

Impact of Poor Patient Safety Culture on Mother and Child Health in Sub-Saharan Africa - A Review

Josiah Oluwaseun Odu   Abiodun Sorunke  

¹ Department of Public Health, McPherson University, Seriki Sotayo, Ogun State, Nigeria

² Department of Public Health, Chrisland University, Abeokuta, Ogun State, Nigeria

Initiatives for patient safety seek to stop infections, medical mistakes, and other unfavourable outcomes that could endanger patients or even cause their death. Deliberate efforts should be made to guarantee that care is provided in a safe environment wherever it is provided, as this helps rebuild public trust in the healthcare system. In sub-Saharan Africa, there are several barriers to achieving patient safety for maternal and child health. Low healthcare financing is the main factor compromising patient safety for mother and child health in sub-Saharan Africa. Sub-Saharan Africa has a more severe human resources for health (HRH) crisis, as well as a severe shortage of material resources, necessary medications and supplies, and a deficient healthcare infrastructure. These issues make it more difficult to provide safe maternity, child health, surgical, and medical treatment, which increases the risk of adverse patient safety events. In this review the challenges faced in providing safe maternal and child health in sub-Saharan Africa are examined.

Keywords: Patient safety culture, Mother health, Child health, Sub-Saharan Africa, and Risk management

Introduction

It is impossible to overestimate the importance of patient safety culture in healthcare settings, especially in areas like Sub-Saharan Africa where mother and child health outcomes continue to be extremely problematic (1). This has led to an active search for sources of risks and harms that could jeopardize the provision of the best possible care, hence jeopardizing patient safety and health. Notable factors that have been identified include ineffective policies,

management and communication systems, reporting strategies, systemic inefficiencies, a lack of competent personnel, deficiencies in infrastructure, poor sanitation and hygiene, ineffective disease control, overcrowding, ineffective knowledge transfer (2, 3). According to WHO, these incidents lead to a number of negative outcomes, including increased rates of maternal, infant, and neonatal morbidity and mortality, higher health care costs, wasted time

Corresponding Author: Josiah Oluwaseun Odu [BTECH in Human Physiology, MSc in Public Health (UPM) & PhD in Public Health (UPM)], McPherson University, Nigeria
Email: seun_odu2001@yahoo.com
ORCID: 0000-0002-1779-9360

Received: April 8, 2026 **Accepted:** May 19, 2026

Published: June 26, 2026

This is an Open Access article distributed under the terms of Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, or reproduction in any area, original work is properly cited.

The Ulutas Medical Journal © 2026



in medical facilities, low patient satisfaction with the quality of care received, emotional and psychological strain, infection transmission, and poor socioeconomic outcomes (4). It is important to emphasize that issues that have compromised the safety of mother and child health are not limited to healthcare personnel; they also include patients (5).

The majority of sub-Saharan African nations are classified as low- and middle-income, and as a result of the previously mentioned conditions, they have high rates of maternal, newborn, and neonatal illness and mortality (6). In particular, despite the advancements made by these nations in their efforts to achieve the Sustainable Development Goals (SDGs), which are supported by the UN, this region of the world accounts for roughly 60% and 40% of the yearly worldwide maternal and newborn mortality, respectively. Sub-Saharan Africa is particularly associated with higher rates of non-communicable diseases like cancer, diabetes, and cardiovascular diseases; trypanosomiasis and dracunculiasis; emerging and re-emerging infections like ebola and corona virus infections; and communicable diseases like malaria, TB, and HIV/AIDS. Deficits in the social determinants of health, such as education, finances, gender equality, and cultural beliefs and practices, all of which contribute to maternal and child health outcomes (7). Actually, the issues were a serious threat to the health care system's stability and the provision of high-quality healthcare, which could result in a worldwide economic and social burden if these issues are not addressed with the proper seriousness.

It has been challenging to quantify the prevalence of a poor patient safety culture and its eventual impact on mother and child health outcomes in the SSA due to a lack of reliable and adequate health data. Thus, measures to prevent morbidities and deaths among mothers, infants, and neonates are typically needlessly postponed until the load

becomes too great to handle (6). It has been observed that most of the nations in the SSA are yet to adopt a national policy focused at safe delivery of health care, which no doubt has produced the impoverished and dilapidated health care system in the region (8). The Society for Quality Healthcare in Nigeria is one of the prominent local organizations that have recently stepped up to the challenge of advocating for policies that would enable effective and efficient patient care. According to Leotsakos et al. this organization aims to support the ongoing improvement of safety and quality in the healthcare system (9).

Numerous factors that have been linked to a poor patient safety culture and the consequent unfavorable maternal-child health outcomes have been examined in several SSA studies. According to research done in Ethiopia, there was a 60% delay in emergency obstetric care. Referrals between healthcare facilities, living in a remote region, mothers' lack of education, and the lack of prenatal care visits in the research area were all identified as contributing factors (10). According to a Nigerian study by Afolalu and colleagues, hierarchical structures and fear of losing one's job contribute to the suboptimal reporting of errors in the health care in many SSA. This has led to a number of mistakes, a failure to learn from past mistakes, and ultimately poor patient outcomes.

Health facility managers must therefore make reporting policies clear and combat the "blame culture" at work (11). Researchers highlighted the negative effects of a lack of personnel, equipment, and communication gaps on mother and child health in a study done in Uganda (12). They stated that there will be a noticeable decrease in maternal, baby, and neonatal mortality and morbidity in the research area if these occurrences are well treated. According to a study by Labi et al. in Ghana, hospital-acquired infections—primarily brought on by overcrowding and poor hygiene

practices—are responsible for a considerable portion of infant fatality (13). A study attempting to determine the reasons why home births are favoured over hospital deliveries has been spurred by an increase in home deliveries. The high expense of medical care in hospitals, the distance to health centers, financial constraints, and women's limited decision-making authority are some of the factors that have prevented and deterred women in Burkina Faso from seeking medical attention during childbirth (14).

The factors that compromise maternal and child health and patient safety culture in the SSA are discussed in detail in this review article, along with strategies for effectively addressing them to improve the socioeconomic standing and general health of the world.

Materials and Methods

A literature search was conducted to find both population-based and non-population-based studies. The Google Scholar, PubMed, and Science Direct resources on the effects of a sub-Saharan African patient safety culture on maternal and infant health were accessed using the Google search engine. Findings were provided in a narrative literature review. The search phrases "patient safety culture," "maternal health," "child healthcare," and "Sub Sahara Africa" were used to obtain articles pertinent to the review topic.

Impact of Poor Patient Safety Culture on Mother and Child Health in Sub-Saharan Africa

Addressing these issues requires enhancing patient safety culture, which creates a setting where staff value, high-quality treatment and actively participate in activities that improve maternal health outcomes (15). Compared to other parts of the world, sub-Saharan Africa has the highest risk of maternal death for pregnant women (15). In this region of the world, a 15-year-old girl's lifetime chance of dying during pregnancy and childbirth is one in 36, while a

girl of the same age living in Europe has a risk of one in 3300 (16,17).

Obstetric emergencies, which are potentially fatal medical issues that can arise at any point during pregnancy, labour, or delivery, account for the bulk of maternal deaths, which tend to occur during these events and 24 hours after delivery (18). Obstetric emergencies occur in 15% of pregnancies, regardless of location (19). With appropriate prenatal care and labour assistance (fetal extraction, caesarean surgery, or blood transfusions), mortality is prevented (20, 21). However, many women in sub-Saharan Africa die as a result of these issues.

Rates of Maternal Mortality and Morbidity in Sub-Saharan Africa

Maternal mortality and morbidity rates in Sub-Saharan Africa remain startlingly high, highlighting the pressing need for efficient initiatives that provide comprehensive care during pregnancy and childbirth in addition to enhancing safety culture. Maternal fatalities in Sub-Saharan Africa (SSA) are still high, according to evidence from a comprehensive evaluation of research. To inform interventions, the risks and causes of maternal death in this region need to be regularly examined (22). 38 papers that reported 11,427 maternal and four incidental deaths were found by the analysis. Retrospective record reviews made up 21 of the third-eight investigations. Obstructive hemorrhage was the primary cause and risk factor for death (proportions and 95%CI): 28.8% (95%CI: 26.5-31.2), pregnancy-related infections: 11.5% (95%CI:9.8-13.2), non-obstetric complications: 18.8% (95%CI: 16.4-21.2), and hypertensive disorders during pregnancy: 22.1% (95%CI:19.9-24.2). Few deaths from unintentional and undetermined causes were reported in the studies (22). Maternal mortality has declined throughout Africa over the research period by an average annual percent change (APC) of -3% (95%CI -2.9; -3.2%),

according to the findings of another study by Onambele et al (23). The South saw the biggest declines, although all regions displayed notable declining trends. The only region that approaches the UN's sustainable development targets for maternal mortality is North Africa. The remaining parts of Sub-Saharan Africa are still a long way from reaching the targets. According to the study's findings, maternal mortality has declined throughout Africa, particularly in South Africa. The North African area is the only one that is near the UN target. The remaining parts of Sub-Saharan Africa are still a long way from reaching the targets. For the West African region to meet the UN's objectives, more extraordinary measures are required. According to Onambele et al, policies ought to guarantee that all expectant mothers receive prenatal care and give delivery in a medical institution with trained staff (23).

Impact of Poor Patient Safety Culture on Child Health in Sub-Saharan Africa

In every society, ensuring children's healthy growth and development should be of the highest priority. Malnutrition and infections, many of which can be avoided or treated early to avoid consequences, are risks for both newborns and older children. Children of all ages and majors in all countries in Sub-Saharan Africa are impacted by the region's inadequate patient safety culture, especially by its socioeconomic effects and, occasionally, by restrictive measures that unintentionally have serious repercussions (24).

A longitudinal cohort study conducted by Simmons et al., found that in every year, > 3 million children die in sub-Saharan Africa before their fifth birthday (25). Interventions provided in the primary healthcare system can prevent or avert the majority of deaths. However, research indicating the impact of health system characteristics on child survival is scarce. A retrospective cohort of more than 250,000 children from seven sub-Saharan

African countries was gathered for the study. Standardized surveys were used to describe the health service context at the subnational level, and parametric survival models were used to estimate the impact of the three main domains of health services—quality, access, and cost—on infant and child survival after controlling for maternal, child, and household characteristics. We recorded 5,149 child deaths and 13,629 newborn deaths between 1995 and 2015. The biggest effect sizes in fully-adjusted models were associated with service fees.

Poor child survival was associated with immunization costs (HR = 1.20, 95%CI: 1.12–1.28), and poor newborn survival was associated with delivery costs (HR = 1.11, 95%CI: 1.01–1.21). Increased densities of private facilities and ease of access to facilities were linked to better newborn and child survival. Reducing health care costs and improving the accessibility of health facilities should remain a priority for improving infant and child survival; without these basic investments, more specialized interventions may not have the desired effect. The proportion of facilities with a doctor was correlated with increased risk of death in children and infants (25).

Child Mortality Rates and Contributing Factors

According to a World Health Organization report, children's odds of surviving still sadly vary depending on where they are born. In reality, over 80% of the 4.9 million deaths of children under five in 2022 will occur in two regions: southern Asia and sub-Saharan Africa. Furthermore, with 26 deaths per 1,000 live births in 2023, Sub-Saharan Africa had the highest newborn mortality rate, followed by Central and Southern Asia, with 21 deaths per 1,000 live births. Indeed, compared to children born in Australia and New Zealand, children born in sub-Saharan Africa (SSA) have a 14-fold higher chance of dying within the first month of life.

In 2022, SSA had an unacceptable infant mortality rate of 52.7 per 1000 live births, higher than the rate in comparable areas (26). As per the 2021 Report of the United Nations Inter-Agency Group for Child Mortality Estimation (UN IGME), infant mortality in Sub-Saharan Africa (SSA) varies between 28.2 (the lowest) and 86.5 (the highest) per 1000 live births (27). One in 36 children in SSA die during the newborn period, compared to one in 333 in developed countries (28). The IMR decreased from 53.2 per 1000 live births in 2000 to 28.9 per 1000 live births in 2021 on a global scale (27). The decrease in SSA, which went from 92/1000 live births in 2000 to 53/1000 live births in 2021, was insufficient despite the fact that infant mortality decreased globally (28).

Under-five mortality must be decreased to at least 25 per 1000 live births, according to Sustainable Development Goal (SDG) 3 target 3.2 of the UN (29). Accordingly, a significant portion of fatalities among children under five (75%) are attributable to infant mortality (26). The majority of SSA nations are not on pace to meet the SDG-3 mortality objectives for neonates and children under five by 2030 (30). According to Verhulst et al., (30) only Rwanda and Tanzania will fulfil the neonatal mortality targets, while just five countries—Kenya, Rwanda, Senegal, Tanzania, and Uganda are on pace to reduce the under-5 mortality SDG target by 2030. There is a lack of data on pooled estimates and factors influencing infant death in SSA, despite the fact that the majority of SSA nations fall short of the SDG targets in this regard. There is currently no pooled estimate of IMR in SSA that uses Demographic and Health Survey (DHS) data to adjust for country-level frailty. Policymakers and health planners in each nation would be better able to accomplish the SDG agenda if the pooled estimate of IMR, time to death, and its determinants were conducted and documented in SSA.

Challenges to mother-to-child health in Sub-Saharan Africa

Numerous issues confront SSA's healthcare systems, such as a shortage of medical personnel, unequal distribution of health resources, a high rate of illness, a lack of political will, inadequate leadership, a shortage of vaccines, underdeveloped technology services, and outdated infrastructure, to name a few. These deficiencies affect all aspects of the healthcare system, including maternity and healthcare, prenatal and postpartum care, and family planning services (31).

Maternal mortality, neonatal mortality, and the number of births attended by a trained birth attendant are the most often used metrics to assess the effectiveness of maternal healthcare on a worldwide basis. Globally, the quality and accessibility of maternal healthcare are tracked by observing and comparing these metrics across regions. For instance, maternal mortality rates in Sub-Saharan Africa are more than five times higher than those in the majority of countries, which have fewer than 100 maternal deaths per 100,000 births. As a result, a baby born in Sub-Saharan Africa has a tenfold higher chance of dying than one born in a nation with a higher GDP (32). In a similar vein, Sub-Saharan Africa has a delivery rate of only 64% by a competent birth attendant, compared to over 95% in many other nations. These comparisons have shown that Sub-Saharan Africa has the lowest percentage of newborns attended by competent professional and the highest maternal healthcare mortality rate in the world (33).

When compared to other regions, Sub-Saharan Africa's maternal healthcare system is in bad condition. The functioning of the maternal healthcare system in Sub-Saharan Africa and its comparison to other maternal healthcare systems in the region are not well understood. The high rate of maternal fatalities, however, suggests that Sub-Saharan Africa's

maternal healthcare system is less efficient than those in other nations. Approximately 810 maternal deaths occur worldwide each day, with two-thirds of those deaths occurring in Sub-Saharan Africa (34). These figures translate to 540 maternal fatalities every day on average in Sub-Saharan Africa.

The most frequent reason for the lack of access to maternal healthcare in Sub-Saharan Africa is the great distances that separate patients from maternal healthcare facilities (35). Poor roads and the rugged terrain make these distances much more difficult to travel, which prevents women from using maternal care since they are unable or unwilling to travel to medical facilities (36). Unfortunately, because maternal care is not taken into account in the data on geographic accessibility to healthcare facilities, it is difficult to determine the average distance that women live from maternal healthcare facilities. Nonetheless, we are aware that 40% of the population in Sub-Saharan Africa lives more than four hours away from a hospital, and over 170 million people live more than two hours away (37). According to Ugboaja et al., mothers in Nigeria cited distance as the second most common excuse for skipping postpartum treatment. These incidents demonstrate how distance keeps women from getting the assistance they require at every stage of the maternity journey.

A person's capacity to pay for treatment is frequently influenced by the socioeconomic effects of poverty. Poor communities—not just individuals—are less likely to have access to maternal healthcare facilities because the majority of them are located in metropolitan regions (38). Women who live in nations with few resources, earn little money each month, and receive assistance from the government are most at risk of not having access to care (39). The World Health Organization reports that women in Sub-Saharan Africa have a 1 in 16 probability of dying during childbirth, while

women in the "developed world" have a 1 in 2,800 chance (40).

Fewer visits result from a community's lack of faith in maternal healthcare being negatively impacted by subpar maternity healthcare and healthcare providers. According to a study evaluating the efficacy and repute of free maternity healthcare, 61.5% of Sub-Saharan African women expressed dissatisfaction with their treatment (34). Insufficient understanding of the procedures and advantages of maternal care contributes to discontent with medical professionals and the maternal healthcare system. According to Yihune Teshale et al., (41) women are less likely to seek out maternal care when they have low confidence in healthcare systems and clinicians.

Access to maternal care, including family planning, is greatly impacted by dynamics, particularly those between the husband and wife. Women are more likely to access maternal services when the husbands are knowledgeable and supportive of maternal healthcare (42). Most women who received antenatal care demonstrated symptoms of having husband support, as 81.6% of women in Sub-Saharan Africa who received their first prenatal care appointments were accompanied by their spouse (42).

In Sub-Saharan Africa, cultural beliefs and customs may result in practices that are substituted for contemporary maternal services, hence impeding access to maternal healthcare. Women in Ghana were discouraged or prevented from obtaining professional help during childbirth due to past cultural and religious beliefs (43). For instance, the belief that giving birth at home is a sign of strength and integrity is widespread throughout the Sub-Saharan area (43). Due to cultural anxieties and misconceptions about obstetric difficulties, women frequently opt for traditional methods over maternal healthcare (44). The belief that the ancestors will disapprove and hence

endanger the life of the unborn child makes giving birth in a facility "taboo" in northern Ghana, discouraging women from doing so (44). A barrier to getting maternal healthcare is created by the notion that it is unnecessary, which favours traditional treatments.

Recommendations/future perspective

It is crucial that health systems take into account the lessons that may be drawn from the difficulties that led to Sub-Saharan Africa's poor patient safety culture for maternal and child health. According to the study's findings, the impoverished in many sub-Saharan African nations suffer from the greatest rates of illness and incur catastrophic medical costs. Social health insurance (SHI), which offers financial security, is suggested as a crucial tool for attaining universal healthcare.

It is anticipated that social health insurance programs will shield individuals from disastrous medical expenses by combining resources to enable cross-subsidization between wealthy and the underprivileged as well as between the healthy and the ill. In order to guarantee access for all income, particularly the impoverished, certain African nations have implemented social health insurance programs in response to popular discontent with the high costs imposed by health sector providers. Nonetheless, comparatively little is known about experiences of nations that have used this health funding approach in addressing the problem of sub-Saharan Africa's poor patient safety culture with regard to maternal and child health.

Conclusion

The sub-Saharan African (SSA) health system's ability to continue providing services has been seriously endangered by the culture of inadequate patient safety, which has already damaged the health systems of the majority of the region's developing countries. Due to disruptions in the enabling environment, a lack of skilled health workers and medical

equipment, and women's increased reluctance to visit the available healthcare facilities, this poor culture has a significant impact on maternal and child healthcare.

Author contributions

J.O.O. initiated the idea and wrote the final draft of the manuscript. W.A. & A.S. helped in literature collection and wrote the draft of the manuscript. J.O.O. corrected the final draft of the manuscript.

Competing interests

The authors declare no competing interests.

Funding

The study has no funding.

References

1. Pedroni VS, Gouveia HG, Vieira LB, Wegner W, Oliveira AC, Santos MC, et al. Patient safety culture in the maternal-child area of a university hospital. *Rev Gaucha Enferm.* 2020;41(spe):e20190171.
2. Konlan KD, Shin J. The status and the factors that influence patient safety in health care institutions in Africa: a systematic review. *PLOS Glob Public Health.* 2022;2(12):e0001085.
3. Alam AY. Steps in the process of risk management in healthcare. *J Epidemiol Prev Med.* 2016;2(2):118.
4. World Health Organization. Patient safety: making health care safer. Geneva: World Health Organization; 2017.
5. Gouda HN, Charlson F, Sorsdahl K, Ahmadzade S, Ferrari AJ, Erskine HE, et al. Burden of non-communicable diseases in sub-Saharan Africa, 1990–2017: results from the Global Burden of Disease Study 2017. *Lancet Glob Health.* 2019;7(10):e1375–e1387.
6. Deaton AS, Tortora R. People in sub-Saharan Africa rate their health and health care among the lowest in the world. *Health Aff (Millwood).* 2015;34(3):519–527.
7. Paese F, Dal Sasso GTM. Patient safety culture in primary health care. *Texto Contexto Enferm.* 2013;22(2):302–310.
8. Gizaw AB, Hailu FB, Negese DT. Perception towards patient safety practice and associated factors among health care providers of Jimma Zone public hospitals. *Adv Tech Biol Med.* 2018;6(3):261.
9. Leotsakos A, Ardolino A, Cheung R, Zheng H, Barraclough B, Walton M. Educating future leaders in patient safety. *J Multidiscip Healthc.* 2014;7:381–388.
10. Tiruneh GA, Asaye MM, Solomon AA, Arega DT. Delays during emergency obstetric care and their determinants among mothers who gave birth in South Gondar Zone hospitals, Ethiopia: a cross-sectional study design. *Glob Health Action.* 2021;14(1):1953242.

11. Afolalu OO, Jordan S, Kyriacos U. Medical error reporting among doctors and nurses in a Nigerian hospital: a cross-sectional survey. *J Nurs Manag.* 2021;29(5):1007-1015.
12. Muwema M, Nankabirwa JI, Kaye DK, Nalwadda G, Nangendo J, Obeng-Amoako GO, et al. Structures and available processes to support perinatal care in district hospitals of Western Uganda. *J Res Health.* 2024;14(4):341-356.
13. Labi AK, Obeng-Nkrumah N, Owusu E, Bjerrum S, Bediako-Bowan A, Sunkwa-Mills G, et al. Multi-centre point-prevalence survey of hospital-acquired infections in Ghana. *J Hosp Infect.* 2019;101(1):60-68.
14. De Allegri M, Tiendrebéogo J, Müller O, Yé M, Jahn A, Ridde V. Understanding home delivery in a context of user fee reduction: a cross-sectional mixed methods study in rural Burkina Faso. *BMC Pregnancy Childbirth.* 2015;15:330.
15. Anto-Ocrah M, Cushman J, Sanders M, De Ver Dye T. A woman's worth: an access framework for integrating emergency medicine with maternal health to reduce the burden of maternal mortality in sub-Saharan Africa. *BMC Emerg Med.* 2020;20(1):3.
16. World Health Organization, United Nations Children's Fund, United Nations Population Fund, World Bank Group, United Nations Department of Economic and Social Affairs, Population Division. Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva: World Health Organization; 2023.
17. Berhan Y, Abeba S. Thirty years of United Nations Inter-Agency Working Group's global, regional, and national maternal mortality estimates revisited. *Int J Matern Child Health AIDS.* 2024;13:e004.
18. Aloba G, Ochola E, Bayo P, Muhereza A, Nahurira V, Byamugisha J. Why women die after reaching the hospital: a qualitative critical incident analysis of the 'third delay' in postconflict northern Uganda. *BMJ Open.* 2021;11(3):e042909.
19. Asghar AK, Nkabinde TC, Naidoo M. An analysis of obstetric practices and outcomes in a deep rural district hospital in South Africa. *PLoS One.* 2022;17(1):e0262269.
20. Ahinkorah BO, Ameyaw EK, Seidu AA, Odusina EK, Keetile M, Yaya S. Examining barriers to healthcare access and utilization of antenatal care services: evidence from demographic health surveys in sub-Saharan Africa. *BMC Health Serv Res.* 2021;21(1):125.
21. Dahab R, Sakellariou D. Barriers to accessing maternal care in low-income countries in Africa: a systematic review. *Int J Environ Res Public Health.* 2020;17(12):4292.
22. Musarandega R, Nyakura M, Machekano R, Pattinson R, Munjanja SP. Causes of maternal mortality in sub-Saharan Africa: a systematic review of studies published from 2015 to 2020. *J Glob Health.* 2021;11:04048.
23. Onambele L, Ortega-Leon W, Guillen-Aguinaga S, Forjaz MJ, Yoseph A, Guillen-Aguinaga L, et al. Maternal mortality in Africa: regional trends (2000–2017). *Int J Environ Res Public Health.* 2022;19(20):13146.
24. Okonofua FE, Ntoimo LFC, Adejumo OA, Imongan W, Ogu RN, Anjorin SO. Assessment of interventions in primary health care for improved maternal, newborn and child health in sub-Saharan Africa: a systematic review. *SAGE Open.* 2022;12(4):21582440221134222.
25. Simmons RA, Anthopolos R, O'Meara WP. Effect of health systems context on infant and child mortality in sub-Saharan Africa from 1995 to 2015: a longitudinal cohort analysis. *Sci Rep.* 2021;11(1):16263.
26. World Health Organization. Child mortality and causes of death [Internet]. Geneva: World Health Organization; 2022 [cited 2026 Jul 7]. Available from: <https://www.who.int/data/gho/data/themes/topics/topic-details/GHO/child-mortality-and-causes-of-death>
27. United Nations Inter-agency Group for Child Mortality Estimation. Levels and trends in child mortality: report 2021. New York: United Nations Children's Fund; 2021.
28. Ouattara DN. Combatting infant mortality: a priority for Africa [Internet]. International Policy Digest. 2018 Nov 21 [cited 2026 Jul 7]. Available from: <https://intpolicydigest.org/combating-infant-mortality-a-priority-for-africa/>
29. Weiland S, Hickmann T, Lederer M, Marquardt J, Schwindenhammer S. The 2030 Agenda for Sustainable Development: transformative change through Sustainable Development Goals? *Politics Gov.* 2021;9(1):90-95.
30. Verhulst A, Romero Prieto J, Alam N, Eilerts-Spinelli H, Erchick DJ, Gerland P, et al. Divergent age patterns of under-5 mortality in South Asia and sub-Saharan Africa: a modelling study. *Lancet Glob Health.* 2022;10(11):e1566-e1574.
31. Wigley AS, Tejedor-Garavito N, Alegana V, Carioli A, Ruktanonchai CW, Pezzulo C, et al. Measuring the availability and geographical accessibility of maternal health services across sub-Saharan Africa. *BMC Med.* 2020;18(1):237.
32. Musarandega R, Machekano R, Munjanja SP, Pattinson R. Methods used to measure maternal mortality in sub-Saharan Africa from 1980 to 2020: a systematic literature review. *Int J Gynaecol Obstet.* 2022;156(2):206-215.
33. Tessema ZT, Worku MG, Tesema GA, Alamneh TS, Teshale AB, Yeshaw Y, et al. Determinants of accessing healthcare in sub-Saharan Africa: a mixed-effect analysis of recent Demographic and Health Surveys from 36 countries. *BMJ Open.* 2022;12(1):e054397.
34. 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-Saharan Africa: a systematic scoping review. *BMC Health Serv Res.* 2020;20(1):911.
35. Dotse-Gborgbortsi W, Nilsen K, Ofosu A, Matthews Z, Tejedor-Garavito N, Wright J, et al. Distance is "a big problem": a geographic analysis of reported and modelled proximity to maternal health services in Ghana. *BMC Pregnancy Childbirth.* 2022;22(1):672.
36. Falchetta G, Hammad AT, Shayegh S. Planning universal accessibility to public health care in sub-Saharan Africa. *Proc Natl Acad Sci U S A.* 2020;117(50):31760-31769.

37. Ugboaja JO, Berthrand NO, Igwegbe AO, Obi-Nwosu AL. Barriers to postnatal care and exclusive breastfeeding among urban women in southeastern Nigeria. *Niger Med J*. 2013;54(1):45-50.
38. Flake S. Lack of access to maternal healthcare in sub-Saharan Africa [Internet]. Ballard Brief. 2022 Mar 11 [cited 2026 Jul 7];2022(1):4. Available from: <https://ballardbrief.byu.edu/issue-briefs/lack-of-access-to-maternal-healthcare-in-sub-saharan-africa>
39. Asefa A, Gebremedhin S, Marthias T, Nababan H, Christou A, Semaan A, et al. Wealth-based inequality in the continuum of maternal health service utilisation in 16 sub-Saharan African countries. *Int J Equity Health*. 2023;22(1):203.
40. World Health Organization, United Nations Children's Fund, United Nations Population Fund, World Bank Group, United Nations Department of Economic and Social Affairs, Population Division. Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva: World Health Organization; 2023
41. Teshale MY, Bante A, Belete AG, Crutzen R, Spigt M, Stutterheim SE. Barriers and facilitators to maternal healthcare in East Africa: a systematic review and qualitative synthesis of perspectives from women, their families, healthcare providers, and key stakeholders. *BMC Pregnancy Childbirth*. 2025;25(1):111.
42. Okedo-Alex IN, Akamike IC, Ezeanosike OB, Uneke CJ. Determinants of antenatal care utilisation in sub-Saharan Africa: a systematic review. *BMJ Open*. 2019;9(10):e031890.
43. Adatara P, Strumpher J, Ricks E. A qualitative study on rural women's experiences relating to the utilisation of birth care provided by skilled birth attendants in the rural areas of Bongo District in the Upper East Region of Ghana. *BMC Pregnancy Childbirth*. 2019;19(1):195.
44. Tabong PTN, Kyilleh JM, Amoah WW. Reasons for the utilization of the services of traditional birth attendants during childbirth: a qualitative study in Northern Ghana. *Womens Health (Lond)*. 2021;17:17455065211002483.

Contact Details

Josiah Oluwaseun Odu, PhD
 BTECH in Human Physiology (LAUTECH)
 MSc in Public Health (UPM)
 PhD in Public Health (UPM)
 McPherson University, Seriki Sotayo
 Ogun State, Nigeria
E-mail: seun_odu2001@yahoo.com
ORCID: 0000-0002-1779-9360

Abiodun Sorunke, MBBS, MPH
 Department of Public Health
 Chrisland University, Abeokuta
 Ogun State, Nigeria
E-mail: asorunke@gmail.com
ORCID: 0000-0003-4656-5923

How to cite?

Josiah Oluwaseun Odu and Abiodun Sorunke.
 Impact of Poor Patient Safety Culture on
 Mother and Child Health in Sub-Saharan Africa
 - A Review. *Ulutas Med J*. 2026;12(2):16-24
Doi: 10.5455/umj.20260417110004