

"Where is the Sudheni Didi?"

Community Perspectives and Revisiting Nepal's Maternal Health Policies

« Où est la Sudheni Didi ? »

Perspectives communautaires et réexamen des politiques de santé maternelle au Népal

Sunisha Neupane

Volume 47, Number 1, 2026

"Healing is an Act of Communion": Critical Perspectives on Women's Health, Wellness, and Disease

URI: <https://id.erudit.org/iderudit/1125571ar>

DOI: <https://doi.org/10.7202/1125571ar>

[See table of contents](#)

Publisher(s)

Mount Saint Vincent University

ISSN

1715-0698 (digital)

[Explore this journal](#)

Cite this article

Neupane, S. (2026). "Where is the Sudheni Didi?": Community Perspectives and Revisiting Nepal's Maternal Health Policies. *Atlantis*, 47(1), 72-88.
<https://doi.org/10.7202/1125571ar>

Article abstract

This article examines Nepal's maternal health policies in the context of a remote community in western Nepal. There has been a substantial decline in maternal mortality and an increase in institutional deliveries, in Nepal, but, along with these achievements, inequities in maternal health continue. Drawing on immersive participatory research conducted in 2015 in two villages in Baglung district, the study integrates observation, fieldnotes, focus group discussions, participatory workshops and interviews with women, health workers and national maternal health experts. Findings show that distance, terrain, limited health post hours, and unreliable transport make access to institutional services practically challenging in remote Nepal. Female Community Health Volunteers (FCHVs) occupy an in-between position, understanding women's lived experiences while doing their best to follow protocols and mandates. Community members express the need for home-based support when facilities cannot be reached. The disappearance of the sudheni reflects a broader policy shift that privileges service availability and biomedical definitions of skilled care. The article argues that maternal health policy must move beyond institutional targets toward context-responsive approaches that centre women's lived experiences and make maternity care accessible to remote populations.

© Sunisha Neupane, 2026



This document is protected by copyright law. Use of the services of Érudit (including reproduction) is subject to its terms and conditions, which can be viewed online.

<https://apropos.erudit.org/en/users/policy-on-use/>

"Where is the *Sudheni Didi*?": Community Perspectives and Revisiting Nepal's Maternal Health Policies

by Sunisha Neupane

Abstract: This article examines Nepal's maternal health policies in the context of a remote community in western Nepal. There has been a substantial decline in maternal mortality and an increase in institutional deliveries, in Nepal, but, along with these achievements, inequities in maternal health continue. Drawing on immersive participatory research conducted in 2015 in two villages in Baglung district, the study integrates observation, fieldnotes, focus group discussions, participatory workshops and interviews with women, health workers and national maternal health experts. Findings show that distance, terrain, limited health post hours, and unreliable transport make access to institutional services practically challenging in remote Nepal. Female Community Health Volunteers (FCHVs) occupy an in-between position, understanding women's lived experiences while doing their best to follow protocols and mandates. Community members express the need for home-based support when facilities cannot be reached. The disappearance of the *sudheni* reflects a broader policy shift that privileges service availability and biomedical definitions of skilled care. The article argues that maternal health policy must move beyond institutional targets toward context-responsive approaches that centre women's lived experiences and make maternity care accessible to remote populations.

Keywords: maternal health; maternal mortality ratio; community; lived experiences; maternity care; *sudheni*

Résumé : Cet article analyse les politiques de santé maternelle au Népal dans le contexte d'une communauté éloignée de l'ouest du pays. Au Népal, la mortalité maternelle a considérablement diminué et les accouchements en établissement ont augmenté; cependant, malgré ces progrès, des inégalités en santé maternelle subsistent. Fondée sur une recherche participative immersive menée en 2015 dans deux villages du district de Baglung, l'étude combine observations, notes de terrain, discussions de groupe, ateliers participatifs et entretiens auprès de femmes, de professionnels de la santé et d'experts nationaux en santé maternelle. Les résultats montrent que la distance, la topographie, les horaires restreints des postes sanitaires et le manque de fiabilité des transports compliquent pratiquement l'accès aux services en établissement dans les régions éloignées du Népal. Les femmes bénévoles pour la santé communautaire occupent une position intermédiaire, comprenant les expériences vécues par les femmes tout en s'efforçant de respecter les protocoles et les mandats. Les communautés ont à de nombreuses reprises fait valoir le besoin d'un soutien à domicile lorsque l'accès aux établissements est limité. La disparition de la *sudheni* témoigne d'un virage politique plus large qui favorise la disponibilité des services et une conception biomédicale des soins qualifiés. L'article soutient que les politiques de santé maternelle doivent dépasser les objectifs institutionnels pour adopter des approches adaptées au contexte, centrées sur les expériences vécues par les femmes et facilitant l'accès aux soins de maternité aux populations éloignées.

Mots clés : santé maternelle; taux de mortalité maternelle; communauté; expériences vécues; soins de maternité; *sudheni*

Author: Sunisha Neupane is a PhD in Medical Anthropology and Development Studies at the Institute of Development Studies, University of Sussex. Her research examines health equity, maternal health, care practices, and the politics of birthing in remote Nepal, drawing on long-term ethnographic and participatory fieldwork.

Prologue

In 2015, I conducted a study on the maternal health needs of women in a remote village in western Nepal. My initial research question was: why are women not utilizing the services provided by the state? It seemed simple. I had been reading academics such as Paulo Freire, Farzam Arbab, and Robert Chambers and was influenced by their community-based approaches; I saw this study as an opportunity to live alongside the community members, ask questions, listen, and engage with their perspectives. I applied immersive participatory action research (PAR) methodology, designed with flexibility, allowing the research question to evolve through engagement with the community. My aim was to identify barriers to service uptake and, in collaboration with community members, develop an action component which is integral to a PAR methodology. I envisioned returning to implement what women themselves identified as necessary to access services. However, the question turned out to be far more complex than I had originally anticipated, and no clear actionable steps emerged. Having grown up in Nepal, I believed I understood the country and its problems well enough. Yet, being in the field, I realized I had arrived with assumptions, including that the issue was straightforward and would lead to a clear set of solutions. The experience transformed my understanding of maternal health in remote areas and my approach to research. This paper reflects that transformation, not through the answers I found, but through the questions posed by the participants. Although the data were collected a decade ago, this study offers a rare longitudinal perspective when read alongside more recent trends. It provides critical insight into the structural and socio-cultural conditions that shaped maternal care access at a key moment of policy transition, many of which persist today, making the findings both timely and relevant.

Introduction

To bring about justice and collective prosperity, we must start with one of the most vulnerable groups: young mothers. The global reduction in maternal mortality ratio (MMR) is remarkable: a 42% decrease from 1990 to 2020 (Berhan and Abeba 2024). MMR has steadily declined globally for the last 40 years, yet it is not zero. Should we rely on this hopeful trend and wait for MMR to eventually reach zero, or should we examine whether structural barriers to improved maternal health are hidden beneath the aggregated data? I take the latter approach. Immersed in a remote community in Nepal, I probed the social reality of pregnant women. What this approach uncovered was a non-negligible disparity that the average data trend does not capture but is reflected in the lived experiences of pregnant mothers in remote areas. Of all the learning from this research, one question stood out most, encapsulating my findings: “Where is the *sudheni didi*?”¹ Traditionally, *sudheni* (traditional midwives) assisted women during childbirth.

For decades, improving maternal health has been a priority for governments and international development agencies globally, including in Nepal. Notably, Nepal has significantly reduced MMR (Figure 1). Saving mothers is unequivocally vital and the reduction represents an important public health achievement. However, statistics on MMR, taken alone, risk producing an oversimplified narrative of success. Much remains to be done to ensure that marginalized women’s maternity experiences are not left hidden behind the numbers. MMR continues to vary across social groups, and many women still face challenges accessing health services (see Table 1 for disparities) (Chaurasiya et al. 2019). While Figure 2 shows an increase in births with Skilled Birth Attendants (SBA), it can be inferred that the rest of the births still occur at home without assistance. Moreover, although MMR is a critical indicator, it only reflects mortality rates and fails to capture the quality, accessibility, or lived experiences of maternity care (Devkota et al. 2020; Engel et al. 2013; Glenton et al. 2010; MoH 2017; MoHP 2011; Suvedi et al. 2009).

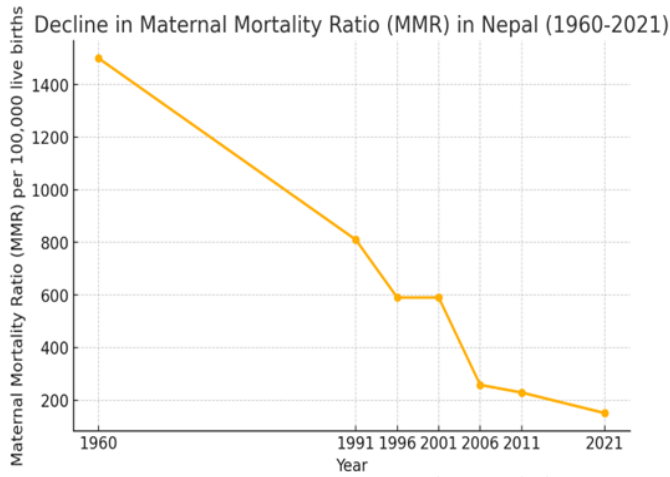


Figure 1 Nepal MMR decline

Caste/ethnicity	MMR
Muslim	318
Terai/Madhesei/other	307
Dalit	273
Janjati	207
Bahun/Chhetri	182
Newari	105

Table 1: Disaggregated MMR per 100,000 live births (Suvedi et al., 2009)

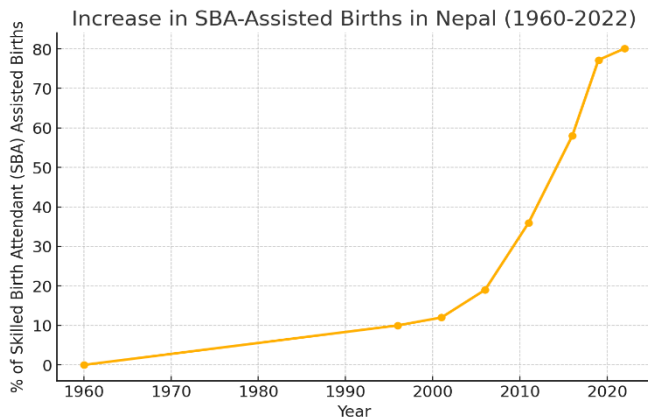


Figure 2 Births attended by SBA

In this paper I explore the policy shifts that have contributed to Nepal's reduction in MMR. I then draw on insights from my immersive fieldwork, centering the needs of women and local healthcare providers in remote Nepal, and examining their perspectives on maternal health. Reducing MMR is crucial, and my intention is not to dismiss this need or undermine the initiatives that have contributed to MMR reduction. Rather, through this study I seek to complement the MMR metric by exploring the lived reality of maternal health in remote settings.

Policy Context

Nepal's maternal health policies have prioritised saving mothers and promoting safe delivery, and rightly so. Over time, the country has progressively developed maternal health programmes with key milestones shaping service provision and availability for safe delivery. Nepal's first national health survey (1965–66) revealed an MMR exceeding 1500 per 100,000 live births (Thapa 2014). Before the 1950s, home births were common and no national programs existed for maternal health. The Maternal and Child Health and Family Planning (MCH-FP) project (1963–65) marked the first state-led intervention, spearheaded by the World Health Organization's (WHO) first MCH advisor to Nepal (international appointment), a public health nurse (international appointment), and Dr. Rita Thapa (national appointment). About her appointment Dr. Rita Thapa said: "The 1964 project was tricky as there was an absence of skilled or any health workers, which crippled the MCH-FP expansion beyond Kathmandu Valley."

In response to lack of health workers, in 1968, Nepal introduced Health Aides as a community-based health care providers program to extend institutional MCH-FP services, notably preceding the 1978 Alma-Ata Declaration, which underscored the importance of community-based healthcare. By 1975, the Integrated Community Health Project trained Health Aides, who were later formalized as Village Health Workers (VHWs). Following the eradication of smallpox, vaccinators were further trained as VHWs, adding to the rural health-care workforce. These efforts set the foundation for the Female Community Health Volunteer (FCHV) program, launched by the Ministry of Health and Population in 1988, modelled after community-based health workers from Nepal's successful malaria eradication campaign (Thapa 2014). The FCHV program recruited and trained local volunteers to provide essential health services, offering a cost-effective solution to workforce shortages.

Meanwhile, in 1987, *sudbenis* were formally integrated into Nepal's healthcare system, under the Safe Motherhood Initiative termed as traditional birth attendants (TBAs) (Brunson and Tamrakar 2018; MacDonald 2017; Shehata 2015). They combined traditional knowledge with biomedical practices, such as the use of clean blades and sterile sheets to improve sanitation and safety during home births.

Safe Motherhood Gains Attention

By the 1990s, maternal health gained policy traction, reflecting global shifts in maternal and reproductive health agendas. While the Long-Term Health Plan (1975–1990) integrated maternal health into Nepal's primary healthcare system, the National Health Policy (1991) gave maternal and child health a standalone focus. However, institutional birth rates remained low, and in response, Nepal developed the National Reproductive Health Strategy (1998), laying the foundation for the Safe Motherhood Plan.

Expansion and Incentivization

The National Safe Motherhood Plan (2002–2017), revised in 2005, aimed to create a safer environment for pregnancy and childbirth. The Maternal Incentive Scheme (2005) and National Free Delivery Policy (2009) introduced financial incentives for antenatal care (ANC) visits and institutional births, while the SBA Policy (2006) promoted deliveries at birthing centers. Under this plan, Auxiliary Nursing Midwives (ANMs) at health posts and staff nurses at district hospitals were trained to assist deliveries, with referrals to district or provincial hospitals for complications. The Nepal Health Sector Strategy (2015–2020) prioritized healthcare quality and equitable access, while the Right to Safe Motherhood and Reproductive Health Act (2018) legally ensured access to maternal care. The National Safe Abortion Policy (2003) strengthened reproductive rights and aimed to reduce unsafe abortions. Building on these efforts, the Nepal Safe Motherhood and Newborn Health Road Map (2018–2030) took a comprehensive approach by strengthening birth preparedness and community-level interventions, expanding ultrasound services in rural areas, providing financial incentives

through the *Aama Surakshya* program, improving reproductive health morbidity management, and enhancing emergency referral systems for high-risk cases.

Along with these policies, Dr. Thapa credits Nepal's declining MMR to insistence on integrating MCH with family planning, despite "population control" orientated donor agencies pushing to separate family planning as a standalone initiative. While these policies have undoubtedly contributed to reducing MMR and seem appropriate in theory, they do not fully capture how these policy shifts are experienced by women and frontline health workers in remote communities. My 2015 fieldwork aimed to explore how these policies translate into reality.

Methods

The project was approved by the research ethics committee at the International Development Research Centre and the Nepal Health Research Council in 2015. Fieldwork took place from April to November 2015 in two Village Development Committees (VDCs) of Baglung district where 66% of births were reported to occur at home (MoHP 2011). Under new classifications since 2017, these VDCs are part of Nisikhola Gaunpalika in Province 4. The region, characterized by mountainous terrain and poor road access, comprises *Bahun*, *Chhetri*, *Thakuri*, *Magar*, and *Dalit*² communities. Both VDCs had health posts with birthing centres, staffed by Health Assistants (HAs), ANMs, and FCHVs. Health posts serve as primary healthcare and birthing centres. ANMs undergo 18 months of training after high school and manage normal deliveries, referring complications to higher-level facilities. I integrated participatory research principles throughout all stages of design and data collection.

Data Collection

I hired research assistants (RAs) from the community following the ethical guidelines. They were actively involved in the study throughout the fieldwork. Before data collection, two RAs and I refined interview guides and mapped neighbourhoods. Pregnant women and mothers of infants were identified and invited through word-of-mouth referrals, including by their husbands, mothers-in-law, FCHVs, and Health Assistants (HAs). The RAs played a central role in identifying and inviting participants and also in organizing and leading meetings. Jagat, the male RA, led focus group discussions (FGDs) with men, while Kavita, an ANM, conducted semi-structured interviews and FGDs with women. The RAs were trained in note-taking and submitted detailed accounts for analysis. All interviews and group discussions were conducted in Nepali.

In total, we conducted 20 interviews and 30 FGDs across nine villages (each with a population of approximately 600). FGDs were used to capture collective narratives and social dynamics, while individual interviews provided deeper insight into personal experiences. All recruited participants were invited to attend FGDs held in their respective villages. To keep group sizes manageable (12–15 participants), multiple FGDs were sometimes organized in the same village. If a participant remained silent or was unable to express themselves freely during an FGD, this was noted by the RAs or myself, and I followed up with a one-on-one interview. We also conducted individual interviews with all identified pregnant women. Participatory workshops were held in each VDC, drawing around 70 participants per event. These were larger, open-invitation meetings where all community members could attend to discuss maternal health issues. Local political leaders also joined and supported facilitation.

Individual interviews took place in participants' homes. FGDs were held in local schools, and participatory workshops were conducted in community centers. Interviews explored individual experiences with pregnancy and childbirth, particularly among pregnant women. Focus group discussions examined shared perceptions and social dynamics around maternal health. Participatory workshops engaged a broader range of community members to collectively identify maternal health needs and priorities. Beyond formal data collection, residing

in the village enabled immersive engagement, including observation, field notes, and informal conversations with women about their daily lives. I also conducted interviews with maternal health experts in Kathmandu. Even though fieldwork was shorter than initially planned because of the 2015 earthquake, thematic saturation was achieved for the domains explored in this paper.

All interviews and FGDs were audio-recorded with informed consent. The data were transcribed in Nepali and translated into English, with close attention to preserving tone, meaning, and contextual nuance. Initial coding was done manually using the original Nepali transcripts, with support from the RAs, who were familiar with the language and the local context. A manual and inductive thematic analysis was conducted without the use of qualitative data analysis software. Responses were coded into emerging themes such as barriers to maternity care, perceptions of health services, the role of traditional birth attendants, and community-identified solutions. To uphold the participatory nature of the study, no pre-existing frameworks were imposed during coding; rather, categories were grounded in participants' own narratives and priorities.

Although participants did not directly engage in coding, RAs based in the community were involved in early analysis discussions to enhance contextual accuracy and interpretation. Rigour and trustworthiness were supported through prolonged engagement in the field, triangulation across interviews, FGDs, participatory workshops, and fieldnotes, and regular debriefing with the RAs. Themes were refined through iterative review, drawing on data from multiple sources to confirm patterns and identify inconsistencies.

As an educated Nepali woman, fluent in the language and culture but not immersed in rural life, I occupied a position that was both familiar and slightly distanced. Through daily reflexivity and journaling, I reflected on my positionality, motivation, and their influence on the research. Over time, the fieldwork fostered relationships of trust and acceptance.

Findings: Community Perspectives

This section presents findings from interviews, FDGs, and participatory workshops with women, FCHVs, and healthcare providers. Four major themes emerged: (1) physical and systemic barriers to institutional delivery, (2) the continuing prevalence of home births and the limits of biomedical policy approaches, (3) the role and limitations of FCHVs, and (4) the remembered value of the discontinued *sudheni* (traditional birth attendant) practice. A recurring sub-theme was the emotional and logistical burden placed on women, particularly those from remote and marginalized caste (*dalit*). While shared experiences cut across groups, perspectives varied by role, for example, between women, FCHVs, and HAs, and these are explored below.

Kavita³ and I hiked uphill for two hours for a FDG in a *dalit* community. Nine women had gathered, including two young girls. I was surprised to see them, as we had specifically invited pregnant women and mothers of infants. It turned out that they were seventeen years and pregnant.

Sangita said it was her ninth month. She seemed uncomfortable. Kavita, noticing her unease, asked several times, "*Baini, thik chau?*" ("Sister, are you okay?") She remained quiet. After Kavita was insistent, Sangita said she was feeling discomfort. As an ANM, Kavita immediately told her that labour might be starting and she should go down to the health post. Sangita looked at us silently.

I asked if she could walk, after all, it would be hours down and up. Sangita replied, "I cannot go, it will be difficult to come up". A few days later, we got news that she gave birth to a baby girl at home. Kavita sighed, "It is like this for now, let us hope things will change for women." We could only hope that by Sangita's daughter's time, things would be different.

Distance, terrain, and the walk to the health post were recurring concerns in discussions among all groups: women, husbands, and healthcare providers. For some hilltop communities, the nearest health post was a five-hour walk, making access during labour difficult and often leaving women at home to give birth without assistance. Below is a conversation with a FCHV *didi*, Sita and Anita, a 38-year-old *dalit* woman living three hours uphill from the health post.

“There is always uncertainty ... will I survive, will I die? What will happen? The body feels weak, there is no strength, and I feel afraid.” Anita

I ask her, “How many times have you been to the health post?”

“I haven’t gone. I can’t go it is difficult.”

Sita *didi* intervenes: “You have to go though, walk slowly and try to go.”

Anita replies, “It is exhausting during pregnancy, then I have to walk back too.”

“Where will you give birth?” I ask.

“At home. All my children were born at home,” says Anita

Again, Sita *didi* intervenes to tell me, “I tell her to go to the health post, but she says, ‘How will I go? Who will take me?’ I tell her to walk slowly, step by step. When she says she is feeling unwell, I insist that she must go.” Sita *didi* is making sure I know that she does her job well.

I ask Anita, “Do you feel like you should go?”

Anita says, “Of course, I feel I need to go. But labour can be quick, then I might have to give birth on the way. If labour lasts a long time, then maybe we can make it to the health post. It would be easier if a *sudheni* were in the village like before to help. Where did that program go?”

Sita *didi* adds, “She is right, I know of cases where women are on the way to the health post and end up giving birth on the trail. The problem of access becomes even greater when someone needs to be carried in the dark.”

Since there is financial incentive, the expectation is that all women somehow make sure that they get to the health post to access services. I ask: “Is there an ambulance?”

“Yes, there is an ambulance. But it serves three VDCs it is not always available when we need it. We cannot rely on it.” Sita *didi*.

FCHVs often shared a dual perspective, understanding women’s concerns while also defending their own roles as part of the health system, highlighting their liminal position between the community and the health system. In another instance, another FCHV, Mina *didi* said, “There are many situations where women are not able to go to the health post, especially at night, and also when the local health post is closed or when there is no health workers present. This happened very recently, I got a call and the daughter-in-law was in pain. I called the ANM, her husband picked up the phone, and she wasn’t available. I tried taking the pregnant woman to the health post, but we couldn’t make it there on time, so she gave birth on the way.” Along these lines, Binita, a young mother, participating in a focus group discussion once said: “Often women’s labour is unpredictable, and they deliver where they are, while working in the fields sometimes or in the trail.”

During a discussion with the healthcare staff, Rita *didi* (FCHV) said: “Additionally, all these issues you hear, many women face these challenges alone, as their husbands are away as migrant workers.” The HA, Dirga sir, said: “It is true that the health post opens from 10 AM to 4 PM, so that also adds to the challenge.” Bhakta sir, also an HA, added: “There is nowhere to stay near the health post even if we advise women to travel a few days in advance.”

An additional issue raised by the women and FCHVs were lack of postnatal care (PNC) visits. Bhakta sir also admitted that, although ANC happens, PNC remained almost nonexistent. He attributed this to both accessibility challenges and “lack of awareness” among women:

PNC is ... yes, not common. Women do not come after giving birth as it is harder. FCHVs are not trained to perform ANC or PNC. But we [trained personnel] do not do home visits. It is not within our job protocol. It is also difficult for women to come to the health post, especially for the communities that are far. But the women are also not aware of the risks.

You know sometimes I have no choice but to induce fear so that they don't miss checkups. I have to tell them about tragic incidents that I have seen in pregnancy so that people in the community realize the seriousness of this matter. Even though we use negative examples, the result is positive [increased use of health services such as ANC and delivery].

This form of strategic fear was viewed effective from the male HA perspective; however, it was not echoed by FCHVs or community members and appears to function as an informal, individual-level strategy within the health system. I asked Bhakta sir what he thinks is a solution that is safe but also takes into account the women's concerns and challenges. He replied:

What could be done is to appoint someone from the health post for home visits to perform ANC and PNC and provide regular checkups. But delivery at home is not possible, we cannot travel with all necessary equipment.

Bhakta Sir suggests a home-based care model similar to what women participants discussed during discussions. While the government mandates and offers financial incentives for completing four ANC visits and institutional births, reaching facilities remains a challenge, especially at night. If husbands are away as migrant workers, there is no one to carry the women. HAs noted that women are usually brought to the health post only if a complication is perceived; otherwise, they give birth at home. Crucially, it is family members and FCHVs, who end up deciding whether a pregnancy is normal or requires medical attention. HAs tended to emphasize protocol, resource limitations, and logistical concerns more than community members or FCHVs, who focused more on lived experience and practical challenges in receiving maternity care. Having examined the community perspectives on accessing maternity care, the following section presents proposals and solutions put forward by FCHVs and community members during discussions and workshops, offering locally envisioned strategies for improving assisted births.

An individual expressed during a participatory workshop: “This is an important topic that needs to be discussed regularly in the community. You should come with a program to improve maternal health in this area.” The FCHVs, women and the community members, repeatedly brought up the *sudheni* practice and asked if it is possible to revive the community-based birth assistance model:

If FCHVs were trained to supervise childbirth at home during emergencies, it would be very helpful for women but not sure how we will do it. Maybe something like *sudheni* before. These days, we don't have *sudheni*. Mohana *didi* (FCHV).

The thing is if there was a trained person in the village, she could supervise easy cases, and we could

take complicated cases to the health post. Gita (participant).

In the two VDCs where I worked, I met only two *sudheni didi*, both over the age of 65, with no one to inherit their knowledge. Former *sudheni* Rukamaya *didi*, now an FCHV, shared that despite mandates for institutional births, she is still called upon, reflecting the ongoing need for her traditional knowledge for home birth:

I am often called to help with births in my village and also in neighboring villages. I am the only *sudheni* in this area. Sometimes I get called all the way from Bhalkot, which is far. Although I am told to bring all the women to the health post for delivery I have to go and help when it is necessary and when the women cannot be carried. I am often not sure about whether I should go help or not but I have to go.

Despite the efforts to encourage institutional deliveries, home births continue to be a reality for many women in remote Nepal. MoH (2017) shows 41% of births still occur at home; one in ten is unassisted. Geographic disparities persist, with 69% of urban women delivering in health facilities compared to just 44% in rural areas. In this study area, 25% of births were estimated to have occurred without any assistance (MoHP 2022). This raises a critical question: who helps women in remote areas when they cannot reach a health center? The gap between policy and practice remains evident, as the government mandates institutional deliveries yet health posts do not accommodate the unpredictability of childbirth.

Findings: Opportunities for Home-based Care?

A recurring discussion in the community was whether FCHVs could take on expanded roles. The community looks to them for greater support because they are the only community-level providers linked to the state healthcare system. While they play a crucial role in increasing healthcare service utilization by fostering community participation, raising awareness, and sharing information on maternal health, they are not a substitute for *sudheni*. FCHVs are not trained or authorized to assist with deliveries; their responsibilities remain limited to health education, family planning, and vaccination. Unlike ANMs/SBAs, they do not undergo biomedical training. Moreover, interviews with the maternal health experts in Kathmandu confirmed the state's commitment to biomedical safety in childbirth, with no plans to reintroduce home-based care. However, as this study shows, gaps in this approach leave women in remote areas vulnerable, often falling through the cracks.

When asked about their role, Devi *didi* said: “We are already doing our best and a lot. We cannot do anything more.” On the same topic, Dirga sir, HA noted:

I think it could be possible to build FCHVs' capacity and provide them with quality training for ANC and PNC. But the problem is that it requires an ANM course and education. People who reach that level of education do not want to work voluntarily. So, there's a risk of training educated women to assist at community level, only for them to leave for other opportunities. And it's their right to do so.

Rukamaya *didi*, who traditionally was a *sudheni* and later received training, described how she transitioned into her current role:

I became an FCHV eighteen years ago. Before that, I was a *sudheni* and also attended a training by the government, where I learnt about clean plastic, clean blade, clean thread, which we also knew but we don't always have new plastic. The program is not there anymore. I was already helping with deliveries, so after that program ended, I was asked to become an FCHV. ... But the *sudheni* training only happened once. Do you know what happened to the program?

She continues to attend deliveries in the village due to her prior midwife training:

I have considerable experience delivering so I am still called when labour starts. I can tell whether the baby is upright or upside down inside the mother's womb. I insert three fingers with gloves into the vagina to check the baby's position. I am usually called to assist.

She believes that a better solution would be to allow deliveries at home but with assistance:

I think it would be more convenient if women could give assisted birth at home. I try my best, but my education is limited. I cannot inject medicines or do other procedures, and I am told not to help with deliveries so I worry if it is okay to help. When possible, we take pregnant women to the health post, but when that's not an option, I still end up supervising the delivery.

She also recalled a case where transportation challenges had tragic consequences:

I tried calling the health workers at Jyaukhola health post, but they were all at a training program in Burtibang. The head of the health post was in Baglung. If we could have taken the mother promptly to Burtibang [closest hospital], maybe the baby would have survived. The mother needed a cesarean. But this year, she gave birth to a healthy daughter in Palpa [urban town]. That night, when she went into labour, there was no bus service, so we couldn't get her to Burtibang in time.

Her continued practice, despite the absence of formal support or authorization, highlights the practical maternity care expertise available within the community. The question of whether FCHVs could be trained for more maternal health responsibilities remains complex. Expanding their role could help women in remote areas have a supervised delivery. But formal medical training requires years of education, which volunteers may not be willing or able to undertake without proper remuneration. The risk of trained health care providers leaving for better opportunities further complicates the issue. As the HA pointed out, ensuring sustainability in such programs requires balancing capacity-building with workforce retention strategies to serve remote communities.

While FCHVs and healthcare workers acknowledge that institutional deliveries are available, they also emphasize that access remains a challenge. The geographical remoteness of villages means that even when health posts exist a few hours walk away, they remain inaccessible for pregnant women experiencing labour. Terrain and transportation barriers are not incidental obstacles but rather systemic issues contributing to social injustice that need to be addressed in Nepal's remote healthcare infrastructure. These barriers are not just logistical; they are produced and maintained by long-standing underinvestment in rural healthcare (Farmer 2004). The failure to expand maternal care services beyond health posts and into communities disproportionately affects women in the remote areas. *Dalit* women, who commonly live in the hilltops in this area, and low-income families, who are more likely to give birth at home because of financial and geographic constraints, are less likely to go to an urban area or to the closest hospital (Devkota et al. 2020).

As mentioned by the participants above, even when women plan to deliver at a health post, the limited operating hours (10 am–4 pm) is a barrier. Health posts in remote villages function on a restricted schedule, leaving women with few options if they go into labour at night. It is common to call an ANM who will then come to the health post, but all of this takes logistical effort during a time that is critical and needs quick reaction. But even then, the ANM may not get to the health post on time. The government's initiative to provide ambulances in rural areas has not translated into fully functional practice either, as mentioned by the participants. The study found that while an ambulance exists, its availability is unreliable because of limited resources and competing demands across multiple villages. From a political economy of health perspective (Baer et al. 2013), this reflects a symbolic policy intervention rather than a functional solution. This disconnect highlights the limits of global health metrics applied unilaterally without consideration of context or making provisions for

equitable solutions. Maternal health policies often measure success through service availability (e.g., number of health posts, ambulances provided) rather than service accessibility and effectiveness.

These findings highlight challenges to maternal healthcare access in rural Nepal, despite policy efforts to encourage institutional delivery. While health posts provide critical services, geographical inaccessibility, unreliable transport, and limited availability of healthcare personnel restrict effectiveness. Local health workers, such as *sudheni*, were phased out based on biomedical standards rather than community needs, leaving a critical gap in remote maternal health needs. Women continue to give birth at home due to the logistical challenges they face rather than choice. FCHVs express a strong desire for additional training, particularly in emergency delivery care, suggesting a potential role for community-based birth attendants akin to the discontinued *sudheni* practice. The lack of PNC visits also underscores a critical gap in maternal health services. Even after the implementation of National Safe Motherhood plans, postpartum care remains largely unavailable, leaving many women without essential follow-up care. This aligns with broader global evidence indicating that PNC often receives less attention compared to ANC and institutional delivery initiatives.

The need for maternity waiting homes was also discussed during FGDs as a practical solution, yet such infrastructure remains absent in many remote areas. The FCHV program plays a crucial role in bridging the gap between communities and the formal healthcare system, yet it does not provide home-based care for pregnant women. As a result, when a woman goes into labour and is unable to reach the health post, she is left without trained assistance. From Berry's (2008) perspective, this reflects a structural failure to recognize alternative models of skilled care that could work within the constraints of rural Nepal. Berry (2008) and Qadeer (2005) critique the biomedicalization of maternity care, arguing that when health systems prioritize institutional deliveries without ensuring equitable access, they contribute to systemic injustices. Berry (2008) highlights how global maternal health policies often define "skilled" care in strictly biomedical terms, sidelining community-based support systems that women in remote areas rely on. This exclusion leaves women in rural areas with limited or no options, reinforcing disparities rather than reducing them. This lack of accessible care is not just a gap in service delivery, but injustice embedded in the way maternal health policies are designed and implemented. Systemic neglect failing to account for lived experiences and local realities therefore further marginalizes those without access to institutional care (Qadeer 2005).

It is not the *sudheni* themselves that the community said they wanted back but rather the possibility of home-based care supported by someone knowledgeable in birthing. Given the challenging terrain and the distances to the nearest health post, which is neither easily accessible nor open 24 hours, they wonder why an alternative, community-based option could not be provided again. The conclusion of my fieldwork raised a pressing question: what happened to the *sudheni* practice? In the next section I trace the policy changes and historical shifts that led to shifts from *sudheni* to TBAs, followed by biomedically trained SBAs, then finally to ANMs. Although this issue was not the original entry point of my research, it emerged as a key theme through my fieldwork, making it essential to discuss it now.

Discussion: Understanding the *Sudheni* Question

Historically, *sudheni* with their traditional knowledge played a vital role as caregivers in their communities, providing home-based care. They are particularly desired by the people living in remote mountainous regions where formal healthcare has been scarce. After integrating into the health system in 1987, they continued assisting with births, using state-provided birthing kits to ensure sterilization. However, following a policy shift influenced by the WHO recommendation to promote institutional deliveries, Nepal discouraged *sudheni* practice and discontinued their training in 1997, replacing their role with SBAs who were biomedically trained. The policy analysis by Shehata (2015) notes that government surveys found TBAs ineffective in redu-

cing MMR, leading to a WHO-influenced shift toward SBAs and evidence-based care. This transition, however, is under explored and did not account for the lived experiences and challenges of women in remote Nepal.

The discontinuation of *sudheni* was not an isolated decision but part of a broader shift in global maternal health policies which impacted many countries such as Morocco, Tanzania, Zambia, and Nepal (Allen 2004; Cheelo et al. 2016; Obermeyer 2000). The Safe Motherhood Initiative 1987 marked the first global effort to reduce maternal mortality through health system upgrades, increased healthcare personnel, family planning, and the training of existing traditional midwives such as *sudheni* under the title TBA (Mahler 1987; MacDonald 2017). Training TBAs was initially seen as a progressive step in acknowledging traditional knowledge within national programs (MacDonald 2017; Pigg 1997). However, this approach was later deemed ineffective in reducing maternal mortality (Allen 2004; Jordan 1989; MacDonald 2017; Pigg 1997; Starrs 1997). Following a 1996 review, the TBA training program was discontinued and home-births were either banned or discouraged, shifting the focus to increasing the number of SBAs (Bergström and Goodburn 2001; Cheelo et al. 2016; Starrs 1997).

WHO's introduction of SBAs in 1996 reinforced a biomedical model of maternity care, defining *skilled* in ways that excluded traditional birth attendants. WHO's SBA framework prioritized clinical competence but failed to integrate the relational and community-based aspects of maternal care that women valued (Berry 2008). This shift was not necessarily based on rigorous evaluation of TBAs' effectiveness in specific contexts, nor did it incorporate the perspectives of the women they served (Jordan 1989; MacDonald 2017). Conversations with women in this study also suggest that their experiences were not considered in this policy shift.

The Millennium Development Goals then focused on increasing institutional births, providing financial incentives for obstetric care, free caesareans and promoting family planning which all contributed to reducing MMR (Seltzer 2002; Vogel et al. 2015; Dumont et al. 2001; Jaffré 2012). While important in reducing MMR, these efforts overlooked understanding the challenges faced by remote areas.

Well-intentioned Policies and Unintended Inequities

The findings from this study show that across the different groups of participants, women emphasized the challenges of accessing services; FCHVs underscored their commitment despite limited training; and HAs framed the problem through institutional limitations, revealing layered and complex perspectives on maternal healthcare in remote Nepal. The findings also suggest that in this area, caste shapes maternal health access, due to *dalit* communities living higher up in the hills complicating access to the health posts.

While some of the villages in this study have, by 2025, acquired health posts closer to them, many other remote villages in Nepal have not. In Nepal, 78.1% of the population lives in rural areas, making home births a continuing reality. Despite the country's progress in reducing maternal mortality, these ongoing challenges underscore the need for a deeper understanding of the inequitable opportunities for safe motherhood faced by remote communities.

This study shows a fundamental gap remains in ensuring a triangle of essential needs: timely and easy access to birthing centres, access to SBAs who can recognize complications early, and equitable access to complete ANC/PNC. These components are interdependent, requiring careful coordination and time-sensitive responses. However, no single policy effectively addresses all three aspects in a way that is practical for women in remote areas.

During an interview for this research, a maternal health expert in Kathmandu highlighted a critical concern in maternal health policymaking: who makes decisions at the national level. Despite policies being designed to

serve women, decision-making bodies remain overwhelmingly male-dominated. The lack of women's representation in policy formulation raises question about whose realities are being considered and who shapes maternal health priorities. The lack of diverse perspectives, including the absence of varied caste and ethnic representation, reinforces top-down approaches that overlook the lived experiences of pregnant women, especially in remote and marginalized communities.

From my discussions and observations, women are not particularly seeking the return of *sudheni* themselves or advocating for all traditional practices, nor are they rejecting biomedical services. Neither am I advocating for a return to unsafe home births. Rather, the women want their challenges and realities to be acknowledged in a way that leads to a feasible and safe solution. They feel forgotten as policies continue to assume that institutional births are universally accessible. This study highlights how national policy guidelines expect women to comply without accounting for the structural barriers that hinder access, failing to recognize that the geographical challenges faced by women in remote areas differ significantly from those in regions where institutional birth policies are more feasible (Devkota et al. 2020; Ghimire et al. 2019). The lack of road infrastructure and maintenance, inadequate ambulance services, and limited staff hours at health posts, reflect systemic neglect of a relatively hidden population rather than logistical difficulties alone (Farmer 2004; Qadeer 2005). These systemic barriers are not accidental but rather the product of long-standing underinvestment and policy decisions that exclude understanding the barriers faced by people living in remote areas.

Nepal's health system continues to depend on foreign aid, with approximately 50% of the health budget reliant on international donors (Karkee and Morgan 2020; Chaurasiya et al. 2019; Sharma et al. 2018). External funding influences health financing and also shapes maternal-health policy priorities, sometimes aligning them more with global frameworks than with locally identified needs (Bhandari and Dangal 2014; Sharma et al. 2016; 2018).

The title of this paper asks, "Where is the *sudheni didi*?" The answer lies in how national policy since 1996 has been impinged upon by foreign aid pressures and global health protocols which, in remote geographical areas in Nepal, are not always easy to implement. To continue ignoring this reality is inequitable to women living in remote areas. Allowing home births to occur without assistance, failing to sustain a workforce, for example, by incentivizing work in remote areas, neglecting to build a home-based care system, and not ensuring sufficient staff for assisted deliveries for all, is injustice and, in Farmer's (2004) terms, a form of structural violence.

"Where is the *sudheni didi*?" A few are still alive but invisible within the maternal healthcare system. Others have passed away without their traditional knowledge being passed on. The shift toward biomedical care was swift and did not allow space for intergenerational transmission of traditional birthing knowledge, effectively severing a long-standing community-based support system for pregnant women in remote areas. According to a maternal health expert interviewed in Kathmandu, as the state moves further toward biomedical models, there has been limited room for discussion about integrating traditional knowledge and skills alongside national health system. The erasure of *sudheni* also reflects a wider trend of sidelining Indigenous and local care models, in favour of western biomedical frameworks (Olson 2013; Berry 2008). Yet, as the findings here suggest, many women in remote Nepal still long for aspects of home-based care, not out of resistance to biomedical safety but because in the current system they do not receive the relational care they need, while it is still difficult to access institutional services in remote Nepal. The question, then, is not only where has the *sudheni* gone but also whether there is space to reimagine maternity care in ways that value biomedical safety, community-based needs, and traditional knowledge.

Conclusion

Using the case of *sudheni*, this study highlights the critical need for contextually grounded understandings of women's lived experiences. Without a transformative approach to maternal health that centres the perspectives

and challenges of women in remote regions, Nepal risks overlooking existing maternal health inequities, despite national progress. Policies must go beyond institutional mandates to recognize that accessibility is not simply about the number or presence of health posts but about whether women can actually reach and utilize services. Without context-responsive approaches, sustaining the maternal health achievements of the Millennium Development Goals and attaining the Sustainable Development Goals of universal access to maternal healthcare will remain a challenge.

Limitations

While this study provides valuable insights, several changes have occurred since 2015, including the construction of a hospital in the area expected to be completed by 2026. A significant limitation of this study is that ANMs were not interviewed in-depth. Although they participated in community-level participatory workshops, their perspectives on their roles and experiences are not captured in this paper. Also, the paper does not incorporate perspectives from policymakers or development partners, whose insights could provide additional context regarding decision-making processes that led to the exclusion of *sudhena*. This study is limited in geographic scope, focusing on a few villages in Baglung, western Nepal. While the findings highlight broader structural barriers faced by women in remote Nepal, maternal health challenges may vary based on region, caste, ethnicity, and local healthcare infrastructure, necessitating further context-specific research.

Acknowledgements

I acknowledge the International Development Research Centre (IDRC) for supporting this research. In Nepal, I am thankful to Dr. Rita Thapa and Dr. Laxmi Raj Pathak for their guidance and for reviewing this paper for accuracy. I also extend my gratitude to Sharmila Mhatre and Marie-Gloriose Ingabire for their mentorship and support during and after the IDRC Research Award 2015. Thank you, Sujaya, for encouraging me to write this paper for the past ten years!

Acronyms

ANC	Antenatal Care
ANM	Auxiliary Nursing Midwife
DoHS	Department of Health Services
FAO	Food and Agriculture Organization of the United Nations
FCHV	Female Community Health Volunteer
FGD	Focus Group Discussion
HA	Health Assistant
MCH	Maternal and Child Health
MMR	Maternal Mortality Rate
MoH	Ministry of Health

MoHP	Ministry of Health and Population
PHC	Primary Health Centre
PNC	Postnatal care
PR	Participatory Research
RA	Research Assistant
SBA	Skilled Birth Attendant
SMI	Safe Motherhood Initiative
TBA	Traditional Birth Attendant
VDC	Village Development Committee

Endnotes

1. *Didi* is a Nepali kinship term meaning elder sister. It is commonly used as a respectful form of address for women slightly older than oneself and does not imply a biological relationship.
2. Within the caste hierarchy, *dalit* refers to groups historically considered as belonging to the “lowest” caste. The classification reflects entrenched social structures that have led to systemic discrimination and exclusion. I use the term here to acknowledge these realities, and the continued spatial and social separation, such as the presence of *dalit bastis* (neighbourhood).
3. Anonymity note: All personal identifiers, including names of individuals, have been anonymized.

Works Cited

- Allen, D. R. 2004. *Managing Motherhood, Managing Risk: Fertility and Danger in West Central Tanzania*. University of Michigan Press.
- Baer, H. A., Singer, M., Susser, I. 2013. *Medical Anthropology and the World System*. London and New York: Bloomsbury Academic. doi.org/10.5040/9798400684296
- Bergström, S., and Goodburn, E. 2001. “The Role of Traditional Birth Attendants in the Reduction of Maternal Mortality.” in De Brouwere, V. and Van Lerberghe, W. *Safe Motherhood Strategies: A Review of the Evidence*. Geneva: World Health Organization.
- Berhan, Y., and Abeba, S. 2024. “Thirty Years of United Nations Inter-Agency Working Group’s Global, Regional, and National Maternal Mortality Estimates Revisited.” *International Journal of Maternal and Child Health and AIDS* 13: e004. doi.org/10.25259/ijma_679

- Berry, N. S. 2008. "Who's Judging the Quality of Care? Indigenous Maya and the Problem of 'Not Being Attended.'" *Medical Anthropology* 27(2): 164–189.
- Bhandari, T., and Dangal, G. 2014. "Maternal Mortality: Paradigm Shift in Nepal." *Nepal Journal of Obstetrics and Gynaecology* 7(2): 1–4. doi.org/10.3126/njog.v7i2.11132
- Brunson, J., and Tamrakar, S. R. 2018. "Exploring Biomedical, Temporal, and Embodied Perspectives on the Timing of Birth in Central Nepal." *HIMALAYA: The Journal of the Association for Nepal and Himalayan Studies* 38 (2): 6–17.
- Chaurasiya, S. P., Pravara, N. K., Khanal, V., and Giri, D. 2019. "Two Thirds of the Most Disadvantaged Dalit Population of Nepal still Do Not Deliver in Health Facilities Despite Impressive Success in Maternal Health." *PLoS One* 14(6): e0217337.
- Cheelo, C., Nzala, S., and Zulu, J. M. 2016. "Banning Traditional Birth Attendants from Conducting Deliveries: Experiences and Effects of the Ban in a Rural District of Kazungula in Zambia." *BMC Pregnancy and Childbirth* 16(1): 323. doi.org/10.1186/s12884-016-1111-9
- Devkota, B., Maskey, J., Raj Pandey, A., et al. 2020. "Determinants of Home Delivery in Nepal – A Disaggregated Analysis of Marginalised and Nonmarginalised Women from the 2016 Nepal Demographic and Health Survey." *PLoS ONE* 15 (1).
- Dumont, A., De Bernis, L., Bouvier-Colle, M.-H., Bréart, G. 2001. "Caesarean Section Rate for Maternal Indication in Sub-Saharan Africa: A Systematic Review." *The Lancet* 358(9290): 1328–1333.
- Engel, J., Glennie, J., Adhikari, S. R., Bhattarai, S. W., Prasai, D. P., Samuels, F. 2013. "Nepal's Story: Understanding Improvements in Maternal Health." ODI Report. London: Overseas Development Institute.
- Farmer, P. 2004. "An Anthropology of Structural Violence." *Current Anthropology* 45(3): 305–325.
- Ghimire, U., Manandhar, J., Gautam, A., Tuladhar, S., Prasai, Y., Gebreselassie, T. 2019. "Inequalities in Health Outcomes and Access to Services by Caste/Ethnicity, Province, and Wealth Quintile in Nepal." *DHS Further Analysis Report* 117. Rockville, MD: ICF.
- Glenton, C., Scheel, I. B., Pradhan, S., Lewin, S., Hodgins, S., Shrestha, V. 2010. "The Female Community Health Volunteer Programme in Nepal: Decision Makers' Perceptions of Volunteerism, Payment and other Incentives." *Social Science & Medicine* 70(12): 1920–1927.
- Jaffré, Y. 2012. "Towards an Anthropology of Public Health Priorities: Maternal Mortality in Four Obstetric Emergency Services in West Africa." *Social Anthropology* 20(1): 3–18.
- Jordan, B. 1989. "Cosmopolitan Obstetrics: Some Insights from the Training of Traditional Midwives." *Social Science & Medicine* 28(9): 925–944.
- Karkee, R., and Morgan, A. 2020. "Providing Maternal Health Services During the COVID-19 Pandemic in Nepal." *The Lancet Global Health* 8(10): e1243–e1244.
- MacDonald, M. 2017. "Why Ethnography Matters in Global Health: The Case of the Traditional Birth Attendant." *Journal of Global Health* 7(2): 020302
- Mahler, H. 1987. "The Safe Motherhood Initiative: A Call to Action." *The Lancet* 1(8534): 668–670.
- MoH (Ministry of Health, Nepal); New ERA; and ICF. 2017. *Nepal Demographic and Health Survey 2016*. <https://dhsprogram.com/pubs/pdf/FR336/FR336.pdf>
- MoHP, (Ministry of Health and Population), New ERA, and ICF. 2011. *Nepal Demographic and Health Survey 2011*. <https://dhsprogram.com/pubs/pdf/fr257/fr257%5B13april2012%5D.pdf>

- _____. 2022. *Nepal Demographic and Health Survey 2022*. <https://www.dhsprogram.com/pubs/pdf/FR379/FR379.pdf>
- Obermeyer, C. M. 2000. "Risk, Uncertainty, and Agency: Culture and Safe Motherhood in Morocco." *Medical Anthropology* 19(2): 173–201.
- Olson, R. E. 2013. *Relocating Childbirth: The Politics of Birth Place and Aboriginal Midwifery in Manitoba, Canada*. University of Sussex.
- Pigg, S. L. (1997). *Authority in Translation: Finding, Knowing, Naming, and Training*. Traditional Birth Attendants" in Nepal." In *Childbirth and Authoritative Knowledge: Cross-Cultural Perspectives* edited by R. Davis-Floyd and C. Sargent Berkeley: University of California Press.
- Qadeer, I. 2005. "Unpacking the Myths: Inequities and Maternal Mortality in South Asia." *Development*, 48 (4): 120-126. doi.org/10.1057/palgrave.development.1100188.
- Seltzer, J. R. 2002. *The Origins and Evolution of Family Planning Programs in Developing Countries*. Rand Corporation.
- Sharma, J. R., Khatri, R., Harper, I. 2016. "Understanding Health Research Ethics in Nepal." *Developing World Bioethics* 16 (3): 140–147.
- Sharma, J. R., Khatri, R., Harper, I. 2018. "Accountability and Generating Evidence for Global Health: Miso-prostol in Nepal." *IDS Bulletin* 49(2): 49–64. doi.org/10.19088/1968-2018.135
- Shehata, M. 2015. *The 2005 Revision of the Nepal National Safe Motherhood Plan (2002–2017): A Policy Analysis*. Master's thesis, EuroPubHealth Programme, University of Copenhagen, Denmark.
- Starrs, A. 1997. *The Safe Motherhood Action Agenda: Priorities for the Next Decade*. Family Care International, for the Inter-Agency Group for Safe Motherhood. <https://files.givewell.org/files/DWDA%202009/Interventions/Maternal%20Mortality/SafeMotherhoodActionAgenda.pdf>
- Suvedi, B. K., Pradhan, A., Barnett, S., et al. 2009. "Nepal Maternal Mortality and Morbidity Study 2008/2009: Summary of Preliminary Findings." Kathmandu, Nepal: Family Health Division, Department of Health Services, Ministry of Health, Government of Nepal.
- Thapa, R. 2014. *Changing Public Health Paradigm: Improving Maternal Child Health and Family Planning*. Fifth Public Health Foundation Lecture. Nepal Public Health Foundation. June 30.
- Vogel, J. P., Pileggi-Castro, C., Chandra-Mouli, V., et al. 2015. "Millennium Development Goal 5 and Adolescents: Looking Back, Moving Forward." *Archives of Disease in Childhood* 100 (Suppl 1): S43–S47.