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Contraception and Reproductive Medicine

REVIEW

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Bridging gaps in maternity care for women with disabilities: a scoping review of access and utilisation in sub-Saharan Africa adopting the WHO health systems framework

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Abstract

Background Women with disabilities face higher risks of maternal morbidity and mortality, particularly in low- and middle-income countries like sub-Saharan Africa (SSA). Barriers such as socio-cultural stigma, health facility inaccessibility, and lack of supportive healthcare contribute to their limited access to maternity services, exacerbating their vulnerability. Despite significant research on maternal health in SSA, studies focusing on women with disabilities remain scarce, and current healthcare services often fail to accommodate their needs. This scoping review explores barriers to maternity care accessibility among women with disabilities in SSA, highlighting gaps in research necessary for developing interventions that align with global health goals, such as reducing maternal mortality by 2030.

Methods This current scoping review was informed by the methodological framework proposed by Arksey and O'Malley. Exploratory searches were conducted in JSTOR, PubMed, PsycINFO, African Journals Online, and Web of Science, etc., to identify studies conducted in SSA that focused on access, utilisation, and barriers to maternity services such as antenatal care (ANC) visits, facility delivery, and postnatal care visits among women with disabilities in SSA since the introduction of the sustainable development goals (SDGs). Twenty-two studies were included, spanning from June 1st 2016 to 30th May 2024.

Results Of the 22 eligible studies out of 416 identified studies published between 2016 and 2024, 20 were conducted across eight countries in SSA. Eight studies employed quantitative methods, 12 used qualitative approaches, and two used mixed-methods analysis. These studies focused on all or either of the maternal health services measured in this study, which include antenatal care (ANC), facility delivery, and postnatal care (PNC) among women with disabilities. Findings indicate that, despite a strong desire for ANC, physical impairments, mobility issues, and unsupportive infrastructure hinder access. Although facility deliveries were high, support gaps and negative provider attitudes were common. The WHO health system framework categorisation shows that more barriers are within the service delivery and health workforce domains.

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Conclusion The review found limited studies on access to and utilisation of ANC, facility delivery, and PNC for women with disabilities in SSA. This gap restricts understanding of the issue and hampers interventions, increasing risks to maternal and child health. Urgent research and interventions are needed to address equity challenges in these services for disabled women in SSA.

Keywords Maternal services, Access, Utilisation, Barriers, Women with disabilities, Sub-Saharan africa, Scoping review

Background

Women with disabilities experience a significantly higher risk of maternal morbidities and mortalities than those without disabilities [1]. Yet, women with disabilities continue to be faced with persistent barriers and discrimination when accessing or utilising healthcare, especially reproductive and maternity services [2]. These barriers and discriminations are even more pronounced in low- and middle-income countries (LMICs), particularly in sub-Saharan Africa (SSA), where there continue to be limited interventions or measures to protect the sexual and reproductive rights of persons with disabilities [3].

Meanwhile, about 92% of all maternal mortalities occur in LMICs, with SSA alone accounting for approximately 70% of the global maternal deaths, which occur mainly due to preventable causes [4]. With an estimated 545 maternal deaths per 100,000 live births, the maternal mortality rate (MMR) in SSA is 7 times higher than the MMR in Eastern and South-Eastern Asia, 42 times higher than the MMR in Europe and Northern America, and 136 times higher than the MMR in Australia and New Zealand [5]. More worryingly, recent evidence shows a stagnation and increasing trend of maternal mortality in a number of countries across SSA [5], undoing some of the successes chalked in reducing maternal mortality over the past decades. With year 2030 fast approaching, attaining the Sustainable Development Goal 3.1 (SDG) target of reducing the global maternal mortality ratio to less than 70 deaths per 100,000 live births remains almost impossible if the current trends persist [6], emphasising the need for enhanced efforts to address the barriers to access and utilisation of maternity services.

Whilst the exact contribution of women with disabilities to maternal mortality remains unknown, it is estimated to be higher than that of the non-disabled population [1]. Limitations in access and utilisation of reproductive and maternity services among women with disabilities largely contribute to their increased vulnerability to pregnancy-related complications and deaths [1, 2]. Generally, access and utilisation of maternity services among women with disabilities in SSA are often curtailed by socio-cultural, economic, and structural factors [2].

Socio-culturally, women with disabilities continue to experience negative attitudes, stigma, and stereotyping on sexual and reproductive health matters [7]. For instance, some families react negatively when a member with a disability gets pregnant and tend to hide a pregnant woman with disabilities, preventing them from accessing and utilisation of maternity services [8]. Additionally, structural barriers such as the physical inaccessibility of healthcare facilities to persons with disabilities and difficulties in communication with care providers also contribute to limited access and utilisation [8]. These highlight the need for a more thorough understanding of the issues pertaining to access and utilisation of maternity services among women with disabilities in SSA.

Although research on maternal health and well-being in SSA has gained significant attention in recent years [9], most of these studies did not focus on women with disabilities despite their unique challenges in accessing and utilising maternal services and increased predisposition to high maternal health risks [2, 10]. Besides, healthcare services, including maternity care, are often not tailored to promote access and utilisation among individuals with disability [11].

Despite the emerging evidence showing an increased risk of maternal morbidity and mortality among women with disabilities [1, 12, 13], data is currently lacking on the maternal health risks of women with disabilities in SSA and its associated factors, including barriers to access and utilisation of maternity services. The limited research data on maternity services access and utilisation obscure the issue, curtailing the development of appropriate measures and interventions to address the barriers associated with access and utilisation of maternity services among women with disabilities in SSA.

A scoping review enables the synthesis of available studies and maps the existing literature on a particular topic, identifying gaps in current research knowledge [14]. The current study presents a scoping review of access and utilisation of maternity services and associated barriers among women with disabilities in SSA. Through systematic analysis of the available evidence, this study aims to illuminate the gaps in the current literature that need to be addressed to promote access and utilisation of maternity services among women with disabilities in SSA since the Convention on the Rights of Persons with Disabilities, which specifically addresses sexual and reproductive health of persons with disabilities, came into force on 3rd May 2008 [15, 16]. The scoping review has been used in previous studies which sought to promote access and utilisation of healthcare services among specific populations [17–19].

This study seeks to present a thorough summary of the current available research on access and utilisation of maternity services among women with disabilities in SSA. Additionally, the study seeks to identify the existing research limitations, highlighting the current knowledge gaps that require further studies to promote access and utilisation of maternity services among women in furtherance of the global health agenda of "leaving no one behind" [6, 20]. Perhaps promoting access and utilisation of maternity services among women with disabilities could contribute immensely towards reducing maternal mortality in Africa.

Methods

The methodological framework by Arksey and Malley [21] guided the design of the current scoping review. To achieve the objectives of the scoping review suggested by Arksey and Malley [21], this study outlined a comprehensive summary of existing literature on maternity services, operationalising maternity services from the dimensions of antenatal care (ANC), facility delivery, and postnatal care (PNC) access, utilisation, and barriers among women with disabilities in SSA, and also identifying the available gaps in the current studies. A scoping review is considered more appropriate for the current study since the study sought to explore the breadth of research and match existing literature on maternity services access, utilisation, and barriers among women with disabilities in SSA, providing a comprehensive overview of the phenomenon. The guiding protocol for this study was designed following the format recommended by the International Prospective Register of Systematic Reviews (PROSPERO) [22]. However, because of the current exclusion of scoping review protocols from registration by PROSPERO, our protocol was not registered. Our reporting of the process and findings of the current scoping review is in line with the recognised Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) reporting guidelines [23].

Literature search strategy

Before we conducted the full searches for the current scoping review, we performed a preliminary exploratory search of studies on access, utilisation, and barriers to maternity services among women with disabilities, focusing on ANC, facility delivery, and PNC in SSA. Our search in the Cochrane Library and Joanna Briggs Institute (JBI) showed that no reviews of this kind had been previously carried out nor were in progress. However, we did not include Cochrane Library and JBI in the final databases used for this study. To ensure a thorough search, we conducted additional exploratory searches on the Web of Science and PubMed, both general social and behavioural science databases. The preliminary search guided the development of keywords for our search strategy and enabled us to define the research question and determine the inclusion criteria. See supplementary appendix I for further details on the development of a keyword list.

Our search was conducted using all identified Medical Subject Headings (MeSH) identified during the preliminary search (see supplementary appendix I). We searched various databases, including JSTOR, PubMed, PsycINFO, African Journals Online, and Web of Science, to ensure that we included all relevant studies on the topic, especially those conducted in Africa. Further, to complement or unearth missing studies from the database searches, non-database websites such as Guttmacher and Google Scholar were also searched. Also, we checked the reference list of all the review studies to identify any additional study or literature that is relevant or meets our inclusion criteria.

Table 1 Key terms for measuring maternity services

Term	Dimensions
Maternity Services	Antenatal care, facility delivery, and postnatal care

Inclusion and exclusion criteria

Population

Studies involving women aged 15 years and above with any kind of disability were included. The review was limited to studies conducted on maternity services. Specifically, only studies on ANC, facility delivery, and PNC among women with disabilities were included. Studies involving young girls below the age of 15 years were excluded. Our decision to exclude studies that focused on this age group was to ensure that we capture the reality of women who have attained reproductive age.

Concept

In this study, we included studies that assessed or discussed maternity services or maternal healthcare with dimensions such as ANC, facility delivery, PNC access, utilisation, and barriers. On the other hand, we excluded studies which did not address the issue of maternity services and its stated dimensions among women with disabilities. The definition of maternity services dimensions used are provided in Table 1;

Context

This scoping review included studies conducted in SSA from June 1st 2016 to 30th May 2024. The 2016 start date was chosen because it marks a year after the launch of the SDGs, which, among others, seeks to promote maternal health and ensure universal access to sexual and reproductive healthcare, including addressing the needs of women with disabilities [24].

Types of studies

Quantitative, qualitative, and mixed-methods studies were included in this scoping review. We included only peer-reviewed studies published in English with the listed study types. Other publications such as conference proceedings, book reviews, randomised control trials, quasi-experimental studies, book chapters, thesis, commentaries, conference proceedings, technical reports, research protocols, blog posts and other grey literature were excluded. This was done to focus on established findings and ensure high quality of evidence and relevance of findings.

Eligible studies selection process

We removed duplicate search results using ENDNote X9 (Clarivate), a reference management software. Afterwards, we used Covidence, a web-based tool for streamlining and managing systematic reviews, to screen and extract the remaining search results [25]. Two reviewers independently evaluated the search results. All study titles and abstracts were first evaluated for relevance. Subsequently, all the relevant full-text results were assessed for inclusion based on the set inclusion-exclusion criteria. Disagreements between the reviewers at each stage were thoroughly discussed until a consensus was attained. At the end of this eligibility selection process, 22 studies were included as eligible studies.

Figure 1 shows the various stages of elimination, number of results eliminated at each stage, and the reason for elimination using the PRISMA flow diagram.

Data extraction and charting

A standardised form in Microsoft Excel was used to independently extract the included eligible studies from Covidence. The following information was extracted: the first author's surname and year of publication, study location, study design, sample size, key findings, and the dimensions of maternity services, including ANC, facility delivery, and PNC visit. Both authors did the data extract. Table 2 presents the full information for all the articles included in the review. Table 3 was used to categorise the barriers to access and utilisation of maternal health services among women with disabilities in SSA using the WHO health systems framework [49].

Results

Geographical locations covered

Of the twenty-two (22) studies included, which were published between 2016 and 2024, 20 were individual country studies conducted across 8 countries in SSA, including six studies from Ghana [3, 32, 43–45], four each from South Africa [29, 30, 40, 46] and Uganda [31, 34, 37, 39], two from Eswatini [33, 42], and one study each from Cameroon [27], Tanzania [28], Ethiopia [50], and Senegal [38]. The remaining two studies were pooled studies involving 13 and 14 countries in SSA [48] and LMICs [41], respectively (Table 2).

Study type

Out of the 22 eligible studies, 12 (54.5%) were conducted using qualitative study approaches, 8 (36.4%) used quantitative approaches, and 2 (9.1%) used mixed-methods study approaches. All the studies included focus on aspects of maternity services, including ANC, facility delivery, and PNC among women with disabilities in SSA. However, one of the studies focused on women in LMICs, including SSA (Table 2).

Main findings on maternity services access and utilisation

Antenatal care visit

The results on access and utilisation of ANC revealed that although pregnant women with disabilities may have a strong desire for ANC [3, 32], access and utilisation are often hindered by disability [34, 50]. For instance, 22.5% of pregnant women in North West Ethiopia had visual impairments affecting their access to ANC [50]. Other studies reported that many pregnant women with disabilities often have difficulty walking to seek ANC due to physical impairment [34, 41], with pregnant adolescents and young women with disabilities being the most affected [30], highlighting their increased vulnerability to pregnancy-related complications. Also, the ANC units were largely unsupportive as midwives lacked specialised equipment and guidelines in providing care for disabled women during ANC, which often limited utilisation [42]. Whilst the difficulties in access and utilisation of sexual and reproductive health services, including ANC, were acknowledged by policymakers [37], there was limited evidence of effort aimed at addressing the phenomenon. Meanwhile, some studies reported a similar rate of ANC access between disabled and non-disabled women [27, 46, 48].

Facility delivery

The findings showed a relatively high delivery rate of pregnant women with disabilities in healthcare facilities [39, 46, 48]. In the Wakiso district of Uganda, for instance, a community-based study revealed that 80.8% of pregnant women with disabilities delivered at health facilities with skilled birth attendants [39]. However, there was limited availability of support systems for women with disabilities during delivery. For example, although pregnant women with mobility disabilities often required substantial assistance from midwives to get onto high delivery beds and support in maintaining the required positions during delivery [42], there were reports of midwives being brutal and unsupportive, leading to fear and anxiety among the women during

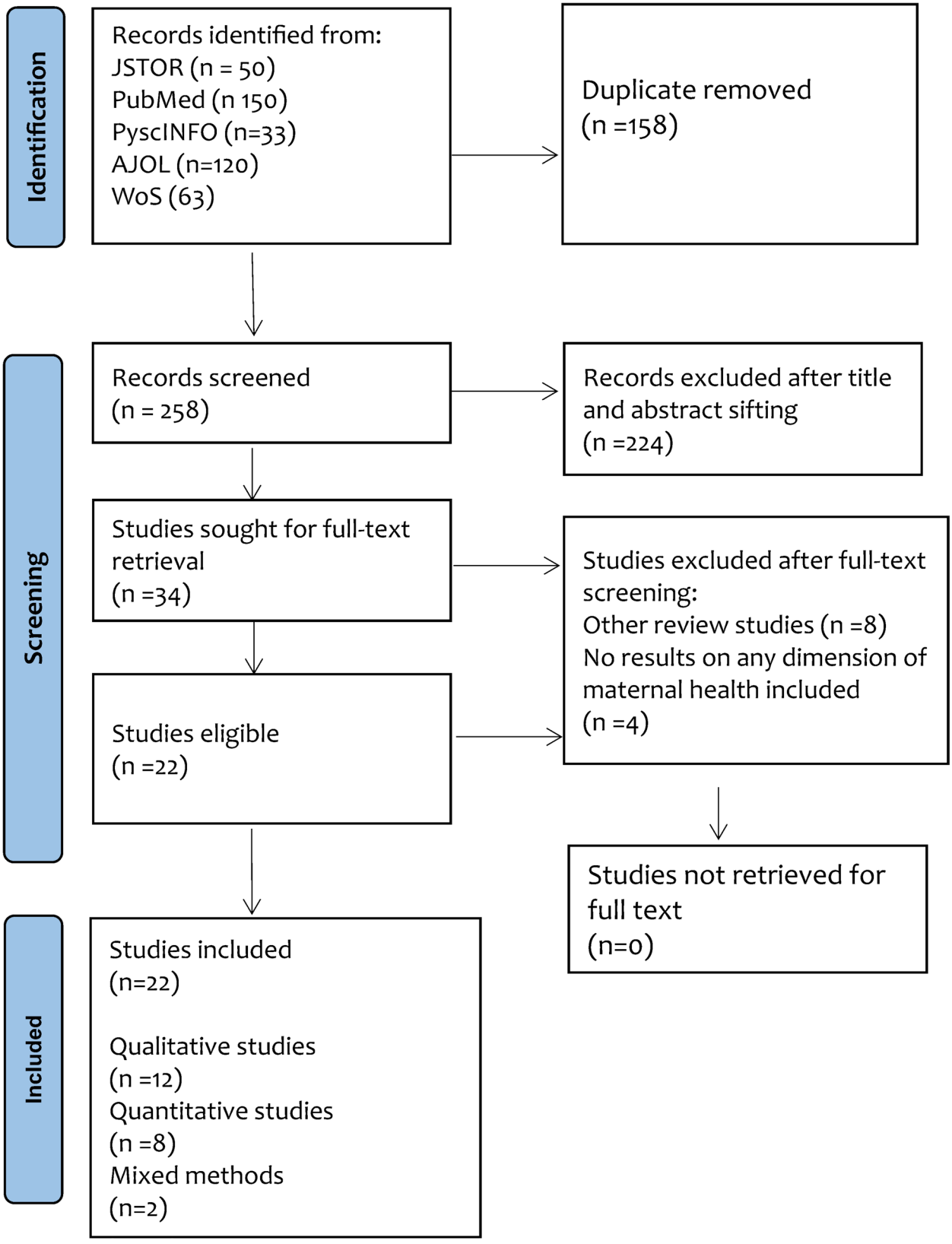

Fig. 1 PRISMA 2020 flow diagram [26]

Table 2 Study characteristics and key findings on access and utilisation and associated barriers to maternal services among women with disabilities in sub-Saharan Africa

	First author surname (Year)	Study location	Study type	Sample size	Key findings (Maternity services access and utilisation)			Key findings (Maternity services associated barriers)		
					Antenatal care visit	Facility delivery	Postnatal care visit	Antenatal care visit	Facility delivery	Postnatal care visit
1	DeBeaudrap (2019) [27]	Cameroon	Quantitative	620	No significant disparity in ANC visits between disabled and non-disabled women.	Reported no difficulties in accessing facility delivery.	Women with disabilities have similar postnatal care visits as those without disabilities.	Women with disabilities experience more frequent difficulties in accessing antenatal care. Restricted access to education and employment influences SRH service use.	Women with disabilities report lower satisfaction and difficulties with facility delivery care. Some disparities in access are concealed due to restricted healthcare availability in resource-limited settings.	There are challenges with social and cultural capital that may further complicate postnatal care access for women with disabilities.
2	Mesiäislehto (2021) [28]	Tanzania	Qualitative	136	Negative relationships with service providers influenced access disparities.	-	-	Adolescents with disabilities experienced stigma, neglect, and abuse from service providers, leading to lower-quality care.	Service providers' unprofessional behaviour and lack of affectionate communication further reinforced stigma and neglect.	Sexual violence by service providers was indicated as a barrier to accessing services. Additionally, affection was identified as a key enabler of positive outcomes.
3	Mheta (2023) [29]	KwaZulu-Natal, South Africa	Qualitative	12	Some Women With Disabilities perceived maternal healthcare services to be of good quality despite challenges with infrastructure and communication.	WWDs needed companions for assistance during delivery, particularly for navigating facilities and interpreting sign language.	The study does not directly address postnatal care visits but highlights ongoing issues with facility accessibility and lack of support.	Barriers include communication challenges (no sign language interpreters), negative attitudes of healthcare workers, and reliance on relatives for interpretation.	Healthcare workers displayed disrespectful attitudes (yelling, ignoring WWDs, and telling them they should not get pregnant), leading some WWDs to avoid facilities and deliver at home. Infrastructure issues (narrow passages, lack of ramps, non-functional elevators) made facilities less accessible.	Additional costs for travel and companions (due to referrals to higher-level care) were noted, adding to the burden for unemployed WWDs.

Table 2 (continued)

	First author surname (Year)	Study location	Study type	Sample size	Key findings (Maternity services access and utilisation)			Key findings (Maternity services associated barriers)		
					Antenatal care visit	Facility delivery	Postnatal care visit	Antenatal care visit	Facility delivery	Postnatal care visit
4	Mathabela (2024) [30]	Mpumalanga, South Africa	Qualitative	27	Adolescents and Young People with Physical Disabilities (AYPWDs) reported very low access to sexual and reproductive health services (SRHS), with most participants not accessing SRHS within the past 12 months. While some received information from parents, social media, or friends, overall access was poor.	Although not directly addressed, difficulties in accessing health facilities for delivery services can be inferred due to reported infrastructure challenges for wheelchair users and negative attitudes from healthcare workers and community members.	The study did not directly focus on postnatal care visits, but the overall barriers to accessing SRHS suggest similar challenges in the postnatal period due to infrastructure and social barriers.	Barriers at the individual level include poor socioeconomic status, with many participants relying on disability grants and living in rural, poverty-stricken areas. Lack of information about SRH and shyness or fear of seeking services also contributed to the low access.	At the community and societal level, poor infrastructure for wheelchair users, such as a lack of ramps in rural areas, hindered facility access. Additionally, negative attitudes from community members and healthcare workers further discouraged AYPWDs from seeking facility-based maternity services.	At the organisational level, healthcare workers (HCWs) were reported to have negative attitudes toward AYPWDs, including being judgmental, verbally abusive, and dismissive of their reproductive health needs. AYPWDs also reported concerns about communication difficulties with HCWs, violations of confidentiality, and HCWs' misconceptions about their sexuality, all of which deterred them from seeking postnatal services.
5	Mac-Seing (2021) [31]	Uganda	Qualitative	115	Policy actors confirmed that disabled users face severe barriers to accessing sexual and reproductive health (SRH) services. They pointed to the need for empowering people with disabilities, raising awareness, and improving SRH education within communities.	Access to SRH and facility-based maternity services remained limited due to attitudinal, physical, and communication barriers in health facilities.	Policy actors recommended improving training for healthcare providers and integrating disability-sensitive care into health service design.	Policy actors recognised barriers such as poor healthcare infrastructure, attitudinal biases among healthcare providers, and insufficient knowledge of SRH services for people with disabilities.	Lack of disability-sensitive infrastructure in health facilities (e.g., accessible delivery beds) and negative attitudes of healthcare staff hindered service use.	Policy actors identified the need for better accountability in implementing disability-focused policies, including budget allocation for improving accessibility.

Table 2 (continued)

	First author surname (Year)	Study location	Study type	Sample size	Key findings (Maternity services access and utilisation)			Key findings (Maternity services associated barriers)		
					Antenatal care visit	Facility delivery	Postnatal care visit	Antenatal care visit	Facility delivery	Postnatal care visit
6	Ganle (2016) [32]	Ghana	Qualitative	72	Women with disabilities expressed a strong desire to have children, demonstrating that they are sexually active and capable of motherhood. Many reported wanting to receive institutional maternal healthcare services to support their reproductive health needs.	Women articulated the need for modern sexual and reproductive health services, emphasising the importance of social support systems that validate their experiences and needs in accessing maternal healthcare.	The findings highlighted that women with disabilities experience rates of sexual activity and desire for childbirth that are comparable to those of non-disabled women. These challenges prevailing stereotypes that portray disabled women as asexual or uninterested in parenting.	Participants encountered numerous challenges related to mobility, such as difficulty using public transportation and reaching healthcare facilities. Healthcare providers often demonstrate insensitivity and a lack of knowledge regarding the specific maternity care needs of women with disabilities, leading to inadequate health information. (Physical inaccessibility, financial barriers, lack of appropriate transport.)	The study revealed that many healthcare facilities were physically inaccessible, which contradicts the provisions of Ghana's Disability Act aimed at ensuring equal access for individuals with disabilities. This lack of accessibility contributed to a form of social exclusion, denying them their right to quality healthcare.	Participants reported experiencing disrespectful care and negative attitudes from healthcare providers, which were often exacerbated by their disability status. Such attitudes led to significant barriers to accessing necessary maternal healthcare services.
7	Magagula (2022) [33]	Hhohho and Manzini regions in Eswatini	qualitative	12	Women with mobility disabilities expressed a need for more professional support from midwives during antenatal visits to ensure effective communication and respect.	Participants experienced a lack of support during labour, with reports of midwives being brutal and unsupportive, leading to fear and anxiety during childbirth.	Women noted inadequate postnatal care, with feelings of being victimised or ignored by healthcare providers, leading to a lack of necessary follow-up support.	Many reported a lack of infrastructure and protocols, making access to maternity services difficult. Some midwives displayed unprofessional behaviour, impacting the care received.	Lack of appropriate equipment and infrastructure in healthcare facilities, such as ramps and accessible toilets, hindered their ability to access care.	Participants faced emotional and physical abuse from midwives, leading to a negative experience post-delivery. Additionally, inadequate protocols contributed to insufficient postnatal support.
8	Apolot (2019) [34]	Kibuku District, Uganda	Quantitative	4	Desire for ANC, but access is limited due to mobility issues and cost. Women with walking disabilities face challenges attending antenatal care due to stigma and lack of acceptance from families and partners.	They experience difficulties in accessing health facilities, including a lack of transport and infrastructure barriers (high beds, unsuitable transport)	They struggle with mobility issues and the need for additional support after delivery, such as carrying their babies and breastfeeding.	Health workers often hold negative attitudes towards WWD, exacerbating their difficulty in accessing services. (Lack of transportation and community support, infrastructure not accommodating.)	Inappropriate infrastructure like high beds, lack of ramps, and inadequate transport options present significant barriers.	Stigma, lack of partner support, and inadequate health worker responsiveness make it difficult for WWD to access postnatal care. They face additional challenges like dirty or inaccessible sanitary facilities.

Table 2 (continued)

	First author surname (Year)	Study location	Study type	Sample size	Key findings (Maternity services access and utilisation)			Key findings (Maternity services associated barriers)		
					Antenatal care visit	Facility delivery	Postnatal care visit	Antenatal care visit	Facility delivery	Postnatal care visit
9	Bassoumah (2020) [35]	Chereponi District, Ghana	Qualitative study	40 (20 Disabled + 20 Non-Disabled Women)	Disabled women (DW) had fewer antenatal visits compared to non-disabled women (NDW) due to limited support from spouses and family. NDW received more help, making clinic attendance easier.	DW had fewer facility-based deliveries as their access to care was hindered by societal prejudices and inadequate transport.	DW had less access to postnatal care, resulting in poorer maternal and neonatal outcomes compared to NDW, who had better postnatal follow-up.	DW faced discrimination, which limited their access to antenatal care, as they were often stigmatised for their condition. (Disabled women faced stigma, discrimination, and verbal abuse.)	DW experienced transportation challenges, often missing public transport services, leading to lower facility delivery rates. They also experienced discriminatory treatment from health professionals.	DW had difficulty accessing postnatal care due to a lack of tailored information and cultural discrimination, resulting in limited follow-up and maternal care.
10	Diress (2021) [36]	Gondar, Ethiopia	Quantitative	417	Pregnant women with a history of contraceptive use and those in their third trimester had higher visual impairment (VI), affecting their ability to attend ANC services regularly. (22.5% of pregnant women had visual impairments affecting their access to antenatal care.)	A high prevalence of VI during late gestation may lead to difficulty accessing healthcare services during delivery.	VI may hinder women from attending postnatal checkups.	Pregnant women with VI were more likely to face challenges accessing healthcare due to limited mobility and visual issues. Lack of routine visual screening during antenatal care.	Women with VI may face delays in accessing transport and discrimination at healthcare facilities.	Limited access to health information and support services for VI-affected women postpartum. Poor access to resources for women with visual impairments.
11	Mac-Seing (2022) [37]	Uganda	Quantitative	7,823	SRH services, including antenatal care, improved from 2006 to 2016 for both disabled and non-disabled women. (48.3% of women had at least 4 antenatal visits in 2006, increasing to 61.0% in 2016.) However, richer women with hearing and communication difficulties had fewer ANC visits compared to poorer women without disabilities.	Utilisation of SRH services, including facility deliveries, increased over the years but varied across disability types.	Disabled women still faced challenges in postnatal care access compared to non-disabled women, but service usage increased over time.	Women with disabilities faced barriers like ableism and socioeconomic disparities, affecting their ability to receive antenatal care, especially for those with communication difficulties. (Physical inaccessibility and negative attitudes from health staff.)	Geographic disparities (rural vs. urban) and healthcare inequalities were key factors in facility delivery, with rural disabled women facing more challenges. (Wealth, education, and disability type significantly influenced access.)	Structural and social barriers, such as discrimination and lack of inclusive services, limited postnatal care access for women with disabilities.

Table 2 (continued)

	First author surname (Year)	Study location	Study type	Sample size	Key findings (Maternity services access and utilisation)			Key findings (Maternity services associated barriers)		
					Antenatal care visit	Facility delivery	Postnatal care visit	Antenatal care visit	Facility delivery	Postnatal care visit
12	Burke (2017) [38]	Senegal	Qualitative	144	Many young people with disabilities were sexually active yet had limited access to SRH information and services due to a lack of knowledge, resources, and confidentiality concerns, impacting antenatal care.	Physical disabilities, especially mobility impairments, limited facility-based SRH services and delivery support. Disabled individuals had less access to and utilisation of maternity services compared to non-disabled peers.	Confidentiality challenges and the lack of support mechanisms for postnatal care impacted young people with disabilities, especially those with hearing impairments.	Provider attitudes, financial barriers, and gender norms hindered access to antenatal care. People with hearing disabilities were particularly vulnerable due to communication challenges.	Mobility challenges and the dependence on family members for transportation limited disabled women's ability to access facility-based deliveries.	The absence of targeted services and cultural stigmas around sexuality further reduced postnatal care access for young people with disabilities. (Stigma and discrimination related to disability, misconceptions about sexual activity and contraceptive use.)
13	Natukunda (2022) [39]	Wakiso District, Uganda	Quantitative	182	82.3% of disabled women attended ANC services. However, distance to health facilities and lack of transport were major barriers. (ANC attendance influenced by distance, age, parity, financial support, and friendliness of healthcare providers.)	Most disabled women (80.8%) delivered at government health facilities with skilled birth attendants.	Fewer women utilised postnatal care services due to financial barriers and distance to health facilities.	Women with mobility impairments faced difficulties in accessing health facilities, often located far away. Inadequate transport and financial support also hindered access.	Cultural misconceptions and lack of specialised services contributed to lower facility deliveries. Disabled women feared caesarean sections due to societal beliefs.	Negative provider attitudes, misconceptions about disability, and lack of privacy limited postnatal care visits.

Table 2 (continued)

	First author surname (Year)	Study location	Study type	Sample size	Key findings (Maternity services access and utilisation)			Key findings (Maternity services associated barriers)		
					Antenatal care visit	Facility delivery	Postnatal care visit	Antenatal care visit	Facility delivery	Postnatal care visit
14	Fontes Marx (2018) [40]	Cape Town, South Africa	Quantitative	42 women	The study demonstrated that Deaf women could recall their pregnancy experiences, including antenatal visits, with 87% reliability. Recall bias may affect more complex events, such as the timing of the first antenatal care visit. (Most Deaf women received antenatal care but delayed seeking care beyond the first trimester, increasing risks for poor outcomes) High rate of miscarriage (31%).	The study found that Deaf women accurately reported facility delivery information.	Deaf women reliably reported postnatal care utilisation in 83% of cases.	Barriers included difficulties recalling complex pregnancy-related events such as timing of antenatal care visits, Communication barriers, mistrust of the healthcare system, lack of accessible services for Deaf women, and lack of awareness.	Some discrepancies in data matching were found, likely due to missing health records or variations in the names used in healthcare records.	Challenges in accessing postnatal care related to outdated or incomplete health records for some women, as well as issues with mobility and communication.
15	Peck (2023) [41]	14 low-income and middle-income countries	Quantitative	157,988	Women who had their first birth during adolescence had higher rates of mobility disability later in life, which could reduce their ability to attend antenatal visits compared to women who had their first birth in adulthood.	Mobility disability was significantly higher among women who gave birth in adolescence in six of the eight countries studied, which could affect facility-based delivery rates.	Women with adolescent childbirth and higher mobility disability may face challenges attending postnatal care due to reduced physical performance and increased health complications.	Barriers included poor access to SRH services for adolescent mothers, exacerbated by mobility disability in later life.	Obstetric complications and mobility issues, often worsened by early childbirth, presented significant barriers to facility-based delivery in many countries.	Women with mobility disability were likely to experience difficulties accessing postnatal care due to long-term physical impairments and inadequate support services in LMICs. (Variability in disability measurement, healthcare provider stigma, lack of tailored services for disabled adolescent mothers.)

Table 2 (continued)

	First author surname (Year)	Study location	Study type	Sample size	Key findings (Maternity services access and utilisation)			Key findings (Maternity services associated barriers)		
					Antenatal care visit	Facility delivery	Postnatal care visit	Antenatal care visit	Facility delivery	Postnatal care visit
16	Temane (2024) [42]	Hhohho and Manzini regions of Eswatini.	Qualitative	12	Midwives faced difficulties due to a lack of specialised equipment and infrastructure that accommodates women with mobility disabilities. They had to adjust their care approaches without clear guidelines, which impacted the quality of antenatal care.	Women with mobility disabilities required substantial assistance from midwives to get onto high-delivery beds, and additional support was needed during labour. Some women could not maintain the required positions for delivery due to their disabilities.	Postnatal care for women with disabilities was hindered by infrastructure that was not accessible or accommodating. Women often face challenges with accessing postnatal care due to physical barriers in healthcare facilities.	Lack of clear protocols, limited access to proper equipment, and the midwives' anxiety and emotional burden when assisting women with disabilities.	The absence of adjustable beds, specialised toilets, and other necessary infrastructure posed significant barriers. Midwives were physically strained, and emotional distress was common when dealing with the complex needs of women with disabilities.	The lack of specialised equipment and training for midwives to handle postnatal care for women with disabilities created additional hurdles. Midwives also noted the absence of guidelines for postnatal follow-ups for these women, making the provision of care inconsistent and difficult.
17	Badu (2018) [43]	Ashanti and Brong Ahafo Regions of Ghana	Qualitative	21	Some visually impaired women received preferential treatment during antenatal visits, aiding their access to care.	Visually impaired women reported a mix of supportive and non-supportive treatment during facility deliveries.	Women who received good support from caregivers had better access to postnatal services.	Financial difficulties, particularly high transportation costs, lack of accessible transport, and inadequate health insurance, hindered access to antenatal care for visually impaired women.	Physical barriers and lack of preferential treatment at health facilities made facility deliveries more challenging. (Lack of disability-friendly services) and health providers' negative attitudes	Economic hardships and transportation costs continued to be barriers during the postnatal care period, and not all women received adequate support from healthcare providers.
18	Akasreku (2018) [44]	Adaklu District, Volta Region, Ghana	Mixed method	400	Pregnant women with disabilities faced significant barriers in accessing antenatal care due to societal beliefs that their disabilities could spiritually transmit to the fetus of non-disabled women. Healthcare providers were often unprepared and lacked awareness of their needs.	There were misconceptions about PWDs having safe deliveries, often leading to the exclusion of PWDs from facilities.	Many PWDs did not receive proper postnatal care due to discrimination and negative societal attitudes about their ability to care for a child.	Negative attitudes from healthcare providers, misconceptions about disabilities being spiritually transmissible, and a lack of education about PWDs' reproductive rights were major barriers.	Beliefs that disabled women could not have safe deliveries led to a lack of prioritisation for facility-based births.	Postnatal services were hindered by physical inaccessibility and stigmatisation by community members and health professionals.

Table 2 (continued)

	First author surname (Year)	Study location	Study type	Sample size	Key findings (Maternity services access and utilisation)			Key findings (Maternity services associated barriers)		
					Antenatal care visit	Facility delivery	Postnatal care visit	Antenatal care visit	Facility delivery	Postnatal care visit
19	Obeng (2024) [45]	Ghana	Qualitative	25	Some healthcare professionals positively viewed disabled pregnant women as strong, courageous, and deserving of quality care, leading to better antenatal care experiences for some.	Positive perceptions also influenced supportive care during delivery for those viewed as resilient and empowered.	Those seen as strong may have had positive postnatal support from health professionals who admired their perseverance.	Negative perceptions about disabled women's ability to have children led to some healthcare professionals dismissing the need for these women to seek maternal care, affecting access to antenatal services.	Sociocultural stigmas around disability and motherhood led to discrimination, with some healthcare providers believing that disabled women should not become mothers, resulting in inadequate facility support during childbirth. Lack of disability-specific training for maternal health providers.	Cultural beliefs that disabled women cannot care for a child resulted in poor postnatal care and lack of follow-up, especially for women with more severe disabilities.
20	Gichane (2017) [46]	Cape Town, South Africa	Mixed-methods	42	96% of Deaf women attended antenatal clinics (at least one antenatal appointment.), and 49% did so within the first trimester. Most women had more than four antenatal visits, consistent with WHO guidelines.	33% of women had interpreters during labour, but these were mostly family members, leading to concerns about confidentiality. All women are delivered to health facilities. Facility-based care was well-utilised despite communication barriers.	-	Significant communication issues with healthcare providers, as only 28% of women had an interpreter during antenatal visits, most of whom were family members, raised ethical concerns about confidentiality. Major communication barriers due to lack of sign language interpreters. Inconsistent quality of care.	The lack of professional interpretation services during labour led to communication challenges, and the assumption that writing was a sufficient mode of communication caused misunderstandings. Some women experienced mistreatment and neglect from hospital staff due to their disability.	Although not explicitly discussed, postnatal care would likely have been affected by the same communication barriers as antenatal care and delivery.
21	Ganle (2020) [47]	Ghana	Qualitative	77	Many women with disabilities (WWDs) desired to have children and sought antenatal care. Their desire to experience motherhood motivated them to engage with services.	Despite challenges, WWDs actively pursued childbirth and demonstrated their capacity to engage with maternal services, though often faced with stigma.	WWDs, especially those who succeeded in becoming mothers, sought postnatal care for themselves and their children.	Barriers included stigma, societal misconceptions, and limited access to quality services due to a lack of disability-friendly information and support systems. Economic insecurity also played a role.	WWDs faced significant challenges due to societal prejudices, which often portrayed them as incapable of safe motherhood. Lack of support, stigma, and fear of disability transmission were common barriers.	Barriers such as limited access to continuous care and societal perceptions of disability persisted, making postnatal care difficult for WWDs to access effectively. Lack of tailored services for women with disabilities.

Table 2 (continued)

	First author surname (Year)	Study location	Study type	Sample size	Key findings (Maternity services access and utilisation)			Key findings (Maternity services associated barriers)		
					Antenatal care visit	Facility delivery	Postnatal care visit	Antenatal care visit	Facility delivery	Postnatal care visit
22	Rotenberg (2024) [48]	Sub-Saharan Africa (13 countries)	Quantitative	10,021	There were no significant differences in antenatal care attendance between women with and without disabilities. Both groups had similar levels of access to antenatal services. (95.4% of women received at least one antenatal care visit)	Women with disabilities had slightly higher odds of being attended to by doctors during childbirth (aOR= 1.52), indicating a possible preference for facility-based births.	Postnatal and postpartum checks showed little difference between the groups, suggesting equitable access to these services.	No substantial differences in barriers were found, though communication, transportation, health workers' poor attitudes and access were highlighted as potential challenges for women with disabilities in other literature.	Women with disabilities may face financial strain due to facility-based births, which may be perceived as more necessary for them due to complications, potentially leading to increased health expenditure.	No major barriers were identified, though quality and acceptability of care remain concerns that need further research but communication and stigma from health workers posed challenges for continued maternal care.

childbirth [33]. Meanwhile, some studies reported that disabled women had no difficulties in accessing facility delivery and were often delivered by skilled birth attendants [27, 39].

Postnatal care visit

The findings on PNC access and utilisation revealed that most studies did not directly assess the issue of PNC among women with disabilities [29, 30]. However, some studies suggested that women with disabilities have similar postnatal care visits as those without disabilities [27, 47]. Among hearing-impaired women in South Africa, for instance, 83% reported utilising PNC [40]. Because many women with disabilities often struggle with mobility issues and the need for support in carrying and breastfeeding their babies during PNC visits [34], utilisation of PNC was largely influenced by the receipt of good support from caregivers [43, 45]. Meanwhile, in a rural setting in Ghana, Akasreku et al. [44] reported that many women with disabilities did not receive proper PNC due to discrimination and negative societal attitudes about their ability to care for a child. Magagula et al. [33] noted that feeling of being victimised or ignored by healthcare providers resulted in inadequate PNC and often led to a lack of necessary PNC utilisation or follow-ups among disabled women in Eswatini.

Main findings on maternity services associated barriers

The findings show that the main barriers associated with maternity services access and utilisation (ANC, facility delivery, and PNC) include communication challenges [29, 30, 37, 38, 40, 46, 48], inaccessible and unaccommodating physical healthcare infrastructure [32, 37, 39, 44, 42, 48], negative attitudes and discriminatory practices of healthcare providers [31, 33, 38, 40, 42, 46, 49], societal stigma, misconceptions and stereotyping [3, 31, 36, 38, 39, 46], financial constraints [44, 34, 35, 36], mobility and transportation issues [29, 32, 33, 34, 35, 36, 44], and lack of family support [33, 46].

Mapping the barriers against the world health organisation health system framework

The review of barriers mapped onto the WHO Health System Framework revealed that the most frequently reported obstacles to maternity service access and utilisation among women with disabilities fall within the Service Delivery and Health Workforce domains.

Service delivery

A large number of studies highlighted significant challenges in service delivery. Commonly reported barriers included physical inaccessibility of healthcare facilities (e.g., lack of disability-sensitive infrastructure, high beds, absence of ramps), inadequate protocols, and

Table 3 Classification of associated barriers into world health organization health systems framework

First author surname (Year)	Cumulative Key findings (Maternity services associated barriers)	WHO's framework
DeBeaudrap (2019) [27]	Women with disabilities experience more frequent difficulties in accessing antenatal care.	Service delivery
	Lower satisfaction and difficulties with facility delivery care due to barriers in resource-limited settings.	Service delivery
Mheta (2023) [29]	Communication challenges, including no sign language interpreters.	Service delivery
Mac-Seing (2022) [37]	Physical barriers in health facilities, such as lack of disability-sensitive infrastructure.	Service delivery
Ganle (2016) [47]	Physical inaccessibility of healthcare facilities, contradicting legal provisions.	Service delivery
Magagula (2022) [33]	Inadequate protocols reduce the quality of postnatal care.	Service delivery
Apolot (2019) [34]	Mobility issues and lack of transport options prevent access to antenatal care.	Service delivery
	Inappropriate infrastructure, such as high beds and lack of ramps, limits facility access.	Service delivery
Bassoumah (2020) [35]	Disabled women experienced transportation challenges, leading to lower facility delivery rates.	Service delivery
	Disabled women had difficulty accessing postnatal care due to a lack of tailored information and cultural discrimination.	Service delivery
Diress (2021) [36]	Visual impairment (VI) in pregnant women caused mobility limitations, leading to difficulties attending antenatal care.	Service delivery
	Women with VI faced discrimination and delays in accessing transport and healthcare facilities.	Service delivery
Mac-Seing (2021) [31]	Geographic disparities (rural vs. urban) contributed to lower facility delivery rates among disabled women.	Service delivery
	Structural and social barriers, such as discrimination and lack of inclusive services, limited postnatal care access for women with disabilities.	Service delivery
Burke (2017) [38]	Mobility challenges and dependence on family for transportation limited access to facility-based deliveries.	Service delivery
	Lack of targeted postnatal services and cultural stigma around sexuality reduced access for young people with disabilities.	Service delivery
Natukunda (2022) [39]	Women with mobility impairments faced difficulties accessing healthcare facilities due to distance and lack of transport.	Service delivery
	Cultural misconceptions and lack of specialised services contributed to lower facility delivery rates among disabled women.	Service delivery
Temane (2024) [42]	Women with mobility disabilities needed assistance to access high delivery beds, with additional support required during labour.	Service delivery
	Infrastructure that was not accessible hindered postnatal care, presenting physical barriers for women with disabilities.	Service delivery
Peck (2023) [41]	Mobility disability from adolescent childbirth reduced women's ability to attend antenatal visits later in life.	Service delivery
	Obstetric complications and mobility issues, worsened by early childbirth, hindered facility-based delivery.	Service delivery
	Women with mobility disabilities faced difficulties accessing postnatal care due to physical impairments and lack of support services in LMICs.	Service delivery
	Mobility disability from adolescent childbirth reduced women's ability to attend antenatal visits later in life.	Service delivery
Badu (2018) [43]	Physical barriers and lack of preferential treatment at health facilities made facility deliveries more challenging.	Service delivery
Obeng (2024) [45]	Sociocultural stigmas around disability and motherhood led to discrimination, affecting facility support during childbirth.	Service delivery
Akasreku (2018) [44]	Many PWDs did not receive proper postnatal care due to discrimination and negative societal attitudes about their ability to care for a child.	Service delivery
Ganle (2016) [47]	Societal perceptions of disability made postnatal care difficult for WWDs to access effectively.	Service delivery
DeBeaudrap (2019) [27]	Restricted access to education and employment influences SRH service use.	Health workforce
Mesiäislehto (2021) [28]	Stigma, neglect, and abuse from service providers lead to lower-quality care.	Health workforce
	Unprofessional behaviour, including a lack of affectionate communication, reinforces stigma.	Health workforce
	Sexual violence by service providers.	Health workforce
Mheta (2023) [29]	Negative attitudes from healthcare workers lead to disrespectful treatment and avoidance of facilities.	Health workforce
Ganle (2020) [30]	Poor socioeconomic status and lack of SRH information contribute to low service access.	Health workforce
	Negative attitudes from healthcare workers lead to judgmental, verbally abusive treatment.	Health workforce
Mac-Seing (2022) [37]	Attitudinal barriers in health facilities limit access to services.	Health workforce
	Insufficient knowledge of SRH services for people with disabilities among healthcare staff.	Health workforce

Table 3 (continued)

First author surname (Year)	Cumulative Key findings (Maternity services associated barriers)	WHO's framework
Ganle (2016) [47]	Insensitivity from healthcare providers to the specific maternity care needs of women with disabilities.	Health workforce
Apolot (2019) [34]	Health workers' negative attitudes and lack of responsiveness to women with disabilities.	Health workforce
Bassoumah (2020) [35]	Disabled women faced stigma, discrimination, and verbal abuse, affecting their access to antenatal care.	Health workforce
Burke (2017) [38]	Provider attitudes, financial barriers, and gender norms hindered access to antenatal care for young people with disabilities.	Health workforce
Mac-Seing (2021) [31]	Women with disabilities, especially those with communication difficulties, faced ableism and socioeconomic disparities affecting antenatal care access.	Health workforce
Natukunda (2022) [39]	Negative provider attitudes, misconceptions about disability, and lack of privacy reduced postnatal care visits for disabled women.	Health workforce
Fontes Marx (2018) [40]	Deaf women faced communication barriers and mistrust in the healthcare system, delaying their antenatal visits.	Health workforce
Peck (2023) [41]	Healthcare provider stigma and lack of tailored services for adolescent mothers with disabilities limited their access to care.	Health workforce
Temane (2024) [42]	Midwives were emotionally burdened and physically strained due to the lack of clear protocols and equipment to care for women with disabilities.	Health workforce
	The lack of specialised equipment and training for midwives handling postnatal care for women with disabilities created additional hurdles.	Health workforce
Akasreku (2018) [44]	Healthcare providers lacked awareness and preparedness to handle the needs of pregnant women with disabilities.	Health workforce
Obeng (2024) [45]	Lack of disability-specific training for maternal health providers.	Health workforce
	Negative perceptions about disabled women's ability to have children affected access to antenatal services.	Health workforce
Gichane (2017) [46]	The lack of professional interpretation services during labour led to communication challenges and raised ethical concerns about confidentiality.	Health workforce
	Assumptions that written communication was sufficient led to misunderstandings between Deaf women and healthcare providers.	Health workforce
	Some Deaf women experienced mistreatment and neglect from hospital staff during delivery due to their disability.	Health workforce
Rotenberg (2024) [48]	Communication challenges and stigma from health workers posed barriers to continued maternal care for women with disabilities.	Health workforce
Magagula (2022) [33]	Midwives' unprofessional behaviour, including emotional and physical abuse during labour.	Health workforce
Badu (2018) [43]	Health providers' negative attitudes made facility deliveries more difficult for visually impaired women.	Health workforce
Mheta (2023) [29]	Additional costs for travel and companions due to referrals to higher-level care.	Health system financing
Badu (2018) [43]	Financial difficulties, particularly high transportation costs, lack of accessible transport, and inadequate health insurance.	Health system financing
	Economic hardships and transportation costs continued to be barriers during the postnatal care period.	Health system financing
Ganle (2016) [47]	Economic insecurity played a role in limiting access to maternal services.	Health system financing
Rotenberg (2024) [48]	Increased financial strain for facility-based births is perceived as more necessary for women with disabilities, leading to higher health expenditure.	Health system financing
Mathabela (2024) [30]	Concerns about communication difficulties and breaches of confidentiality.	Health information systems
Diress (2021) [36]	Limited access to health information and support services for women with VI during the postpartum period.	Health information systems
Fontes Marx (2018) [40]	The lack of accessible services for Deaf women led to challenges in recalling complex events during antenatal care.	Health information systems
	Challenges in accessing postnatal care due to outdated or incomplete health records and issues with mobility and communication for Deaf women.	Health information systems
Gichane (2017) [46]	Significant communication issues with healthcare providers due to lack of sign language interpreters during antenatal visits.	Health information systems
Ganle (2016) [47]	Lack of disability-friendly information and support systems affected maternal care access.	Health information systems
Diress (2021) [36]	Lack of routine visual screening during antenatal care for pregnant women with VI.	Medical products, vaccines, and technologies
Magagula (2022) [33]	Lack of appropriate infrastructure, such as ramps and accessible toilets, hinders care access.	Medical products, vaccines, and technologies
Mheta (2023) [29]	Infrastructure issues such as narrow passages, lack of ramps, and non-functional elevators.	Medical products, vaccines, and technologies

Table 3 (continued)

First author surname (Year)	Cumulative Key findings (Maternity services associated barriers)	WHO's framework
Temane (2024) [42]	Midwives faced difficulties due to a lack of specialised equipment and infrastructure that accommodates women with mobility disabilities.	Medical products, vaccines, and technologies
	The absence of adjustable beds, specialised toilets, and necessary infrastructure created significant barriers to care delivery.	Medical products, vaccines, and technologies
Temane (2024) [42]	Midwives had to adjust care approaches without clear guidelines, impacting the quality of antenatal care for women with disabilities.	Leadership and governance
	The lack of guidelines for postnatal follow-ups for women with disabilities made postnatal care inconsistent and difficult.	Leadership and governance
Akasreku (2018) [44]	Societal beliefs that disabilities could spiritually transmit to the fetus of non-disabled women, affecting access to antenatal care.	Leadership and governance
	Misconceptions about PWDs having safe deliveries led to exclusion from facilities during delivery.	Leadership and governance
Ganle et al. [47]	Stigma and societal misconceptions about women with disabilities hindered their access to quality antenatal services.	Leadership and governance

transportation issues that prevent timely access to antenatal, delivery, and postnatal care. For instance, multiple studies such as Temane et al. [42], DeBeaudrap et al. [30], and Ganle et al. [47] noted that women with disabilities experience frequent difficulties with facility access and low satisfaction with service quality due to resource limitations and infrastructural shortcomings.

Health workforce

Several studies documented that negative attitudes, stigma, and unprofessional behaviour among healthcare providers further impede access. Issues such as insufficient training in disability-sensitive care, lack of communication support (e.g., absence of sign language interpreters), and discriminatory practices were widely reported [28, 47]. These factors contribute not only to delays in care but also to reduced quality of maternity services offered to women with disabilities.

Additional barriers were identified in the areas of Health System Financing, where high transportation costs, economic insecurity, and out-of-pocket expenditures limit service uptake, and in Health Information Systems, which suffer from inadequate communication aids and information tailored to the needs of disabled women. Furthermore, issues related to Medical Products, Vaccines, and Technologies (e.g., lack of appropriate equipment) and Leadership and Governance (e.g., absence of clear guidelines) were also noted, though less frequently.

Discussion

To the best of our knowledge, the current study is the first scoping review on the access and utilisation of maternity services access, utilisation and its associated barriers among women with disabilities in SSA with a focus on ANC, facility delivery, and PNC. Our study aims to provide a comprehensive summary of existing literature, highlighting the key issues and research gaps in improving access and utilisation of maternity services among women with disabilities in SSA. Addressing these issues and research gaps could contribute towards the realisation of the 2030 health targets of the SDGs, especially target 3.7, which seeks to ensure universal access to sexual and reproductive healthcare services [24, 51].

Although there is a growing body of literature on sexual and reproductive health issues of women with disabilities in SSA, the present review found that there is limited focus on maternity services, particularly with regard to ANC, facility delivery, and PNC. Without the specific focus on access and utilisation of maternity services and its associated barriers among women with disabilities in SSA, the unique maternal care needs of these women may be overlooked, leading to inadequate or limited quality of maternity services and support [48]. While a number of studies in this review suggested limited access

and utilisation of ANC, facility delivery, and PNC among women with disabilities [33, 37, 42], others reported that access to maternity services is similar for both women with disabilities and those without disabilities [27, 48].

Nonetheless, there is a consensus across the studies that women with disabilities continue to face a myriad of challenges when accessing or utilising maternity services. Besides, even when women with disabilities get access to the various maternity service delivery areas, the service environment remains generally unaccommodating, or there is a lack of specific equipment or aid required for the provision of maternity care, which often limits utilisation [31, 33, 34, 42]. Thus, there is an urgent need for studies and interventions targeted at addressing the equity issues in the provision of ANC, facility delivery, and PNC among women with disabilities in SSA.

The results from this review showed that communication barriers are one of the most common barriers to access and utilisation of maternity services among women with disabilities in SSA. The current findings support previous systematic reviews, which identified communication barriers as a major problem which curtails access and provision of healthcare to individuals with disabilities [2, 52]. Although some women with disabilities have limited ability to communicate due to physical, visual or cognitive impairments [2], most healthcare settings in SSA do not have the necessary assistive communication technologies and aids, including sign language interpreters, further hindering communication between persons with disabilities and healthcare providers [10, 53] and thus reducing disabled women's likelihood of accessing or utilising maternity services [2]. Therefore, aside from enhancing the skills of healthcare professionals, particularly midwives, in effective communication strategies with persons with disabilities, providing the requisite communication aids or equipment could facilitate easy communication between women with disabilities and their care providers [54].

The findings also revealed that difficulties in mobility, physical inaccessibility of healthcare facilities, and unaccommodating healthcare delivery equipment were common barriers to access and utilisation of maternity services among women. Similar findings were reported in previous studies [55–57]. Aside from the physical design of many healthcare facilities in SSA being disability-unfriendly and mobility-limiting [34, 58], most facilities do not have suitable equipment for maternity care delivery to persons with disabilities when required [59, 60]. Meanwhile, although many women with disabilities often rely on family members for mobility support, especially when accessing healthcare services [8, 61], this review found limited family support for women with disabilities when accessing or utilising maternity services, emphasising the need to provide the women with alternative means of accessing maternity services, especially when family support is not available or is denied.

Further, negative attitudes and discriminatory practices of healthcare workers towards women with disabilities during maternity service delivery were among the common barriers reported in the studies reviewed. Although the phenomenon of women with disabilities in SSA being subjected to various forms of abuse by healthcare workers for getting pregnant or having a child has been widely reported in earlier studies [15, 62], the persistent nature of the phenomenon is worrying, raising questions about the availability of effective measures to address the problem. Meanwhile, the negative maternity care experiences of women with disabilities reduce client satisfaction [34] and could potentially contribute to the increased use of alternative providers, such as traditional birth attendants [63], which could endanger the lives of women with disabilities and their babies. Whilst it is important to provide training and enhance the capacity of healthcare workers in providing disability-sensitive maternity services [3, 64], instituting monitoring and feedback mechanisms from clients with disabilities could go a long way towards identifying incidences of abuse and implementing appropriate remedies to prevent future occurrences.

Meanwhile, similar to findings from previous studies [65–68], the current review showed that societal stigma, misconceptions and stereotyping remain major barriers towards access and utilisation of maternity services among women with disabilities. Available evidence shows that these sociocultural biases stem from the portrayal of disability as a form of punishment or shame [69] and that women with disabilities are asexual and incapable of getting pregnant, giving birth or caring for a child [68, 70]. Thus, it is important to promote the use of community-based education, dialogue and awareness creation programs across SSA to reduce the negative socio-cultural practices and attitudes towards women with disabilities and promote their sexual and reproductive rights, including their right to access and utilise maternity services.

Also, financial constraints and transportation challenges were among the other barriers associated with access and utilisation of maternity services among the women. The cost associated with services, both direct and indirect cost, including the cost of transportation, significantly impede persons with disabilities ability to access and utilise healthcare services in SSA [71]. In most parts of SSA, out-of-pocket payment for healthcare services remains very common, even in countries where there are national health insurance schemes [72, 73]. Given the poor socio-economic status of most women with disabilities [74], paying for transportation and the cost of healthcare limit access and utilisation of maternity services.

Strengths and limitations of the study

The major strength of this study is that it provides a comprehensive overview of the most recent studies on access and utilisation of maternity services and its associated barriers among women with disabilities in SSA, highlighting the current gaps and future research priorities. However, the study has some limitations. First, there is the potential to exclude valuable studies that were not authored in English since the scoping review was based on only articles written in English. Also, although barriers to access and utilisation of healthcare services among persons with disabilities could vary based on disability type and severity [71], the current review did not consider the influence of disability type and severity on access and utilisation of maternity services among women. Further, due to the differences in the studies reviewed in terms of settings, population, and approaches, the current findings may be limited in generalisation. Future studies need to aim at avoiding some of these limitations.

Implications for research and policy

Considering the limited availability of specific studies on access and utilisation of maternity services among disabled women, as highlighted in this study, there is an urgent need for increased research attention and interventions focusing on addressing equity issues in the access and utilisation of ANC, facility delivery, and PNC among women with disabilities in SSA. Also, given the multifaceted nature of the barriers to access and utilisation of maternity services among women with disabilities, enhanced cooperation is required from policymakers, governments, non-governmental organisations, educational institutions, healthcare providers, and researchers to develop and implement evidence-based interventions to address these barriers and promote access and utilisation of maternity services. For instance, enhancing the skills of healthcare professionals, particularly midwives, in effective communication strategies with persons with disabilities and providing the requisite communication aids or equipment could facilitate easy communication between women with disabilities and their care providers. Also, policymakers should ensure that healthcare facilities have easy access routes, mobility aids, and other appropriate equipment for maternity care delivery to women with disabilities. Although family support is important in promoting access and utilisation of maternity services among women with disabilities, providing alternative means of support is crucial in promoting access when family support is not available or is denied.

Additionally, instituting mobile health clinics that identify and target women with disabilities requiring maternity services in the communities could also promote access and utilisation. Further, policymakers should facilitate enhanced training and education of healthcare workers on disability rights and the provision of disability-sensitive maternity services to women with disabilities in SSA. Besides, instituting monitoring and feedback mechanisms for clients with disabilities could help in identifying incidences of abuse and promoting the implementation of appropriate remedies to prevent future occurrences. Moreover, providing enhanced community-based education, dialogue, and awareness creation programs across SSA could reduce the negative socio-cultural practices and attitudes towards maternal healthcare of women with disabilities. Although providing health insurance could reduce the cost burden of maternity care for women with disabilities, it may not completely address the financial barriers associated with access and utilisation of the services. Thus, providing financial assistance or subsidies to all disabled women requiring maternity care is essential.

Conclusion and recommendations for future research

In this review, we found that there are limited studies on access and utilisation of ANC, facility delivery, and PNC among women with disabilities in SSA. The limited availability of specific studies on access and utilisation of these maternity services among disabled women could limit understanding of the problem and reduce interventional measures to address it, thereby heightening the risk of disabled women and their babies to maternal and child health risks and complications. Therefore, there is an urgent need for increased research attention and interventions focusing on addressing equity issues in the access and utilisation of ANC, facility delivery, and PNC among women with disabilities in SSA. Also, considering the multifaceted nature of the barriers to access and utilisation of maternity services among women with disabilities, there is a need for enhanced cooperation from policymakers, governments, non-governmental organisations, educational institutions, healthcare providers, and researchers to devise and implement evidence-based interventions to address the identified barriers and promote access and utilisation of maternity services among women with disabilities in SSA. These measures could contribute towards the realisation of the 2030 health targets of the SDGs, especially target 3.7, which seeks to ensure universal access to sexual and reproductive healthcare services.

Appendix I: Search terms

Outcomes

1. Antenatal care (ANC) visit
2. Place of delivery or skill birth attendance
3. Postnatal care (PNC) visit

Geographical location
Sub-Saharan Africa

Period
From 2015 till date

Boolean terms
("access to antenatal care visits" OR "utilisation of antenatal care visits" OR "barriers to antenatal care visits") AND ("women with disabilities" OR "disabled women") AND ("sub-Saharan Africa" OR "Africa South of the Sahara") AND (("scoping review" OR "systematic review" OR "literature review") OR ("qualitative evidence" OR "quantitative evidence"))

AND

("access to place of delivery" OR "utilisation of place of delivery" OR "barriers to place of delivery" OR "access to skilled birth attendance" OR "utilisation of skilled birth attendance" OR "barriers to skilled birth attendance") AND ("women with disabilities" OR "disabled women") AND ("sub-Saharan Africa" OR "Africa South of the Sahara") AND (("scoping review" OR "systematic review" OR "literature review") OR ("qualitative evidence" OR "quantitative evidence"))

AND

("access to postnatal care (PNC) visits" OR "utilisation of postnatal care (PNC) visits" OR "barriers to postnatal care (PNC) visits") AND ("women with disabilities" OR "disabled women") AND ("sub-Saharan Africa" OR "Africa South of the Sahara") AND (("scoping review" OR "systematic review" OR "literature review") OR ("qualitative evidence" OR "quantitative evidence"))

Abbreviations

ANC	Antenatal Care
aOR	Adjusted Odds Ratio
AYPWDs	Adolescents and Young People with Physical Disabilities
DW	Disabled Women
HCWs	Healthcare Workers
JBI	Joanna Briggs Institute
LMICs	Low–and Middle–Income Countries
MeSH	Medical Subject Headings
NDW	Non–Disabled Women
PNC	Postnatal Care
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta–Analyses
PROSPERO	International Prospective Register of Systematic Reviews
PsycINFO	Psychology Information
SDGs	Sustainable Development Goals
SSA	Sub–Saharan Africa
SRH	Sexual and Reproductive Health
SRHS	Sexual and Reproductive Health Services
UNFPA	United Nations Population Fund
WHO	World Health Organisation

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Author contributions
OAB conceived and designed the study. OAB and MA drafted the manuscript, conducted the methodology, and performed the narrative synthesis for the review, wrote the discussion and conclusion sections, whilst OAB supervised the overall study development and critically reviewed the manuscript for methodological and intellectual content. Both authors read and approved the final version of the manuscript before submission.

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Data availability
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Declarations

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Not applicable.

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Competing interests
The authors declare no competing interests.

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