



RESEARCH

Open Access



# Facility readiness and experience of women and health care providers in receiving and delivering obstetric care in comprehensive health posts in Ethiopia: a mixed method study

Temesgen Ayehu<sup>1\*</sup>, Gizachew Tadele Tiruneh<sup>2</sup> , Chala Tesfaye<sup>2</sup>, Mebrie Belete<sup>1</sup>, Nebreed Fesseha<sup>2</sup>, Agumasie Semahegn<sup>1\*</sup> , Hillina Tadesse<sup>2</sup>, Alemnesh Hailemariam Mirkuzie<sup>2</sup>, Yeshiwork Aklilu<sup>2</sup>, Mintiwab Zenebe<sup>2</sup>, Miftah Yasin<sup>1</sup>, Abdela Mohammed<sup>1</sup>, Abdulbasit Hamza<sup>1</sup>, Omar Mohammed<sup>1</sup>, Wendemagegne Embiale<sup>3,4,5</sup>, Mesele Damte Argaw<sup>1</sup> and Dessalew Emaway<sup>2</sup>

## Abstract

**Background** Maternal mortality remains a critical public health issue in Ethiopia, with only half of births occurring in health facilities. To address this, the Health Extension Program (HEP) introduced comprehensive health posts (CHPs) to improve maternal and newborn health services in underserved areas. The CHPs are expected to provide essential health services to communities who live in villages that have limited access to a health center or Primary Hospital (more than one-hour walking distance). This study assessed the readiness of CHPs to deliver obstetric care and explored the experiences of women and healthcare providers.

**Methods** A mixed-methods approach was used, combining quantitative assessments of eight CHPs using World Health Organization (WHO) service readiness tools and qualitative interviews with 22 postpartum women and 16 healthcare providers in agrarian and pastoral settings. Readiness indicators included staffing, availability of essential equipment, and service provision, while qualitative data focused on care experiences, respect, and interactions with providers.

**Results** The CHPs had a mean readiness score of 50% for childbirth services, with agrarian settings scoring higher than pastoral ones. Staffing density averaged 4.3 health professionals per 5,000 population. While 63% of CHPs had access to water and electricity, power outages and water shortages significantly impacted service delivery. Women reported positive experiences, highlighting compassionate care and improved access due to proximity to CHPs.

\*Correspondence:

Temesgen Ayehu  
temesgenayehu0@gmail.com  
Agumasie Semahegn  
Agumasie.Semahegn@amref.org

Full list of author information is available at the end of the article



© The Author(s) 2025. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

However, they noted infrastructure gaps, limited supplies, and training deficiencies. Healthcare providers identified frequent stockouts, staffing shortages and inadequate capacity-building opportunities as key challenges.

**Conclusions** Enhancing CHPs' operational capacity is essential to improving maternal health outcomes in rural Ethiopia. Investments in infrastructure, training, and consistent supply chains are critical to address existing gaps and ensure sustainable progress in maternal and newborn care.

**Keywords** Comprehensive health post, Women's experience of care, Facility readiness, Health extension program, Ethiopia

## Background

In Ethiopia, the maternal mortality ratio stood at 267 deaths per 100,000 live births in 2020 [1]. While this figure is a result of a decline over the last few decades, it remains one of the highest maternal mortality rates globally. Only about half of the approximately four million annual births occur in health facilities [2, 3], with significant disparities between urban (87%) and rural areas (45%) [2]. Over the past three decades, Ethiopia has substantially invested in its primary health care (PHC) system, increasing access to basic health services [3, 4]. In 2003, the country introduced the Health Extension Program (HEP) into its primary health care system. The HEP has significantly contributed to improved access and utilization of health services and reductions in newborn, child, and maternal mortality, and is nationally endorsed as a key strategy to achieve Universal Health Coverage by 2030 [5, 6]. However, challenges remain in maintaining and building upon the PHC system to ensure access to high-quality health care. Fragmented service delivery, inequitable access to essential services, unmet demand for quality care, and poor facility infrastructure continue to hinder progress [7].

To address these challenges, the Ministry of Health (MOH) of Ethiopia developed a HEP optimization roadmap (2020–2035) to expand the PHC system and reorient the healthcare delivery approaches. This roadmap consists of transformative initiatives, such as restructuring health service delivery by mapping health posts about their distance to health centers and upgrading the most remote health posts into comprehensive health posts (CHPs). These facilities aim to provide quality essential comprehensive maternal, neonatal, and child health services including skilled birth attendance by a nurse, a midwife, or a public health officer [6, 7].

The service readiness of comprehensive health posts and the use of basic maternal, neonatal, and child health services among community members affect health outcomes. In addition, pregnant women's negative experiences at health facilities and lack of confidence in health workers' abilities deter them from choosing skilled birth attendance over home birth [8]. A significant number of women experienced mistreatment, disrespect, and inadequate attention in low-income countries [9]. This

is particularly pronounced in sub-Saharan Africa, where the rate of abuse rises to 44% [10]. Such negative encounters significantly impact maternal and newborn health, leading to reduced satisfaction with childbirth, increased risk of postpartum depression, and heightened fear of subsequent pregnancies [11, 12]. In Ethiopia, previous poor-quality care during antenatal or delivery discourages women from continuing to seek facility-based deliveries [8]. These negative childbirth experiences are also influenced by the healthcare system's capacity [12].

Proper monitoring and evaluation of facility readiness and care experiences are critical to ensure the delivery of rights-based, culturally appropriate, respectful, and quality maternal and child health care. Cultivating positive maternal obstetric health service experiences requires continuous monitoring, examination of evidence, and a comprehensive understanding of both women's and providers' experiences of care. These elements are crucial for planning and implementing quality maternal and newborn health services [13]. The CHPs are expected to provide essential health services to communities who live in villages that have limited access to a health center or Primary Hospital (more than one-hour walking distance). However, there is paucity of research evidence on the readiness of CHPs to provide designated maternal and child healthcare service. This study aimed to assess the service readiness of newly established CHPs and explore the experiences of women and health care providers in delivering health care services within agrarian and pastoral settings in Ethiopia.

## Methods

### Study setting

Ethiopia's primary health care system comprises primary hospitals, health centers, and health posts. Health posts are staffed with two female Health Extension Workers (HEWs) who implement the HEP, the national flagship community-based healthcare delivery system serving about 5000 people (around 3000 in pastoralist context) with essential community-based promotive, preventive, and selective curative health services. The HEP has five main components consisting of 18 packages: disease prevention and control, family health, hygiene and environmental sanitation, health education and communication,

and first aid. In 2020, the MOH endorsed a fifteen-year HEP optimization roadmap (2020–2035) to further extend the reach of the HEP by stratifying health posts into comprehensive health posts, basic health posts, and establishing HEP units in health centers and primary hospitals [7]. The CHPs are equipped to deliver comprehensive reproductive, maternal, newborn, and child health (RMNCH) services [7] (Table 1).

Since 2022, the “*Improve Primary Health Care Service Delivery Project*” implemented through a partnership between Amref Health Africa and JSI Research & Training Institute, Inc. (JSI) in collaboration with MOH and Regional Health Bureaus in implementing the targeted HEP roadmap. The IPHCSD project has been implemented to enhance access to and quality of maternal and child health care across fourteen woredas (seven agrarian and seven pastoral districts), which covered 15 comprehensive health posts (seven in agrarian and eight in pastoral), 254 basic health posts (153 in agrarian and 101 in pastoral), 64 health centers (43 in agrarian and 21 in pastoral), and nine primary hospitals (five in agrarian and four in pastoral). The project has expanded skilled maternal and newborn health care and outpatient services at CHPs in addition to promotive and preventive services [7].

**Table 1** HEP archetypes and service packages

HEP category	Contents of services	Targets
<b>Basic HEP packages</b>	The basic health post provides basic packages of services under family health, disease prevention and control, hygiene and environmental health, health education and promotion, and first aid. It includes improving the quality of care and strengthening referral linkages with catchment health centers, and outreach/ mobile health services to communities living far from the health post.	Communities in villages that have access to a health center or primary hospital within a reasonable distance (within one-hour distance)
<b>Comprehensive HEP packages</b>	Comprehensive maternal health care for normal pregnancy, childbirth, and the postpartum period, treatment of common childhood illnesses through integrated management of childhood illnesses, treatment of common adulthood illnesses, and prevention and treatment refill for chronic illnesses in addition to the basic HEP packages.	Communities in villages that have limited access to a health center or Primary Hospital (more than one-hour walking distance)
<b>HEP unit for communities with access to health centers and/or primary hospitals</b>	Community-based health promotion and disease prevention packages link communities with health centers and primary hospitals for clinical services.	Communities in villages that already have either a health center or a primary hospital.

**Study design**

The project utilized embedded implementation research to co-generate evidence, facilitate collaborative learning, provide timely feedback, enhance ownership of research findings, and enable the seamless integration of strategies into the health system, ultimately demonstrating the feasibility and effectiveness of HEP optimization strategies on RMNCH outcomes. This study employed a mixed-methods approach, incorporating both quantitative and qualitative research designs. The assessment of CHP readiness for maternal, neonatal, and child health services was guided by the World Health Organization (WHO) qualitative service availability and readiness tools. A phenomenological qualitative research inquiry was adopted to explore and describe the quality of services from the perspective of mothers and healthcare providers. The study team conducted iterative data collection, collation, and analysis, followed by additional data collection to develop a preliminary understanding of the phenomena from the insider’s perspective [14]. The assessment was conducted between May and June 2023 at eight CHPs (five in agrarian and three in pastoral settings) providing childbirth care (Fig. 1).

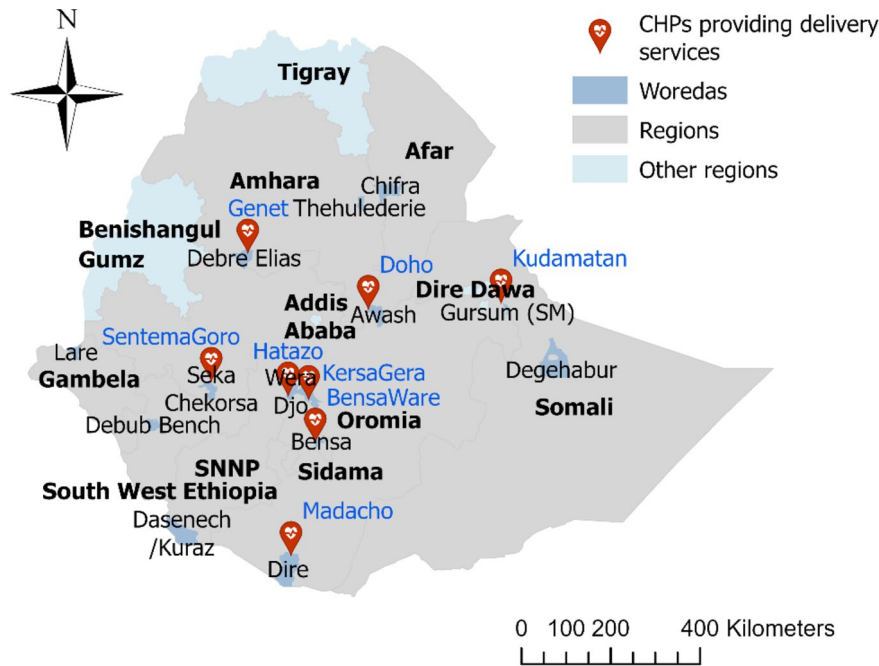
**Sampling methods**

The survey targeted eight agrarian and pastoral districts. A maximum variation sampling schemes [15] were used to yield in-depth information or a unique perspective relative to the perceptions and experiences of mothers and healthcare providers. In-depth interview participants were recruited by purposive sampling of women who delivered at CHPs and health workers currently working at those facilities (Fig. 2).

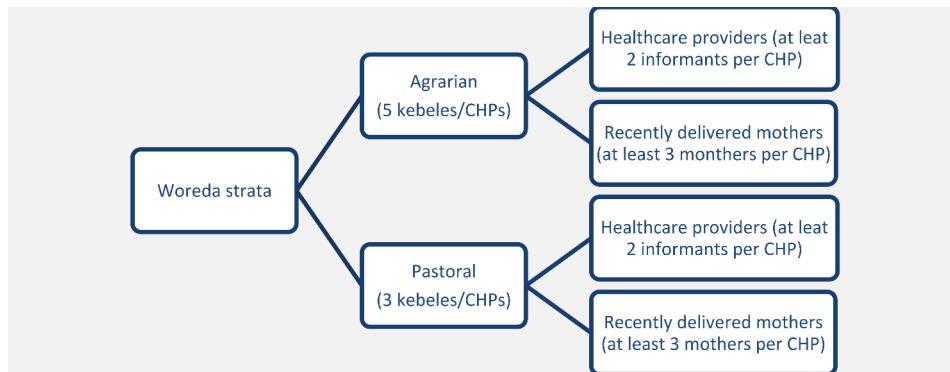
**Data collection**

Data on the service readiness of the CHPs to provide childbirth care was collected using a structured facility assessment tool, documenting the availability of trained providers, essential equipment, and commodities for maternal delivery services (Additional file 1).

A qualitative inquiry was employed to describe the RMNCH services offered among postpartum mothers who delivered at CHPs. A qualitative in-depth interview (IDI) guide was utilized to capture the required information (Additional file 2). A team of implementation researchers from JSI and Amref conducted the qualitative interviews using a semi-structured in-depth interview guide to elicit the individual opinions, experiences, and perspectives of respondents. Interview data were collected using a digital audio recorder and field-workers took notes during and immediately after the interviews. A total of 22 postpartum women (10 from agrarian and 12 from pastoral settings) were interviewed, along with 16 healthcare providers (midwives, nurses,



**Fig. 1** Comprehensive health posts providing delivery services in IPHCSD supported woredas in Ethiopia, April 2023



**Fig. 2** Sampling frame for the qualitative study

health officers, and HEWs), with eight from each agrarian and pastoral woreda. The addresses of the mothers were obtained from the facility records and local guides assisted interviewers in accessing the homes of the women. Health care providers were recruited to explore their opinions and experiences of maternal and newborn health care services.

**Measurement**

The measurement of quality of care and women’s and healthcare providers’ experience was guided by the WHO Quality of Care Framework for maternal and newborn health [16]. Specific metrics and the matrix of study objectives, research questions, and methods are presented (Table 2).

A list of indicators and their definitions are presented in Table 3.

**Data analysis**

Descriptive statistics were used to summarize the quantitative data and present findings using frequency tables, and figures. Qualitative interviews were audio-taped with the consent of the study participants and the records were transcribed by the research team. A rapid qualitative analysis technique was employed. A summary analysis template with open codes (and emerging codes agreed upon by the team) was developed for the implementation research team to summarize interview transcripts. Matrix analysis was utilized to summarize major themes (Additional file 3). Qualitative and quantitative data were integrated during both the presentation and interpretation stages.

**Table 2** Matrix of study objectives, research questions, methods, and measures

Objectives	Research questions	Methods/ data sources	Measures
Assess the readiness of RMNCH services.	What is the readiness of CHPs to offer high-quality maternal and newborn health care services?	CHP assessment and record review	Readiness metrics: staffing, essential equipment, drugs, water and electricity
Explore women's opinions and experiences of obstetric care	How and why did women perceive and experience maternal and newborn health services at CHPs?	Retrospective follow-up IDIs	Views on and practice of maternal health services, perceived quality of care, respectfulness of the care, privacy, consented care and involvement in clinical decision-making, access to a companion of choice, responsiveness of providers, timeliness of the care received, interactions with providers, sufficient contact time with providers, trust in the competence of providers, service accessibility, opportunity costs, welcoming and pleasant environment (clean surroundings and enough space in waiting rooms and wards)
Explore the perception and experience of health care providers regarding maternal delivery services.	What are the health workers' experiences with maternal and newborn health services at CHPs?	IDIs with providers	Views on and practice of maternal health services, safety at work, staff training and development, HRH management

**Results**

**Facility readiness**

**Staffing**

Comprehensive health posts were staffed with a mean of about 3.0 skilled providers (i.e., midwives, nurses, or two health officers) and 2.9 HEWs. Though the mean number of health workers available was low in pastoral settings, the health professional density per 5,000 population was better than in the agrarian settings (Table 4).

**Availability of infrastructure, amenities, and supplies**

In agrarian settings, health workers interviewed expressed positive sentiments towards the infrastructure, noting its attractiveness and welcoming nature. Some CHPs were upgraded from standard health posts

**Table 3** List of indicators measured and their definitions

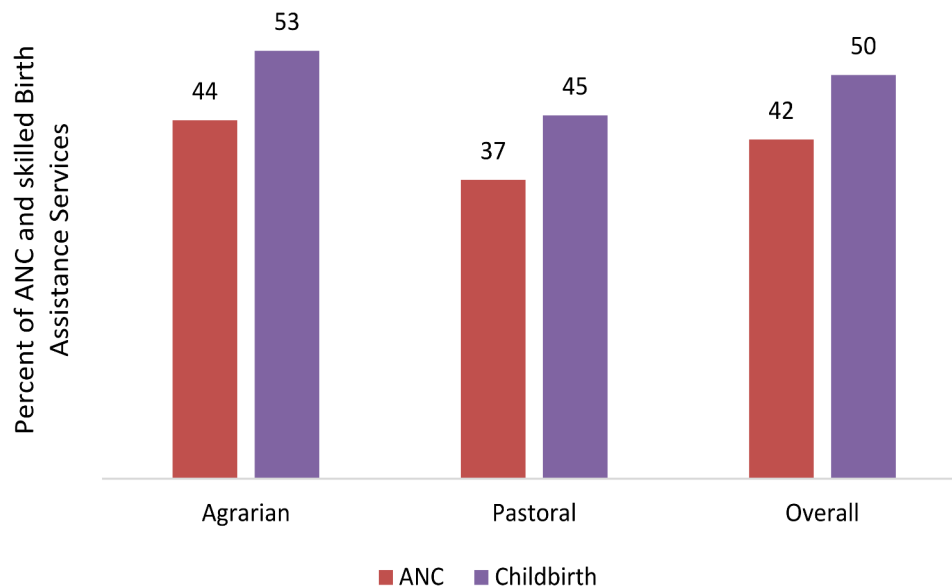
Indicator	Definitions
<b>1. Readiness</b>	
Staffing and health professional density per 5,000 population	The availability of HEWs, midwives, nurses, and health officers at the CHPs for the provision of RMNCH services per 5,000 catchment population
Basic amenities	The availability of running water and electric supply is essential for the delivery of quality maternal and newborn health services and the safety of patients and providers.
Antenatal care (ANC) service readiness	10 items included: blood pressure machine, hemoglobin test, urine protein test, rapid syphilis test, iron/folic acid tablets, tetanus toxoid, injectable antibiotics for syphilis treatment, magnesium sulfate (MgSO4), ANC guideline, and training on ANC
Childbirth care readiness	20 items: Delivery set, scissors/blade, manual vacuum extractor, vacuum aspirator or dilation and curettage (D&C) kit, gloves, delivery bed, newborn bag and mask, suction apparatus, examination light, eye prophylaxis, injectable uterotonics, MgSO4, injectable antibiotics, chlorhexidine, intravenous (IV) fluids, basic emergency obstetric and newborn care (BEmONC) guideline, partograph, emergency transport, skilled birth attendant present, trained on BEmONC
<b>2. Experiences of care</b>	
Women's experiences of care	Views on and practice of maternal health services, perceived quality of care, respectfulness of the care, privacy, consented care and involvement in clinical decision-making, access to a companion of choice, responsiveness of providers, timeliness of the care received, interactions with providers, sufficient contact time with providers, trust in the competence of providers, service accessibility, opportunity costs, welcoming and pleasant environment (clean surroundings and enough space in waiting rooms and wards)
Providers' experiences of care	Views on and practice of maternal health services, safety at work, staff training and development, human resource management

**Table 4** Mean number of staffing at CHPs providing delivery services, May 2023

Settings	HEWs	Skilled providers (midwives, nurses, or health officers)	Health professional density per 5,000 population
Agrarian	3.4	3.2	3.6
Pastoral	2.0	2.7	5.5
<b>Overall</b>	<b>2.9</b>	<b>3</b>	<b>4.3</b>

while others were newly constructed, but all shared similar structures, including outpatient services, a dedicated room for delivery services, and residential blocks for health workers. In pastoral settings, infrastructure availability varied. For example, the Madacho CHP in the Borena zone was relatively well-built with ample rooms, including residential quarters for staff.

A respondent said,



**Fig. 3** Readiness of CHPs to provide ANC and childbirth, May 2023

*“This CHP is well built and has many rooms including the staff home.”*

Sixty-three percent, 5 out of 8, CHPs had access to electric and water supply. Health workers highlighted issues such as severe power interruptions and irregular piped water supply leading to discomfort among staff staying overnight.

*“Despite water being stored in a reservoir and rain-water being harvested, distribution to rooms, including the delivery room, was lacking piped water. This water shortage and frequent power interruptions were identified as critical concerns.” —A health worker in Sentema Goro CHP.*

The shortage of water and frequent power interruptions were mentioned as one of their priorities and critical areas. There are instances when there is no electric power for delivering women during nighttime. A nurse described a situation where she had to use the battery from her cell phone as an alternative power source for delivering a mother. A healthcare worker in Afar highlighted deficiencies including lack of electricity, absence of clean delivery services, inadequate delivery beds, and residential rooms for health workers to stay on-site for 24 h and 7 days a week.

Healthcare workers in two out of three CHPs highlighted concerns about lacking basic amenities and essential medical supplies, which leads to underutilization of services. The lack of laboratory services in some CHPs poses limitations, requiring women to seek services elsewhere.

All CHPs were providing ANC and childbirth care. The mean CHP service readiness scores for ANC and, childbirth care was 42% and 50%, respectively (Fig. 3). ANC and childbirth care readiness scores were better in agrarian CHPs. Most CHPs missed rapid urine tests, syphilis tests, national ANC guides, and training of healthcare workers on ANC service readiness. Likewise, vacuum extractors for assisted delivery, vacuum aspirators or D&C sets for abortion care, light sources for examination, national Basic Emergency Obstetric and Newborn Care (BEmONC) guides, and partographs are the commonly missed items for childbirth care.

#### Access to and delivery of skilled care

The majority of mothers were aware of the availability of delivery services in CHPs. The most common sources of health information stated are health care providers, health extension workers, and community members. A mother in a pastoral setting indicated:

*“I heard that the CHP is offering delivery services during my most recent pregnancy. He [name of the health educator] provided us with health education and informed us those pregnant women in our village can receive delivery services at the newly established CHP.”*

But the decision to deliver at a CHP was influenced by factors like proximity, ease of access, and costs. One of the mothers in the Somali region stated:

*“During this pregnancy, my husband played a key role in supporting me to seek care at the CHP for*

*delivery,... and we decided to opt for delivery at the CHP to avoid complications during pregnancy, and this is why I had regular follow-up visits during this pregnancy unlike in previous ones."*

Most interviewed women had previous home delivery experience because of inaccessibility to health facilities providing skilled birth care. Physical accessibility of a CHP contributed to the uptake of skilled birth care in their nearby. Women expressed appreciation for the convenience of not having to travel to other facilities, citing concerns about the limited availability of ambulances. They emphasized the importance of delivering at a facility due to the risk of complications and highlighted the safety measures and essential medications available at CHPs. The proximity of the CHPs to their homes was a common reason cited by the women for seeking care there, influencing their decision to choose the CHP as their preferred facility. One mother from Sentema Gora CHP shared her perspective, saying,

*"The CHP is a walking distance from my house. I believe that delivering at the facility is better than delivering at home."*

One respondent emphasized the safety and care provided at the facility, stating,

*"If you give birth at the health facility, you will be safe during the delivery, and your child will receive the necessary care and vaccinations too."*

The essential care provided after delivery, such as stopping bleeding, proper cord care, supportive care for both mother and newborn and the administration of necessary vaccinations and medications were highly praised. Participants recognized the crucial role of health workers in ensuring their well-being and the health of their babies. One participant compared delivering at a health facility to home delivery, emphasizing that health workers at the facility discouraged and prevented bleeding, whereas traditional practices during home delivery encouraged bleeding. She stated in her own words as follows:

*"At a health facility, there is no bleeding during delivery. During home delivery, attendants encourage bleeding and even use fire to warm the room and the laboring bleeds a lot. Conversely, health workers here discourage and prevent bleeding. They offer crucial care to ensure the mother and the newborn remain healthy."*

Health workers noted a positive impact on community access to skilled birth attendants and decreased

transportation costs. It was learned that the establishment of CHPs near the community has had a positive impact on physical access to skilled birth attendants. The community benefits from reduced costs, improved care-seeking behavior, and timely management of complications. The cost of public transport often demands excessive fees to transport women to health facilities and this has been nearly impossible for the families and community members. According to a health worker in Sentema Goro CHP,

*"Community receives better care with less cost for the service. It also reduces transportation and additional cost."*

Similarly, another health worker in Borena reiterated that:

*"they [the community] are very much satisfied by getting the services in this CHP. Because we are providing services that have never been provided in this place so far. As a result, the community has respect and a good perception of us. But sometimes when they lack what they expect to get from this CHP, they might get offended and say 'You only built the house but no medicine,' therefore such things need to be fulfilled."*

#### **Work environment and satisfaction**

According to responses among health workers, working at the CHP is considered an excellent opportunity to gain work experience while serving the community. Experienced health workers, who were originally based in the health center, have expressed contentment with their current positions. A health officer with five years of experience working in a health center was transferred to the CHP and shared his satisfaction on his current assignment, stating:

*"Initially, I had reservations about the move but eventually realized that regardless of my location, I am a dedicated professional who can serve marginalized people. Therefore, I decided to embrace this opportunity. As time went by, I became happy with my decision, despite the demanding workload." He also emphasized his respect for the community he serves, saying, "I treat my clients as guests in my home, always honoring their preferences in the care I provide."*

During interviews, providers expressed their fulfillment in delivering maternity care services at the CHPs. Providers mentioned that assisting mothers during labor, providing essential care during delivery, and ensuring safe

deliveries bring relief not only to the mothers but also to their companions, families, and themselves. A provider from Hantezo CHP summed it up by saying,

*"I feel happy when a mother delivers a healthy child and when both the mother and baby leave the facility with smiles on their faces."*

While the primary motivating factors for health workers to work at the CHPs include serving the community, some health workers also mentioned concerns about the lack of duty payment and compensation. Despite the payments mentioned above, health workers at the CHP demonstrate keen interest and energy in serving the community their dedication to their profession, and eagerness to contribute to the well-being of the community. The head of the CHP at one of the CHPs was passionate about expressing his motivation for working in the CHP. Expressing his dedication and motivation, he stated,

*"As a health professional, I am committed to serving my community. My religious and national obligations compel me to provide my services to those in need, even when I have not been paid or receive little compensation."*

The same level of energy and commitment was observed in the other providers as well. A nurse who served for nine months in a CHP explained that she has been serving the community and finds happiness in meeting the expectations of those who lack access to health care services. She stated,

*"I am trained to serve the public, and I am here to fulfill that role. Money is not my driving force. Serving those in need gives me a sense of mental satisfaction and fulfillment."*

Most respondents identified no work-related risks as they reported an adequate supply of personal protective equipment. In some of the pastoral settings, participants mentioned the risk of infections because of the lack of proper protective materials. For example, a participant in the Somali region described that

*"unfortunately, we do experience risks and danger with our job due to the lack of necessary equipment and resources. We do not have gloves, sterilizers, infection prevention materials, or even access to water in the health post."*

In addition, some concerns were raised regarding timely access to ambulances for referring complicated cases and shortages of health workers.

### **Perceived quality of care**

Women participants expressed a positive perception of the quality of care they received from the CHP, emphasizing their appreciation for the timely and life-saving care provided by the health workers. They also highlighted the compassion and friendliness exhibited by the health care providers. One mother from Sentema Goro CHP shared her experience, stating,

*"They are good for what they have. The provider at my delivery was kind; I felt like I was being taken care of by my mother. He cleaned me very well after the birth process."*

Several mothers reported that the quality of service they received at the CHP was comparable to the care they had received in hospitals and health centers during their previous deliveries. The respondents mentioned various services that they found beneficial, including blood pressure measurement, regular check-ups to monitor the well-being of both the fetus and the mother, continuous monitoring of the progress of labor, provision of medications, immunization services, cord care, and counseling on family planning and breastfeeding. One mother from Bensa Ware CHP shared her positive experience, saying,

*"As the CHP is near my home, I went there by Bajaj (a three-wheel means of transportation), and delivered safely. My child and I received different types of care that I and my two children missed due to my previous experience of home delivery."*

However, challenges including medication shortages, lack of electricity and water supply, and inadequate facilities were noted, impacting service delivery and client satisfaction.

Health workers reported that the care provided at the CHPs has been well accepted and trusted by the community. The community has a strong preference for receiving services from the CHP and even declines referrals to other facilities. The respondents perceive that community members, especially mothers, are extremely satisfied with the service they receive at the CHP. Some health care workers believe that the CHPs have the necessary resources to provide care more effectively than certain health centers. However, the health workers mentioned that the community's expectations for additional services and supplies were not fully met. It was noted that the community considers the CHP as a health center and anticipates it to offer a wide range of services, including laboratory services.

### Respect and dignity

Mothers emphasized the compassionate, responsive, and caring practice of the providers. They praised the staff of the CHP for their care, respect, friendliness, and warm reception during health post visits. One woman persuasively expressed her feelings as follows,

*“The service the health workers at the CHP provided is akin to a mother caring for her daughter. The provider who supported me during my delivery took care of everything for me and my baby.”*

Mothers also highlighted that the health workers promptly and respectfully responded to their inquiries, engaging them in open discussions and readily answering any questions. One of the women who initially had doubts about whether the CHP would meet her needs and provide her with service expressed her experience, saying,

*“I came from Mana district (another district from where this CHP operates) and was afraid that the CHP might not accept me. However, my father communicated with the staff at the CHP and assured me that they would accept me for the service. I was excited to be accepted and receive the service from the nearby CHP.”*

All the mothers affirmed that they received respectful care, and the health care providers were responsive. One mother shared an incident where she visited the CHP during the nighttime when there was no electricity at the facility. Initially, the providers advised her to go to the hospital as they were unable to manage her situation without electricity. However, the mother and her husband declined to go to another facility. As a result, the health care providers used a solar battery, enabling the mother to give birth.

### Effective communication

Most respondents mentioned their involvement in clinical decisions as they were informed of each step of the activities and the reason and benefit of each activity were explained appropriately and performed with their full consent. They reported their satisfaction with the interaction they had with the providers.

### Emotional support

Most respondents shared their experiences of health workers accompanying them throughout the delivery process and being supportive and welcoming to their family members, allowing them to be present before and after delivery. For instance, a Somali woman who delivered in the new CHP stated that:

*“My husband had discussed with me about the possibility of delivering and visiting the CHP to minimize my risk during pregnancy and delivery. Additionally, I received support and advice from health workers and other community members who had previously used the CHP’s delivery services.”*

They acknowledged that certain family members were permitted to stay with them after delivery to provide care and emotional support. However, some mothers mentioned that health workers did not inquire about their free choice of a companion during delivery. They also mentioned that the need for traditional kitchens as part of maternity waiting homes in the CHP was lacking and this should have been thought of and established in the surrounding area.

One mother from Sentema Goro CHP shared her experience, stating,

*“When he [the provider] first met me, he said ‘Abshir, Abshir,’ and this was the most encouraging word I had ever heard during my previous deliveries. Hearing this word gave me encouragement and morale.”*

### Challenges and areas of improvement

Despite the positive feedback received from the participants, some participants highlighted challenges they encountered that have adversely affected the quality of service and the level of client satisfaction. CHPs face several challenges that hinder effective service delivery. Firstly, staffing shortages significantly impact the ability to provide timely and comprehensive care. The insufficient number of health care providers at CHPs results in increased workload and limited availability of services, exacerbating the strain on an already stretched health care system. Additionally, medication supply deficiencies pose a significant obstacle to quality care provision. Shortages of essential medications, particularly those vital for maternal and child health, create barriers to effective treatment and management, compromising patient outcomes and satisfaction. A mother in the Afar region stated that:

*“There is no bed, bedsheet, electricity. Even we used our hand battery during my labor.... better to have electricity and laboratory service in the CHP.”*

Furthermore, infrastructure and equipment limitations further impede the capacity of CHPs to deliver quality health care. Frequent power outages, lack of alternative power sources, and inadequate infrastructure undermine the reliability and efficiency of services provided. Without proper equipment and facilities, health care workers are constrained in their ability to offer essential services,

such as ultrasound and may struggle to meet the diverse needs of their patients. Addressing these challenges is crucial to improving the effectiveness and sustainability of CHPs in meeting the health care needs of their communities.

A health worker from Sentema Goro CHP explained this as follows,

*“The CHP has improved access to the health service and community members will even use the service more if we have an adequate number of providers and an uninterrupted supply of drugs.”*

Informants also emphasized the absence of capacity-building training focused on maternal, newborn, and child health since the establishment of the CHPs. When it comes to motivational opportunities, the majority mentioned the lack of attractive salaries and career development prospects. However, they all described their profession, interactions with mothers, and the ability to save the lives of babies and mothers as their intrinsic motivators as described by a participant in the Somali region;

*“When I look at satisfaction, I can say that I am satisfied. I am most satisfied when I see a mother who needs delivery services, and I provide them safely. When a child who has pneumonia comes and when I give services, I am also happy and satisfied with the treatment of a sick child. I am also happy when a pregnant mother comes to me to take care of her, and she completes the follow-up service and gives birth safely.”*

To enhance the effectiveness and sustainability of CHPs, several areas require targeted improvement. Firstly, community awareness and engagement efforts should be intensified to inform residents about the available services at CHPs and encourage utilization. They stressed the importance of continuing this approach and ensuring that those who are unaware of the service are informed about it. As was remarked by one of the respondents,

*“Such service and approaches attract lots of mothers to the health facility, and they should be informed. I inform my community to come and see the available services.”*

Emphasizing the convenience, accessibility, and quality of care provided at CHPs can help increase community trust and encourage more individuals to seek health care services when needed. Additionally, service quality enhancement initiatives are essential to ensure that CHPs can meet the diverse needs of their patients effectively. This includes continued training and support for health

care providers to maintain friendly, caring, and responsive service provision. Furthermore, equipping CHPs with necessary facilities and resources, such as ultrasound services and adequate medication supplies, is crucial to improving the overall quality and effectiveness of care delivery.

Secondly, addressing capacity building and staffing challenges is paramount to strengthening the capabilities of CHPs. Providing comprehensive training opportunities focused on maternal, newborn, and child health can enhance the skills and knowledge of health care workers, enabling them to deliver high-quality care. Additionally, increasing staffing levels to alleviate workload pressures and ensure adequate coverage of services is essential for maintaining the sustainability of CHPs. Offering attractive incentives and career development prospects can also help motivate health care workers and improve retention rates, ensuring a consistent and skilled workforce to meet the health care needs of the community. By addressing these areas of improvement, CHPs can better fulfill their mandate of providing accessible, high-quality health care services to underserved populations.

## Discussion

The study identified suboptimal readiness in CHPs providing childbirth services. While the establishment of CHPs has positively impacted access to maternal and newborn health services in rural communities, significant challenges remain. Mothers expressed appreciation for the compassion and respect shown by service providers and reported satisfaction with the services provided at the CHPs. However, a significant number of comprehensive health posts lacked water and electricity and faced challenges such as insufficient human resources, inadequate training opportunities, and lack of motivation schemes for health workers.

The readiness of health posts providing childbirth services was suboptimal, indicating the need for improvements to meet essential requirements for quality obstetric care services. Despite the positive outcomes associated with CHPs, challenges such as a shortage of human resources, a lack of capacity-building training opportunities, inadequate motivational schemes for health workers, and infrastructure and supply chain issues persist. Previous studies in Ethiopia reported higher readiness scores in hospitals but lower readiness scores in health centers and clinics [17, 18, 19]. These problems are also common in many developing nations, affecting service delivery, particularly in remote and underserved areas [20, 21, 22, 23]. Addressing the challenges is essential for the sustained improvement and efficiency of the primary health care system. The government can enhance the quality of care provided at these facilities by investing in human

resources, training, infrastructure, supply chains, and motivational schemes.

The expansion of HEP through upgrading CHPs has improved access to comprehensive maternal and child health services. This finding aligns with previous studies highlighting the effectiveness of decentralized health care services in improving access to maternal and newborn health services. Ethiopia has demonstrated that its institutionalized community-based health program, HEP, is instrumental in mobilizing communities and promoting health education, which in turn leads to improved access to and utilization of health services [5, 6, 24, 25]. Another study by Mangham-Jefferies et al. (2014) highlighted the critical role of community-based health services in increasing accessibility and improving health outcomes, particularly in rural and underserved areas [26]. These studies affirm that localized health posts are essential for delivering primary health care services, as they are more accessible and responsive to the community health needs.

This underscores the need for sustained investment in primary health care, particularly in underserved areas. The government of Ethiopia should strengthen its HEP optimization strategy by scaling up successful models, ensuring integration with higher-level health services, and implementing strong monitoring and evaluation activities to identify gaps and inform policy decisions.

This study identified good respectful care at the CHPs. Previous studies have shown that smaller, community-based facilities often provide more personalized and respectful care. For instance, Bohren et al. (2015) emphasized that mistreatment during childbirth is significantly higher in larger, more complex health care institutions where staff may be overburdened and the organizational culture may not prioritize patient-centered care [27]. Another study pointed out that hierarchical structures in larger hospitals can contribute to an environment where disrespect and abuse are more likely to occur [28]. In contrast, midwife-led care models, common in community birth centers, are associated with higher levels of respectful and supportive care, emphasizing continuity of care and strong caregiver relationships [29]. This indicates that CHPs, which often operate with midwife-led models, can foster a more conducive environment for respectful maternity care.

### Strength and limitation of the study

This is the first study in the country documenting the experiences of health care providers and mothers in obstetric care in CHPs. It used mixed methods approach to gather comprehensive information to assess readiness of CHPs. It provides insights to enhance the quality of services delivered by CHPs and informs the national scale-up of the strategy. While this research contributes valuable insights, it has certain limitations. The findings

are susceptible to social desirability and recall biases due to the programmatic nature of the study and reliance on self-reported recall of behavior. Additionally, qualitative findings may be influenced by individual contexts, and introducing subjectivity into the analysis.

### Conclusions

In conclusion, upgrading CHPs has improved access to respectful maternal and newborn health care for disadvantaged communities. Therefore, the government of Ethiopia must continue to invest in further upgrading health posts to enhance maternal care quality. By prioritizing training for health care providers in respectful maternity care, promoting midwife-led care models, enhancing infrastructure, and ensuring sufficient supplies and medical equipment, Ethiopia can strengthen its commitment to improving maternal and newborn health care outcomes. Conducting an efficiency or cost-effectiveness study of the CHPs is recommended to further optimize their performance and ensure sustainable health care improvements.

### Abbreviations

ANC	Antenatal care
BemONC	Basic emergency obstetric and newborn care
CHP	comprehensive health post
HEP	Health extension program
HEP	Health extension workers
IDI	in-depth interview
MoH	Ministry of health
PHC	Primary health care
RMNCH	Reproductive, maternal, newborn, and child health
WHO	World Health Organization

### Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12913-025-12453-x>.

Additional file 1. This file contains the facility audit tool used to collect information from facilities. The first sheet provides variable definitions (data dictionary), while the second sheet contains the answer choices for each variable.

Additional file 2. This file contains the facility audit tool used to collect information from facilities. The first sheet provides variable definitions (data dictionary), while the second sheet contains the answer choices for each variable.

Additional file 3. This file contains the facility audit tool used to collect information from facilities. The first sheet provides variable definitions (data dictionary), while the second sheet contains the answer choices for each variable.

Additional file 4.

### Acknowledgements

We would like to extend our gratitude to the Ministry of Health, The Gates Foundation, Woreda health offices, hospital and health center staff, and Health Extension Workers at the project implementation sites for their critical engagement. We acknowledge the interviewers and supervisors for their hard work, dedication, and timely completion of the fieldwork. Finally, we are deeply grateful to all study participants who took the time to respond to the survey questionnaires and provided invaluable information.

### Authors' contributions

T.A., D.E., G.T.T., C.T., N.F. and M.B. conceptualized the paper. T.A., D.E., G.T.T., C.T., M.B., N.F. and A.S. designed the survey and data acquisition. T.A., G.T.T., A.S. and M.D.A. analyzed the data and drafted the manuscript. H.T., A.H.M., Y.A., M.Z., M.Y., A.M., A.H., O.M. and W.E. reviewed the manuscript for intellectual contents. All authors reviewed and approved the final manuscript for submission.

### Funding

The project is funded by The Gates Foundation (INV-002643) and implemented through a collaborative consortium of Amref Health Africa and JSI. The funder has no role in the interpretation and implications of the content in this paper. This responsibility lies solely with the authors.

### Data availability

The dataset used and analyzed during this study is included as supplementary information to this article (Additional 4).

### Declarations

#### Ethics approval and consent to participate

The data used in this study was primarily collected for program quality improvement and monitoring. Given the introduction of childbirth care at the CHPs following the national HEP roadmap policy in 2020, close monitoring of women's and providers' experiences became essential for enhancing program quality. The implementation research obtained ethical review and clearance for the implementation research from the Ethiopian Public Health Association Institutional Review Board on February 19, 2024, with reference number EPHA/OG/159/24. The study was conducted in accordance with the declaration of Helsinki. Informed verbal and written consent were obtained from each study participant on voluntary basis to be included in the study. Informed consent from participant/legal guardian and assent from them were obtained from study participants who age younger than 18 years old, and not attended formal education. The collected data had kept confidential anonymously through de-identification of names and other personal identifiers from record/sheet. Parents/guardians in case of minor study participants and legally authorized representatives in case of illiterate participants.

#### Consent for publication

Not applicable as all figures were developed as part of the work.

#### Competing interests

The authors declare no competing interests.

#### Author details

<sup>1</sup>Amref Health Africa, Addis Ababa, Ethiopia

<sup>2</sup>JSI, Addis Ababa, Ethiopia

<sup>3</sup>Selam Global Health Consultancy, Wageningen, Netherlands

<sup>4</sup>College of Medicine and Health Sciences, Bahir Dar University, Bahir Dar, Ethiopia

<sup>5</sup>Collaborative Research and Training Center for Neglected Tropical Diseases, Arba Minch University, Arba Minch, Ethiopia

Received: 27 December 2024 / Accepted: 18 February 2025

Published online: 25 February 2025

### References

1. WHO. Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, world bank group and UNDESA/Population division. Retrieved. Geneva: World Health Organization; 2023.
2. EPHI MOH. National health equity survey 2022/23: key findings. Addis Ababa, Ethiopia: Ethiopian Public Health Institute; 2023.
3. EPHI ICF. Ethiopia Mini demographic and health survey 2019: final report. Maryland, USA: Ethiopian Public Health Institute and ICF: Rockville; 2021.
4. Assefa Y, Hill PS, Gilks CF, Admassu M, Tesfaye D, Van Damme W. Primary health care contributions to universal health coverage. *Ethiopia Bull World Health Organ.* 2020;98(12):894.
5. Karim AM, Admassu K, Schellenberg J, Alemu H, Getachew N, Ameha A, et al. Effect of Ethiopia's health extension program on maternal and newborn health care practices in 101 rural districts: a dose-response study. *PLoS ONE.* 2013;8(6):e65160.
6. Assefa Y, Gelaw YA, Hill PS, Taye BW, Van Damme W. Community health extension program of Ethiopia, 2003–2018: successes and challenges toward universal coverage for primary healthcare services. *Globalization Health.* 2019;15:1–11.
7. MOH. Realizing universal health coverage through primary health care: A roadmap for optimizing the Ethiopian health extension program 2020–2035. Addis Ababa, Ethiopia: Ministry of Health, Ethiopia; 2020.
8. Tiruneh GT, Demissie M, Worku A, Berhane Y. Community's experience and perceptions of maternal health services across the continuum of care in Ethiopia: A qualitative study. *PLoS ONE.* 2021;16(8):e0255404. <https://doi.org/10.1371/journal.pone.0255404>.
9. Bohren MA, Mehrtash H, Fawole B, Maung TM, Balde MD, Maya E, et al. How women are treated during facility-based childbirth in four countries: a cross-sectional study with labour observations and community-based surveys. *Lancet.* 2019;394(10210):1750–63. [https://doi.org/10.1016/S0140-6736\(19\)31992-0](https://doi.org/10.1016/S0140-6736(19)31992-0).
10. Kassa ZY, Tsegaye B, Abeje A. Disrespect and abuse of women during the process of childbirth at health facilities in sub-Saharan Africa: a systematic review and meta-analysis. *BMC Int Health Hum Rights.* 2020;20(1):23. <https://doi.org/10.1186/s12914-020-00242-y>.
11. Webb R, Ayers S, Bogaerts A, Jeličić L, Pawlicka P, Van Haeken S, et al. When birth is not as expected: a systematic review of the impact of a mismatch between expectations and experiences. *BMC Pregnancy Childbirth.* 2021;21(1):475. <https://doi.org/10.1186/s12884-021-03898-z>.
12. Bohren MA, Hunter EC, Munthe-Kaas HM, Souza JP, Vogel JP, Gülmezoglu AM. Facilitators and barriers to facility-based delivery in low-and middle-income countries: a qualitative evidence synthesis. *Reproductive Health.* 2014;11:1–17.
13. Haldane V, Chuah FLH, Srivastava A, Singh SR, Koh GCH, Seng CK, et al. Community participation in health services development, implementation, and evaluation: A systematic review of empowerment, health, community, and process outcomes. *PLoS ONE.* 2019;14(5):e0216112. <https://doi.org/10.1371/journal.pone.0216112>.
14. Beebe J. Rapid assessment process: an introduction. Rowman Altamira; 2001.
15. Collins K. Advanced sampling designs in mixed research: current practices and emerging trends in the social and behavioral sciences. *Handbook of mixed methods in social & behavioral research*; 2010.
16. Tunçalp Ö, Were W, MacLennan C, Oladapo O, Gülmezoglu A, Bahl R, et al. Quality of care for pregnant women and newborns—the WHO vision. *BJOG.* 2015;122(8):1045.
17. Dinagde DD, Wada HW. Geographical distribution of emergency obstetric and neonatal care signal functions in Ethiopian health facilities: 2021–2022 Ethiopian service provision assessment (SPA). *BMC Health Serv Res.* 2024;24(1):409. <https://doi.org/10.1186/s12913-024-10893-5>.
18. Stierman E, Shiferaw S, Ahmed S, Yihdego M, Seme A, Zimmerman L, et al. Readiness, access, and use of facility childbirth care in Ethiopia: results from nationally representative linked household and health facility surveys. *J Global Health Rep.* 2023;7:e2023041.
19. EPHI MOH, AMDD. Ethiopian Emergency Obstetric and Newborn Care (EmONC). Assessment 2016. Addis Ababa, Ethiopia: Ethiopian public health institute, ministry of health, and averting maternal death and disability (AMDD). Columbia University; 2017.
20. Kruk ME, Gage AD, Arsenault C, Jordan K, Leslie HH, Roder-DeWan S, et al. High-quality health systems in the sustainable development goals era: time for a revolution. *Lancet Global Health.* 2018;6(11):e1196–252.
21. Bradley EH, Taylor LA, Cuellar CJ. Management matters: A leverage point for health systems strengthening in global health. *Int J Health Policy Manage.* 2015;4(7):411–5. <https://doi.org/10.15171/ijhpm.2015.101>.
22. Leslie HH, Spiegelman D, Zhou X, Kruk ME. Service readiness of health facilities in Bangladesh, Haiti, Kenya, Malawi, Namibia, Nepal, Rwanda, Senegal, Uganda and the united Republic of Tanzania. *Bull World Health Organ.* 2017;95(11):738.
23. Cameron A, Ewen M, Ross-Degnan D, Ball D, Laing R. Medicine prices, availability, and affordability in 36 developing and middle-income countries: a secondary analysis. *Lancet.* 2009;373(9659):240–9.
24. Rieger M, Wagner N, Mebratie A, Alemu G, Bedi A. The impact of the Ethiopian health extension program and health development army on maternal mortality: A synthetic control approach. *Soc Sci Med.* 2019;232:374–81.

25. Admassie A, Abebaw D, Woldemichael AD. Impact evaluation of the Ethiopian health services extension programme. *J Dev Eff.* 2009;1(4):430–49.
26. Mangham-Jefferies L, Mathewos B, Russell J, Bekele A. How do health extension workers in Ethiopia allocate their time? *Hum Resour Health.* 2014;12:1–12.
27. Bohren MA, Vogel JP, Hunter EC, Lutsiv O, Makh SK, Souza JP, et al. The mistreatment of women during childbirth in health facilities globally: A Mixed-Methods systematic review. *PLoS Med.* 2015;12(6):e1001847. <https://doi.org/10.1371/journal.pmed.1001847>.
28. Freedman LP, Ramsey K, Abuya T, Bellows B, Ndwiga C, Warren CE, et al. Defining disrespect and abuse of women in childbirth: a research, policy and rights agenda. *Bull World Health Organ.* 2014;92:915–7.
29. Sandall J, Turienzo CF, Devane D, Soltani H, Gillespie P, Gates S, et al. Midwife continuity of care models versus other models of care for childbearing women. *Cochrane Database Syst Rev.* 2024(4).

### **Publisher's note**

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.