What factors affect patients' ability to access healthcare? An overview of systematic reviews

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Abstract

Objectives

This overview aims to synthesise global evidence on factors affecting healthcare access, and variations across low- and middle-income countries (LMICs) versus high-income countries (HICs); to develop understanding of where barriers to healthcare access lie, and in what context, to inform tailored policies aimed at improving access to healthcare for all who need it.

Methods

An overview of systematic reviews guided by a published protocol was conducted. Medline, Embase, Global Health and Cochrane Systematic Reviews databases were searched for published articles. Additional searches were conducted on the Gates Foundation, the World Health Organisation and World Bank websites. Study characteristics and findings (barriers and facilitators to healthcare access) were documented and summarised. The methodological quality of included studies was assessed using an adapted version of the AMSTAR 2 tool.

Results

Fifty-eight articles were included, 23 presenting findings from LMICs, 35 presenting findings from HICs. While many barriers to healthcare access occur in HICs as well as LMICs, the way they are experienced is quite different. In HICs there is much greater emphasis on patient experience as compared to the physical absence of care in LMICs.

Conclusions

As countries move towards universal healthcare access, evaluation methods that account for health system and wider cultural factors that impact capacity to provide care, healthcare finance systems and the socio-cultural environment of the setting are required. Consequently, methods employed in HICs are unlikely to be appropriate in LMICs due to the stark differences in these areas.

Systematic review registration

PROSPERO CRD42019144775.

Keywords

Healthcare access, International health, Overview of systematic reviews, Systematic review, Healthcare equity, 3 delays framework

Introduction

Achieving access to healthcare for all is an internationally recognised global goal, reinforced by the Universal Healthcare Movement and Sustainable Development Goals (SDGs) (1). Yet, inequalities in health persist both within and between countries, with poorer, more marginalised groups often having the poorest health, compounded by also having the least entitlement to healthcare (2-4).

Inadequate access to healthcare is often synonymised with low uptake of services, frequently assumed to be due to financial barriers on the demand-side. Consequently, following some success, demand-side financing policies are used widely whenever low uptake is an issue (5-9). However, uptake does not provide a full picture of factors influencing access, required to guide effective policy. As such, success of demand-side financing policies can depend on the reason for low uptake e.g. they may not be successful if low uptake is mainly due to socio-cultural factors such as stigma, as financial incentives may have little impact (5, 8). Understanding where barriers lie, and in what context, can help tailor policies aimed at improving access to healthcare.

While a considerable body of evidence on healthcare access already exists, it tends to focus on a particular patient group and/or healthcare setting in a specific geographical region. However, the Universal Healthcare Movement and SDGs are not condition specific goals, and a clear global picture is needed to inform coherent macro level policies to achieve them. This review addresses that gap using an overview of systematic reviews methodology, owing to the size of the body of primary evidence and number of related systematic reviews already in existence (10, 11). It aims to identify what factors act as facilitators or barriers to healthcare access; develop understanding of the most important factors in different contexts; and examine variation in these factors in high-income countries (HICs) versus low- and middle-income countries (LMICs).

Methods

This review was registered with the International Prospective Register of Systematic Reviews (PROSPERO), registration number CRD42019144775.

Methods are described in full in the published protocol (12).

Deviations from protocol: Eligibility criteria

Several articles (n=16) presented evidence from a range of countries with different income classifications and other characteristics, and data pertaining to the different groups could not be identified. Therefore, we took the decision to exclude these articles. This is an additional exclusion criterion to those presented in the protocol but was necessary to facilitate meaningful synthesis of the evidence. Articles excluded for this reason were not systematically different in scope to the articles included. Updated eligibility criteria and a table of articles excluded based on this additional criterion and their characteristics are available in Supplementary appendices 1 and 2, respectively.

Quality assessment

Methodological quality was assessed for each included study using an adapted version of the AMSTAR 2 tool (13). The process of adapting the tool and the final appraisal questionnaire is detailed in Supplementary appendix 3.

Results

Study selection

Fifty-eight systematic reviews were included in this overview (Figure 1). Agreement between reviewers at each stage was good (>85%). Discrepancies were resolved easily through discussion.

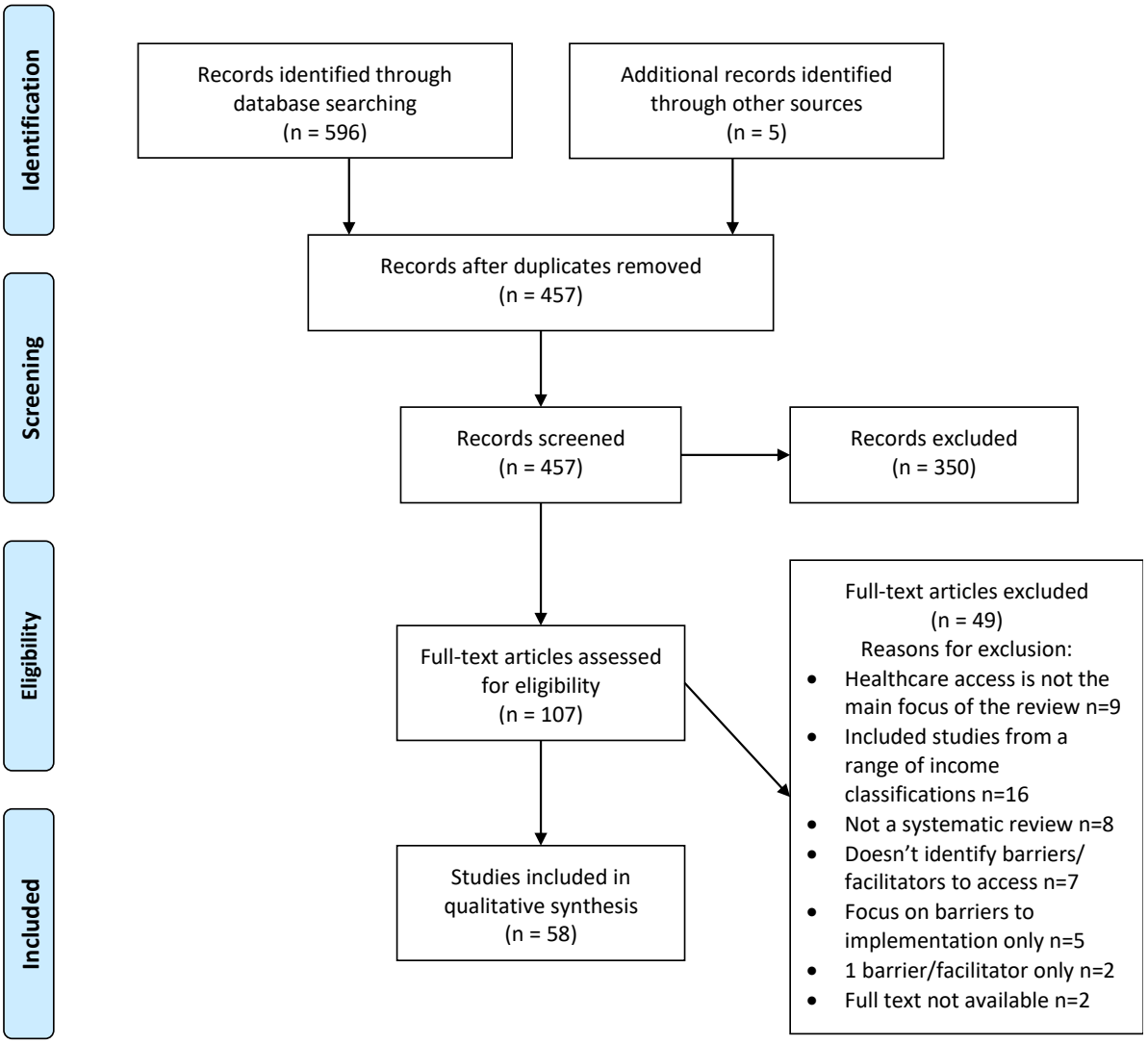

Figure 1: PRISMA Diagram

Characteristics of included studies

For characteristics of included studies see Supplementary appendix 4. Twenty-three articles present findings from LMICs and 35 present findings from HICs. The number of studies across countries is illustrated in Figure 2. Evidence is presented from 30 HICs and 70 LMICs (where specified). Most studies synthesised results narratively with only 5 presenting meta-analysis. In terms of clinical area, evidence from HICs was more diverse compared with LMICs where a high volume of evidence was related to maternal and neonatal care.

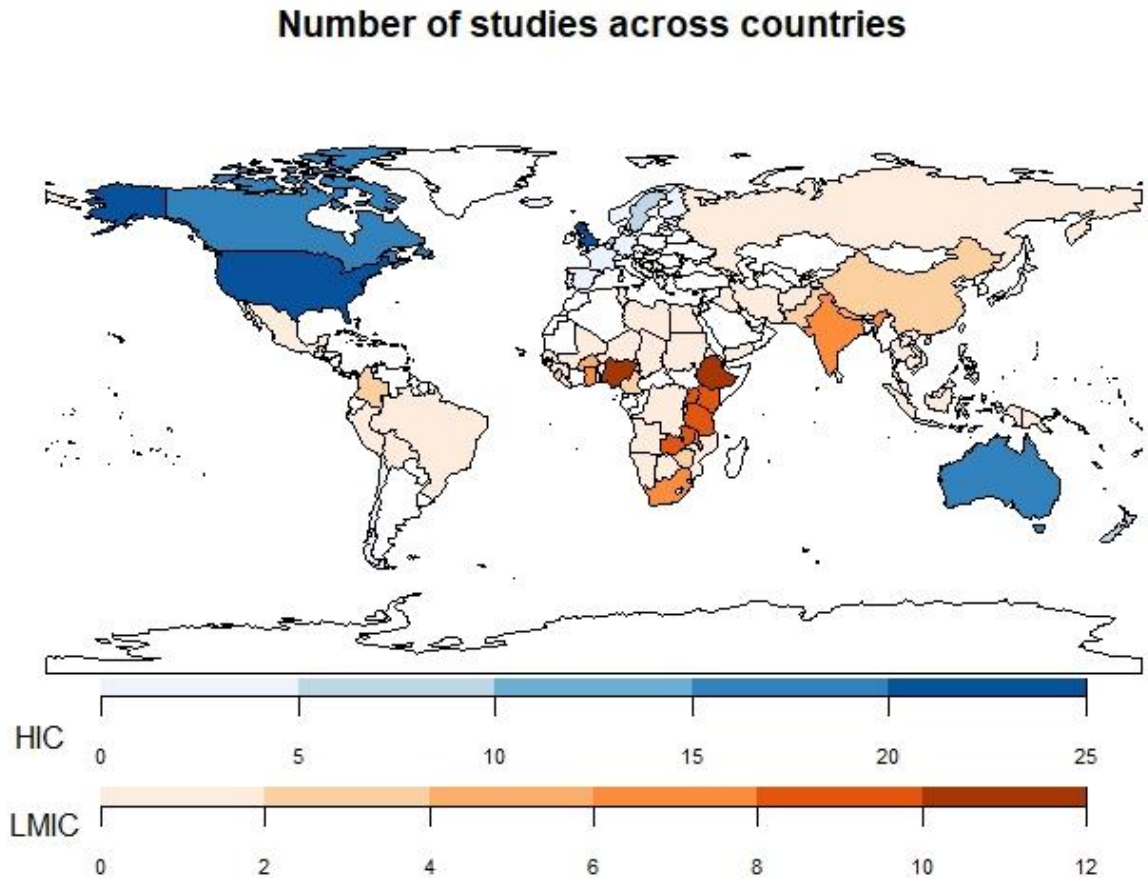

Figure 2: Number of studies across countries

Factors affecting healthcare access

Factors affecting healthcare access are categorised by the three delays model below (with additional detail in Supplementary appendix 5), to identify where in the patient pathway barriers and facilitators to accessing care occur. This comprises: 1) a delay in the decision to seek care, 2) a delay in reaching an adequate facility, 3) a delay in receiving care once at the facility (14).

Delay 1

Factors affecting the decision to seek care are presented in Figure 3. Fear is a cross-cutting theme in delay 1 and drives many factors outlined below, e.g. fear of discrimination, financial hardship or poor treatment.

Demographic factors

An important barrier in all settings, gender (usually female) was the most common demographic barrier in LMICs; often associated with socio-cultural perceptions of women, expectations about gender roles and minimal female empowerment (15-17). For example, in some cultures males are given preference over females, women face restricted movement outside the household, and often have limited access to resources (including money) needed to access care (18-20). Furthermore, gender intersects with other barriers and facilitators, e.g. females in poor/traditional households are more disadvantaged in terms of access. This is particularly the case in patriarchal societies where, "women's expected submission to male partners and to their role in society as child bearers" causes women to be disadvantaged, the extent of which may be underestimated since this is the status quo (15).

Lack of education limits healthcare access in all settings and correlates with lack of knowledge and perceived need. Ethnicity is found to affect healthcare access in all settings but is identified less frequently in LMICs. Evidence on the impact of age is heterogenous indicating its impact may be specific to certain conditions and affected by other factors.

Socio-cultural factors

Shame and stigma were more prominent for certain conditions and groups depending on socio-cultural norms. For example, in some cultures elderly women felt shame in having to ask for help to get healthcare needed (18). Shame was also expressed in relation to conditions deemed embarrassing (17), or resulted from social stigma around certain conditions (15, 17, 21). Lack of family/social support was also found to limit healthcare access. Conversely the presence of such support was specifically identified as a facilitator.

Lack of decision-making power limited healthcare access in all settings but to a greater extent for women in LMICs highlighting the intersection of socio-cultural norms with gender inequalities (17, 20). In HICs, lack of decision-making power for women was mainly reported in relation to certain religions or migrant populations originating from more patriarchal countries (22). Alternatively, it was associated with healthcare for children/young adults where decisions about their care were made by parents or carers (23, 24).

Preference for traditional medicine was an important barrier to accessing effective healthcare in LMICs but was only reported in HICs for migrant populations (22, 25). This reflects cultural differences and the acceptance of medical pluralism in LMICs. Here, patients often visit a traditional healer first, particularly if health problems are perceived as spiritual rather than physical (16). Many people will seek care from a biomedical provider “only when they noticed a declined physical health condition and that other forms of care have become ineffective” (21). In contrast, preference for self-management/alternative treatments was more frequently reported in HICs indicating standard practices are not always considered acceptable.

Language/communication barriers and fear of deportation/incarceration were frequently reported in HICs but not in LMICs, reflecting the high number of HIC studies focused on migrant populations or marginalised subgroups rather than the general population (26-29).

Patient factors

Lack of information about conditions and treatments and low perceived need reduced care-seeking in all settings, as did lack of time or having other commitments. However, this was more frequently reported for women in LMICs who had caring responsibilities or “were busy with housework”(17). In HICs reasons were often related to work or other social commitments. Modesty related barriers, common in all settings, were also gendered, with women avoiding care-seeking for fear of exposing themselves during examination. This was particularly associated with male doctors and fear of lack of privacy at the facility (17, 24, 30-32).

Lack of organisation, inconvenience and forgetfulness limited care-seeking in HICs but not LMICs, reflecting that in HICs it is taken for granted that healthcare will be available. This cannot be assumed so easily in LMICs. In HICs, there are cases of patients not considering healthcare access a priority, but this mainly applies to homeless people who have other competing social issues (29, 33-35). Severity of disease along with physical and mental co-morbidities are reported to limit healthcare access in HICs, but less so in LMICs. Problems navigating the healthcare system limit healthcare access for migrants and other marginalised groups in HICs. These groups may be less familiar with the healthcare system and need additional support to obtain care required.

Treatment/service factors

Perception of services is affected by past experiences, where negative past experiences are barriers to care-seeking (20, 36, 37) and positive experiences are facilitators (16, 28, 38). Lack of treatment acceptability and perceived effectiveness limit care-seeking in LMICs. This can manifest because practices of modern medicine conflict with cultural preferences and norms. For example, traditional birthing preferences may not be observed in facility deliveries, limiting acceptability (16, 39). Alternatively, patients may have experienced poor-quality care due to under-resourcing of healthcare personnel and equipment. This links with barriers around perceived quality of care and lack of confidence around services.

In HICs, lack of trust in providers often limits care-seeking. In the USA, this mainly relates to mistrust of pharmaceutical companies and, sometimes, healthcare providers (24). This reflects limited protection for patients against high prices for medications or demand inducing practices of providers. In other HICs, this barrier is mainly reported for migrant populations who fear disclosure of their settlement status to other authorities(28). Interestingly, despite lack of trust in providers in LMICs being well documented in grey literature, it is rarely reported in this review. This reflects limited academic research on this topic in LMICs (40, 41).

In HICs, healthcare provider recommendations facilitate healthcare access, but this is not reported in LMICs. This is likely due to greater focus on preventative medicine, e.g. screening, in HICs and the role of general practitioners in encouraging uptake of these initiatives.

Financial factors

In LMICs, low income or lack of access to money was the most common barrier to care-seeking, with direct costs described as “prohibitively high” (16, 20). Here, patients often pay for healthcare out of their own pocket meaning many families face hardship if healthcare is required. Bohren et al. explain, as there are few money lenders and “exorbitant interest rates” are charged by those that exist, “family members [are] often sent around the community to collect money from their neighbours” to cover healthcare costs (16). Even when healthcare is free or even incentivised (e.g. maternity care), indirect costs still deter use of services (32, 42). Hidden informal healthcare costs are also common, further discouraging care-seeking (17). In HICs, financial factors were mainly reported in the USA where health insurance can be costly and healthcare must be paid for by patients without it (34, 43). In other HICs, financial barriers were associated with gaps in insurance coverage or indirect costs of obtaining healthcare(34). They are also reported for hard to reach groups such as migrants and the homeless who may not have the same entitlement to healthcare as the general population(29, 35).

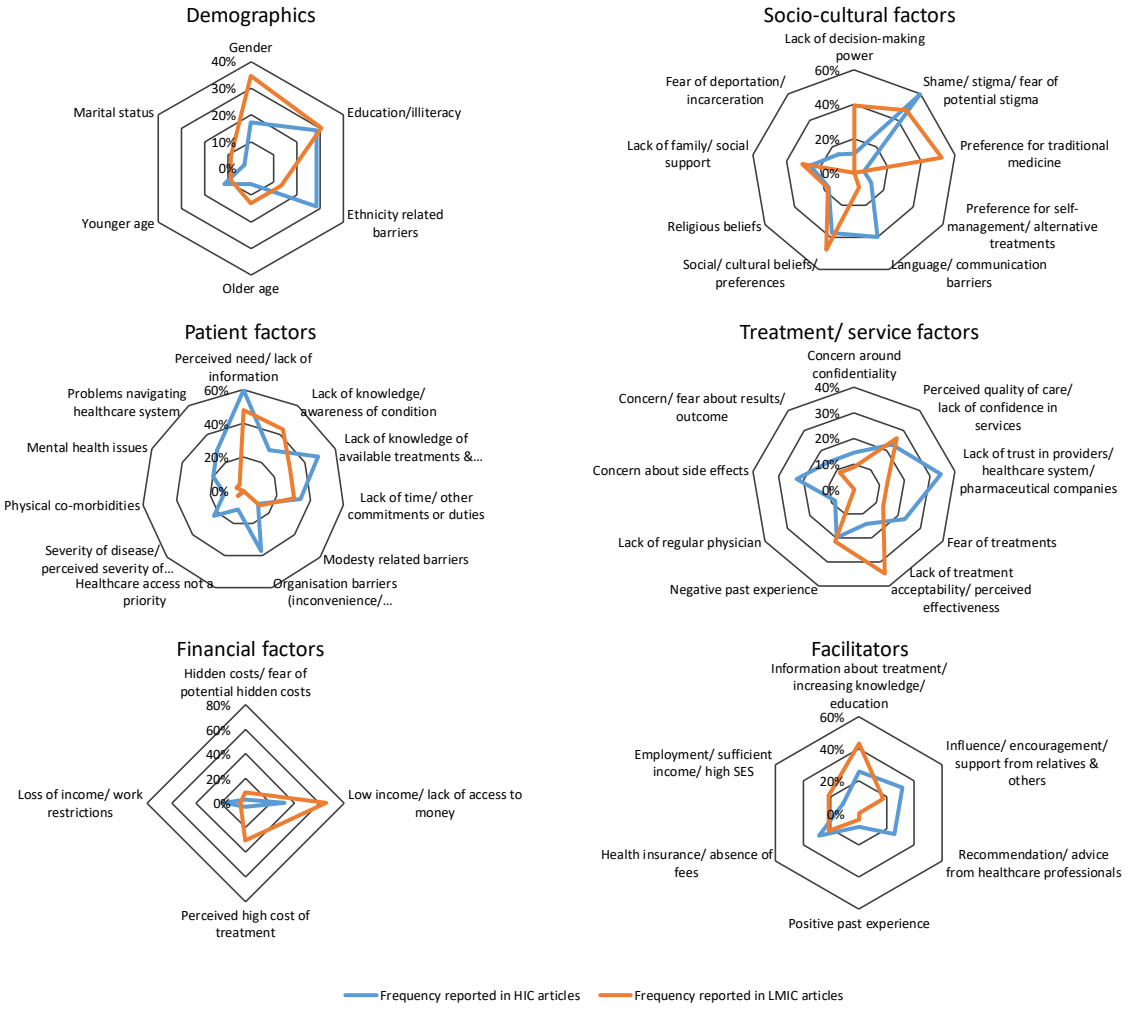

Figure 3: Delay 1 barriers and facilitators to healthcare access

Delay 2

Factors affecting reaching an adequate facility are presented in Figure 4.

Geographic/environmental factors

Geographic and environmental barriers to healthcare access are more extreme in LMICs. For example, distance to services limits healthcare access in all settings but in HICs usually relates to inconvenience of travel, or sometimes travel costs, to access specialist services. Whilst in LMICs the general scarcity of healthcare providers means patients often have to travel long distances to access the nearest facility, with these journeys made more difficult by rough terrain and poor road infrastructure(18, 19, 39, 42, 44).

Transport/infrastructure

Similarly, challenges with travel can be more acute in LMICs. In HICs 'transportation difficulties' or "perceived difficulty in travelling to see the doctor"(45) are described, indicating although transport was available, there may be issues around timing, paying or parking(46, 47). In LMICs ambulances are often scarce and a complete absence of obtainable transport is common with reports that "transportation is costly or sometimes non-existent"(16, 19). In these cases, patients have no choice but to seek more arduous transport such as rickshaw, bicycle or walking. Combined with difficulties travelling due to their condition and often "dilapidated infrastructure", travelling long distances to

reach care becomes almost impossible(16, 20, 48). Furthermore, even when transport is available, patients can be excluded from using it due to their condition(19).

Treatment/service factors

In LMICs, unavailability of services commonly delayed reaching an adequate facility(16, 18, 31), whilst in HICs waiting list times and delays in referral were more common barriers(25, 49, 50). This emphasises the difference in healthcare systems and infrastructure in the two settings. In HICs, while appropriate services usually physically exist, demand for them at a given time may exceed availability. Here, health systems infrastructure is equipped to manage waiting lists and facilitate referrals across providers and to specialists. In LMICs appropriate services are more likely to be physically non-existent and complex referral systems are much less common, compounding difficulties faced in accessing already sparse services.

Socio-cultural and patient factors

Socio-cultural barriers to reaching an adequate facility were only reported in LMICs, often linked with gender imbalances making healthcare access more difficult for women. For example, women may be delayed due to lack of an accompanying male(32, 51), or could be refused access to public transport due to stigma associated with certain conditions affecting women(19). In HICs, patient factors were related with inconvenience and difficulty making appointments(36, 43, 52).

Figure 4: Delay 2 barriers and facilitators to healthcare access

Delay 3

Factors affecting receiving care once at the facility are presented in Figure 5.

Socio-cultural and patient factors

Treatment non-adherence and lack of an established relationship with healthcare providers are reported exclusively in HICs(22, 33, 53, 54). However, treatment non-adherence is unlikely to be recorded in LMICs even if it occurs due to limited health records and follow-up care. Problems with communication also affect receipt of appropriate care for migrants in HICs (22, 54, 55). In addition, societal norms influence provision of services deemed unacceptable by some healthcare providers (most often reported for abortion) (15, 52).

Healthcare provider factors

Whilst healthcare providers will inevitably experience heavy workload due to the demand for healthcare in all settings, this is more pronounced in LMICs where workforce shortages are more extreme(15, 18-20, 31, 39, 48). Inexperience and lack of competence are also common in all settings, however in LMICs staff shortages exacerbate limited opportunities for professional development and mean little/no support from more experienced practitioners(20, 31, 48, 56). In HICs these more often refer to inexperience with specific patient groups or certain specialities(46, 53, 54). Poor

provider attitude was often reported due to patients feeling they were treated insensitively in HICs. In LMICs, although there were some cases of this kind(15), there were also reports of abuse and neglect by providers (16). In part this is inevitably due to strain placed on individuals by the limited infrastructure and scarcity of resources, but also likely due to lack of appropriate training and support(15, 18, 57).

Treatment/service factors

Many treatment/service factors are reported with similar frequencies across settings, but the realities can be starkly different. In HICs waiting time is linked to the impact on patient experience, "up to 60% of oncology outpatients reported that waiting times of more than 15 min contributed to poor experiences within health services" (47). In contrast, in LMICs long wait times result from facilities being closed when patients present, especially at night, or lacking appropriate staffing to manage the problem(16). In HICs personnel or service shortages often means a shortage of specialists or limited choice of providers. In LMICs this can mean a shortage of any/all healthcare personnel, and few, or sometimes a complete absence of, facilities within a distance feasible to travel(15, 16, 19). In HICs the need for training relates to training for specialist services(29, 53) whereas in LMICs this relates to general training of healthcare professionals and links with the absence of trained healthcare workers, especially in rural areas(39, 58).

Scarcity of medical supplies, including medications, blood and equipment are reported much more commonly in LMICs demonstrating extremely limited resources for even basic healthcare(42, 51, 58). In HICs medical supply chains are more robust and well regulated. Limitations with medical infrastructure such as unreliability of power or water supplies and absence of toilets in healthcare facilities are reported solely in LMICs (16, 20).

In contrast, time constraints on consultation and discontinuity of care are commonly reported barriers to healthcare access in HICs but not LMICs(30, 33, 59, 60). We note, however, that time constraints are also an issue in LMICs but are perhaps not picked up due to less focus on patient experience of care in evidence from LMICs. This may demonstrate differences in expectations of healthcare provision in different settings.

Financial factors

Financial barriers to receiving care at the facility are more frequently reported in HICs, particularly in the USA, when there are gaps in health insurance or unexpected and costly co-payments (34, 36, 46). Although financial barriers are reported for all 3 delays in LMICs, they are reported less frequently for delay 3. This may indicate that perceptions about cost of treatment, ability to pay and access to money feature more in the decision to seek care (delay 1) in LMICs, meaning many who would have faced financial difficulty at the facility, never actually make it there. However, informal payments limit healthcare access in LMICs but not in HICs(31, 61).

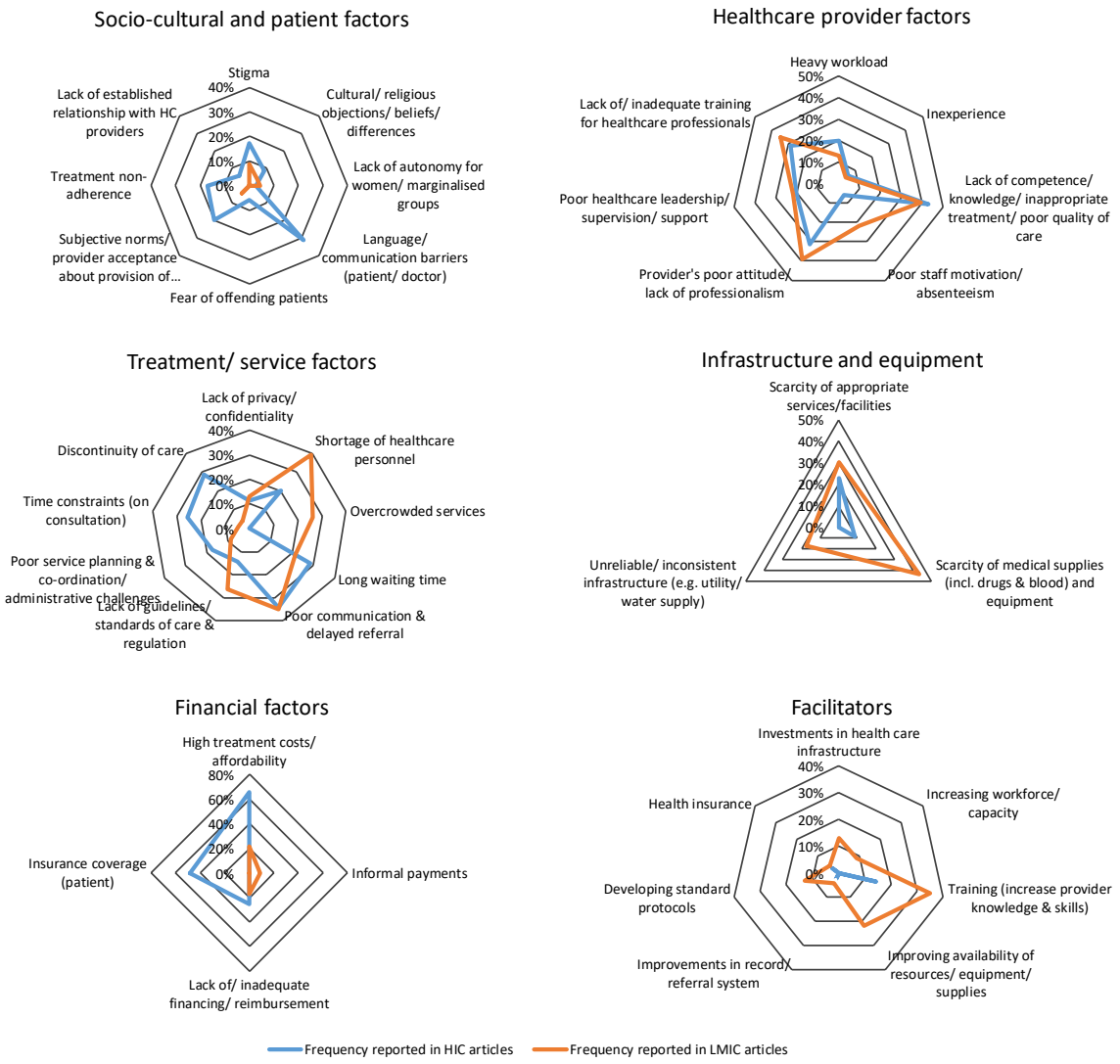

Figure 5: Delay 3 barriers and facilitators to healthcare access

Quality assessment

For results of the quality assessment see Supplementary appendix 6. Methodological quality was variable with some high-quality reviews (e.g. 54, 61, 62, 63) and others meeting few criteria (e.g. 18, 64). There was no trend in methodological quality of articles by study setting, study characteristics, or according to the topic of the review. Of the 58 included studies, 37 undertook assessments of quality/risk of bias. However, only 15 discussed their interpretation of findings with reference to this assessment. For this type of research question, detailed analysis of risk of bias may have been considered less important than, for example, reviews determining intervention effectiveness. There was 100% agreement between reviewers on the quality assessment.

Discussion

Key findings

Fifty-eight systematic reviews were included in this overview. All included articles provided evidence on barriers to healthcare access, while only a subset also provided evidence on facilitators. The methodological quality of included studies was variable across all settings. To improve this, review authors should ensure comprehensive searches are conducted in several databases and searches are expanded to include grey literature. Authors should also adhere to reporting guidelines to ensure quality can be judged appropriately.

In every country around the world patients encounter challenges when healthcare is needed. Whilst some factors are reported in HICs as well as LMICS, the way they are experienced is often quite different depending on the healthcare system and socio-cultural factors. In HICs, there is greater emphasis on patient experience, compared to the physical absence of care in LMICs where barriers to healthcare access are more numerous and more extreme. Additionally, whilst LMIC articles focus on access issues affecting the general population, HIC articles often raise issues pertaining to specific subgroups, with around 1/3 focusing on hard to reach populations. These groups face greater challenges as they often have less entitlement to healthcare than the general population.

A key theme across all 3 delays is capacity to provide healthcare needed. In HICs, this is managed with rationing, waiting lists and systems to manage referrals and prioritise patients according to need. As such, although patients may not always have immediate access to care for less urgent healthcare needs, emergency healthcare can be prioritized, and so fewer capacity-related barriers are faced in HICs for emergency care. However, capacity constraints in LMICs are more extreme and are at the root of many of the barriers to healthcare faced in this setting. Here, a complete absence of available healthcare in some areas means capacity related barriers are experienced at all levels, for all conditions and regardless of the severity of need. In addition, limitations in healthcare capacity are often exacerbated by deficiencies in other key sectors, such as education and transport, to a greater extent in LMICs than HICs.

Financial barriers are also more severe in LMICs where inability to pay prevents healthcare access earlier, often resulting in patients failing to present to healthcare providers altogether. Here, welfare systems are often less advanced and health insurance is limited or non-existent. Better healthcare financing support in HICs means patients are more likely to experience financial difficulties later in the process if insurance does not cover all healthcare or co-payments are required (particularly in USA).

Socio-cultural factors are also critical to healthcare access. However, the ways in which they manifest vary depending on the socio-cultural environment. For example, stigma limits healthcare access across all delays and in all settings but the reasons for the stigma and the conditions it is associated with vary in different contexts. These differences can be linked with the prevalence of certain conditions such as obstetric fistula which can cause extreme stigmatisation in LMICs but is much less common in HICs due to developments in modern medicine. Such differences can also be linked with social and historical influences as is the case with HIV where “memories of suffering and death among AIDS patients” (21) are still clear for some and contribute to continued stigma. Elsewhere, efforts to tackle HIV related stigma, for example in mass media campaigns, have had some success. Another example is the importance of traditional medicine in some cultures resulting in accepted medical pluralism in some countries whilst in others the health system is dominated by provision of allopathic healthcare (usually the case in HICs). Social and cultural issues related to gender, social roles and expectations of men versus women can also be very different across countries which can exacerbate inequalities in access to healthcare and consequently inequalities in health. For example, in patriarchal societies men are expected breadwinners and control family finances, while women’s role in society may be linked with childbearing along with an expected

submission to male partners. Understanding the socio-cultural environment in each setting is therefore critical in order to understand factors affecting healthcare access. Whilst the importance of increasing capacity of healthcare systems and developing healthcare financing options is already recognised in guidance on how to achieve universal health coverage (e.g. 65), such guidance does not currently recognise the role of the socio-cultural environment which is needed for strategies to be successful.

Limitations

Due to the synthesis of evidence from a global perspective, the results of this overview are heterogenous. Arguably, though, such heterogeneity can be viewed positively as the aim was to examine variations in factors affecting healthcare access in different settings.

Although a range of clinical areas are represented, some are better represented than others, and indeed, many are not represented at all. A similar trend exists in relation to the countries covered by the included articles. Furthermore, while this review has enabled identification of the most reported barriers and facilitators, the data is insufficient to determine the weight of each barrier/facilitator's impact, relative to others. The overview methodology, although necessary, has meant that only factors affecting access where there is sufficient primary evidence for it to have been synthesised in a systematic review are represented. Inevitably this means that important topics, which may be well documented in primary literature, but for which there is not yet sufficient data for them to emerge as priorities in systematic reviews, may not be represented in this review.

Country income classifications provide groupings according to level of development. However, although country income is likely correlated with development it does not always translate to good standards of living. Also, as this approach is based on country averages, where income inequality is high it is unlikely to be representative. This review highlights greater barriers faced by certain groups such as migrants, homeless people and women (versus men); but groupings based on average income are unlikely to capture these within country inequalities in healthcare access. As such categorising countries by level of inequality (e.g. Gini coefficient) may have highlighted additional nuances in the results. However, use of other metrics (e.g. the human development index) would likely have produced similar groupings to income. Furthermore, the decision to exclude articles for which the evidence could not be grouped in this way may have limited the capacity to explore factors affecting healthcare access in further depth.

In addition, findings are grouped into evidence from LMICs and evidence from HICs. This grouping was based on what is common within the literature. Yet breaking down the results further e.g. splitting LMICs into low-income and middle-income, would likely have yielded additional contrasts.

Implications

It is important to identify and understand key healthcare and system needs to understand how barriers to healthcare access will be experienced. Until the implications of these barriers can be understood with respect to the needs in a country they cannot be effectively overcome. Importantly, improvements in healthcare provision and developments in healthcare systems in LMICs cannot be measured using standards and expectations from HICs.

Deficiencies in healthcare capacity limit healthcare access around the world but are relatively well managed in HICs. In LMICs availability of healthcare facilities, trained healthcare professionals, medical supplies and equipment must be improved if healthcare access is to improve markedly. This must be accompanied with improvements in systems and support for healthcare financing.

However, any developments to these systems must take account of the socio-cultural environment in the setting in order to be effective.

Conclusions

Patients face barriers to healthcare access all around the world, but they are more numerous and experienced much more extremely in LMICs where resources for healthcare are often very scarce both on a health system level and on a patient level. Efforts to understand and overcome these barriers requires understanding of the healthcare and system needs, and the socio-cultural environment. Evaluation of efforts to overcome these barriers requires methods that account for the health system and wider cultural factors that impact capacity to provide care, the healthcare finance systems and the socio-cultural environment of the setting. As such, evaluation methods employed in HICs are unlikely to be appropriate in LMICs due to the stark differences in these areas.

Declarations

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Competing interests

No conflicts of interest

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