

Services are primarily provided in dedicated PHC facilities or outpatient clinics, sometimes complemented by outreach activities (online supplemental file 4). About 33% (16) of the identified MoC are based in collective accommodation facilities or refugee camps.[33 34 37–40 42 53 58 61 63 64 67 77–81 86 89–91 93 100]

Funding and responsible institution

Most MoCs receive public funding for their work from various national funding agencies (online supplemental file 4). In addition to government funds, services are sometimes also reimbursed through health insurance when eligible. In humanitarian settings in particular, and in some low-income and middle-income countries

(LMICs), supranational funding agencies such as United Nations (UN) agencies or international aid organisations come into play. The institutions responsible for operating the MoC are most often public actors or services (n=23) or publicly funded private actors (n=7) as well as NGOs (n=12) and sometimes UN agencies (n=3).

Workforce composition

Because of our inclusion criteria, all MoCs included in this review report the involvement of nurses. Especially in Anglo-Saxon countries, different nursing qualification levels (eg, practice nurses, nurse specialists) are mentioned. In Australia, these specialist nurses are often referred to as refugee health nurses. Sometimes it is reported that nurses working in these MoCs received special training to fulfil their tasks properly, but we could not identify references to a (common) curriculum.

The composition of the workforce in the included MoC is mainly described as multiprofessional (table 2). In addition to nurses, general practitioners and specialists (often gynaecologists, paediatricians, psychiatrists) are mentioned. Some MoCs also include other health professionals (eg, psychologists, physiotherapists, midwives), social workers and administrative staff. A few MoCs also work with community health workers or volunteers. Language interpreters, often on-site, are an important part of almost all MoCs. 16% of the MoCs (8) are explicitly organised as nurse-led services.[37 39 40 43 46 53 59 62–64 66 67 90 91 93]

Facilitators

Facilitators of MoC implementation are in most cases very context-specific, but certain aspects have proven helpful for successful implementation. First, the need for low-threshold accessibility (both in terms of access requirements and geographical accessibility)[34 68] and continuity of care providers,[54 55 72] supported by active outreach activities[35 44 55 72] and intersectoral collaboration.[34 41 51 52 59 68 72 76] Second, multiprofessional and well-trained teams,[34 44 68 69 76] as well as bilingual staff and interpretation services,[35 44 55 68 72 76] are key factors for successful implementation. Third, task-shifting may facilitate implementation, especially when the roles of the actors involved are clearly defined.[33 42 44 46 56 68] Last but not least, comprehensible guidelines tailored to the specific context,[34] relevant technical and structural infrastructure[35 41 68] as well as effective governance[41 56 59 61 68] have been reported as instrumental for effective implementation of MoC.

Nurses' involvement

Scope of practice

We were able to extract detailed information on the involvement of nurses in 28 MoC (out of 40 publications rated as being of high relevance, see Methods Section).[33–72] The analysed scope of nursing practice was clustered into seven domains (figure 3a). The three most frequently mentioned activities in these domains were 'assessment, screening, monitoring and examination' (96%; n=27), 'health education and capacity building of ASR' (71%; n=20) and 'coordination and case management' (71%; n=20). There are country-specific differences in the degree of autonomy in nursing practice, with high levels of autonomy observed particularly in Anglo-Saxon countries.

Role description

The included publications did not always provide clear descriptions of the professional roles of nurses. Nevertheless, we identified statements about nurses' roles in the 40 included publications (covering 28 MoC) which we regarded as highly relevant to our review questions. As described in the Methods Section, we first performed an inductive categorisation of these statements and additionally asked a large language model (ChatGPT

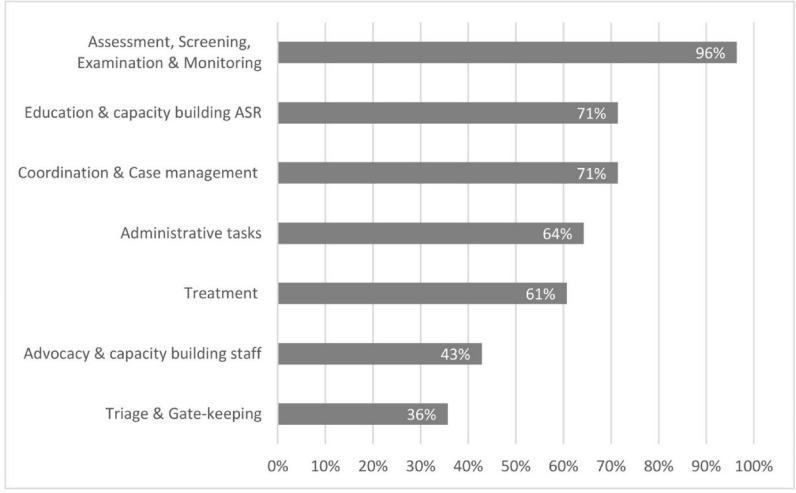

Figure 3a: Nurses' scope of practice (based on 28 MoC investigated)

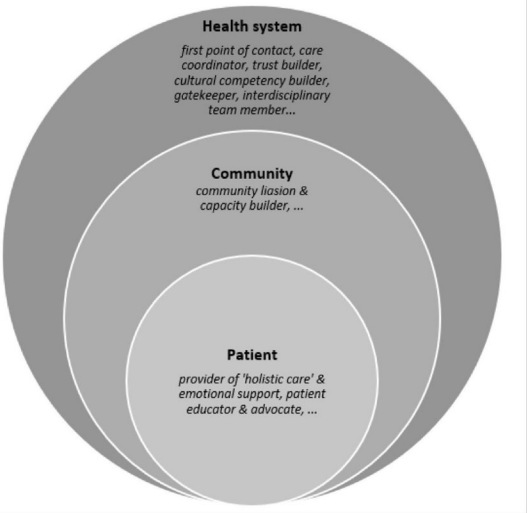

Figure 3b: Nurses' Roles

Figure 3 (a) Nurses' scope of practice (based on 28 MoC investigated). (b) Nurses' roles.

3.5) to identify the role of professional nurses from the same statements. A comparison of the manually synthesised results and the output of ChatGPT 3.5 revealed no substantial deviations, so that no further categories emerged by the use of Artificial Intelligence.

Given the heterogeneous structure and different objectives of each MoC, nursing roles differ substantially. Nevertheless, there are patterns and recurring descriptions of roles in the summary (where these have been noted in the publications). As shown in figure 3a, nurses in the MoC have a broad scope of practice. The role of nurses in fulfilling these tasks is described in various ways. Descriptions of the manifold roles could be observed on the patient, community and health system level (figure 3b).

At the patient level, nurses provide comprehensive, needs-oriented care and educate patients and their families about individual conditions and the healthcare system. They also offer emotional support, reassurance and build trusting relationships with patients to ensure proper care. At the community level, nurses build capacity within healthcare systems and communities by improving cultural competency, understanding diverse patient experiences and enhancing access to care. They act as intermediaries between refugees and other healthcare professionals. At the health system level, nurses coordinate patient care by addressing access barriers and connecting patients to services such as social support. Often serving as the first point of contact, they conduct initial assessments or triage and sometimes take on a gatekeeper role. Overall, nurses facilitate access to appropriate care within the healthcare system, collaborating closely with other professionals in interdisciplinary teams. They play a key role in conducting health assessments, providing input into treatment plans, and advocating for patients' needs within the team.

DISCUSSION

Most of the identified MoCs involving nursing staff provide services to newly arrived refugees for a limited time and are funded by public authorities or aid organisations. The range of health services offered varies between MoC, as does their focus on specific health conditions. The workforce is typically multiprofessional and often includes psychosocial support staff. MoCs employ various strategies to address the healthcare needs of refugees in primary care settings. The majority follow a specialised-focus model, creating parallel healthcare structures for a limited period or targeting specific conditions in a vertical approach. However, some of the MoCs we studied focus on referral support as gateway services or are embedded in mainstream services. The roles and responsibilities of nurses in these MoCs vary based on their (intended) function and scope of practice. In many cases, nurses have a high degree of autonomy with clearly defined responsibilities. Our findings also indicate that, in addition to clinical and administrative duties, educational and coordinating activities are often equally important aspects of the nurses' role.

Notably, publications included in this review were predominantly originating from high-income countries (HICs). There is a particular focus on Anglo-Saxon countries, especially Australia. One reason for this might be a tradition of Advanced Nursing Practice and a stronger academic grounding of nursing research in these countries.[102 103] These prerequisites appear to be advantageous for the development of specialised roles in the area of refugee health. Reports on MoC in LMIC mainly exist when an international organisation, such as an UN agency or an international NGO (such as doctors without borders), was involved in the service model.

The structure of healthcare systems varies between countries, as do the legal regulations regarding access to healthcare for refugees and their financing. Public funding is required to finance these types of services, with nearly all identified MoC relying on it (online supplemental file 4). Nonetheless, the funding seems to have no immediate influence on the structure and alignment of the identified care models. Specialised-focus services, often combined with gateway services, are predominantly described and found both in countries with limited access and in countries with full access. So far, there has been little evidence of whether it is better to have a parallel structure for refugee healthcare or to have targeted interventions to improve integration into mainstream healthcare structures. Most of the MoCs that we have examined follow an approach with a parallel structure for a limited period of time or depending on accommodation in a refugee camp. However, we identified some voices arguing for a stronger orientation towards colocation models or so-called Beacon Practices (A Beacon Practice is a centralised practice with staff who have specific skills in refugee healthcare and strong relationships with other providers, the community and partner organisations.).[41 56 88 104 105]

Most of the MoCs we studied in HICs do not deal solely with specific diseases or groups, but serve as a contact point for all health-related questions. This is considered appropriate, as assistance to navigate within a new healthcare system is often needed.[4 7 106] Other MoCs specifically address a defined disease entity, such as tuberculosis. Depending on the refugees' countries of origin,[107 108] such approaches may be important for consolidating specialised knowledge in one place.[12 36] To reduce adverse health outcomes and improve the responsiveness of the health system, there is also a strong need to identify and care for people with special protection needs.[109–111]

Overall, it is striking that there is little standardisation or reference to common conceptual foundations of the various MoC. Overarching guidelines for MoC development in this area are only mentioned in a few cases in Australia,[112 113] where we also could identify a professional association of Refugee Health Nurses (refugeenursesaustralia.org). However, we were unable to identify standardised competence requirements and training curricula for staff in this area, although

this is essential to ensure high and comparable quality of care across different settings. Particularly in situations where the MoC has an explicit gatekeeper role to the regular healthcare system, it is crucial to ensure high quality and consistency in the assessment of the patient's health status and treatment needs. Nevertheless, there are several guidelines at supranational level, including those of the WHO.[114] It seems advisable to examine these recommendations more closely and to transfer them to the national context in order to define a set of minimum requirements. Furthermore, given the high number of patients with a refugee background, curricula in medical and nursing education, especially in the field of community health, should include relevant aspects of refugee health in their standard curricula.[115 116] Additionally, there is a need for specific programmes in continuing education.[117]

Looking at the involvement of nurses, there is a significant (and often independent) contribution within the different MoCs studied in this review, although there are country-specific differences in the tasks performed and in the understanding of the role of nurses. Aspects of task sharing and task shifting between different health professionals (especially between doctors and nurses) are rarely explicitly mentioned[53 91 118]; but we would assume that these aspects are considered in the design of the respective MoC, as they are an important part of the discourse on redesigning health systems.[14 119 120] The large number of MoC we identified in Anglo-Saxon countries is insofar to be expected, as independent roles for Advanced Nursing Practice are already an established part of the health system in these countries, but rarely in the field of refugee health.[14 121] Country-specific differences regarding the scope of practice arise also due to national regulations, which allow for Advanced Nursing Practice to varying extents.[14 122 123] The roles that nurses take on in the care of refugees are largely comparable to those in other contexts and settings.[121 124] However, in order to fulfil their tasks and diverse roles well, nurses need comprehensive knowledge of the relevant aspects of diversity-sensitive care and the complex legal regulations.[11 114] Knowledge about the development, implementation and evaluation of extended and advanced nursing roles exists and can inform the development and expansion of such structures in refugee health.[125–127]

To this end, more evidence is needed on these service models, which have often been developed as pilot projects or ad hoc responses. In particular, structural elements and long-term effects on access, quality of care and health economics should be considered and evaluated. Given the different implementation and delivery strategies adopted to date, natural experiment methods could be a possible approach to generating evidence to answer some of the research desiderata. As the existing literature rarely focuses on the role and tasks of nurses in refugee health, further research focusing specifically on these aspects is crucial. This will help better understand nurses' contribution to ensuring access and continuity of care, as well as the specific competencies needed to fulfil these roles effectively. While this review focused on the involvement of nurses, further evidence syntheses could place more emphasis on interdisciplinarity and the roles of different actors involved in MoC for refugees. Furthermore, systematically collected evidence on the 'impact' of MoC on specific outcomes, such as access to and quality of care is required. At the policy level, there is a need for sustainable public funding of appropriate service models that can foster the strategic goal of UHC and ensure that no one will be left behind. This should and could be accompanied by research activities supporting the implementation, improvement and evaluation of such approaches.

Limitations

Previous reviews of the literature have examined MoC for refugees,[12 13 20 22 23 118 128] but this review is the first, to our knowledge, to focus on the contribution and role of nurses in these models. Nonetheless, this systematic review has several limitations. Despite the choice of a sensitive search strategy and broad inclusion criteria, we were mainly able to identify articles from HICs. We strongly suspect that the published reports do not reflect the actual existence of such MoC globally, but point rather to evidence gaps and publication biases. To counteract a possible language bias, we included publications in English, Spanish and French as well as German. However, we only used the English search term to search for literature in the scientific databases, and the search terms for the population investigated (refugees and internally displaced persons) could have been more sophisticated, so it cannot be ruled out that potentially relevant literature may have been missed. Moreover, we optimised our search syntax to identify papers reporting centrally on MoC and the role of nurses within them. This means that our search may have missed other publications on MoC for refugees that refer to or involve nurses only peripherally or remotely but may still contain respective information. We used various search engines to identify relevant grey literature as systematically as possible, but these produced a very limited number of relevant hits in relation to the effort involved. This could be due to the fact that we translated the search terms for the search engines but did not make any language or context-specific adjustments. Restricting the search results to PDF documents proved beneficial for the systematic examination of the identified search hits but may have prevented relevant information from being found on some web pages.

In addition, the nature of the existing research and literature itself comes with some limitations: as mentioned above, the information required to answer our review questions was often only presented as complementary information in the publications (and was not the focus of the research presented); research and publications specifically focused on the design and structure of MoC for refugees and nursing roles are still rare. This results in a very heterogeneous selection of literature (in terms of methods and content focus) and, therefore,

no possibility for us to carry out a quality assessment of the included literature that could be applied across the board.

CONCLUSIONS

The PHC models for refugees identified in our review offer a variety of different health services, including comprehensive screenings, medical care, care coordination and health education. Most of these models operate as parallel specialised-focus services for newly arrived refugees, often incorporating gateway services to help facilitate access to the regular healthcare system. They are typically funded by public authorities or international relief organisations and involve a multiprofessional workforce. Nurses' roles vary across settings but often involve significant autonomy and responsibility, though standardisation of their scope of practice is lacking.

Future research should assess the long-term impact of these models and identify best practices. Additionally, more attention is needed on the role of nurses in ensuring access and continuity of care, and the competencies required for these tasks.

While parallel care structures may be necessary for short-term needs, integrating refugees into mainstream healthcare is crucial. Specially trained nurses are well-positioned to support this integration through care coordination and health education. Given that such MoCs still exist only in a few places, they should be further developed and scaled up to advance the goal of UHC and ensure that no one is left behind.

X Andreas W Gold @andreaswgold

Acknowledgements We would like to thank Eilin Rast, Judith Weiß, Diogo Costa and Stella Duwendag for their support in the screening process and Dr Georg Schwesinger for his advice in developing the search strategy. We would also like to thank Maren Hintermeier and the anonymous reviewers for their advice and critical feedback on the manuscript. Selected preliminary results of this review were presented at the 17th European Public Health Conference 2024 in Lisbon.

Contributors AWG: conceptualisation, methodology, investigation, formal analysis, data curation, writing–original draft, visualisation, project administration. CP: methodology, investigation, formal analysis, writing–review and editing. LB: methodology, investigation, writing–review and editing. KB: conceptualisation, methodology, formal analysis, writing–review and editing, supervision, funding acquisition. All authors had full access to all data in the study and read and approved the final version of the manuscript. AWG is the guarantor.

Funding We acknowledge funding by the German Federal Ministry for Education and Research (BMBF) in the scope of the project RESPOND (grant number: 01GY1611). For the publication fee we acknowledge financial support by Heidelberg University.

Disclaimer The funders had no influence on study design, analysis or decision to publish.

Competing interests None declared.

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Ethics approval As this was a systematic review of published articles no formal ethical approval was required.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement All data relevant to the study are included in the article or uploaded as supplementary information.

AI use statement In preparing this manuscript, we used AI technology for two specific purposes: (1) cross-validation of narrative findings: We used OpenAI's GPT-3.5 to cross-validate our narrative findings about nurses' roles after human synthesis, as described in the Methods section. This process was used to increase robustness and confirm the coherence of our findings. (2) Improving the readability of the manuscript: We used OpenAI's GPT-3.5 and GPT-4 as well as DeepL (free version) to improve the readability of the manuscript.AI was used to refine language, improve clarity and ensure that complex ideas were communicated effectively. All AI-generated revisions were reviewed by the authors and modified as necessary to maintain the scientific integrity and accuracy of the content. No AI-generated content was accepted without thorough evaluation. We remain fully responsible for the final content and accuracy of the manuscript.

ORCID iDs
Andreas W Gold http://orcid.org/0000-0002-4414-1177
Clara Perplies http://orcid.org/0000-0001-5244-9094

REFERENCES

1 UNHCR. Global trends: forced displacement in 2023. 2024. Available: https://www.unhcr.org/global-trends-report-2023
2 WHO, World Bank. Healthy systems for universal health coverage: a joint vision for healthy lives. 2017. Available: https://www.uhc2030.org/fileadmin/uploads/uhc2030/2_What_we_do/2.2_Improving_collaboration/2.2.1_Health_systems_strengthening/Joint_vision_executive_summaries/UHC2030_vision_paper_WEB2.pdf
3 Bradby H, Humphris R, Newall D, *et al*. Public health aspects of migrants health: a review of the evidence on health status for refugees and asylum seekers in the european region. 2015.
4 Abubakar I, Aldridge RW, Devakumar D, *et al*. The UCL-Lancet Commission on Migration and Health: the health of a world on the move. *Lancet* 2018;392:2606–54.
5 WHO. World report on the health of refugees and migrants. 2022. Available: https://www.who.int/publications/i/item/9789240054462
6 WHO, Regional Office for Europe. Addressing the health challenges in immigration detention, and alternatives to detention: a country implementation guide. 2022.
7 Matlin SA, Depoux A, Schütte S, *et al*. Migrants' and refugees' health: towards an agenda of solutions. *Public Health Rev* 2018;39.
8 Bryar RM, Kendall S, Mogotlane SM. Reforming primary health care: a nursing perspective: contributing to health care reform, issues and challenges. 2012. Available: https://kar.kent.ac.uk/55248/1/PHCNursing.pdf
9 WHO, UNICEF. A vision for primary health care in the 21st century: towards universal health coverage and the sustainable development goals. 2018.
10 WHO. Primary health care: now more than ever. 2008. Available: https://iris.who.int/handle/10665/69863
11 WHO. Competencies for nurses working in primary health care. 2020. Available: https://apps.who.int/iris/handle/10665/365607
12 Iqbal MP, Walpola R, Harris-Roxas B, *et al*. Improving primary health care quality for refugees and asylum seekers: A systematic review of interventional approaches. *Health Expect* 2022;25:2065–94.
13 Robertshaw L, Dhesi S, Jones LL. Challenges and facilitators for health professionals providing primary healthcare for refugees

and asylum seekers in high-income countries: a systematic review and thematic synthesis of qualitative research. *BMJ Open* 2017;7:e015981.
14 Maier CB, Aiken LH, Busse R. Nurses in advanced roles in primary care: policy levers for implementation: OECD health working papers no. 98. 2017.
15 Heumann M, Röhnsch G, Hämel K. Primary healthcare nurses' involvement in patient and community participation in the context of chronic diseases: An integrative review. *J Adv Nurs* 2022;78:26–47.
16 Schaeffer D, Hämel K, Ewers M. Versorgungsmodelle für ländliche und strukturschwache Regionen: Anregungen aus Finnland und Kanada. Beltz Juventa; 2015.
17 Rossiter R, Phillips R, Blanchard D, *et al*. Exploring nurse practitioner practice in Australian rural primary health care settings: A scoping review. *Aust J Rural Health* 2023;31:617–30.
18 WHO. State of the world's nursing report - 2020: investing in education, jobs and leadership. 2020. Available: https://www.who.int/publications/i/item/9789240003279
19 Bryant-Lukosius D, Valaitis R, Martin-Misener R, *et al*. Advanced Practice Nursing: A Strategy for Achieving Universal Health Coverage and Universal Access to Health. *Rev Lat Am Enfermagem* 2017;25:e2826.
20 Joshi C, Russell G, Cheng I-H, *et al*. A narrative synthesis of the impact of primary health care delivery models for refugees in resettlement countries on access, quality and coordination. *Int J Equity Health* 2013;12:88.
21 WHO. Mapping health systems' responsiveness to refugee and migrant health needs. 2021. Available: https://www.who.int/publications/i/item/9789240030640
22 Brandenberger J, Tylleskär T, Sontag K, *et al*. A systematic literature review of reported challenges in health care delivery to migrants and refugees in high-income countries - the 3C model. *BMC Public Health* 2019;19:755.
23 Riza E, Kalkman S, Coritsidis A, *et al*. Community-Based Healthcare for Migrants and Refugees: A Scoping Literature Review of Best Practices. *Healthcare (Basel)* 2020;8:115.
24 Lizarondo L, Stern C, Carrier J, *et al*. Chapter 8: mixed methods systematic reviews. In: Aromataris E, Munn Z, eds. *JBI Manual for Evidence Synthesis*. JBI, 2020.
25 Page MJ, McKenzie JE, Bossuyt PM, *et al*. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71.
26 Aromataris E, Munn Z, eds. In: *JBI Manual for Evidence Synthesis. JBI*. 2020.
27 Piasecki J, Waligora M, Dranseika V. Google Search as an Additional Source in Systematic Reviews. *Sci Eng Ethics* 2018;24:809–10.
28 Haddaway NR, Collins AM, Coughlin D, *et al*. The Role of Google Scholar in Evidence Reviews and Its Applicability to Grey Literature Searching. *PLoS One* 2015;10:e0138237.
29 Ćurković M, Košec A. Bubble effect: including internet search engines in systematic reviews introduces selection bias and impedes scientific reproducibility. *BMC Med Res Methodol* 2018;18:130.
30 Bramer WM, Rethlefsen ML, Kleijnen J, *et al*. Optimal database combinations for literature searches in systematic reviews: a prospective exploratory study. *Syst Rev* 2017;6:245.
31 Veritas Health Innovation. Covidence systematic review software. n.d. Available: www.covidence.org
32 EPPI. EPPI-centre methods for conducting systematic reviews. 2007. Available: https://www.betterevaluation.org/sites/default/files/Methods.pdf
33 Ansbro É, Homan T, Prieto Merino D, *et al*. Clinical outcomes in a primary-level non-communicable disease programme for Syrian refugees and the host population in Jordan: A cohort analysis using routine data. *PLoS Med* 2021;18:e1003279.
34 Ansbro É, Homan T, Qasem J, *et al*. MSF experiences of providing multidisciplinary primary level NCD care for Syrian refugees and the host population in Jordan: an implementation study guided by the RE-AIM framework. *BMC Health Serv Res* 2021;21:381.
35 Benjumea-Bedoya D, Bertram-Farough A, Plourde P, *et al*. Latent tuberculosis infection (LTBI) management at bridgecare clinic. 2017.
36 Benjumea-Bedoya D, Becker M, Haworth-Brockman M, *et al*. Integrated Care for Latent Tuberculosis Infection (LTBI) at a Primary Health Care Facility for Refugees in Winnipeg, Canada: A Mixed-Methods Evaluation. *Front Public Health* 2019;7:57.
37 Bize R, Taushanov Z, Decollogny A, *et al*. Etude sur les trajectoires de prise en charge médicale des migrant-e-s issu-e-s du domaine de l'asile dans le canton de vaud phase préparatoire. 2019.
38 Borgschulte HS, Wiesmüller GA, Bunte A, *et al*. Health care provision for refugees in Germany - one-year evaluation of an outpatient clinic in an urban emergency accommodation. *BMC Health Serv Res* 2018;18:488.
39 Bundesamt für Gesundheit, Staatssekretariat für Migration. Gesundheitsversorgung für Asylsuchende in Asylzentren des Bundes und in den Kollektivunterkünften der Kantone. 2017. Available: https://www.bag.admin.ch/dam/bag/de/dokumente/mt/i-und-i/gesundheitsversorgung-asyl/konzept-bag-sem.pdf.download.pdf/konzept-bag-sem-de.pdf
40 Cignacco E, Berger A, Sénac C, *et al*. Sexuelle und reproduktive Gesundheitsversorgung von Frauen und ihren Säuglingen in Asylunterkünften in der Schweiz (REFUGEE). 2017. Available: https://www.bfh.ch/dam/jcr:47f1de0c-7af6-4b22-8999-2fc889e4ec4b/projektbericht-refugee.pdf
41 Kay M, Jackson C, Nicholson C. Refugee health: a new model for delivering primary health care. *Aust J Prim Health* 2010;16:98–103.
42 Kayali M, Moussally K, Lakis C, *et al*. Treating Syrian refugees with diabetes and hypertension in Shatila refugee camp, Lebanon: Médecins Sans Frontières model of care and treatment outcomes. *Confl Health* 2019;13:12.
43 Kennedy J, Seymour DJ, Hummel BJ. A comprehensive refugee health screening program. *Public Health Rep* 1999;114:469–77.
44 Kunin M, Timlin M, Lemoh C, *et al*. Improving screening and management of latent tuberculosis infection: development and evaluation of latent tuberculosis infection primary care model. *BMC Infect Dis* 2022;22:49.
45 Le Feuvre P. How primary care services can incorporate refugee health care. *Med Confl Surviv* 2001;17:131–6.
46 Lewis R. Nurse-led Primary Care: learning from PMS pilots, 2001. Available: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/nurse-led-primary-care-learning-from-pms-pilots-richard-lewis-kings-fund-1-july-2001.pdf
47 McBride J, Block A, Russo A. An integrated healthcare service for asylum seekers and refugees in the South-Eastern Region of Melbourne: Monash Health Refugee Health and Wellbeing. *Aust J Prim Health* 2017;23:323–8.
48 McBride J, Russo A, Block A. The Refugee Health Nurse Liaison: a nurse led initiative to improve healthcare for asylum seekers and refugees. *Contemp Nurse* 2016;52:710–21.
49 NCCID. Integrated LTBI Care for Refugees: Successes & Challenges at BridgeCare Clinic in Winnipeg. 2017. Available: https://nccid.ca/wp-content/uploads/sites/2/2017/04/LTBIengFINALweb.pdf
50 Ogunsiji O, Ng Chok H, Mashingaidze G, *et al*. "I am still passionate despite the challenges": Nurses navigating the care for refugees. *J Clin Nurs* 2018;27:3335–44.
51 Omam L-A, Jarman E, Ekokobe W, *et al*. Mobile clinics in conflict-affected communities of North West and South West regions of Cameroon: an alternative option for differentiated delivery service for internally displaced persons during COVID-19. *Confl Health* 2021;15:90.
52 Phillips C, Hall S, Elmitt N, *et al*. People-centred integration in a refugee primary care service. *JICA* 2017;25:26–38.
53 Puig F, Ninane F, Bodenmann P. Un nouveau rôle: le gatekeeping infirmier. *Krankenpfl Soins Infirm* 2009;102:48–51.
54 Riggs E, Muyeen S, Brown S, *et al*. Cultural safety and belonging for refugee background women attending group pregnancy care: An Australian qualitative study. *Birth* 2017;44:145–52.
55 Riggs E, Davis E, Gibbs L, *et al*. Accessing maternal and child health services in Melbourne, Australia: reflections from refugee families and service providers. *BMC Health Serv Res* 2012;12:117.
56 Sackey D, Jones M, Farley R. Reconceptualising specialisation: integrating refugee health in primary care. *Aust J Prim Health* 2020;26:452–7.
57 Savin D, Seymour DJ, Littleford LN, *et al*. Findings from mental health screening of newly arrived refugees in Colorado. *Public Health Rep* 2005;120:224–9.
58 Solheim K. Patterns of community relationship: nurses, non-governmental organizations and internally displaced persons. *Int Nurs Rev* 2005;52:60–7.
59 Woodland L, Kang M, Elliot C, *et al*. Evaluation of a school screening programme for young people from refugee backgrounds. *J Paediatr Child Health* 2016;52:72–9.
60 Yelland J, Riggs E, Wahidi S, *et al*. How do Australian maternity and early childhood health services identify and respond to the settlement experience and social context of refugee background families. *BMC Pregnancy Childbirth* 2014;14:348.
61 Zurmati AK, De Sutter A, Decat P. Primary healthcare for refugees: The Ponton experience. *Eur J Gen Pract* 2017;23:180–1.

62 Hughes E, Kean S, Cuthill F. Fluctuating power: an exploration of refugee health nursing within the resettlement context in Victoria, Australia. *J Res Nurs* 2022;27:217–28.
63 Genton PC, Wang J, Bodenmann P, *et al*. Clinical profile and care pathways among unaccompanied minor asylum seekers in Vaud, Switzerland. *Int J Adolesc Med Health* 2019;34.
64 Bodenmann P, Althaus F, Burnand B, *et al*. Medical care of asylum seekers: a descriptive study of the appropriateness of nurse practitioners' care compared to traditional physician-based care in a gatekeeping system. *BMC Public Health* 2007;7:310.
65 Davison R, Hobbs M, Quirk F, *et al*. General practitioners' perspectives on the management of refugee health: a qualitative study. *BMJ Open* 2023;13:e068986.
66 Chua D, Sackey D, Jones M, *et al*. The M-CHooSe pilot: the acceptability and utilisation of the nurse-led, general practice clinic co-located 'Mater CALD Healthcare Coordinator Service' for patients from multicultural backgrounds. *Aust J Prim Health* 2023;29:175–85.
67 Tzogiou C, Spycher J, Bize R, *et al*. Detecting and describing heterogeneity in health care cost trajectories among asylum seekers. *BMC Health Serv Res* 2022;22:978.
68 Elmore CE, Tingen JM, Fredgren K, *et al*. Using an interprofessional team to provide refugee healthcare in an academic medical centre. *Fam Med Community Health* 2019;7:e000091.
69 Daniel KE, Blackstone SR, Tan JS, *et al*. Integrated model of primary and mental healthcare for the refugee population served by an academic medical centre. *Fam Med Community Health* 2023;11:e002038.
70 Haynie D. Models of refugee health care. 2020. Available: https://med.virginia.edu/family-medicine/wp-content/uploads/sites/285/2020/09/Haynie_Models-of-Refugee-Health-Care_083120.pdf
71 Wessel L, Valasquez LG. The Role of Nurse Practitioners in Helping Refugees and Asylees Thrive in a New Country. *J Nurse Pract* 2024;20:104824.
72 Harris P, Twose O, Ni Chaoilte A, *et al*. Empowering professionals: a multidisciplinary approach to supporting people seeking asylum and refugees. *BMJ Paediatr Open* 2024;8:e002869.
73 VERBI Software. MAXQDA 2022. 2022. Available: https://www.maxqda.com/
74 OpenAI. ChatGPT (March 22 version). 2024. Available: https://chat.openai.com
75 Wahedi K, Biddle L, Jahn R, *et al*. Medizinische Versorgung von Asylsuchenden in Erstaufnahmeeinrichtungen: Eine qualitative Bestandsaufnahme aus Versorgungsperspektive. *Bundesgesundheitsbl* 2020;63:1460–9.
76 Haight J, Kruth M, Gokiert R, *et al*. A principles-based community health center for addressing refugee health: the New Canadians Health Centre. *Front Public Health* 2024;12:1440075.
77 Nikendei C, Huhn D, Adler G, *et al*. Entwicklung und Implementierung einer Medizinischen Ambulanz in einer Erstaufnahmeeinrichtung für Asylsuchende des Landes Baden-Württemberg. *Zeitschrift Für Evidenz, Fortbildung Und Qualität Im Gesundheitswesen* 2017;126:31–42.
78 Santoro A, Abu-Rmeileh N, Khader A, *et al*. Primary healthcare reform in the United Nations Relief and Works Agency for Palestine Refugees in the Near East. *East Mediterr Health J* 2016;22:417–21.
79 Shahin Y, Kapur A, Seita A. Diabetes care in refugee camps: the experience of UNRWA. *Diabetes Res Clin Pract* 2015;108:1–6.
80 Sami S, Amsalu R, Dimiti A, *et al*. Understanding health systems to improve community and facility level newborn care among displaced populations in South Sudan: a mixed methods case study. *BMC Pregnancy Childbirth* 2018;18:325.
81 Maybin S. A comparison of health provision and status in ban napho refugee cAMP and nakhon phanom province, northeastern Thailand. *Disasters* 1992;16:43–52.
82 Omam L-A, Jarman E, O'Laughlin KN, *et al*. Primary healthcare delivery models in African conflict-affected settings: a systematic review. *Confl Health* 2023;17:34.
83 Gould G, Viney K, Greenwood M, *et al*. A multidisciplinary primary healthcare clinic for newly arrived humanitarian entrants in regional NSW: model of service delivery and summary of preliminary findings. *Aust N Z J Public Health* 2010;34:326–9.
84 Cheng I-H, McBride J, Decker M, *et al*. The Asylum Seeker Integrated Healthcare Pathway: a collaborative approach to improving access to primary health care in South Eastern Melbourne, Victoria, Australia. *Aust J Prim Health* 2019;25:6.
85 Milosevic D, Cheng I-H, Smith MM. The NSW Refugee Health Service - improving refugee access to primary care. *Aust Fam Physician* 2012;41:147–9.
86 Tarannum S, Elshazly M, Harlass S, *et al*. Integrating mental health into primary health care in Rohingya refugee settings in Bangladesh: experiences of UNHCR. *Intervention (Amstelveen)* 2019;17:130.
87 Winn A, Hetherington E, Tough S. Caring for pregnant refugee women in a turbulent policy landscape: perspectives of health care professionals in Calgary, Alberta. *Int J Equity Health* 2018;17:91.
88 Kohler G, Holland T, Sharpe A, *et al*. The Newcomer Health Clinic in Nova Scotia: A Beacon Clinic to Support the Health Needs of the Refugee Population. *Int J Health Policy Manag* 2018;7:1085–9.
89 Cortier M, de La Porte C, Papot E, *et al*. Health status and healthcare trajectory of vulnerable asylum seekers hosted in a French Reception Center. *Travel Med Infect Dis* 2022;46:102180.
90 Schwienhorst E-M, Stich A. Medizinische Versorgung von Flüchtlingen und Asylbewerbern – Erfahrungen aus dem Würzburger Modell. *Flug u Reisemed* 2015;22:116–21.
91 Stich A, Schwienhorst E-M, Wegener C. Die medizinische Versorgung von Flüchtlingen: Zwischen Chaos, Krise und Chance. Bayerisches Ärzteblatt; 2016.174–7.
92 Kennedy JD, Moran S, Garrett S, *et al*. Refugee-like migrants have similar health needs to refugees: a New Zealand post-settlement cohort study. *BJGP Open* 2020;4.
93 Spycher J, Bodenmann P, Bize R, *et al*. Care and cost trajectories of asylum seekers in a nurse-led, patient centered, care network in Switzerland. *BMC Health Serv Res* 2021;21:681.
94 Radl-Karimi C, Nielsen DS, Sodemann M, *et al*. "What it really takes" - A qualitative study of how professionals coproduce healthcare service with immigrant patients. *J Migr Health* 2022;5:100101.
95 Hearn MF, Biggs DL, Brown PS, *et al*. Finding our own ways of working together: reflections on implementing and facilitating a multidisciplinary and equity-oriented model of Group Pregnancy Care for women of refugee background. *Midwifery* 2023;123.
96 Richard L, Richardson G, Jaye C, *et al*. Providing care to refugees through mainstream general practice in the southern health region of New Zealand: a qualitative study of primary healthcare professionals' perspectives. *BMJ Open* 2019;9:e034323.
97 Miner SM, Liebel D, Wilde MH, *et al*. Meeting the Needs of Older Adult Refugee Populations With Home Health Services. *J Transcult Nurs* 2017;28:128–36.
98 Farley R, Askew D, Kay M. Caring for refugees in general practice: perspectives from the coalface. *Aust J Prim Health* 2014;20:85–91.
99 Bajbouj M, Panneck P, Winter S-M, *et al*. A Central Clearing Clinic to Provide Mental Health Services for Refugees in Germany. *Front Public Health* 2021;9:635474.
100 Mohr O, Benner MT, Sansoenboon A, *et al*. Integrated primary health care services in two protracted refugee camp settings at the Thai-Myanmar border 2000-2018: trends on mortality and incidence of infectious diseases. *Prim Health Care Res Dev* 2022;23:e17.
101 McColl K, Pickworth S, Raymond I. Project: London--supporting vulnerable populations. *BMJ* 2006;332:115–7.
102 Delamaire M-L, Lafortune G. Nurses in Advanced Roles: A Description and Evaluation of Experiences in 12 Developed Countries. *OECD Health Working Papers* 2010;54.
103 Schober M. *Introduction to Advanced Nursing Practice*. Springer International Publishing, 2016.
104 Harris MF. Integration of refugees into routine primary care in NSW, Australia. *Public Health Res Pr* 2018;28.
105 Au M, Preston R, Ray RA, *et al*. The Refugee Co-Location Model may be useful in addressing refugee barriers to care. What do refugees think? *Aust J Primary Health* 2021;27:425–6.
106 WHO. Common health needs of refugees and migrants: literature review. 2022. Available: https://iris.who.int/bitstream/handle/10665/346743/9789240033108-eng.pdf
107 Bozorgmehr K, Joggerst B, Wagner U, *et al*. Yield of tuberculosis screening in asylum-seekers by country of origin: analysis of screening data in a German federal state (2002-2015). *Eur Respir J* 2017;49:1602327.
108 Bozorgmehr K. Post-migration follow-up of migrants at risk of tuberculosis. *Lancet Infect Dis* 2017;17:692.
109 Wenzel T, Völkl-Kernstock S, Wittek TU, *et al*. *Identifying Needs, Vulnerabilities and Resources in Refugee Persons and Groups*. Springer International Publishing, 2019:51–99.
110 Hvass AMF, Wejse C. Systematic health screening of refugees after resettlement in recipient countries: a scoping review. *Ann Hum Biol* 2017;44:475–83.
111 Junghans J, Kluth W, eds. *Exploring Asylum Seekers' Lived Experiences of Vulnerability in Germany*. Universitätsverlag Halle-Wittenberg, 2023.
112 Russell G, Harris MF, Cheng I-H, *et al*. Coordinated primary health care for refugees: a best practice framework for Australia. Report to the Australian Primary Health Care Research Institute; 2013.

Available: http://www.refugeehealthnetworkqld.org.au/wp-content/uploads/2019/07/Coordinated-PHC-for-Refugees_FULL-REPORT-1.pdf
113 State of Victoria. Refugee and asylum seeker health services: guidelines for the community health program. 2019. Available: https://www.health.vic.gov.au/publications/refugee-and-asylum-seeker-health-services-guidelines-for-the-community-health-program
114 WHO. Refugee and migrant health: global competency standards for health workers. 2021. Available: https://iris.who.int/bitstream/handle/10665/350533/9789240030626-eng.pdf
115 Ziegler S, Michaëlis C, Sørensen J. Diversity Competence in Healthcare: Experts' Views on the Most Important Skills in Caring for Migrant and Minority Patients. *Societies (Basel)* 2022;12:43.
116 Gruner D, Feinberg Y, Venables MJ, *et al*. An undergraduate medical education framework for refugee and migrant health: Curriculum development and conceptual approaches. *BMC Med Educ* 2022;22:374.
117 Sorensen J, Michaëlis C, Olsen JMM, *et al*. Diversity competence training for health professionals in Europe: a modified delphi study investigating relevant content for short or online courses. *BMC Med Educ* 2023;23:590.
118 Jaung MS, Willis R, Sharma P, *et al*. Models of care for patients with hypertension and diabetes in humanitarian crises: a systematic review. *Health Policy Plan* 2021;36:509–32.
119 WHO. Task shifting: rational redistribution of tasks among health workforce teams: global recommendations and guidelines, 2008. Available: https://iris.who.int/bitstream/handle/10665/43821/9789241596312_eng.pdf
120 Maier CB, Aiken LH. Task shifting from physicians to nurses in primary care in 39 countries: a cross-country comparative study. *Eur J Public Health* 2016;26:927–34.
121 Stanhope M, Lancaster J, eds. In: *Public Health Nursing: Population-Centered Health Care in the Community*. Elsevier, 2016.
122 Wheeler KJ, Miller M, Pulcini J, *et al*. Advanced Practice Nursing Roles, Regulation, Education, and Practice: A Global Study. *Ann Glob Health* 2022;88:42.
123 International Council of Nurses. Guidelines on advanced practice nursing 2020: ICN. 2020. Available: https://www.icn.ch/system/files/documents/2020-04/ICN_APN%20Report_EN_WEB.pdf
124 Rector CL, ed. *Community and Public Health Nursing: Promoting the Public's Health*. Wolters Kluwer, 2018.
125 Torrens C, Campbell P, Hoskins G, *et al*. Barriers and facilitators to the implementation of the advanced nurse practitioner role in primary care settings: A scoping review. *Int J Nurs Stud* 2020;104:103443.
126 Bryant-Lukosius D, DiCenso A. A framework for the introduction and evaluation of advanced practice nursing roles. *J Adv Nurs* 2004;48:530–40.
127 Martin-Misener R, Harbman P, Donald F, *et al*. Cost-effectiveness of nurse practitioners in primary and specialised ambulatory care: systematic review. *BMJ Open* 2015;5:e007167.
128 Rogers HJ, Hogan L, Coates D, *et al*. Responding to the health needs of women from migrant and refugee backgrounds-Models of maternity and postpartum care in high-income countries: A systematic scoping review. *Health Soc Care Community* 2020;28:1343–65.
129 IOM. Key migration terms. n.d. Available: https://www.iom.int/key-migration-terms
130 WHO. Health systems strengthening glossary: definition of primary care. n.d. Available: https://www.who.int/healthsystems/hss_glossary/en
131 Starfield B. Basic concepts in population health and health care. *J Epidemiol Community Health* 2001;55:452–4.