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# A qualitative study of the perception of quality of free maternal healthcare policy among primary healthcare providers in Ghana

Clement Kwame Serchim[1,2,4*], Daniel Opoku[1,3,4], Richard Abeiku Bonney[1,3,4], Kwame Sarkodie. Safo[1,4], Samuel Kwabla Amegble[2], Nathaniel Nii Korley Kodi[2] and Kofi Akohene Mensah[1,4]

## Abstract

**Background** In 2008, the Government of Ghana implemented a free maternal healthcare policy through the National Health Insurance Scheme to increase financial access to maternity care services and reduce perinatal and maternal mortality rates. As an area with less evidence, this study sought to explore healthcare providers' perceptions of the free maternal healthcare policy for quality healthcare delivery in Kwadaso Municipality, Ghana.

**Methods** This study adopted a qualitative approach using an exploratory study design. Fifteen participants were purposefully included. Key informant interviews (KIIs) were conducted among administrators, doctors, physician assistants or nurses in charge, nurse managers, and midwives in charge of maternity units of the selected health facilities. The qualitative data were analyzed thematically.

**Results** The study identified four key themes in the implementation of the free maternal healthcare policy: (1) Service coverage, characterized by broad inclusivity but marred by persistent co-payments for some services; (2) Human and financial resources, marked by adequate staffing alongside financial constraints affecting service delivery; (3) Facilities and equipment, highlighting spatial limitations and equipment shortages; and (4) Process of care and safety, demonstrating protocol adherence despite challenges in postnatal care follow-up. Overall, the policy was associated with notable reductions in maternal and neonatal morbidity and mortality.

**Conclusion** The free maternal healthcare policy improves access and outcomes but faces challenges in funding, infrastructure, and postnatal care. Addressing these gaps is vital for sustainable maternal healthcare improvements in Ghana.

**Keywords** Maternal healthcare, Health policy, Implementation, Primary healthcare

*Correspondence:
Clement Kwame Serchim
serchims26@gmail.com
[1]School of Public Health, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana
[2]Nursing and Midwifery Training College, Fomena-Adansi, Ghana
[3]Department of Health Care Management, Technische Universität Berlin, Berlin, Germany
[4]eHealth Research Partner Group (eHRPG) at the Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

## Background

Maternal and child morbidity and mortality are significantly influenced by the standard of care received during pregnancy and the place of birth. Over the years, there has been ongoing concern about maintaining and improving the quality of care received in healthcare facilities. Maternal mortality remains a significant global health challenge, with an estimated 303,000 women dying annually due to pregnancy-related complications [1]. Before 2007, maternal mortality in Ghana surged to exceptionally high levels, with a ratio of 450 deaths per 100,000 live births. The World Bank and United Nations (UN) agencies estimate this number to be 263 deaths per 100,000 live births by 2020 [2]. Ghana's primary causes of maternal mortality are hemorrhage, abortion, hypertension, infection, and ectopic pregnancy [3]. The maternal mortality ratio (MMR) rate in developing nations is 14 times greater than that in affluent countries due to poor utilization of critical maternal health and family planning programs [4]. To meet the Sustainable Development Goal (SDG) of reducing maternal mortality to less than 70 per 100,000 live births, some countries in Sub-Saharan Africa (SSA) introduced free maternal healthcare financing policies to address the urgent complications and challenges related to maternal healthcare [5].

The free maternal healthcare policy was implemented in Ghana in 2008. This policy addresses potential obstacles (including financial barriers such as out-of-pocket payments for antenatal care, skilled delivery, and emergency obstetric care among others) women may have in reducing maternal mortality and generally improving women's health [6]. The complete package provided by the policy consists of free care for all routine deliveries, managing all assisted deliveries, including caesarean sections, and medical and surgical complications arising from deliveries, such as the repair of vesicovaginal and rectovaginal fistulae. The impact of this policy in Ghana has received widespread recognition. The policy has generally been successful in enabling mothers to access supervised delivery services since it was implemented [7]. However, the implementation of the free maternal health policy, which includes antenatal care (including free services, medications, and two ultrasounds covering four to six clinic visits); delivery services (including medications, free services, and episiotomies and caesarean sections); postnatal care (including free services and medications for two postnatal visits); and neonatal care (including three months of services for the new-born under the mother's card) [8], has still not completely erased the bearing of cost by pregnant women when they visit health facilities for healthcare. Despite this progress in removing the financial obstacles to receiving supervised delivery services, the use of supervised delivery under the free maternal health policy remains low. In Ghana, only 52.2% of births are attended by a trained attendant [9]. In 2020 alone, Ghana recorded 2,400 maternal deaths [2], highlighting the persistent challenges in maternal health despite ongoing efforts to improve healthcare access and quality. This figure underscores the urgent need for strengthened interventions to address preventable causes of maternal mortality. This statistic serves as a call to action for stakeholders, including policymakers, healthcare providers, and international partners, to intensify efforts to achieve Sustainable Development Goal 3, which focuses on reducing maternal mortality to less than 70 deaths per 100,000 live births by 2030 [2].

The quality of treatment given to beneficiaries may be impacted by healthcare providers. There are reported cases of some health service providers extorting monies from some clients, insufficient funding, medications, supplies, and human resources [10–13]. Although the Ministry of Health, Ghana, has previously assessed the free maternal healthcare policy [14], existing studies have largely focused on policy outcomes with limited exploration of frontline experiences. There remains a dearth of qualitative evidence on healthcare workers' perceptions and how these perceptions influence the quality of care. This study builds on earlier evaluations by providing in-depth insights into provider experiences, thereby addressing this important gap in the literature. This study therefore sought to explore healthcare providers' perceptions of the quality of services provided under the free maternal healthcare policy in Kwadaso Municipality, Ghana.

## Methodology

### Study design

A qualitative exploratory design was employed to assess the perceived quality of the free maternal healthcare policy within the Kwadaso Municipality, Ghana. The study focused on engaging healthcare administrators (including directors, managers, and administrators) and healthcare providers (comprising nurses, midwives, doctors, and physician assistants). These population were selected because of their first-hand experiences on the implementation of the policy within health facilities. Kwadaso Municipality was selected for its diverse healthcare delivery models, urban-peri-urban mix, and logistical accessibility, providing a representative context to explore healthcare providers' perceptions of Ghana's free maternal healthcare policy. All healthcare facilities affiliated with the Christian Health Association of Ghana (CHAG) and the Ghana Health Service (GHS) within the municipality, namely, Kwadaso SDA Hospital, Apatrapa Clinic, and Nzema Health Centre, were included in the study.

**Table 1** Sociodemographic characteristics of participants

| Participant ID | Age | Gender | Education Level | Profession |
|---|---|---|---|---|
| P001 | 33 | Female | Diploma | Midwife |
| P002 | 29 | Female | Diploma | Midwife |
| P003 | 41 | Female | First degree | Midwife |
| P004 | 35 | Female | First degree | Midwife |
| P005 | 31 | Female | Diploma | Midwife |
| P006 | 39 | Female | First degree | Midwife |
| P007 | 30 | Female | Diploma | Midwife |
| P008 | 46 | Male | First degree | Midwife |
| P009 | 50 | Female | Masters | Nurse |
| P010 | 36 | Female | First degree | Nurse |
| P011 | 45 | Female | Masters | Nutritionist |
| P012 | 38 | Female | First Degree | Physician Assistant |
| P013 | 42 | Male | First Degree | Physician Assistant |
| P014 | 30 | Female | First degree | Medical Doctor |
| P015 | 44 | Female | First degree | Administrator |

### Sampling and participants

The study utilized a purposive sampling technique to selectively include participants actively involved in the implementation of the free maternal health policy; as they were best positioned to provide relevant, in-depth information based on their firsthand experiences and roles within the healthcare system. The identified administrators and healthcare providers (Table 1) were then interviewed, with a total of fifteen (15) respondents ultimately participating, as determined by reaching data saturation.

### Data collection procedure

Data collection involved conducting in-depth interviews with healthcare workers, guided by a semi-structured interview guide developed for this study (see supplementary file). The tool was piloted at another facility within the municipality; those facilities and results were not included in the study. Each interview lasted for approximately 30–40 min. The interviews comprehensively covered the structural components, procedural aspects, and the resulting outcomes of the free maternal healthcare policy implementation. Interviews were conducted at the convenience of the participants (respective work places) in the English language. Confidentiality and anonymity were assured for all participants. With the participants' consent, the interviews were audio-recorded. The data were collected from November to December 2022. The interviews were conducted by the first, third and fourth authors with relevant experience in qualitative data collection and analysis.

### Data analysis

Two research assistants meticulously transcribed the audio interviews verbatim into Microsoft Word documents. Subsequently, the primary author conducted a thorough review, coding, and analysis of all the transcripts through constant comparison. Employing a thematic approach, the initial coding framework was formulated by the primary author. Reconciliation was done for the analysis to resolve discrepancies or differences in interpretations, findings, or coding between researchers. The coding framework underwent scrutiny by co-authors and was expanded to encompass both open-ended inductive and deductive codes. The study ensured methodological rigor by addressing credibility through member checking, dependability via a detailed audit trail, transferability through rich contextual descriptions, and confirmability using reflexive journaling and peer debriefing to minimize bias. The data analysis was done manually. Manual analysis was chosen over software-assisted methods due to the manageable volume of data and the desire for deep immersion in the content. Also, to ensure trustworthiness, we maintained an audit trail and used peer debriefing throughout the analysis.

## Results

This study interviewed fifteen (15) participants from health facilities within the Kwadaso Municipality in order to investigate the views of healthcare providers regarding the quality of Ghana's free maternal healthcare policy. Table 1 presents the sociodemographic characteristics of participants.

Four themes were developed from the analysis that was done. These were: (1) Service coverage of the policy, (2) Human and financial resources, (3) Facilities and equipment, and (4) Process of care and safety measures.

1. Service coverage of the policy

Some participants highlighted the inclusion of essential services such as laboratory tests, physical examinations, antenatal care (ANC), and postnatal care (PNC) within the ambit of the free maternal healthcare policy. Notably, assertions were made regarding the policy's coverage encompassing pharmaceuticals, delivery-related expenses, and a broad spectrum of maternal healthcare services.

> *"The policy covers drugs, delivery, and every other service that is provided to pregnant women." (P001, midwife)*

In contrast to the preceding assertions, other participants expressed skepticism regarding the comprehensiveness of service coverage under maternal healthcare policy, particularly emphasizing the necessity for out-of-pocket payments for services such as laboratory investigations, scans, and pharmaceuticals. Subsequent discussions among participants confirmed the existence

of co-payment practices, wherein clients were required to contribute financially to certain services rendered.

*"For some services under the PNC, you would have to pay or top-up. For some services, they are free, and for others, there is a co-payment. Services such as scans are not covered by the NHIS, so you need to pay." (P003, midwife)*

2. Human and financial resources

The participants conveyed an optimistic perspective on the adequacy of human resources for maternal healthcare services, particularly within government-operated facilities. Remarkably, the participants highlighted a positive working relationship among the staff and their experience with other experts.

*"We now have enough staff. We have a gynecologist and other general doctors who have worked with other gynecologists over time as well as midwives and nurses." (P0015, administrator)*

Financial constraints were also highlighted as a substantial impediment to the acquisition of requisite logistics and equipment essential for the efficacious implementation of maternal healthcare policy. Specifically, the participants emphasized the insufficiency of funds, which hindered the procurement of vital equipment such as scanning machines.

*"Finance is a challenge because if we need money, the facility should have had certain equipment such as a scanning machine among others." (P012, physician assistant)*

The delay in reimbursement processes was highlighted as a notable impediment, exerting adverse effects on the fiscal sustainability of healthcare facilities and compromising their capacity to sustain service provision. The participants described challenges associated with tardy remittance of fees by insurance authorities, coupled with limitations on reimbursable visits for patients attending facilities multiple times within a given period, particularly during the third trimester. This scenario hampers the ability of facilities to accurately document and claim reimbursement for all rendered services, resulting in a discrepancy between service provision and corresponding financial compensation.

*"The challenge we have to do with is late payment of the fees by the insurance authorities. Additionally, when some patients come to the facility more than once a month, which mostly occurs within the third trimester, insurance does not pay for more than one visit. When this happens, we are not able to take records of such visits to the insurance authorities to pay. Mostly, attendance is more than the payment you receive." (P015, administrator)*

3. Facilities and equipment

Participants expressed concerns regarding facility inadequacies, particularly regarding spatial constraints. One participant highlighted the limited space available, indicating the utilization of a single room partitioned for both labor and antenatal care services. Additionally, there was mention of community efforts toward constructing a new facility, although this initiative remained in the planning stage at the time of assessment.

*"With infrastructure, the space is very small. We have only one single room that we have partitioned for labor and ANC. The community has planned to put up a new structure for us, but it is still in the pipeline." (P008, midwife)*

Deficiencies in equipment availability within the healthcare facility were highlighted, especially given the absence of a scanning machine and an emergency vehicle. However, a contingency measure in the form of collaboration with a taxi driver for emergency transportation when necessary was arranged for patients. These remarks underscore the critical need for essential medical equipment and transport infrastructure to ensure prompt and effective maternal healthcare delivery.

*"We do not have a scanning machine here… We do not have an emergency vehicle, but we have a taxi driver we work with when needed." (P004, midwife)*

Contrary to prevailing sentiments regarding insufficient infrastructure and equipment, other participants expressed confidence in the adequacy of existing facilities. Specifically, with the satisfactory condition of infrastructure, the capacity to accommodate patient needs can be assured.

*"Logistics and infrastructure are okay for now to provide the needed services." (P014, medical doctor)*

4. Process of care and safety measures

Participants highlighted the comprehensive nature of assessments conducted during maternal care, encompassing critical evaluations such as fetal well-being and maternal health status. By rigorously following established protocols and guidelines, healthcare facilities can

mitigate the risk of maternal and neonatal infections, thereby safeguarding the health of both mothers and children. This adherence underscores the need for healthcare providers to maintain stringent standards of care delivery, fostering an environment conducive to safe childbirth experiences.

> *"...they usually use the pictograph to monitor the labor process. With that, they can detect any delays and other things. Additionally, all basic important assessments, such as fetal and maternal assessments, must be performed. They also follow the IPP (Infection Prevention Protocol) for safe delivery and give all the necessary vaccines that they are supposed to give, including multivitamins." (P009, nurse)*

Contrary to prevailing perspectives on safe motherhood care, some participants emphasized the critical role of individual actions in ensuring maternal well-being. The significance of personal responsibility in promoting maternal safety and optimizing healthcare outcomes was also highlighted.

> *"On safe motherhood care, it depends largely on them. They need to eat well, come for check-ups regularly, get a contact person to support them to the facility when the time is due to deliver, and get the contact of the midwife so she can call when there are complications or any clarifications to make." (P011, nutritionist)*

Other participants also highlighted the persistent implementation of risk communication policies within maternal healthcare. Notably, individualized risk communication efforts were emphasized to mitigate the potential dissemination of misinformation among clients. Additionally, the importance of empowering clients with the autonomy to decline suggested procedures, thereby promoting informed decision-making in maternal healthcare settings, was established.

> *"We educate our clients on some risk communications on an individual level as they are prone to getting certain information which may not be true. We also give the client the right to refuse any procedure that is suggested to them." (P002, midwife)*

Participants also highlighted the issue of postnatal care adherence as a notable challenge within the policy framework. Participants expressed concerns regarding the difficulty in encouraging clients to return for postnatal visits following delivery. Despite the availability of free postnatal services, logistical constraints such as travel obligations to familial locations impede clients' ability to comply with scheduled postnatal appointments.

> *"Currently, we have a challenge with the postnatal. What we are doing currently is that when they deliver, we keep them for at least 24 hours. When it is time for them to be discharged, we carry out our first postnatal visit. The challenge is with subsequent ones such as returning after six weeks. The postnatal is free, but some have to travel to their family and for other reasons, so they do not come for the postnatal." (P010, nurse)*

Participants highlighted the positive impact of the policy on reducing both mortality and morbidity rates, particularly among pregnant women. They emphasized how the policy, through the National Health Insurance Scheme (NHIS), enables women to access antenatal care (ANC) and deliver their babies without financial burdens. This accessibility has significantly decreased maternal and neonatal mortality rates.

> *"People have the chance to go to ANC to deliver without charges so it has reduced mortality. On morbidity, most of the common pregnancy-associated conditions are also covered by the NHIS so it has reduced morbidity" (P001, midwife)*

## Discussion

This study explored healthcare providers' perceptions of Ghana's free maternal healthcare policy and its implications for quality healthcare delivery in the Kwadaso Municipality. The findings highlight both the strengths and challenges associated with the policy, providing critical insights for policymakers and healthcare stakeholders aiming to improve maternal health outcomes. After independence, Ghana has used a universalistic approach that seeks to make most health services accessible [15]. Many nations share the same direction of making coverage accessible for all services in maternal care [16].

The inclusion of essential services such as antenatal care, postnatal care, and delivery-related expenses within the policy framework underscores its potential to reduce financial barriers and improve service coverage. Providers' understanding of the policy is critical to its successful implementation, as lack of awareness may lead to inconsistent application of policy benefits, miscommunication with clients, and reduced trust in the healthcare system. Participants emphasized the policy's positive impact on reducing maternal and neonatal mortality and morbidity. This finding aligns with global evidence that financial risk protection promotes healthcare utilization and improves outcomes in low-resource settings [17, 18]. However, gaps remain in the policy's comprehensiveness, as certain

services, including scans and specific pharmaceuticals, often require co-payments. These financial obligations undermine equitable access to care, particularly for vulnerable populations [19, 20]. Addressing these gaps through expanded coverage and improved reimbursement processes could enhance the policy's effectiveness.

Human and financial resource constraints were recurring themes. While healthcare providers expressed optimism about the adequacy of human resources in some facilities, financial limitations were reported as significant barriers to service delivery. Delayed reimbursements from the NHIS exacerbated logistical challenges, limiting the availability of critical equipment such as scanning machines. Moreover, the study found reports of extra payments made by pregnant women when they visited health facilities; which could be associated with delay in reimbursements to health facilities as reported in a study done in Uganda [21]. This aligns with previous research highlighting the detrimental effects of delayed reimbursements on healthcare system sustainability in resource-constrained settings [22, 23]. Strengthening the financial mechanisms of the NHIS, including timely remittances and broader reimbursement policies, is essential to support facilities in delivering uninterrupted maternal healthcare services.

Infrastructure and equipment inadequacies further hindered the implementation of the policy. Spatial constraints and the lack of essential medical equipment, such as emergency vehicles and scanning machines, compromise the quality of care provided. While some participants expressed satisfaction with existing infrastructure, others highlighted pressing needs for facility expansion and equipment acquisition. Investments in health infrastructure, particularly in underserved areas, are critical for achieving universal health coverage and improving maternal health outcomes [24, 25].

The study also revealed gaps in postnatal care adherence despite its inclusion in the free maternal healthcare policy. Cultural and logistical factors, such as clients' relocation to familial homes postpartum, were significant barriers. This finding underscores the need for innovative strategies, such as community-based postnatal care programs and enhanced risk communication, to ensure continuity of care [26, 27]. Empowering clients through individualized education and informed decision-making is crucial for improving postnatal care utilization and overall maternal health outcomes.

Additionally, the emphasis on rigorous process adherence, including infection prevention protocols and comprehensive maternal assessments, reflects the commitment of healthcare providers to delivering safe and effective care. However, individual responsibility, as highlighted by participants, also plays a pivotal role in promoting maternal safety. Strengthening community engagement and enhancing health literacy among pregnant women and their families could foster shared responsibility for maternal health outcomes [28, 29].

While the free maternal healthcare policy has made significant strides in improving maternal health in Ghana, challenges related to service coverage, financial sustainability, infrastructure, and postnatal care adherence persist. This study highlights how gaps in service coverage, funding, infrastructure, and postnatal care within the free maternal healthcare policy may hinder progress toward SDG 3.1. Addressing these issues through targeted policy reforms, improved financial mechanisms, and infrastructural investments will be critical for optimizing the policy's impact in reducing maternal mortality and improving overall maternal health outcomes. Future research should explore the perspectives of service users and community stakeholders to provide a more comprehensive understanding of the policy's strengths and limitations.

### Strengths and limitations

A key strength of this study is its provision of rich, context-specific insights from frontline healthcare providers and administrators, offering a grounded understanding of the implementation of the free maternal healthcare policy. By exploring four core themes – service coverage, resources, infrastructure, and safety measures – the study presents a holistic view of the policy's impact and gaps. Its direct relevance to health policy and alignment with global goals, particularly SDG 3.1, enhances its utility for informing strategies to reduce maternal mortality and strengthen maternal health systems. Regardless of the rich data provided by the participants, the qualitative nature of this study limits the generalizability of the findings of this study. However, the findings and conclusions of this study are relevant to hospital managers and policy-makers for consideration.

## Conclusion

While the policy has been reported to have improved maternal health outcomes by reducing financial barriers and increasing service coverage, significant gaps remain in funding, infrastructure, and postnatal care adherence. Addressing these challenges through policy reforms, timely reimbursements, and targeted investments in health infrastructure is crucial to optimizing the policy's impact. Future research should incorporate the perspectives of service users to provide a holistic understanding and inform sustainable improvements in maternal healthcare delivery.

#### Abbreviations

| | |
|---|---|
| ANC | Antenatal care |
| CHAG | Christian health association of Ghana |
| CHPS | Community health planning and services |

| | |
|---|---|
| CHRPE | Committee of human research, publications, and ethics |
| FMHCP | Free maternal health care policy |
| GHS | Ghana health service |
| KII | Key informant interviews |
| KNUST | Kwame Nkrumah university of science and technology |
| MDG | Millennium development goal |
| MMR | Maternal mortality ratio |
| NHIA | National health insurance authority |
| NHIS | National health insurance scheme |
| PNC | Postnatal care |
| SBA | Skilled birth attendants |
| SDG | Sustainable development goal |
| SSA | Sub-Saharan Africa |
| UN | United Nations |
| WHO | World health organization |

## Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12913-025-12861-z.

Supplementary Material 1.

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**Authors' contributions**
Conceptualization: CKS, KAM; Methodology: CKS, KAM; Data Curation: CKS, KSS, RAB, SKA, NNKK; Formal analysis: CKS, RAB, KSS; Writing initial draft: CKS, RAB; Reviewing and editing: KAM, DO, KSS, RAB; Project administration: DO, RAB; Supervision: KAM; Acquisition of funding: DO. All the authors have read and approved the final manuscript.

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**Data availability**
The author confirms that all the data generated or analyzed during this study are included in this manuscript.

## Declarations

**Ethics approval and consent to participate**
Ethics approval was obtained from the Committee of Human Research, Publications, and Ethics in the KNUST (CHRPE) under reference number CHRPE/AP/709/22. The study was conducted in accordance with the Declaration of Helsinki. Additionally, necessary approvals were secured from various healthcare facilities and the Municipal Health Directorate office. Informed consent was obtained from all participants after an informed consent form was given and signed by all participants.

**Consent for publication**
Not applicable.

**Competing interests**
The authors declare no competing interests.

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**References**

1. Taher TMJ. Maternal mortality: what is the situation and the determinants?? Maaen J Med Sci. 2024;3(1):7.
2. WHO. Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva: WHO; 2023. Available from: https://www.who.int/publications/i/item/9789240068759.
3. Boah M, Adampah T, Jin B, Wan S, Mahama AB, Hyzam D, et al. I couldn't buy the items so I didn't go to deliver at the health facility home delivery among rural women in Northern Ghana: A mixed-method analysis. PLoS ONE. 2020;15(3):e0230341.
4. Oyugi B, Kendall S, Peckham S. Effects of free maternal policies on quality and cost of care and outcomes: an integrative review. Prim Health Care Res Dev. 2021;22:e43.
5. Twum P, Qi J, Aurelie KK, Xu L. Effectiveness of a free maternal healthcare programme under the National health insurance scheme on skilled care: evidence from a cross-sectional study in two districts in Ghana. BMJ Open. 2018;8(11):e022614.
6. Ghana Health Nest. What is the Free Maternal Care Policy? 2012. Available from http://www.ghanahealthnest.com, http://ghanahealthnest.com/what-is-the-free-maternal-care-policy/.
7. Koduah A, Van Dijk H, Agyepong IA. The role of policy actors and contextual factors in policy agenda setting and formulation: maternal fee exemption policies in Ghana over four and a half decades. Heal Res Policy Syst. 2015;13(1):1–20.
8. Wang W, Temsah G, Mallick L. The impact of health insurance on maternal health care utilization: evidence from Ghana, Indonesia and Rwanda. Health Policy Plan. 2017;32(3):366–75.
9. Mubarik S, Al-hassan S, Owoo NS, Boakye-Yiadom L. Effect of national health insurance holding on the choice of health facility for childbirth in Ghana. 2016.
10. Ansu-Mensah M, Danquah FI, Bawontuo V, Ansu-Mensah P, Kuupiel D. Maternal perceptions of the quality of care in the free maternal care policy in sub-Sahara Africa: a systematic scoping review. BMC Health Serv Res. 2020;20(1):911.
11. NHIS. Keta hospital refunds extorted monies to NHIS subscribers Ghana. National Health Insurance Authority. 2019. Available from: http://nhis.gov.gh/News/keta-hospital-refunds-extorted-monies-to-nhis-subscribers-5245.%0A%0A. [cited 2023 Jun 10].
12. Dalinjong PA, Wang AY, Homer CSE. Has the free maternal health policy eliminated out of pocket payments for maternal health services? Views of women, health providers and insurance managers in Northern Ghana. PLoS ONE. 2018;13(2):e0184830.
13. Nsiah-Boateng E, Aikins M. Trends and characteristics of enrolment in the National health insurance scheme in Ghana: a quantitative analysis of longitudinal data. Glob Heal Res Policy. 2018;3:1–10.
14. MoH. Evaluation of the Free Maternal Health Care Initiative in Ghana. Accra. 2013. Available from: https://www.moh.gov.gh/wp-content/uploads/2016/02/2013-Summit-REPORT-Evaluation-of-the-free-maternal-health-care-initiative-in-Ghana-annexes.pdf.
15. Abukari Z, Kuyini AB, Kuyini Mohammed A. Education and health care policies in Ghana: examining the prospects and challenges of recent provisions. Sage Open. 2015;5(4):2158244015611454.
16. McPake B, Witter S, Ensor T, Fustukian S, Newlands D, Martineau T, et al. Removing financial barriers to access reproductive, maternal and newborn health services: the challenges and policy implications for human resources for health. Hum Resour Health. 2013;11(1):1–15.
17. Kruk ME, Gage AD, Arsenault C, Jordan K, Leslie HH, Roder-DeWan S, et al. High-quality health systems in the sustainable development goals era: time for a revolution. Lancet Glob Heal. 2018;6(11):e1196–252.
18. WHO. Global Monitoring Report on Financial Protection in Health 2021. Geneva; 2021. Available from: https://iris.who.int/bitstream/handle/10665/350240/9789240040953-eng.pdf?sequence=1.
19. Adisah-Atta I. Financing health care in Ghana: are Ghanaians willing to pay higher taxes for better health care? Findings from afrobarometer. Soc Sci. 2017;6(3):90.
20. Agyepong IA, Adjei S. Public social policy development and implementation: a case study of the Ghana National health insurance scheme. Health Policy Plan. 2008;23(2):150–60.
21. Ajeani J, Mangwi Ayiasi R, Tetui M, Ekirapa-Kiracho E, Namazzi G, Muhumuza Kananura R, et al. A cascade model of mentorship for frontline health workers in rural health facilities in Eastern Uganda: processes, achievements and lessons. Glob Health Action. 2017;10(sup4):1345497.
22. Agyepong IA, Abankwah DNY, Abroso A, Chun C, Dodoo JNO, Lee S, et al. The universal in UHC and Ghana's National health insurance scheme: policy

and implementation challenges and dilemmas of a lower middle income country. BMC Health Serv Res. 2016;16:1–14.
23. Fusheini A. The Politico-Economic challenges of Ghana's National health insurance scheme implementation. Int J Heal Policy Manag. 2016;5(9):543–52.
24. Ganle JK, Fitzpatrick R, Otupiri E, Parker M. Addressing health system barriers to access to and use of skilled delivery services: perspectives from Ghana. Int J Health Plann Manage. 2016;31(4):e235–53.
25. Sarikhani Y, Najibi SM, Razavi Z. Key barriers to the provision and utilization of maternal health services in low-and lower-middle-income countries; a scoping review. BMC Womens Health. 2024;24(1):325.
26. Ganle J. Addressing socio-cultural barriers to maternal healthcare in Ghana: perspectives of women and healthcare providers. J Womens Heal Issues Care. 2014;6:2.
27. Kanmiki EW, Mamun AA, Phillips JF, O'Flaherty MJ. Equity in maternal healthcare utilisation in Ghana: do community-based primary health care programmes matter? Trop Med Int Heal. 2023;28(5):409–18.
28. Ronsmans C, Graham WJ. Maternal mortality: who, when, where, and why. Lancet. 2006;368(9542):1189–200.
29. GSS. GDHS Key Indicators Report. Accra; Ghana Statistical Service: 2022;15. Available from: https://www.statsghana.gov.gh/gssmain/fileUpload/pressrelease/2022 GDHS KIR 5th June 23.pdf.

## Publisher's Note