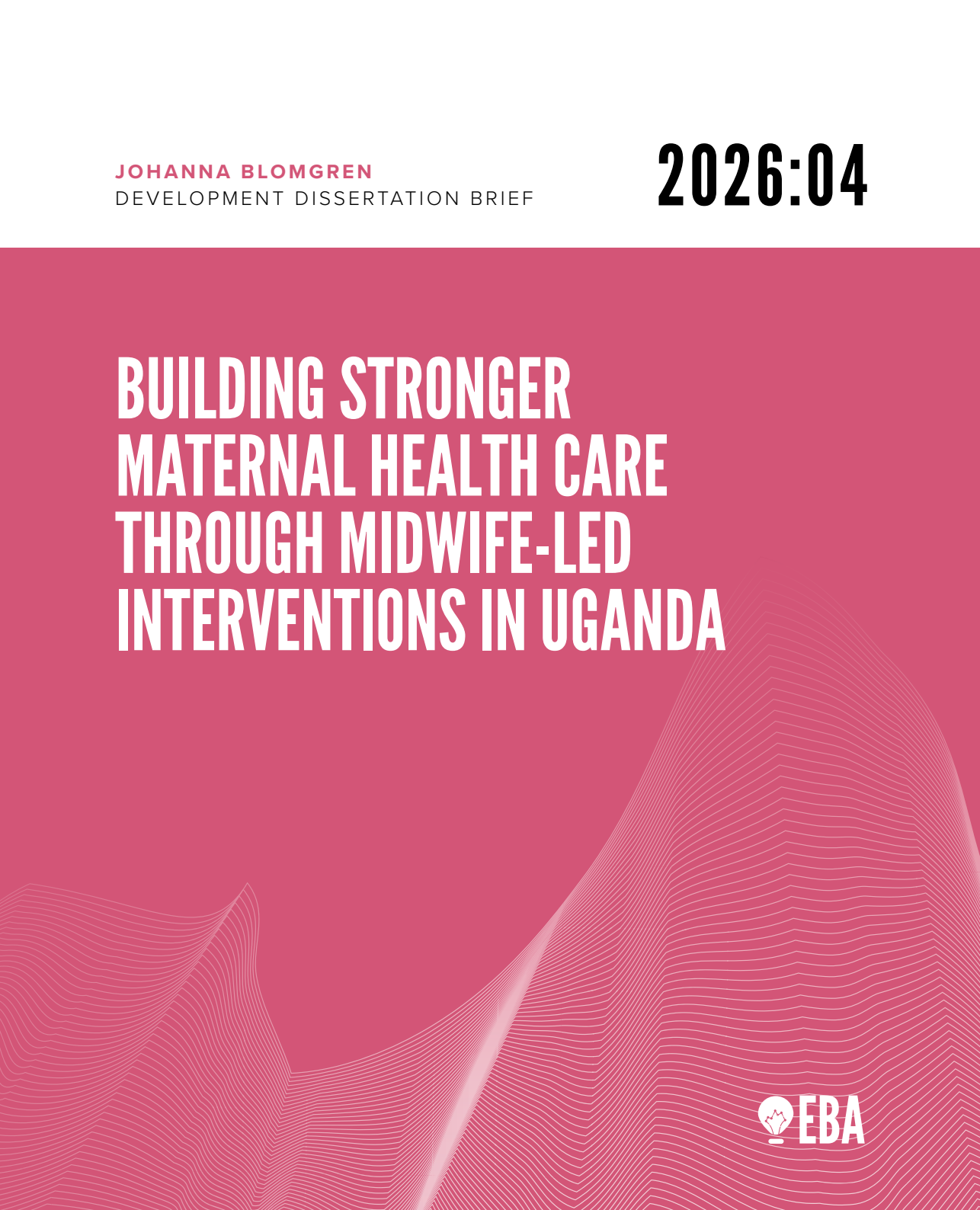
JOHANNA BLOMGREN
DEVELOPMENT DISSERTATION BRIEF

2026:04

# BUILDING STRONGER MATERNAL HEALTH CARE THROUGH MIDWIFE-LED INTERVENTIONS IN UGANDA



# Building Stronger Maternal Health Care through Midwife-Led Interventions in Uganda

Johanna Blomgren

Development Dissertation Brief, 2026:04
to
The Expert Group for Aid Studies (EBA)

Johanna Blomgren defended her thesis "MIDWIZE – Improving the Use of Evidence-Based Midwifery Practices During Birth through Midwife Led Quality Improvement in Uganda" in April 2025 at the Department of Women's and Children's Health, Karolinska Institutet, Stockholm. The thesis was carried out within the Centre of Excellence for Sustainable Health (CESH), which is a collaborative centre between Karolinska Institutet and Makerere University in Uganda that works to advance sustainable health by strengthening capacity, fostering innovation, and transforming education and research. Combining research with a background in clinical midwifery, Johannas work focuses on strengthening midwifery, evidence-based intrapartum care, and the development of sustainable quality improvement approaches in low-resource settings. Her research interests include midwife-led care, respectful maternity care, implementation science, and maternal and newborn health systems.

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# Sammanfattning

Denna rapport sammanfattar en avhandling som visar att när barnmorskor har ett tydligt mandat, stödjande strukturer samt rätt kompetens och tid att leda förbättringsarbete så ökar kvaliteten i vården under förlossning och både kvinnor och nyfödda får bättre hälsa. Ett problem i många länder, inklusive Uganda som står i fokus för detta arbete, är att flera rekommenderade, evidensbaserade arbetssätt för barnmorskor inte används i den omfattning som behövs. Barnmorskor beskrev bristande möjligheter till ledarskap och mentorskap, svagt organisatoriskt stöd och hierarkier som begränsar deras inflytande. För att pröva hur detta kunde förändras samskapades och infördes en barnmorskeledd intervention för att förbättra kvaliteten på vården på ett offentligt sjukhus i Kampala. Interventionen fokuserade på tre evidensbaserade arbetssätt där det fanns en tydlig skillnad mellan rekommenderad och faktisk praktik: dynamiska förlossningsställningar, stöd under födseln och metoder för att förebygga bristningar. Användningen av alla tre arbetssätt ökade tydligt och låg kvar på en hög nivå vid uppföljning. Samtidigt förbättrades utfallet för kvinnor och nyfödda, med färre bristningar som krävde suturering och färre barn med låg Apgar-poäng.

Resultaten visar att barnmorskeledda kvalitetsförbättringar kan stärka användningen av evidensbaserade arbetssätt. För att behålla och sprida förbättringarna behövs policys som stärker barnmorskors ledarskap, ger bättre tillgång till praktisk färdighetsträning under och efter utbildning och främjar nära samarbete mellan beslutsfattare, utbildningar, sjukhusledning och klinisk personal.

# Abstract

This report summarises a doctoral thesis showing that when midwives have a clear mandate, supportive structures, and the necessary skills and time to lead improvement efforts, the quality of intrapartum care increases and health outcomes for women and newborns improve. A key challenge in many countries, including Uganda which is the focus of this work, is that several recommended midwifery practices are not used to the required extent. The thesis therefore examined why these practices remain underused, how midwives can be better supported to lead improvement work, and the impact this can have on the health of women and newborns. Midwives described limited opportunities for leadership and mentorship, weak organisational support, and hierarchical structures that restrict their influence. To explore how these barriers could be addressed, a co-created midwife-led quality improvement intervention was introduced at a public hospital in Kampala, Uganda. The intervention focused on three evidence-based midwifery practices with clear discrepancies between recommended and current practice: dynamic birth positions, intrapartum support, and perineal protection. Use of all three practices increased markedly and remained high at follow-up. At the same time, clinical outcomes improved, with fewer women experiencing perineal tears requiring suturing and fewer newborns born with low Apgar1 scores. The findings show that midwife-led quality improvement can strengthen the use of evidence-based practices in clinical care. Sustaining and scaling these improvements calls for policies that reinforce midwifery leadership and mentorship, expand access to practical skills training during and after education, and promote closer collaboration between policymakers, midwifery education institutions, hospital management, midwives, and other staff.

[1] Apgar is a scale between 0–10 used to measure the health of newborn babies. 7–10 is considered normal. Lower scores prompt observation or immediate interventions.

# Background

## Maternal and newborn health and quality of care

Despite global efforts, women and newborns continue to face preventable complications and adverse outcomes during childbirth. Poor-quality care is a major contributor to these outcomes, accounting for more maternal and neonatal deaths than lack of access to healthcare (World Health Organization, 2022). Vulnerable populations, including those living in poverty, adolescents, and individuals with limited education, are particularly affected (Kruk et al., 2018, Renfrew et al., 2014). Beyond immediate health risks, inadequate care can erode trust in the health system and discourage women from seeking professional care (Kruk et al., 2018). Quality deficits are especially pronounced in low- and middle-income countries such as Uganda, where inadequate care before, during, and after birth contributes to high maternal and neonatal mortality, unnecessary suffering, preventable complications, and long-term health consequences (United Nations Children's Fund, 2017, Namagembe et al., 2022). The causes of poor-quality care are complex and shaped by local healthcare systems and clinical contexts (Kruk et al., 2018, Filby et al., 2016). Common challenges include limited access to comprehensive training for healthcare providers, underutilisation of midwives' skills, insufficient supportive policies and guidelines, and suboptimal resource allocation (Filby et al., 2016; Michel-Schuldt et al., 2020; Telfer et al., 2021).

## Midwives' role in high-quality maternal and newborn care

While women prioritise surviving childbirth and having a healthy baby, they also seek a positive birth experience with safe, high quality and respectful care (Renfrew et al., 2014, Downe et al., 2018) They value dignity, freedom from discrimination, a supportive environment, chosen companions, and involve-

ment in decision making, and they expect care from competent, unhurried and compassionate healthcare workers (White Ribbon Alliance, 2022, Downe et al., 2018).

Midwives educated to international standards are well placed to provide high-quality, compassionate and individualised care throughout pregnancy, labour and postpartum (Nove et al., 2021b; International Confederation of Midwives, 2019). Evidence shows that when midwives receive such comprehensive education, including family planning training, more than 80 percent of maternal and neonatal deaths can be prevented while also improving overall care quality (Nove et al., 2021a).

Despite their central role, midwives' competencies are often underused, and they are frequently excluded from leading improvements within their profession (Filby et al., 2016, Michel-Schuldt et al., 2020). Political, economic, social, gender related and cultural barriers contribute to this underuse and limit their integration into health systems. (Brunson, 2010, Filby et al., 2016, Koblinsky et al., 2006). Midwives therefore need strong support from policy, academia, civil society, and professional associations, including adequate resources, training, authority, and interprofessional collaboration. Such support is essential for implementing best practices and ensuring high-quality care (Renfrew et al., 2014, World Health Organization, 2024, Lindgren and Erlandsson, 2022).

Efforts to strengthen midwifery have evolved over time. WHO has, since 1948, worked to improve the role of midwives in healthcare systems, including through establishing collaborative centres focused on scientific standards and actions to advance midwifery leadership and service delivery (World Health Organization, 2017). International organisations also highlight the need to build midwives' leadership capacity and increase their involvement in health policy and planning (United Nations Population Fund et al., 2021). Yet the continued exclusion of midwives from leading transformative change,

alongside persistent care quality challenges during labour and birth, shows that further action remains necessary (Filby et al., 2016, Michel-Schuldt et al., 2020).

## Evidence-based midwifery practices

My dissertation focuses on three key midwifery practices with strong evidence for improving care quality that are underused in many clinical settings: dynamic birth positions, intrapartum support, and perineal protection (World Health Organization, 2018a, Renfrew et al., 2014).

### Dynamic birth positions

Dynamic birth positions allow women to adopt upright, flexible, and varied postures during labour, such as sitting, kneeling, lying on the side, or using a birth chair, rather than remaining flat on their backs or in other fixed positions (Lindgren et al., 2024) These positions relieve pressure on the sacrum, improve pelvic outlet expansion, and enhance uterine blood flow, supporting better physiological outcomes for both mother and newborn. They are linked to shorter labour, reduced need for instrumental vaginal birth, lower incidence of fetal heart rate abnormalities, and decreased rates of interventions such as episiotomy and caesarean section. Women using dynamic positions generally report higher satisfaction, a greater sense of control, and less pain compared with horizontal positions (Zang et al., 2020, Badi et al., 2022, Berta et al., 2019, Kibuka and Thornton, 2017, Lindgren et al., 2024).

Despite their benefits, the supine position remains the standard in many settings, including Uganda, often due to clinical tradition, monitoring challenges, and limited provider skills (Lindgren et al., 2024, Thies-Lagergren et al., 2013, Lawrence et al., 2013, Ministry of Health Uganda, 2021c). This may affect care-seeking behaviours. Uganda's Roadmap for Accelerating the Reduction of Maternal and Neonatal Mortality and Morbidity notes that

culturally incongruent positions, such as supine, can discourage women from giving birth in healthcare facilities (Ministry of Health Uganda, 2021c). The report calls for greater availability of alternative positions but highlights that midwives and doctors often lack the skills to provide effective support. Enabling women to use positions that suit their preferences is essential for autonomy, comfort, and improved maternal and newborn outcomes. Strengthening midwives' capacity to offer dynamic birth positions is therefore a key strategy for enhancing the quality of intrapartum care (Lindgren et al., 2024).

## Intrapartum support

Intrapartum support encompasses emotional, physical, informational, and advocacy components. Emotional support involves presence, care, reassurance, humour, and distraction, while physical support includes comfort measures, facilitation of movement, massage, hydrotherapy, and assistance with personal needs (The Royal Colleges of Midwives, 2012). Informational support includes teaching breathing and relaxation techniques, explaining procedures, and aiding understanding of labour progress. Advocacy ensures the woman's voice is heard in decision-making and helps resolve conflicts (The Royal Colleges of Midwives, 2012). Evidence shows that effective intrapartum support reduces the likelihood of instrumental births, improves Apgar scores, shortens labour, and enhances overall birth satisfaction (Bohren et al., 2017, Kobayashi et al., 2017, World Health Organization, 2018b, Hodnett, 2002, World Health Organization, 2016, Bohren et al., 2015). Oxytocin, a key hormone in labour, is influenced by perceived safety and support; stress can reduce oxytocin and impede labour, whereas supportive care promotes relaxation and physiological progress (Moberg, 2019, Tindle and Tadi, 2023).

## Perineal protection

Perineal injuries are a common complication of vaginal birth and an important indicator of quality care (World Health Organization, 2016). They can be caused by spontaneous tears or episiotomies, with severe tears causing short- and long-term consequences such as incontinence, pelvic floor dysfunction, pain, haemorrhage, and sepsis (Leeman et al., 2016, Aguiar et al., 2019, Seijmonsbergen-Schermers et al., 2014). Perineal injuries are particularly prevalent in low- and middle-income countries, with estimates around 70 percent, especially among primiparous women (Aguiar et al., 2019). Prevalence varies widely across countries, for example 80 percent in the United Kingdom, 84.3 percent in Iran (where episiotomy rates are high at 70 percent), and 47.4 percent in Ethiopia (with episiotomy rates of 11 percent) (Smith et al., 2013, Abedzadeh-Kalahroudi et al., 2019, Addis et al., 2024). A major contributing factor is the widespread use of episiotomy, performed in 46 percent of all vaginal births in LMICs (Aguiar et al., 2019). Despite this, the prevalence of spontaneous second, third-, and fourth-degree tears in LMICs is similar to that in high-income countries (Aguiar et al., 2019).

Risk factors for perineal injuries extend beyond episiotomy use and include operative vaginal births, primiparity, maternal age, Asian ethnicity, epidural anaesthesia, induction or augmentation of labour, prolonged second stage, persistent occiput posterior presentation, and increased fetal birthweight (Wilson and Homer, 2020, Pergialiotis et al., 2020, Okeahialam et al., 2024).

Strategies to prevent perineal injuries include maintaining visualisation of the perineum, hands-on protection, guided or spontaneous pushing, and clear communication and cooperation with the woman (World Health Organization, 2018a, Samuelsson et al., 2002, Aasheim et al., 2017, Califano et al., 2022). Hands-on perineal protection involves supporting the perineum with one or both hands and guiding the birth of the fetal head (World Health Organization,

2018a) . While evidence on the comparative effectiveness of hands-on versus hands-off approaches is mixed (Aasheim et al., 2017, Huang et al., 2020, Califano et al., 2022, Bulchandani et al., 2015, Aikins Murphy and Feinland, 1998), hands-on techniques are recommended by the WHO as they may reduce first-degree tears and are generally acceptable to women (World Health Organization, 2018a). Other strategies include the "two-step birth," in which the fetal head and body are born in separate contractions, and promoting spontaneous pushing, allowing women to follow their natural urges rather than being instructed to push (Lemos et al., 2017, World Health Organization, 2018a, Edqvist et al., 2017). These approaches aim to facilitate gradual stretching of the perineum, potentially reducing trauma.

The WHO recommends reducing routine or liberal use of episiotomy during spontaneous vaginal births, emphasising that informed consent should always be obtained (World Health Organization, 2018a). Nevertheless, both consented and unconsented episiotomies remain common in many countries, including Uganda, where rates among primiparas have been reported as high as 73 percent (World Health Organization, 2018a, Pebolo et al., 2019). This highlights the need for continued efforts to strengthen evidence-based practices, improve provider skills, and ensure respectful care during birth.

## Quality improvement approaches

Structured quality improvement (QI) methods provide a systematic approach to implementing evidence-based practices in clinical settings (Academy of Medical Royal Colleges, 2019). The Model for Improvement is commonly used to guide QI efforts by asking what is to be accomplished, how change will be measured, and which changes can lead to improvement (Langley et al., 2009). Plan-Do-Study-Act cycles enable practitioners to test and refine changes on a small scale, ensuring practical, measurable improvements in care delivery. QI methods are particularly effective for engaging frontline healthcare workers in

identifying problems and solutions, supporting sustainable change (Langley et al., 2009). Lessons from QI initiatives in Uganda and other East African countries show that involving staff as champions, providing long-term mentoring, training, and stakeholder engagement, and aligning interventions with local resources are essential for success (Walker et al., 2020, Hagaman et al., 2020, Waiswa et al., 2021, Tancred et al., 2014).

## Uganda – maternal care landscape

The intervention in this thesis is set in Kampala, Uganda, where socio-economic and healthcare system factors shape maternal and newborn health outcomes. Kampala has a large population living in informal settlements with high poverty, low literacy, and limited access to safe housing and basic amenities (Atusiimire et al., 2019). These populations face increased risks of stillbirth, early neonatal death, and perinatal mortality (Atusiimire et al., 2019, Ziraba et al., 2009). The healthcare system includes both public and private providers, with private facilities dominating, yet many lack midwives trained to international standards (World Health Organization, 2024, Telfer et al., 2021). Skilled birth attendance has increased over the past decade, with 72 percent of births attended by midwives or nurses and 14 percent by doctors, yet many midwives function more like maternity nurses due to gaps in education and mentorship (Bureau of Statistics Uganda, 2022).

In recent years, key national indicators show improvements in maternal and newborn health in Uganda. The neonatal mortality rate declined from 24 per 1,000 live births in 2011 to 19 in 2021, while the maternal mortality ratio fell from 438 to 284 deaths per 100,000 live births between 2011 and 2020 (United Nations Children's Fund, 2017, United Nations Children's Fund, 2020, World Health Organization, 2023) Fertility remains high, with women having an average of 5.2 children. Teenage pregnancies are common, with 24 percent of girls aged 15–19 having begun childbearing (Bureau of Statistics Uganda, 2022).

Caesarean-section rates have risen from 5.7 percent in 2011 to 14 percent in 2022, and 68 percent of women attend four or more antenatal care visits. Female genital mutilation/circumcision is rare, affecting approximately 0.2 percent of women nationwide (Bureau of Statistics Uganda, 2022). National initiatives, including the Uganda National Standards for Maternal and Newborn Care, focus on evidence-based practices, effective communication, and respectful care. The Uganda Ministry of Health has also developed a quality improvement framework linking the Ministry with healthcare facility managers (Ministry of Health Uganda, 2021b). Despite this, 84 percent of maternal deaths remain preventable, with obstetric haemorrhage, hypertensive disorders, and infections as the leading causes (Namagembe et al., 2022). Targeted quality improvement initiatives for midwifery practices remain rare, and essential evidence-based care, including informed decision-making, perineal protection, intrapartum support, and respectful care, needs further strengthening (Nabirye et al., 2014; Babughirana et al., 2020).

## Rationale for the study

Maternal and newborn mortality and morbidity remain high in Uganda, despite improvements in key national indicators such as neonatal and maternal mortality. Evidence-based practices for safe and respectful intrapartum care are often underused. Midwives are well-positioned to improve both the quality and the experience of care, yet organisational, cultural, and professional barriers constrain their leadership in clinical practice. Supporting midwives in leading quality improvement interventions is therefore critical to strengthening health system performance, promoting respectful and evidence-based care, and reducing preventable adverse outcomes for mothers and newborns.

This thesis addresses the urgent need to understand how midwives can be empowered to implement evidence-based practices effectively, and how

structured, midwife-led interventions can contribute to sustainable improvements in maternal and newborn health.

By focusing on midwife-led interventions, the study promotes local ownership, capacity building, and equitable improvements in maternal and newborn health, aligning with international frameworks such as Sustainable Development Goal 3 (to ensure healthy lives and promote well-being for all) and the Every Newborn Action Plan (United Nations, 2015, United Nation, 2019).

## Research aim and questions

The aim of this thesis was to explore the barriers that limit midwives' ability to lead evidence-based care during labour and birth in Uganda, and to examine how these barriers can be addressed through co-created midwife-led quality improvement interventions to improve the uptake of evidence-based practices and maternal and newborn outcomes. The aim was explored through answering four research questions:

1. What barriers prevent midwives from providing midwife-led care, and how can these barriers be addressed?
2. How can a midwife-led quality improvement intervention be created to maximise its potential for substantial impact and sustainability?
3. What is the uptake of evidence-based midwifery practices under a midwife-led quality improvement intervention, and what optimised this uptake?
4. What are the health outcomes for women and newborns resulting from a midwife-led quality improvement intervention?

# Methods

The thesis comprises four papers, each addressing different aspects of midwife-led care and the quality improvement intervention. Paper I examined barriers to midwife-led care qualitatively (n=25) (Blomgren et al., 2023a), Paper II focused on co-creation and contextual determinants (n=51) (Blomgren et al., 2023b), Paper III assessed uptake of the intervention quantitatively (n=703), (Blomgren et al., 2024), and Paper IV evaluated health outcomes (n=630) (Blomgren et al., 2025). Each study informed the next, creating a sequential progression of findings.

## The intervention – Midwize

The Midwize intervention was co-created with hospital midwives, doctors, hospital management, women, birth companions, the Ministry of Health, the midwifery association, and midwifery educators to identify priorities and design a feasible, contextually appropriate quality improvement programme. Three clinical improvement areas were selected: dynamic birth positions, intrapartum support, and perineal protection. Dynamic birth positions included birth chair, all-fours, lateral, and kneeling positions. The birth stool was locally crafted in Uganda modelled on a Swedish version of a birth stool, see Figure 1. Guidance for midwives on birth positions included ensuring a supportive birth companion, limiting time spent on the stool, and fostering calm midwife–woman communication. Intrapartum support included methods to increase women's sense of calm and relaxation, such as promoting calm breathing, providing massage and gentle strokes, offering emotional support, and shared decision-making. Perineal protection included hands-on perineal support, spontaneous pushing, and a two-step birth technique.

**Figure 1. Birth stool used in the intervention**

Source: Photo by Christina Lundberg

The intervention ran from May to December 2022 and was led by seven Midwize Ambassadors, selected to cover all hospital shifts and departments. They received comprehensive training in quality improvement and practical midwifery skills, beginning with a three-day introductory session on quality improvement based on Langley's Model for Improvement. Training also included practical reinforcement of dynamic birth positions, intrapartum support, and perineal protection, supported by a manual, online resources, and bi-monthly in-person meetings.

During the active phase, weekly 60-minute online QI meetings guided the Ambassadors in reviewing data, monitoring uptake, evaluating progress, and addressing challenges using Plan-Do-Study-Act (PDSA) cycles. This structured support gradually decreased over the seven months, enabling the Ambassadors to lead the meetings independently by October 2022. A train-the-trainers

approach was used, equipping Ambassadors with the skills and resources to educate their colleagues and foster a collaborative learning environment. The intervention also engaged women and birth companions through antenatal classes, one-on-one sessions, brochures, and videos to support understanding and adoption of the clinical improvements.

## Setting

The midwife-led quality improvement intervention was conducted at a public national referral hospital in Kampala, Uganda. The maternity department has 32 midwives, including 11 on the labour ward, alongside four doctors and varying numbers of interns and students. The department handles around 9,000 births per year, with a caesarean section rate of approximately 44 percent.

The labour room is small, with three beds separated by low walls and curtains, allowing one midwife to supervise multiple women. Cold water is generally available, but there is no hot water. Overcrowding and limited space mean some women give birth in the admission room or corridors while waiting to enter the labour room. Most women remain in the corridor outside the admission and labour rooms, entering only for check-ups or when close to giving birth.

The hospital has a quality improvement team of doctors, nurses, and midwives that follows Ministry of Health guidelines. Prior to this study, the team had not implemented QI interventions targeting midwifery practices. Hospital management expressed a strong commitment to QI initiatives to strengthen midwifery skills and improve maternal and newborn outcomes.

# Results

The main findings relate to the barriers midwives face in delivering evidence-based care, the strategies suggested to address these challenges, the uptake of clinical improvements during the intervention, and the resulting maternal and newborn outcomes.

## Barriers to midwife-led care and strategies to address them

Twenty five leaders at clinical, policy or academic level within maternal health care, 18 women and 7 men, participated in semi structured interviews or focus group discussions. The findings show that barriers to midwives leading care and to drive improvements within their area of expertise included hierarchical organisational structures and gender disparities arising from the perception of midwifery as a women's profession. Their autonomy was further limited by low representation in leadership. Professional tensions and unclear boundaries between roles also limited midwives' ability to lead care. One senior leader reflected on underutilisation of midwives' skills:

> "…Midwives were just taking vital signs, weighing the clients, and handing over the information to the obstetrician, who performed all the exams. A long queue of patients was waiting for the obstetrician to do procedures or exams that all the midwives at the clinic had been trained to do. They were wasting their resources…" *(Participant J).*

Gender norms reinforced these barriers, often marginalising midwives' voices in decision-making. As one participant observed:

> "…Midwives are seen as women and therefore don't mind a lot of hardship. They don't complain, and even if they complain today, tomorrow everything will be okay and as before…" *(Participant H).*

Low representation of midwives in leadership further limited their influence over decisions and resource allocation. A male participant described the challenges female midwives faced in boardroom discussions:

> "There was a joke we used to make when the female nurse-midwives participated in the boardroom meetings. They are the ones who will be sent out serving tea while everyone else is discussing things… assertiveness can aid in negotiations about how resources should flow, you find that this trait is often lacking in the nursing and midwifery profession…" *(Participant H).*

Participants suggested strategies to overcome these barriers, emphasising collaboration, role models, and leadership development. Joint educational activities for midwives and doctors were recommended to clarify professional roles and improve teamwork. Multisectoral engagement with policymakers, professional associations, and clinical leaders was highlighted to ensure midwives' perspectives were included in decision-making:

> "We need to interact with each other. So, if the policy level proposes or sets a policy, they need the cooperation of the clinical or education and vice versa…because policy cannot develop without the cooperation and implementation of the other both fields…" *(Participant F).*

Creating role models and expanding midwives' skills were seen as essential to strengthening midwife-led care. Reserved leadership positions for midwives,

ongoing training in clinical and QI skills, and mentorship opportunities were proposed to support empowerment, professional growth, and the sustainable uptake of evidence-based practices.

## Co-creation of the midwife-led QI intervention

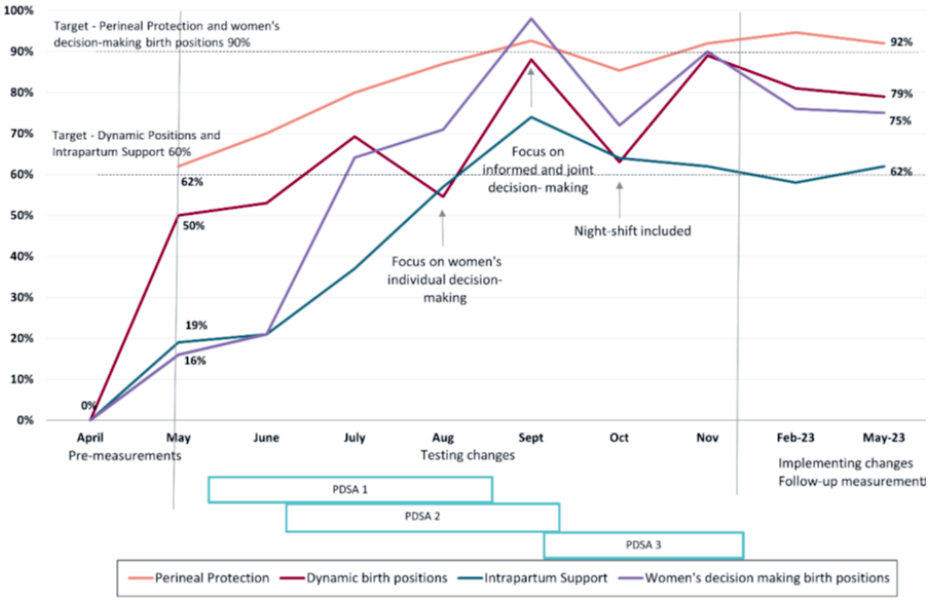
Based on the barriers and strategies, the intervention was developed through a structured co-creation process involving midwives, doctors, managers, teachers, policymakers, mothers, and birth companions. The process followed four stages: defining core elements, assessing needs and context, conducting co-creation workshops, and finalising intervention strategies. This approach ensured that the intervention addressed barriers identified in earlier research, strengthened midwives' leadership, built skills in QI and clinical practices, and fostered multisectoral support. Strategies such as the train-the-trainer model, ongoing supervision, and active engagement of birth companions were incorporated to enhance adoption, relevance, and long-term sustainability of the intervention.

## Uptake of evidence-based practices and health outcomes

The QI intervention enhanced the implementation of evidence-based practices through a combination of mechanisms that engaged and empowered midwives and other staff. Key mechanisms tested and implemented through Plan-Do-Study-Act (PDSA) cycles included co-creation of the intervention with stakeholders, a train-the-trainer approach to build skills and confidence, peer mentoring to support adoption of new practices, structured feedback using weekly data reviews, and active involvement of birth companions to reinforce care practices. These mechanisms created an environment that encouraged shared understanding, collaboration, and continuous learning among midwives, doctors, and hospital leadership.

Between April and November 2022, midwives progressively increased their use of dynamic birth positions (from 0 to 89 percent), intrapartum support (from 0 to 62 percent), and perineal protection (from 62 to 92 percent), with improvements sustained six months after the intervention (May 2023). Women were more likely to be actively involved in decision-making about their birth positions (from 0 to 75 percent), receive emotional and physical support during labour, and benefit from techniques that protected the perineum. See Figure 2 for an overview of the uptake of the clinical improvement areas. Practical tools such as brochures, posters, instructional videos, and ongoing supervision by Midwize Ambassadors strengthened staff competence and confidence.

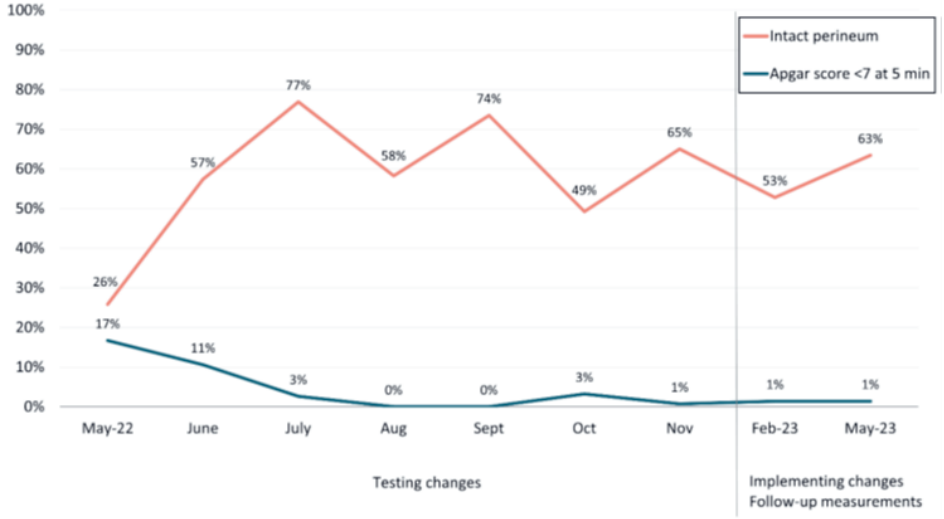
**Figure 2. PDSA cycles and uptake of the clinical improvement areas**




Source: Blomgren et al. (2024)

These improvements translated into measurable health outcomes. The likelihood of women having a perineal injury (meaning no tears or episiotomies) decreased from 74 to 35 percent, Apgar scores below seven at five minutes decreased from 17 to 1 percent, and fewer newborns required transfer to the neonatal intensive care unit (4.1 vs. 12.4 percent), see Figure 3. All three improvement areas (dynamic birth position, intrapartum support and perienal protection) were significantly associated with higher rates of women having an intact perineum. Women using dynamic birth positions had a greater likelihood of intact perineum (62.3 vs. 48.5 percent) compared to those in supine positions [AOR: 0.6, 95% CI: 0.4–0.90]. Women with intact perineum received more intrapartum support (mean score 6.6 vs. 5.8) than those with injuries [AOR: 0.9, 95% CI: 0.9–1.0]. Those women who received complete perineal protection (all three measures) had a higher rate of intact perineum (63.4 vs. 35.1 percent) compared to those with fewer measures [AOR: 0.3, 95% CI: 0.2–0.5].

**Figure 3. Intact perineum and Apgar scores < 7 at 5 min during the midwife-led QI intervention and follow-up measurements**




Source: Blomgren et al. (2025)

Intrapartum support and perineal protection were significantly associated with Apgar scores. Before adjusting for confounding factors, women using a dynamic birth position were less likely to have a newborn with an Apgar score below seven at five minutes (2.0 vs. 5.3 percent) compared to those in the supine position [Crude OR; 0.1 (CI 95% 0.1–0.90)], but this was not significant after adjustments. Newborns with Apgar scores below seven at five minutes received less intrapartum support (mean score 3.9 vs. 6.3) compared to those with scores at seven or above at five minutes [AOR; 0.8 (CI 95% 0.7–1.0)]. Newborns were less likely to have scores below seven at five minutes when their mothers received complete perineal protection (2.0 vs. 6.2 percent) [AOR; 0.3 (CI 95% 0.1–0.8)].

## Sustainability

Sustainability was integrated into the QI work from the earliest stages of co-creation and continued throughout the intervention. Midwize Ambassadors, the senior clinical supervisor, and the research team worked together to ensure that improvements could continue beyond the active research period. One key strategy was to refine internal data systems so the hospital could maintain independent data-driven QI cycles. New columns were added to the birth registration book to document birth positions, perineal outcomes, and episiotomies. Midwives were also instructed to assess care at discharge, including what information women and companions received, how well they understood it, the support measures offered, and the positions used during birth.

From September 2022 onwards, the Midwize Ambassadors took full responsibility for leading weekly QI meetings, compiling and presenting their own data and graphs, and driving their PDSA cycles forward. In the final month, they developed a sustainability plan defining meeting routines, roles, and responsibilities. Multisectoral engagement further strengthened long-term sustainability. Regular updates were shared with the Ministry of Health and Kampala Capital City Authority to support alignment with national priorities. The Uganda Midwives Association contributed through advocacy, webinars, and policy discussions. Interest from training institutions was high, although deeper collaboration was limited by resource constraints.

Despite these challenges, sustainability assessments at three and six months after the active intervention showed continued improvement across all three focus areas, indicating strong potential for long-term integration of the practices.

## Key mechanisms for optimising uptake

Several mechanisms were central to strengthening the uptake of the improvement areas. Through weekly QI meetings and PDSA cycles, Midwize Ambassadors and the research team identified what enabled change by drawing on observations, staff discussions, feedback from women and birth companions, and continuous monitoring of clinical uptake. Co-creation of the intervention ensured broad engagement, while the train-the-trainer approach combined practical midwifery skills with QI methods. The Ambassadors acted as champions, supported by peer mentoring that helped colleagues build skills and confidence.

Women and birth companions were informed and involved through brochures, posters, videos, and direct counselling, and companions played an active role in intrapartum support. Regular dialogue with clinical staff and hospital management helped maintain motivation and address challenges, while continuous updates to policy representatives kept the work aligned with broader health system priorities. These mechanisms, supported by a structured QI approach, enabled ongoing learning, stepwise improvement, and the ability to adapt to new obstacles as they arose.

# Discussion

The findings of my thesis show that midwife-led quality improvement interventions can strengthen evidence-based intrapartum care and improve outcomes for women and newborns in low-resource settings. Before the intervention, recommended midwifery practices such as dynamic birth positions, continuous intrapartum support, and structured perineal protection were used inconsistently, which reflects a broader pattern documented in studies from sub-Saharan Africa (Ministry of Health Uganda, 2018, Ministry of

Health Uganda, 2021b, Wright et al., 2022). Variability in practice adherence is often attributed to staff shortages, high workloads, limited skills training opportunities, and hierarchical structures that restrict midwives' decision-making power (Filby et al., 2016, Boakye, 2022, Hastings-Tolsma et al., 2021). These factors were also present in the study setting and helped explain the initial gaps between evidence and practice.

The intervention showed that when midwives are given a mandate, peer support, and structured methods for leading improvements, they can increase the clinical uptake of evidence-based practices. This aligns with the broader QI literature, which finds that local ownership and frontline leadership are associated with stronger adoption of new practices and sustained change (Langley et al., 2009). In this study, the increased use of dynamic birth positions, strengthened emotional and physical support during labour, and the more consistent application of perineal protection coincided with reductions in perineal injuries requiring suturing and fewer newborns with low Apgar scores. Global estimates suggest that around 70 percent of women in LMICs experience perineal injuries (Leeman et al., 2016) compared with substantially lower proportions during the intervention period (around 40 percent). These improvements mirror findings from earlier research showing that upright positions can improve maternal and newborn well-being (Zang et al., 2020, Badi et al., 2022, Berta et al., 2019, World Health Organization, 2018b), while perineal protection techniques included in this intervention can reduce injuries when performed with skill and sensitivity (Bulchandani et al., 2015, World Health Organization, 2018a, Edqvist et al., 2016).

The findings also highlight the importance of communication, shared decision-making, and the involvement of birth companions. Although improvements varied, many women reported better information and more active support during labour. This supports evidence that emotional and continuous support can shorten labour, reduce unnecessary interventions, and enhance women's

sense of control (de Jonge et al., 2008; López-Toribio et al., 2021; Shermer and Raines, 1997; Green and Baston, 2003). In Uganda, qualitative studies also show that birth companions play a crucial role in providing comfort, support with movement, and encouragement (Wanyenze et al., 2022). The intervention's structured approach to informing and involving women and companions, therefore, appears to be a central mechanism for improving both experience and outcomes.

Beyond clinical practices, the results illustrate how material, social, and human resource constraints restrict midwives' ability to lead care, a pattern consistent with Kabeer's empowerment theory (Kabeer, 1999). Limited equipment, gendered hierarchies, and restricted leadership opportunities undermine midwives' agency and influence (Joshi et al., 2024, Rumsey et al., 2022, Hewitt et al., 2021, World Health Organization, 2019, Mattison et al., 2020). The intervention addressed some of these constraints by strengthening midwives' mandate, building leadership and QI skills, improving collaboration with doctors and managers, and creating space for midwives to lead clinical problem solving. Even small material investments, such as improved birth stools, combined with strengthened authority and structured support, contributed to wider changes in teamwork and culture. These findings are in line with research showing that preventive, midwife-led care can reduce unnecessary interventions, improve health outcomes, and ease pressure on overburdened health systems (Gerein et al., 2006, Ministry of Health Uganda, 2021a, Kiragu et al., 2023).

Taken together, the results suggest that targeted support for midwives, through skills training, structured QI methods, and stronger organisational backing, can bridge the evidence-to-practice gap and contribute to safer, more respectful care during labour and birth.

# Conclusion and policy relevance for Swedish development assistance

Supporting midwives to lead clinical care improvements, through targeted training in evidence-based practices, quality improvement methods, leadership, and project management, can bridge the gap between knowledge and practice and improve maternal and newborn outcomes. Swedish development assistance should prioritise:

- **Mandate and empower midwives** to lead clinical decision-making and QI initiatives, ensuring their voices are included in hospital and policy-level governance.
- **Strengthen midwife leadership** by creating role models, reserving leadership positions for midwives, and fostering mentorship and peer learning networks.
- **Integrate structured quality improvement training and practical skills into** midwifery education and continuous professional development, including techniques such as dynamic birth positions, intrapartum support, and perineal protection.
- **Promote multisectoral collaboration** by involving policymakers, professional midwife associations, academic midwifery institutions, and hospital management in the co-creation of interventions to ensure sustainability and alignment with national health priorities.
- **Focus on gender equality and professional recognition** by addressing social and cultural norms that undervalue midwifery, and by ensuring midwives are treated as skilled, autonomous professionals central to the functioning of the health system.

By prioritising these strategies, Swedish development aid can strengthen health systems in a sustainable way, improve maternal and newborn outcomes, and advance global commitments to respectful, equitable, and high-quality maternity care.

# References

AASHEIM, V., NILSEN, A. B. V., REINAR, L. M. & LUKASSE, M. 2017. Perineal techniques during the second stage of labour for reducing perineal trauma. Cochrane Database of Systematic Reviews, 2018.

ABEDZADEH-KALAHROUDI, M., TALEBIAN, A., SADAT, Z. & MESDAGHINIA, E. 2019. Perineal trauma: incidence and its risk factors. J Obstet Gynaecol, 39, 206-211.

ACADEMY OF MEDICAL ROYAL COLLEGES. 2019. Quality improvement–training for better outcomes [Online]. Academy of Medical Royal Colleges London, UK. Available: https://www.aomrc.org.uk/wp-content/uploads/2016/06/Quality_improvement_training_better_outcomes_140316.pdf

ADDIS, N. A., ABRAHAM, D., GETNET, M., BISHAW, A. & MENGISTU, Z. 2024. Prevalence and associated factors of maternal birth trauma following vaginal delivery at University of Gondar Comprehensive Specialized Hospital, North-West Ethiopia, 2022. BMC Pregnancy and Childbirth, 24, 445.

AGUIAR, M., FARLEY, A., HOPE, L., AMIN, A., SHAH, P. & MANASEKI-HOLLAND, S. 2019. Birth-Related Perineal Trauma in Low- and Middle-Income Countries: A Systematic Review and Meta-analysis. Matern Child Health J, 23, 1048-1070.

AIKINS MURPHY, P. & FEINLAND, J. B. 1998. Perineal outcomes in a home birth setting. Birth, 25, 226-234.

ATUSIIMIRE, L. B., WAISWA, P., ATUYAMBE, L., NANKABIRWA, V. & OKUGA, M. 2019. Determinants of facility based–deliveries among urban slum dwellers of Kampala, Uganda. PLOS ONE, 14, e0214995.

BABUGHIRANA, G., GERARDS, S., MOKORI, A., NANGOSHA, E., KREMERS, S. & GUBBELS, J. 2020. Maternal and newborn healthcare practices: assessment of the uptake of lifesaving services in Hoima District, Uganda. BMC Pregnancy Childbirth, 20, 686.

BADI, M. B., ABEBE, S. M., WELDETSADIC, M. A., CHRISTENSSON, K. & LINDGREN, H. 2022. Effect of Flexible Sacrum Position on Maternal and Neonatal Outcomes in Public Health Facilities, Amhara Regional State, Ethiopia: A Quasi-Experimental Study. International Journal of Environmental Research and Public Health, 19, 9637.

BERTA, M., LINDGREN, H., CHRISTENSSON, K., MEKONNEN, S. & ADEFRIS, M. 2019. Effect of maternal birth positions on duration of second stage of labor: systematic review and meta-analysis. BMC Pregnancy and Childbirth, 19, 466.

BLOMGREN, J., GABRIELSSON, S., ERLANDSSON, K., WAGORO, M. C. A., NAMUTEBI, M., CHIMALA, E. & LINDGREN, H. 2023a. Maternal health leaders' perceptions of barriers to midwife-led care in Ethiopia, Kenya, Malawi, Somalia, and Uganda. Midwifery, 124, 103734.

BLOMGREN, J., LINDGREN, H., AMONGIN, D., ERLANDSSON, K., LUNDBERG, C., KANYUNYUZI, A. E., MUWANGUZI, S., BABYRIE, V., OGWANG, K. & AINEOMUGASHO, D. 2024. Midwife-Led Quality Improvement: Increasing the Use of Evidence-Based Birth Practices in Uganda. Midwifery, 104188.

BLOMGREN, J., WELLS, M. B., AMONGIN, D., ERLANDSSON, K., WANYAMA, J., AFRIFA, D. A. & LINDGREN, H. 2025. Improving apgar scores and reducing perineal injuries through midwife-led quality improvements: an observational study in Uganda. BMC Public Health, 25, 19.

BLOMGREN, J., WELLS, M. B., ERLANDSSON, K., AMONGIN, D., KABIRI, L. & LINDGREN, H. 2023b. Putting co-creation into practice: lessons learned from developing a midwife-led quality improvement intervention. Glob Health Action, 16, 2275866.

BOAKYE, P. N. 2022. 'No other alternative than to compromise': Experiences of midwives/nurses providing care in the context of scarce resources. Nursing Inquiry, 29, e12496.

BOHREN, M. A., HOFMEYR, G. J., SAKALA, C., FUKUZAWA, R. K. & CUTHBERT, A. 2017. Continuous support for women during childbirth. Cochrane Database Syst Rev, 7, CD003766.

BOHREN, M. A., VOGEL, J. P., HUNTER, E. C., LUTSIV, O., MAKH, S. K., SOUZA, J. P., AGUIAR, C., SARAIVA CONEGLIAN, F., DINIZ, A. L., TUNÇALP, Ö., JAVADI, D., OLADAPO, O. T., KHOSLA, R., HINDIN, M. J. & GÜLMEZOGLU, A. M. 2015. The Mistreatment of Women during Childbirth in Health Facilities Globally: A Mixed-Methods Systematic Review. PLoS Med, 12, e1001847; discussion e1001847.

BRUNSON, J. 2010. Confronting maternal mortality, controlling birth in Nepal: The gendered politics of receiving biomedical care at birth. Social Science and Medicine, 71, 1719-1727.

BULCHANDANI, S., WATTS, E., SUCHARITHA, A., YATES, D. & ISMAIL, K. 2015. Manual perineal support at the time of childbirth: a systematic review and meta-analysis. BJOG: An International Journal of Obstetrics & Gynaecology, 122, 1157-1165.

BUREAU OF STATISTICS UGANDA. 2022. Uganda Demographic and Health Survey (UDHS) 2022 [Online]. Available: https://www.ubos.org/wp-content/uploads/publications/09_2023UDHS_2022_Key_Findings_Presentation_B.pdf [Accessed].

CALIFANO, G., SACCONE, G., DIANA, B., RUVOLO, C. C., IOFFREDO, D., NAPPI, C., ANNELLA, A., GRAGNANO, E., GUIDA, M. & ZULLO, F. 2022. Hands-on vs hands-off technique for the prevention of perineal injury: a randomised clinical trial. American journal of obstetrics & gynecology MFM, 4, 100675.

DE JONGE, A., TEUNISSEN, D. A., VAN DIEM, M. T., SCHEEPERS, P. L. & LAGRO-JANSSEN, A. L. 2008. Women's positions during the second stage of labour: views of primary care midwives. J Adv Nurs, 63, 347-56.

DOWNE, S., FINLAYSON, K., OLADAPO, O., BONET, M. & GÜLMEZOGLU, A. M. 2018. What matters to women during childbirth: a systematic qualitative review. PloS one, 13, e0194906.

EDQVIST, M., BLIX, E., HEGAARD, H. K., ÓLAFSDOTTIR, O. Á., HILDINGSSON, I., INGVERSEN, K., MOLLBERG, M. & LINDGREN, H. 2016. Perineal injuries and birth positions among 2992 women with a low risk pregnancy who opted for a homebirth. BMC Pregnancy and Childbirth, 16, 196.

EDQVIST, M., HILDINGSSON, I., MOLLBERG, M., LUNDGREN, I. & LINDGREN, H. 2017. Midwives' Management during the Second Stage of Labor in Relation to Second-Degree Tears-An Experimental Study. Birth, 44, 86-94.

FILBY, A., MCCONVILLE, F. & PORTELA, A. 2016. What Prevents Quality Midwifery Care? A Systematic Mapping of Barriers in Low and Middle Income Countries from the Provider Perspective. PLOS ONE, 11, e0153391.

GEREIN, N., GREEN, A. & PEARSON, S. 2006. The Implications of Shortages of Health Professionals for Maternal Health in Sub-Saharan Africa. Reproductive Health Matters, 14, 40-50.

GREEN, J. M. & BASTON, H. A. 2003. Feeling in control during labor: concepts, correlates, and consequences. Birth, 30, 235-47.

HAGAMAN, A. K., SINGH, K., ABATE, M., ALEMU, H., KEFALE, A. B., BITEWULIGN, B., ESTIFANOS, A. S., KIFLIE, A., MULISSA, Z., TIYO, H., SEMAN, Y., TADESSE, M. Z. & MAGGE, H. 2020. The impacts of quality improvement on maternal and newborn health: preliminary findings from a health system integrated intervention in four Ethiopian regions. BMC Health Services Research, 20, 522.

HASTINGS-TOLSMA, M., TEMANE, A., TAGUTANAZVO, O. B., LUKHELE, S. & NOLTE, A. G. 2021. Experience of midwives in providing care to labouring women in varied healthcare settings: A qualitative study. Health SA Gesondheid, 26.

HEWITT, L., DAHLEN, H. G., HARTZ, D. L. & DADICH, A. 2021. Leadership and management in midwifery-led continuity of care models: A thematic and lexical analysis of a scoping review. Midwifery.

HODNETT, E. D. 2002. Pain and women's satisfaction with the experience of childbirth: a systematic review. Am J Obstet Gynecol, 186, S160-72.

HUANG, J., LU, H., ZANG, Y., REN, L., LI, C. & WANG, J. 2020. The effects of hands on and hands off/poised techniques on maternal outcomes: A systematic review and meta-analysis. Midwifery, 87, 102712.

INTERNATIONAL CONFEDERATION OF MIDWIVES. 2019. Essential Competencies for Midwifery Practice [Online]. Available: https://internationalmidwives.org/resources/essential-competencies-for-midwifery-practice/

JOSHI, D., ABHISHEK, S., NANDI, S. & SINHA, D. 2024. Feminisation of the Health and Care Workforce in India and South Asia: Implications for Women's Labor and Decent Work.

RAVINDRAN, T. K. S., SIVAKAMI, M., BHUSHAN, A., RASHID, S. F. & KHAN, K. S. (eds.) Handbook on Sex, Gender and Health: Perspectives from South Asia. Singapore: Springer Nature Singapore.

KABEER, N. 1999. Resources, agency, achievements: Reflections on the measurement of women's empowerment. Development and change, 30, 435-464.

KIBUKA, M. & THORNTON, J. G. 2017. Position in the second stage of labour for women with epidural anaesthesia. Cochrane Database Syst Rev, 2, Cd008070.

KIRAGU, J. M., OSIKA FRIBERG, I., ERLANDSSON, K., WELLS, M. B., WAGORO, M. C. A., BLOMGREN, J., NAIROBI COUNTY, P., COORDINATORS, Q. I. & LINDGREN, H. 2023. Costs and intermediate outcomes for the implementation of evidence-based practices of midwifery under a MIDWIZE framework in an urban health facility in Nairobi, Kenya. Sex Reprod Healthc, 37, 100893.

KOBAYASHI, S., HANADA, N., MATSUZAKI, M., TAKEHARA, K., OTA, E., SASAKI, H., NAGATA, C. & MORI, R. 2017. Assessment and support during early labour for improving birth outcomes. Cochrane Database of Systematic Reviews, 2017.

KOBLINSKY, M., MATTHEWS, Z., HUSSEIN, J., MAVALANKAR, D., MRIDHA, M. K., ANWAR, I., ACHADI, E., ADJEI, S., PADMANABHAN, P. & VAN LERBERGHE, W. 2006. Going to scale with professional skilled care. The Lancet, 368, 1377-1386.

KRUK, M. E., GAGE, A. D., ARSENAULT, C., JORDAN, K., LESLIE, H. H., RODER-DEWAN, S., ADEYI, O., BARKER, P., DAELMANS, B., DOUBOVA, S. V., ENGLISH, M., GARCÍA-ELORRIO, E., GUANAIS, F., GUREJE, O., HIRSCHHORN, L. R., JIANG, L., KELLEY, E., LEMANGO, E. T., LILJESTRAND, J., MALATA, A., MARCHANT, T., MATSOSO, M. P., MEARA, J. G., MOHANAN, M., NDIAYE, Y., NORHEIM, O. F., REDDY, K. S., ROWE, A. K., SALOMON, J. A., THAPA, G., TWUM-DANSO, N. A. Y. & PATE, M. 2018. High-quality health systems in the Sustainable Development Goals era: time for a revolution. The Lancet Global Health, 6, e1196-e1252.

LANGLEY, G. J., MOEN, R. D., NOLAN, K. M., NOLAN, T. W., NORMAN, C. L. & PROVOST, L. P. 2009. The improvement guide: a practical approach to enhancing organisational performance, John Wiley & Sons.

LAWRENCE, A., LEWIS, L., HOFMEYR, G. J. & STYLES, C. 2013. Maternal positions and mobility during first stage labour. Cochrane Database Syst Rev, CD003934.

LEEMAN, L., ROGERS, R., BORDERS, N., TEAF, D. & QUALLS, C. 2016. The Effect of Perineal Lacerations on Pelvic Floor Function and Anatomy at 6 Months Postpartum in a Prospective Cohort of Nulliparous Women. Birth, 43, 293-302

.LEMOS, A., AMORIM, M. M., DORNELAS DE ANDRADE, A., DE SOUZA, A. I., CABRAL FILHO, J. E. & CORREIA, J. B. 2017. Pushing/bearing down methods for the second stage of labour. Cochrane Database Syst Rev, 3, Cd009124.

LINDGREN, H. & ERLANDSSON, K. 2022. The MIDWIZE conceptual framework: a midwife-led care model that fits the Swedish health care system might after contextualisation, fit others. BMC Res Notes, 15, 306.

LINDGREN, H., ERLANDSSON, K., BERTA, M., YIMER, O., BLOMGREN, J., LUNDBERG, C., DILNESA, T., WELLS, M. & HAILEMESKEL, S. 2024. The understanding of dynamic birth positions for women in labor and childbirth–A hybrid concept analysis. Sexual & Reproductive Healthcare, 101039.

LÓPEZ-TORIBIO, M., BRAVO, P. & LLUPIÀ, A. 2021. Exploring women's experiences of participation in shared decision-making during childbirth: a qualitative study at a reference hospital in Spain. BMC Pregnancy and Childbirth, 21, 631.

MATTISON, C. A., LAVIS, J. N., WILSON, M. G., HUTTON, E. K. & DION, M. L. 2020. A critical interpretive synthesis of the roles of midwives in health systems. Health Research Policy and Systems, 18, 77.

MICHEL-SCHULDT, M., MCFADDEN, A., RENFREW, M. & HOMER, C. 2020. The provision of midwife-led care in low-and middle-income countries: An integrative review. Midwifery, 84, 102659.

MINISTRY OF HEALTH UGANDA. 2018. National standards for improving the quality of maternal and newborn care [Online]. Available: https://library.health.go.ug/sexual-and-reproductive-health/maternal-health/national-standards-improving-quality-maternal-and

MINISTRY OF HEALTH UGANDA. 2021a. Annual Health Sector Performance Report Financial Year 2020/21 [Online]. Available: https://library.health.go.ug/human-resources-health/performance-management/annual-health-sector-performance-report-financial-0.

MINISTRY OF HEALTH UGANDA. 2021b. Quality Improvement Framework & Strategic Plan (2021-2025) [Online]. Available: https://library.health.go.ug/file-download/download/public/1527

MINISTRY OF HEALTH UGANDA. 2021c. Roadmap for Accelerating the Reduction of Maternal and Neonatal Mortality and Morbidity in Uganda [Online]. Available: http://library.health.go.ug/sites/default/files/resources/Road%20map%20for%20accelerating%20the%20reduction%202007-15.pdf

MOBERG, K. U. 2019. Why oxytocin matters, Pinter & Martin Ltd.

NABIRYE, R. C., BEINEMPAKA, F., OKENE, C. & GROVES, S. 2014. Improving Midwifery Care in Ugandan Public Hospitals: The Midwives' Perspective. Int J Health Prof, 2, 7-14.

NAMAGEMBE, I., KIWANUKA, N., K BYAMUGISHA, J., ONONGE, S., BEYEZA-KASHESYA, J., K KAYE, D., MOFFETT, A., E AIKEN, C. & NAKIMULI, A. 2022. Why mothers die at a busy tertiary urban hospital in Kampala, Uganda: a comprehensive review of maternal deaths 2016-2018 and implications for quality improvement to reduce deaths. African Health Sciences, 22, 489-499.

NOVE, A., FRIBERG, I. K., DE BERNIS, L., MCCONVILLE, F., MORAN, A. C., NAJJEMBA, M., TEN HOOPE-BENDER, P., TRACY, S. & HOMER, C. S. E. 2021a. Potential impact of midwives in preventing and reducing maternal and neonatal mortality and stillbirths: a Lives Saved Tool modelling study. The Lancet Global Health, 9, e24-e32.NOVE, A.,

TEN HOOPE-BENDER, P., BOYCE, M., BAR-ZEEV, S., DE BERNIS, L., LAL, G., MATTHEWS, Z., MEKURIA, M. & HOMER, C. S. E. 2021b. The State of the World's Midwifery 2021 report: findings to drive global policy and practice. Human Resources for Health, 19, 146.

OKEAHIALAM, N. A., SULTAN, A. H. & THAKAR, R. 2024. The prevention of perineal trauma during vaginal birth. American Journal of Obstetrics and Gynecology, 230, S991-S1004.

PEBOLO, P. F., AJEANI, J. & KAYE KABONGE, D. 2019. Prevalence and factors associated with episiotomy practice among primiparous women in mulago national referral hospital Uganda.

PERGIALIOTIS, V., BELLOS, I., FANAKI, M., VRACHNIS, N. & DOUMOUCHTSIS, S. K. 2020. Risk factors for severe perineal trauma during childbirth: An updated meta-analysis. European Journal of Obstetrics & Gynecology and Reproductive Biology, 247, 94-100.

RENFREW, M. J., MCFADDEN, A., BASTOS, M. H., CAMPBELL, J., CHANNON, A. A., CHEUNG, N. F., SILVA, D. R. A. D., DOWNE, S., KENNEDY, H. P., MALATA, A., MCCORMICK, F., WICK, L. & DECLERCQ, E. 2014. Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. The Lancet, 384, 1129-1145.

RUMSEY, M., LEONG, M., BROWN, D., LARUI, M., CAPELLE, M. & RODRIGUES, N. 2022. Achieving Universal Health Care in the Pacific: The need for nursing and midwifery leadership. The Lancet Regional Health - Western Pacific, 19, 100340.

SAMUELSSON, E., LADFORS, L., LINDBLOM, B. & HAGBERG, H. 2002. A prospective observational study on tears during vaginal delivery: occurrences and risk factors. Acta obstetricia et gynecologica Scandinavica, 81, 44-49.

SEIJMONSBERGEN-SCHERMERS, A., GEERTS, C., PRINS, M., VAN DIEM, M., KLOMP, T., LAGRO-JANSSEN, A. & DE JONGE, A. 2014. The Use of Episiotomy in a Low-Risk Population in The Netherlands: A Secondary Analysis-Birth-Vol. 40, 4-ISBN: 1523-536X-p. 247-255.

SHERMER, R. H. & RAINES, D. A. 1997. Positioning during the second stage of labor: Moving back to basics. Journal of Obstetric, Gynecologic, & Neonatal Nursing, 26, 727-734.

SMITH, L. A., PRICE, N., SIMONITE, V. & BURNS, E. E. 2013. Incidence of and risk factors for perineal trauma: a prospective observational study. BMC Pregnancy and Childbirth, 13, 59.

TANCRED, T., MANDU, R., HANSON, C., OKUGA, M., MANZI, F., PETERSON, S., SCHELLENBERG, J., WAISWA, P., MARCHANT, T. & TEAM, T. E. S. 2014. How people-centred health systems can reach the grassroots: experiences implementing community-level quality improvement in rural Tanzania and Uganda. Health Policy and Planning, 33, e1-e13.

TELFER, M., ZASLOW, R., CHALO NABIRYE, R. & NALUGO MBALINDA, S. 2021. Review of midwifery education in Uganda: Toward a framework for integrated learning and midwifery model of care. Midwifery, 103, 103145.

THE ROYAL COLLEGES OF MIDWIVES. 2012. Evidence Based Guidelines for Midwifery-Led Care in Labour [Online]. Available: https://www.rcm.org.uk/wp-content/uploads/_wpfd/2024/06/evidence-based-guidelines-rupturing-membranes.pdf

THIES-LAGERGREN, L., HILDINGSSON, I., CHRISTENSSON, K. & KVIST, L. J. 2013. Who decides the position for birth? A follow-up study of a randomised controlled trial. Women and Birth, 26, e99-e104.

TINDLE, J. & TADI, P. 2023. Neuroanatomy, Parasympathetic Nervous System. Treasure Island (FL): StatPearls Publishing LLC.

UNITED NATION. 2019. Every Newborn Action Plan - progress report [Online]. Available: https://www.who.int/initiatives/every-newborn-action-plan

UNITED NATIONS. 2015. UN. Transforming our world: the 2030 Agenda for Sustainable Development [Online]. Available: https://sdgs.un.org/2030agenda

UNITED NATIONS CHILDREN'S FUND. 2017. UNICEF. Maternal Health Data [Online]. Available: https://data.unicef.org/topic/maternal-health/maternal-mortality/

UNITED NATIONS CHILDREN'S FUND. 2020. UNICEF. Child Mortality Data [Online]. Available: https://data.unicef.org/topic/child-survival/neonatal-mortality

UNITED NATIONS POPULATION FUND, INTERNATIONAL CONFEDERATION OF MIDWIVES & WORLD HEALTH ORGANIZATION. 2021. State of the world's midwifery [Online]. Available: https://www.unfpa.org/publications/sowmy-2021

WAISWA, P., WANDURU, P., OKUGA, M., KAJJO, D., KWESIGA, D., KALUNGI, J., NAMBUYA, H., MULOWOOZA, J., TAGOOLA, A. & PETERSON, S. 2021. Institutionalising a Regional Model for Improving Quality of Newborn Care at Birth Across Hospitals in Eastern Uganda: A 4-Year Story. Glob Health Sci Pract, 9, 365-378.

WALKER, D., OTIENO, P., BUTRICK, E., NAMAZZI, G., ACHOLA, K., MERAI, R., OTARE, C., MUBIRI, P., GHOSH, R., SANTOS, N., MILLER, L., SLOAN, N. L. & WAISWA, P. 2020. Effect of a quality improvement package for intrapartum and immediate newborn care on fresh stillbirth and neonatal mortality among preterm and low-birthweight babies in Kenya and Uganda: a cluster-randomised facility-based trial. The Lancet Global Health, 8, e1061-e1070.

WANYENZE, E. W., BYAMUGISHA, J. K., TUMWESIGYE, N. M., MUWANGUZI, P. A. & NALWADDA, G. K. 2022. A qualitative exploratory interview study on birth companion support actions for women during childbirth. BMC Pregnancy and Childbirth, 22, 63.

WHITE RIBBON ALLIANCE. 2022. What Women Won Report: Demands for Quality Healthcare [Online]. Available: https://whiteribbonalliance.org/resources/what-women-won-report/

WILSON, A. N. & HOMER, C. S. E. 2020. Third- and fourth-degree tears: A review of the current evidence for prevention and management. Australian and New Zealand Journal of Obstetrics and Gynaecology, 60, 175-182.

WORLD HEALTH ORGANIZATION. 2016. Standards for improving quality of maternal and newborn care in health facilities. [Online]. Available: https://www.who.int/publications/i/item/9789241511216

WORLD HEALTH ORGANIZATION. 2017. Nursing and Midwifery in the History of the World Health Organization 1948–2017 [Online]. Available: https://iris.who.int/bitstream/handle/10665/259535/9789241511902-eng.pdf?sequence=1

WORLD HEALTH ORGANIZATION. 2018a. WHO recommendations - Intrapartum care for a positive childbirth experience [Online]. Available: https://www.who.int/publications/i/item/9789241550215

WORLD HEALTH ORGANIZATION. 2018b. WHO recommendations: Intrapartum care for a positive childbirth experience [Online]. Available: https://www.who.int/publications/i/item/9789241550215

WORLD HEALTH ORGANIZATION. 2019. Delivered by women, led by men: A gender and equity analysis of the global health and social workforce [Online]. Available: https://apps.who.int/iris/handle/10665/311322

WORLD HEALTH ORGANIZATION. 2022. Improving the quality of care for maternal, newborn and child health - implementation guide for national, district and facility levels [Online]. Available: https://www.qualityofcarenetwork.org/knowledge-library/improving-quality-care-maternal-newborn-and-child-health-implementation-guide

WORLD HEALTH ORGANIZATION. 2023. Trends in maternal mortality 2000 to 2020 [Online]. UNFPA, World Bank Group and UNDESA/Population Division. Available: https://www.who.int/publications/i/item/9789240068759

WORLD HEALTH ORGANIZATION. 2024. Transitioning to midwifery models of care - Global position paper [Online]. Available: https://iris.who.int/bitstream/handle/10665/379236/9789240098268-eng.pdf?sequence=1.

WRIGHT, D., GABBAY, J. & LE MAY, A. 2022. Determining the skills needed by frontline NHS staff to deliver quality improvement: findings from six case studies. BMJ Quality & Safety, 31, 450-461.

ZANG, Y., LU, H., ZHAO, Y., HUANG, J., REN, L. & LI, X. 2020. Effects of flexible sacrum positions during the second stage of labour on maternal and neonatal outcomes: A systematic review and meta-analysis. J Clin Nurs, 29, 3154-3169.ZIRABA, A. K., MADISE, N., MILLS, S., KYOBUTUNGI, C. & EZEH, A. 2009. Maternal mortality in the informal settlements of Nairobi city: what do we know? Reproductive health, 6, 1-8.

Evidence-based midwifery practices like dynamic birth positions and perineal protection can significantly improve the quality of care and health outcomes for mothers and newborns. This report summarizes the promising findings from a co-created, midwife-led quality improvement intervention in a public hospital in Kampala, Uganda.

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Evidensbaserad barnmorskepraktik, såsom dynamiska förlossningspositioner och perinealskydd, kan avsevärt förbättra vårdkvaliteten och hälsoutfallen för mödrar och nyfödda. Den här rapporten sammanfattar lovande resultat från en barnmorskeledd intervention för bättre vårdkvalitet på ett offentligt sjukhus i Kampala, Uganda.

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