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Systematic Literature Review

Scoping Review of Health Economics Research on Refugee Health in Sub-Saharan Africa

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ABSTRACT

Objectives: Most refugees and internally displaced people (IDP) stay in low- and middle-income settings. A substantial proportion are hosted by countries in sub-Saharan African (SSA), which puts significant pressure on limited government healthcare budgets. As health economics may guide more optimal healthcare decision making, we scope the health economics literature on forcibly displaced populations in SSA to identify the nature and range of health economics evidence.

Methods: We conducted a scoping review of peer-reviewed and gray literature in English published from 2000 to 2021. Our search terms comprised a combination of keywords related to refugees, SSA, and health economics. We followed a stepwise methodology consisting of the identification and selection of studies, extraction and charting of data.

Results: We identified 29 health economics studies on refugees and IDPs in SSA covering different providers, interventions, and delivery platforms. Twenty-one articles studied the determinants of health, followed by 5 on the supply of healthcare and 2 concerned with economic evaluation and the demand for healthcare, respectively. We found an equal division of articles focusing on refugees and IDPs, as well as by settlement type. Mental health was the most frequently studied health area and Uganda was the most studied destination country.

Conclusions: The health economics literature on refugees in SSA remains limited. Our scoping review encourages future research to study a larger variety of healthcare systems and health economic topics such as economic evaluations, health financing and whole health systems to support resource allocation decisions and sustainable long-term solutions.

Keywords: internally displaced people, refugees, research activity, scoping review, sub-Saharan Africa.

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Introduction

The number of people forcibly displaced because of persecution, conflict, violence, extreme climate events, and human rights violations has more than doubled in the last decade and now exceed 100 million worldwide.[1] Eighty-three percent of all refugees (those who are forced to leave their country of origin) stay in low- and middle-income countries (LMICs) defined as countries with Gross National Income per capita below 13 205 US dollar.[1-3] Refugees, and particularly those originating from LMICs, often have larger healthcare needs than host populations because of restricted access to healthcare at origin, the causes of involuntary migration and unsafe conditions during migration.[4,5] However, the quality of health systems in humanitarian settings is poor,[6] and it is estimated that 60% of all preventable maternal deaths, 53% of all under-5 mortality, and 45% of all neonatal mortality occur in fragile and conflict-affected settings.[7]

Despite one-quarter of all refugees being hosted by LMICs in sub-Saharan Africa (SSA),[1] displacement crises in the region constitute the world's most neglected refugee crises in terms of lack of funding and political initiatives.[8] Uganda hosts the fifth-largest number of refugees globally, with 1.5 million and an average monthly influx of 30 000 refugees.[9] Over 1 million refugees are present in Sudan and around 800 000 stay in Ethiopia. Other countries such as the Democratic Republic of the Congo (DRC), Chad, Kenya, and Cameroon host over 400 000 refugees each. Additionally, 6 of 10 countries with the largest number of internally displaced people (IDPs) (ie, forcibly displaced populations within the same country) are LMICs in SSA and the region is home to more than three-quarters of all new internal displacements.[1,10]

Given that the majority of refugees are in protracted displacement situations and remain in host countries for a median duration of 5 years, a large economic burden is placed upon host countries to provide public services.[2,11] At the same time, SSA faces the highest regional global burden of disease and many countries are unable to fund local health systems which ensure equitable access to high-quality healthcare and financial risk protection for their citizens.[12,13] Additionally, international humanitarian aid has not increased sufficiently in response to the

growing need for financial support to host refugees.[14] Given the global commitment to Universal health coverage, which embodies the concept of leaving no one behind, it is necessary to improve access to quality healthcare for refugees and IDPs in SSA because migrants have a higher mortality rate compared with natives in refugee-hosting locations in the region.[5,15]

The scarcity of available resources to fund quality healthcare provision for refugees and IDPs in SSA highlights the importance of evidence-based guidance for host country governments and international bodies on how to finance, evaluate, cost, and prioritize healthcare interventions for these populations.[16,17] The discipline of health economics encompasses a wide range of topics, such as the analysis of the determinants of health, the demand for health, healthcare delivery, and the evaluation of alternative ways of delivering healthcare.[18] The study of healthcare provision for various forcibly displaced populations is complex because of their unique healthcare needs stemming from the heterogeneous nature of baseline health, dynamic health shocks, and risks during migration and at their destination.[5] Moreover, compared with high-income countries, there is a paucity of evidence on the health of refugees and IDPs in LMICs.[2,19,20] Refugees and IDPs often face a diverse supply of state and nonstate healthcare providers, depending on the prevailing refugee policies and migrants are likely to face healthcare barriers because of language differences and discrimination.[5,21,22]

Previous literature highlights the limited evidence on the effects of health interventions, the use of economic methods in humanitarian settings and the cost-effectiveness of healthcare interventions for forcibly displaced populations.[6,17,20] A previous review on the use of economic evaluation[20]—one strand of health economics that guides the selection of cost-effective healthcare interventions, confirms a limited literature base in humanitarian settings in LMICs. Although the cost-effectiveness of migrant healthcare provision has been identified as one of the priority research areas by the University College London–Lancet Commission on Migration and Health,[5] this list also includes assessing the impacts and effectiveness of health interventions and producing evidence concerned with health policy, health systems, and effective financing models to expand equitable healthcare to migrants.[5] As such, all strands of health economics are necessary to understand how to allocate scarce resources to improve refugee health in LMICs in SSA. Therefore, the purpose of this scoping review is to identify the extent, range and nature of research activity within the broad area of health economics concerned with refugees and IDPs in SSA as a basis to guide future research priorities.

Scope and Search Strategy

We adhere to a stepwise scoping review methodology established in existing scoping review frameworks[23,24] consisting of the identification of relevant studies, selection of studies, extraction and charting of data, and summarizing and reporting results. We follow the recommended guidelines and maintain a wide approach to generate a broad coverage of existing literature and subsequently make decisions about the inclusion criteria after getting a sense of the scope and volume of the literature. Given our aim to provide an overview of the scientific evidence that applies a variety of methods, we are unable to critically appraise the quality of the synthesized literature. To reflect the growing increase of forced international migration from 2000 and onward, this scoping review focuses on peer-reviewed and gray literature in English published from January 2000 to March 2021. This time period captures migration consequences after the many wars in SSA since the mid 1990s as for example in the Great Lakes region, West Africa and the Horn of Africa, and newer conflicts for example, in South Sudan.[2,25] The dimensions of interest are (1) the population and policy area, (2) the geographical coverage, and (3) the scientific discipline. These dimensions guided our search strategy consisting of search terms related to the combination of the following keywords: (1) refugees, IDPs, migrants, asylum seekers, refugee camps, settlement; (2) SSA; and (3) health economics.

Health economics research is identified using the distinct, yet interlinked, structure of the discipline as categorized by Alan Williams[26]:

A. What influences health other than healthcare (determinants of health)?
B. What is health and what is its value?
C. Demand for healthcare.
D. Supply of healthcare.
E. Micro-economic evaluation at treatment level.
F. Market equilibrium.
G. Evaluation of whole system level.
H. Planning, budgeting, and monitoring mechanisms.

The search strategy was developed iteratively by the authors and a qualified information officer from the Centre for Reviews and Dissemination at the University of York, who devised the initial search strategy. The search strategy was later refined through 2 rounds of testing various combinations of search terms. A detailed list of all search terms is presented in the Appendix: Information Sources and Material in Supplemental Materials found at https://doi.org/10.1016/j.vhri.2023.10.008. We used the following 4 main electronic bibliographic databases, which are considered of great relevance to the subject area: Medline, Embase, EconLit, including one gray literature database, IDEAS RePEc. All the collected records were saved and deduplicated in the EndNote reference manager software.

Study Selection

The data screening and extraction was performed in a 3-stage process consisting of (1) title, (2) abstract-, and (3) full article screening by the authors FM and WT, independently. Based on increasing familiarity with the literature, the criteria were devised post hoc. Queries arising about the inclusion and exclusion criteria were discussed between all authors before the final selection criteria were implemented.

The first stage consisted of title screening of articles where the first author's surname starts with letters A-J and K-Z screened by WT and FM, respectively. Studies were included if they met the criteria related to refugees in SSA and a broad definition of health and well-being, which includes fertility, resilience, vulnerability, shocks, livelihood, nutrition, and food safety. In addition to duplicates and nonpublished articles, common reasons for exclusion were the title not mentioning refugees, migrants, IDPs or health, the destination country being outside of SSA, exclusive focus on the host population or other migrant groups (eg, labor migrants, voluntary migrants, or nomads), and not using a quantitative methodology (ie, purely qualitative or nonempirical). In the second stage, abstracts were further screened for meeting criteria related to broad areas of health and the mention of some economics including economic methods. Abstracts which indicated that the articles were not concerned with forcibly displaced populations and health in SSA and quantitative empirical methods (for example, feasibility studies) were also excluded. In the third stage, we screened full-text articles and included studies concerned with one of the specific areas of health economics as

Table 1. Descriptive characteristics of included studies.

Characteristics	n (%)
Health economics topic	
Determinants of health (other than healthcare)	20 (72)
The supply of healthcare	5 (17)
The demand for healthcare	2 (7)
Micro-economic evaluation at treatment level	2 (7)
Study type	
Descriptive	21 (72)
Comparative	8 (28)
Target population	
Refugees only	11 (38)
IDPs only	10 (34)
Refugees and other types of migrants or host population	6 (21)
Other types of forced migrants	2 (7)
Type of settlement	
Camps	13 (45)
Rural and integrated within host population	9 (31)
Urban and integrated within host population	5 (17)
IDP settlement	1 (3)
Multiple types of settlements	1 (3)
Demographic population	
All	6 (21)
Adults	13 (45)
Women	2 (7)
Children and adolescents	8 (28)
Area of health	
Mental health	9 (31)
RMNACH	4 (14)
Nutrition	4 (14)
General illness	3 (10)
NTD	1 (3)
Malaria	1 (3)
NCDs	1 (3)
TB	1 (3)
Disabilities	1 (3)
Addictions	1 (3)
Multiple areas	3 (10)
Destination	
Uganda	9 (31)
Kenya	2 (7)
South Africa	4 (14)
DRC	2 (7)
Ethiopia	2 (7)
Nigeria	2 (7)
South Sudan	1 (3)
Sudan	3 (10)
Angola	1 (3)
Togo	1 (3)
Mali, Mauretania, and Niger	1 (3)
Tanzania	1 (3)

DRC indicates Democratic Republic of the Congo; IDP, internally displaced people; NCD, noncommunicable disease; NTD, neglected tropical disease; RMNCAH, reproductive maternal, newborn, child and adolescent health; TB, tuberculosis.

defined in the scope and search strategy. Although gray literature identified through IDEAS RePEc was included in the preliminary search, most of the unpublished articles were subsequently published and identified by the search of the peer-reviewed article databases. To reduce the risk of a large variability in article format and validity, we excluded the small number of nonpeer-reviewed articles in the last stage. The full selection process is presented in the Appendix: Prisma Flow Diagram and the inclusion and exclusion criteria are described in Appendix: Inclusion and Exclusion Criteria, both of which is found in Supplemental Materials found at https://doi.org/10.1016/j.vhri.2023.10.008.

Data Extraction

From the identified articles, we extracted data on health economic topic, migrant population, settlement type, disease area, intervention type, service provider, methodology, host country, country of origin, and author affiliation (see Appendix: Data Extraction for the form found in Supplemental Materials found at https://doi.org/10.1016/j.vhri.2023.10.008).

Results

Study Characteristics

Initially, 739 studies were identified and screened. Twenty-nine health economics studies on refugees and other forcibly displaced populations in SSA met the inclusion criteria and were included in the final analysis. We observe a modest annual increase in the number of articles published between 2000 and 2021, ranging from one article in 2003 to 5 in 2021. The study characteristics are summarized in Table 1.

The majority of all articles study the "Determinants of health (other than healthcare)" (n = 20), followed by "The supply of healthcare" (n = 5). We identify 2 studies each on the "Micro-economic evaluation at treatment level" and the "Demand for healthcare," respectively. Given the inclusion criteria, most articles (83%, n = 24) were purely quantitative, whereas the remaining 5 studies use mixed methods. Almost three-quarters of the articles are descriptive (n = 21), and the rest (n = 8) are comparative.

We note an even spread between articles focusing on refugees (n = 11) and IDPs (n = 10). Six articles are concerned with mixed populations, such as refugees and other types of migrants (economic migrants, IDPs, and returnees and asylum seekers), host populations, or populations who remained in the conflict-affected area. Two articles focus exclusively on other forced migrants as asylum seekers. Populations residing in camps are studied in nearly half of all articles (n = 13). Around one-third of articles (n = 9) focus on populations integrated within rural host areas and 5 articles study forced migrants residing in urban areas alongside the host population. One article each study an IDP settlement or multiple types of settlements, respectively. Adults comprise the most frequently studied demographic group (n = 13) followed by children and adolescents (n = 8), all ages (n = 6), and women only (n = 2).

Almost one-third (n = 9) of all articles focus exclusively on mental health. This is followed by 4 studies each on reproductive, maternal, newborn, child, and adolescent health, and nutrition, respectively. Three articles each focus on general illness and multiple areas of health. There is a wide scope of health areas because our search has identified one article each on neglected tropical diseases, malaria, noncommunicable diseases, tuberculosis, disabilities, and addictions.

Uganda is the most frequently studied destination country (n = 9) followed by South Africa and Sudan (n = 4 and n = 3, respectively). Otherwise, we observe a large spread of destination countries including one to 2 articles each on Kenya, DRC, Ethiopia, Nigeria, South Sudan, Angola, Togo, Mali, Mauretania, Niger, and Tanzania. The most frequently studied origin countries are South Sudan (n = 8), DRC (n = 8), and Uganda (n = 6). Although there is a large geographic coverage of countries in SSA, this is not reflected in the authorship of the articles. Sixteen lead authors are based in the United States and Europe, whereas 12 lead authors are based

Table 2. Descriptive characteristics of articles on the determinants of health.

Reference	Health area	Study type	Data	Comparative method	Provider	Target population	Settlement type	Demographic population	Origin country	Destination country
Karunakara et al[33]	Mental health	Comparative	Cross-section	Comparison across refugee and citizen status		Refugees and other types of migrants or host population	Camps	Adults	South Sudan, Uganda	Uganda
Greyling[36]	Mental health	Descriptive	Cross-section			Other types of forced migrants	Urban and integrated within host population	Adults	Somalia, DRC, and Mozambique	South Africa
Mels et al[34]	Mental health	Descriptive	Cross-section			IDPs	Rural and integrated within host population	Children and adolescents	DRC	DRC
Thela et al[27]	Mental health	Descriptive	Cross-section			Refugees	Urban and integrated within host population	Adults	DRC, Rwanda, Zimbabwe, Malawi, Mozambique, Ghana, and Uganda	South Africa
Maharaj et al[28]	Mental health	Descriptive	Cross-section			Refugees and other types of migrants or host population	Urban and integrated within host population	Adults	DRC, Zimbabwe, Burundi, Ghana, Malawi, Mozambique, Rwanda, and Uganda	South Africa
Badri et al[37]	Mental health	Descriptive	Cross-section			Refugees	Urban and integrated within host population	Children and adolescents	Eritrea	Sudan
Kaiser et al[29]	Mental health	Descriptive	Cross-section			IDPs	Rural and integrated within host population	All	Nigeria	Nigeria
Salah et al[32]	Mental health	Descriptive	Cross-section			IDPs	IDP settlement	Adults	Sudan	Sudan
MacPherson and Sterck[38]	Nutrition	Comparative	Longitudinal	Quasi-experimental	Non-healthcare	Refugees	Camps	All	South Sudan	Kenya
Olwedo et al[43]	Nutrition	Descriptive	Cross-section			IDPs	Camps	Children and adolescents	Uganda	Uganda
Lendorfer et al[41]	Nutrition	Descriptive	Longitudinal			Refugees and other types of migrants or host population	Multiple types of settlements	All	Mali	Mali, Mauritania, and Niger
Pieterse et al[44]	Nutrition	Descriptive	Cross-section			Refugees	Camps	All	Rwanda	Tanzania
Tseng et al[35]	General Illness	Comparative	Longitudinal (repeated cross-section)	Quasi-experimental		IDPs	Camps	Adults	Uganda	Uganda
Roberts et al[45]	General Illness	Descriptive	Cross-section			IDPs	Camps	Adults	Uganda	Uganda
Avogo et al[39]	RMNCAH	Comparative	Cross-section	Matching/ controlling for observables		Refugees and other types of migrants or host population	Urban and integrated within host population	Adults	Angola	Angola
Hargreaves et al[40]	RMNCAH	Comparative	Longitudinal	Controlling for covariates	Healthcare	Other types of forced migrants	Rural and integrated within host population	Children and adolescents	Mozambique	South Africa
Legesse et al[42]	TB	Descriptive	Longitudinal		Healthcare	Refugees	Camps	All	South Sudan, Somalia	Ethiopia
Roberts et al[30]	Addiction	Descriptive	Cross-section			IDPs	Rural and integrated within host population	Adults	Uganda	Uganda
Ejembi et al[46]	Malaria	Descriptive	Cross-section			IDPs	Camps	Children and adolescents	Nigeria	Nigeria

continued on next page

Table 2. Continued

Reference	Health area	Study type	Data	Comparative method	Provider	Target population	Settlement type	Demographic population	Origin country	Destination country
Dorkenoo et al[31]	NTD	Descriptive	Cross-section			Refugees and other types of migrants or host population	Rural and integrated within host population	Adults	Togo, Ghana, Burkina Faso	Togo

DRC indicates Democratic Republic of the Congo; IDPs, internally displaced people; NTD, neglected tropical disease; RMNCAH, reproductive maternal, newborn, child and adolescent health; TB, tuberculosis.

in SSA, most commonly in Uganda (n = 4) and South Africa (n = 3). Most of the lead authors (n = 22) are affiliated with a university, and 7 articles have lead authors affiliated with international organizations and governmental organizations. Next, we present key study characteristics by health economics research area.

Determinants of Health Other Than Healthcare

The majority of articles studying the "Determinants of health" inspect the disease prevalence among various forcibly displaced populations and subsequently analyze the relationship between illness and various predictors, such as demographic and socioeconomic characteristics and access to infrastructure and social assistance.[27-32] Some articles explicitly assess how health is related to migration factors, including the reason for involuntary migration, the experience of traumatic events during displacement, migrant category, type and change of settlement, and access to refugee assistance and service provision.[29,33-35]

Eight[27-29,32-34,36,37] of the 20 articles in this health economics category exclusively analyze the determinants of mental health. Although most studies are cross-sectional and descriptive, 5 articles[33,35,38-40] are comparative and use a wide range of methodologies, including comparing incidences across subpopulations and matching methods. One article[38] applies a quasi-experimental technique to repeated cross-sectional data from Kenya and investigate the effect of a development approach to refugee assistance (ie, promoting self-reliance by income generating activities and cash transfers) compared with a humanitarian model (focusing on protection and emergency relief) on a wide range of outcomes including food intake and subjective well-being. Three articles analyzing longitudinal data study how forced migration affects the number of meals consumed before and after the 2012 crisis in Mali,[41] child mortality across former Mozambican refugees compared with South African host households,[40] and fertility of populations who experienced war-induced compared to war-unrelated migration in Angola.[39] Because this health economics category focuses on determinants of health outside the healthcare system, only 3 articles consider a service provider,[38,40,42] of which 2 are healthcare providers (Table 2[27-46]).

Supply of Healthcare

Our scoping review has identified 5 articles studying the "Supply of healthcare"[47-51] concerned with a variety of providers, interventions, and delivery platforms. Four studies use data for Uganda and one analyzes data for Ethiopia. Three descriptive cross-sectional studies are concerned with healthcare provision related to reproductive maternal, newborn, child and adolescent health, multiple health areas, and noncommunicable diseases for refugees integrated into rural host communities in Uganda. These articles estimate and compare the costs and coverage of reproductive health interventions,[49] evaluate antibiotic prescribing practices,[50] and determine the readiness of primary health facilities in managing hypertension and diabetes.[51] Two articles study mental health interventions by nongovernmental organizations for encamped refugees using comparative methodologies and longitudinal data. One article assesses the effectiveness of a World Health Organization developed group-based self-help intervention,[47] and the other evaluates an emergency education intervention and psychosocial support program by the International Rescue Committee.[48] One study[49] provides estimates on costing, whereas this information is not found in the other articles (Table 3[47-51]).

Demand for Healthcare

We identify 2 studies[52,53] investigating the "Demand for healthcare" related to general illness and multiple areas of health. Both articles are descriptive and cross-sectional and focus on IDPs. One article[52] provides evidence on health seeking behavior, as well as the ability and willingness to pay for consultation fees and drugs at public and private facilities in DRC. Another article[53] investigates the prevalence of mental and physical illness and subjective needs for mental healthcare, preferences for family planning methods, use of, and barriers to reproductive and maternal care in Sudan (Table 4[52,53]).

Economic Evaluation

Two studies are concerned with the "Micro-economic evaluation at treatment level"[54,55] and perform a cost-effectiveness analysis of healthcare interventions related to disabilities and reproductive maternal, newborn, child and adolescent health for children and adolescents in refugee camps in Kenya and South Sudan. Both articles apply cost-effectiveness analysis from the point of view of a nongovernmental healthcare provider (Table 5[54,55]).

Discussion

This scoping review has identified 29 peer-reviewed health economics articles concerned with refugees and IDPs in SSA published in the last 2 decades. Although the evidence on this topic has grown over time, the literature base is still limited. Almost two-thirds of articles focus on the determinants of health.[27,28,31-34,36-40,42,46] Other areas of health economics are not studied as frequently as we have found 5 articles on the supply of healthcare[47-51] and 2 studies on the demand for healthcare[52,53] and economic evaluation of healthcare,[54,55] respectively. Furthermore, we highlight an overall methodological limitation because only one-quarter of studies are comparative,[33,35,38-40,47,48,55] and even fewer use longitudinal data and robust methods for causal inference.[29-32,34] For example, most of the studies investigating the determinants of health were descriptive and focused on

Table 3. Descriptive characteristics of articles on the supply of healthcare.

Reference	Health area	Study type	Data	Comparative method	Costing	Provider	Target population	Settlement type	Demographic population	Origin country	Destination country
Tol et al[47]	Mental health	Comparative	Longitudinal	RCT		WHO developed group-based self-help intervention	Refugees	Camps	Women	South Sudan	Uganda
Betancourt et al[48]	Mental health	Comparative	Longitudinal	Matching/ controlling for observables		IRC intervention on school grounds	Refugees	Camps	Children and adolescents	Eritrea, Ethiopia	Ethiopia
Orach et al[49]	RMNCAH	Descriptive	Cross-section		Costs only	Healthcare	Refugees and other types of migrants or host population	Rural and integrated within host population	Women	South Sudan, DRC	Uganda
Bonniface et al[50]	Multiple areas	Descriptive	Cross-section			Healthcare	Refugees	Rural and integrated within host population	Adults	South Sudan and DRC	Uganda
Isadru et al[51]	NCDs	Descriptive	Cross-section			Healthcare	Refugees	Rural and integrated within host population	Adults	South Sudan	Uganda

DRC indicates Democratic Republic of the Congo; IRC, International Rescue Committee; NCD, noncommunicable disease; RCT, randomized controlled trial; RMNCAH, reproductive maternal, newborn, child and adolescent health; WHO, World Health Organization.

establishing the prevalence of physical or mental illness or food insecurity and their risk factors.[27-32]

Our scoping review shows a limited understanding of the supply of healthcare for refugees and IDPs across different settlement types in SSA given that we have only identified 3 articles concerned with public healthcare provision for nonencamped refugees in rural Uganda.[49-51] A synthesis on health systems and health policy for refugees in Uganda[56] discusses how differently managed healthcare providers may vary in accessibility and cost for refugees. Unequal access to healthcare has also been reported in Kenya where refugees residing in camps are slightly better off than those living within the host community because these settings often provide humanitarian assistance, including health services.[57,58] Therefore, we encourage further research on the nature of healthcare markets available to forcibly displaced populations in SSA, including on the possible heterogeneity of healthcare provision by provider type and refugee settlement policy. Similarly, our scoping of the literature points to a knowledge gap related to the demand for healthcare by refugees because we only identified 2 descriptive studies focusing on IDPs.[52,53] Given that female refugees and specific ethnic groups have been shown to face disproportionate healthcare barriers,[59] future research may explore such important inequalities in the demand for healthcare.

We report a scarcity of causal health economics evidence as we have only identified 3 studies using causal methods to evaluate the impacts of interventions, all provided by nongovernmental organizations.[38,47,48] To assess the effectiveness of policy levers available to governments, more robust evidence concerning the effects of different types of government healthcare interventions is needed, which is echoed by a previous review on health financing in conflict-affected settings.[60] Moreover, there is a lack of evidence regarding the cost-effectiveness of interventions available to governments. Our search resulted in 2 economic evaluations from the point of view of nongovernmental organizations,[54,55] focusing on health interventions in refugee camps. The limited use of economic evaluations in humanitarian settings in SSA could stem from a lack of availability of high-quality data or limited political willingness and awareness of the perceived benefits of economic evaluations.[2] Therefore, we recommend future research to collect necessary data and undertake economic evaluations, particularly for healthcare interventions outside of refugee camps, to support policy makers in healthcare resource allocation decisions and service prioritization.[2]

Our search did not identify any studies concerned with health economics topics, such as health financing, health systems, and how to measure health or market equilibrium. This observation is

Table 4. Descriptive characteristics of articles on the demand for healthcare.

Reference	Health area	Study type	Data	Target population	Settlement type	Demographic population	Origin country	Destination country
Gerstl et al[52]	General Illness	Descriptive	Cross-section	IDPs	Rural and integrated within host population	Adults	DRC	DRC
Kim et al[53]	Multiple Areas	Descriptive	Cross-section	IDPs	Camps	All	South Sudan	Sudan

DRC indicates Democratic Republic of the Congo; IDPs, internally displaced people.

Table 5. Descriptive characteristics of articles on the economic evaluation of healthcare.

Reference	Health area	Study type	Costing	Provider	Target population	Settlement type	Demographic population	Origin country	Destination country
Wu et al[54]	Disabilities	Descriptive	CEA	Healthcare: faith-based organization in collaboration with UNHCR	Refugees	Camps	Children and adolescents	Somalia	Kenya
Gargano et al[55]	RMNCAH	Comparative	CEA	Healthcare: Médecins Sans Frontières	Refugees	Camps	Children and adolescents	Sudan	South Sudan

CEA indicates child and adolescent health, cost-effectiveness analysis; RMNCAH, reproductive maternal, newborn; UNHCR, United Nations High Commissioner for Refugees.

supported by a literature review on health financing in fragile and conflict-affected areas,[60] which reports a dearth of evidence regarding Universal health coverage and health financing goals concerning equity, efficiency, and financial access. This is despite the recognized growing need for further research on sustainable health financing models to meet an increasing demand and reduce reliance on donor and project-driven healthcare financing for refugees. For example, the large recent influx of refugees in Uganda has rapidly doubled the number of refugees in the country, which raises concerns about the sustainability of the country's refugee approach.[56] Therefore, more evidence regarding health financing and health systems is needed to support long-term solutions using domestic financial resources, particularly given that most refugees in SSA have limited chances of returning to their country of origin.[2,56]

We found an equal division of articles focusing on refugees and IDPs, as well as by type of settlement, ie, camps and integration within host communities. This diverse evidence base is important for policy making as camps are now widely understood as a temporary solution and integrating refugees and IDPs within local communities is preferred.[2,58] The majority of studies on non-encamped forced migrant populations in SSA are concerned with rural areas, which calls for further evidence on populations integrated within urban communities as the majority of the world's refugees live in slums, cities, and urban areas.[61] Additionally, further research focusing on refugee children and adolescents in SSA is welcome because they represent almost 55% of refugee populations in SSA, but the majority of the reviewed articles focus on adults.[1]

Uganda, the largest refugee-hosting country in the region, is also the most studied destination country. South Africa and Sudan constitute the second and third most common destination countries in the extant literature. Although Sudan hosts the second largest number of refugees in SSA, South Africa currently places at 15th. Thus, there is comparably little evidence from countries hosting significantly higher volumes of refugees than South Africa, such as Ethiopia, DRC, Chad, Kenya, and Cameroon, which suggests that future research would benefit from widening the geographical scope of refugee destinations across SSA, which would generate more evidence across various health systems and refugee settlements.

This scoping review has some limitations. Most importantly our literature search was not systematic or exhaustive because of the broad nature of the topic. This also implies that we are unable to systematically assess the quality of available research in a comprehensive manner. We have identified considerably fewer studies applying micro-economic evaluation methods compared with an earlier systematic review on economic evaluations in refugee settings in LMICs.[19] This can be explained by our inclusion criteria requiring that forced migrant populations constitute the specific target population of interest. Moreover, in contrast to a literature review on health financing in fragile and conflict-affected areas,[60] we did not find any articles on health systems. This is possibly because of different search terms and inclusion and exclusion criteria, such as our exclusion of nonquantitative articles and a small number of gray studies. This may also explain why we found more lead authors based at academic institutions and comparatively fewer studies commissioned by external agencies.

Conclusions

Despite a growth in the health economics literature on refugees, IDPs, and other forcibly displaced populations in SSA, the evidence base remains limited. Future research priorities in health economics refugees in SSA would benefit from widening the geographical scope of refugee destinations and health systems, applying robust causal methods and study heterogeneities in supply and demand for healthcare by subpopulations across various refugee settlements. This review encourages future research to undertake economic evaluations, particularly for healthcare interventions offering care outside of refugee camps, and research on health financing to support policy makers in resource allocation decision and support sustainable long-term solutions using domestic financial resources.

Author Disclosures

Links to the individual disclosure forms provided by the authors are available here.

Supplemental Material

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