

Review of maternal and child health policies: Successes, challenges and gaps

Jamila Musa ¹, Temitope Kayode ^{2,*}, Duro C. Dolapo ¹, Mallika Singh ² and Rosa Rodriguez ³

¹ Department of Community Medicine and Public Health, Nile University of Nigeria, Abuja, Nigeria.

² Department of Public Health, New York Medical College, New York, USA.

³ Division of Services of Addiction, Department of Psychiatry, Montefiore Medical Centre, New York, USA.

GSC Advanced Research and Reviews, 2025, 24(01), 301-309

Publication history: Received on 17 June 2025; revised on 26 July 2025; accepted on 28 July 2025

Article DOI: <https://doi.org/10.30574/gscarr.2025.24.1.0218>

Abstract

Background: Maternal and child health (MCH) remains a significant public health issue, particularly in low- and middle-income countries (LMICs) where the burden of maternal and child mortality is highest. Over the past three decades, global policy frameworks ranging from the Safe Motherhood Initiative (1987) to the Sustainable Development Goals (2015) have evolved to strengthen MCH outcomes. However, significant implementation challenges persist, limiting progress in many regions. This review aims to assess the global landscape of maternal and child health policies, highlight key successes, identify persistent gaps, and provide strategic insights to inform future policy formulation and implementation.

Methods: We conducted a narrative review to explore the global landscape of maternal and child health policies. Electronic databases searched included PubMed, The Lancet, ScienceDirect, Global Health, Google Scholar, and Scopus. Search terms combined keywords related to maternal health, child health, and newborn health with policy-related terms using Boolean operators to enhance search sensitivity. Only English-language studies were included, with no restrictions on publication date. Following a systematic process of title screening, abstract review, and full-text evaluation, 24 studies were included in the final analysis.

Results: Key global policies including the Safe Motherhood Initiative and SDGs have contributed significantly to improvements in maternal and child health. Notable successes include Rwanda's use of community health workers to reduce maternal mortality, Peru's efforts to combat child malnutrition, and GAVI's vaccination programs, which have saved millions of children's lives. However, critical challenges persist, including health workforce shortages, inadequate funding, poor quality of care, weak data systems, and insufficient focus on rural populations and adolescent health.

Conclusions: Effective implementation of maternal and child health policies requires strong political will, sustained financing, health system strengthening, and active community engagement. Future interventions must be evidence-based, context-specific, and equity-focused, with continued investment in workforce development, quality improvement, and robust data systems to achieve universal MCH coverage.

Keywords: Maternal health; Child health; Policy; Strategy; Program; Interventions

* Corresponding author: Temitope Kayode.

1. Introduction

Maternal and child health remains a global health priority due to its implications for individual well-being, societal development, and intergenerational equity. It is both a fundamental human right and a key indicator of a country's health system performance. Despite decades of evidence-based interventions, maternal and child mortality continues to account for a significant proportion of preventable deaths worldwide. According to the World Health Organization (WHO), about 260,000 women died during pregnancy and childbirth in 2023¹.

Approximately 92% of maternal deaths occurred in low- and lower-middle-income countries, most of which were preventable². The primary causes of maternal mortality include direct obstetric complications such as postpartum hemorrhage, infections, hypertensive disorders, obstructed labor, and unsafe abortion. Together, these account for about 75% of maternal deaths globally. Regions such as sub-Saharan Africa, Western Asia, and Northern Africa bear the highest burden, particularly from hemorrhage-related complications³.

Maternal mortality is not solely a clinical issue. Its root causes are deeply embedded in social, economic, and systemic determinants. Health system failures, such as shortages of skilled healthcare providers, limited access to essential medicines, and weak governance undermine the quality of care. In addition, social determinants like poverty, limited education, geographic disparities, and systemic inequities based on race and ethnicity further exacerbate the risk of maternal deaths⁴.

Between 2000 and 2023, the global maternal mortality ratio (MMR) declined by 40%, falling from 328 to 197 deaths per 100,000 live births⁵. Likewise, under-five mortality dropped by 59% since 1990, decreasing from 93 to 37 deaths per 1,000 live births. These gains reflect the positive impact of sustained investments in maternal and child health over recent decades.

The average annual rate of decline in MMR remains at just 2.2% far below the 14.9% annual reduction needed to achieve the Sustainable Development Goal (SDG) target of fewer than 70 maternal deaths per 100,000 live births by 2030⁵. Unless efforts are accelerated and sustained, especially in countries affected by conflict and humanitarian crises, the gap in progress may widen further, jeopardizing global commitments to maternal and child health equity.

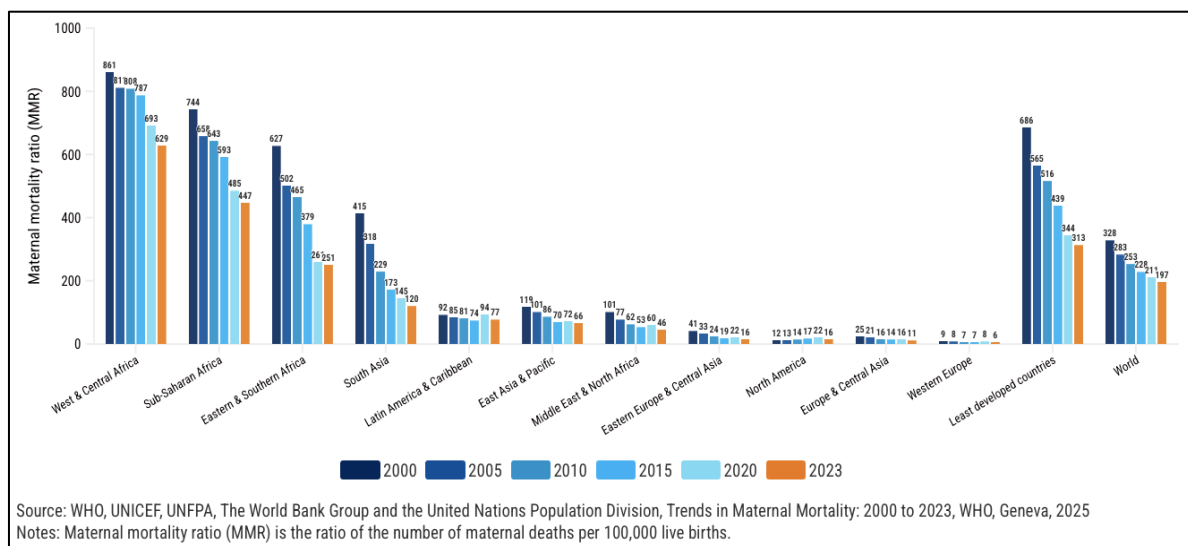


Figure 1 Maternal mortality ratio (MMR) trends by region

Evidence from 2023 (Figure 1) reveals persistent disparities in maternal health outcomes. In 2023, Sub-Saharan Africa and West & Central Africa recorded maternal mortality rates of 629 and 447 deaths per 100,000 live births respectively, which is higher than the rate of 6 deaths per 100,000 live births in Western Europe. Notably, Sub-Saharan Africa alone accounts for approximately 70% of global maternal deaths. These figures highlight the urgent need for critical investments to expand access to and enhance the quality of antenatal, delivery, and postnatal care in high-burden regions.

Over time, global maternal and child health policy has evolved significantly, driven by growing international commitments and the emergence of more comprehensive frameworks. Although early initiatives concentrated primarily on reducing maternal mortality by improving sanitation and providing basic obstetric care. In recent decades, the focus has expanded to include antenatal care, safe childbirth practices, and integrated interventions aimed at improving child health and development⁶.

The Safe Motherhood Initiative (1987) and the Millennium Development Goals (MDGs) played a pivotal role in catalyzing global attention and funding for maternal and child health. Building on the progress of the MDG era, the adoption of the Sustainable Development Goals (SDGs) in 2015 introduced a more ambitious target to reduce the global maternal mortality ratio (MMR) to fewer than 70 deaths per 100,000 live births by 2030⁷. Complementing this agenda, the Global Strategy for Women's, Children's and Adolescents' Health (2016–2030) provided a comprehensive roadmap for multisectoral action and strengthened mechanisms for accountability⁸.

These global frameworks have accelerated national-level reforms and investments. For instance, Ethiopia's Health Extension Program deployed over 38,000 health workers, contributing to an increase in facility-based deliveries from 28% in 2005 to 91% by 2020, and a reduction in maternal mortality from 1,400 to 203 deaths per 100,000 births^{9,10}. In South Asia, India's Janani Suraksha Yojana (JSY) conditional cash transfer program significantly boosted institutional deliveries¹¹. In East Asia, China made notable progress through health system reforms, including the rural cooperative medical scheme and maternal mortality surveillance¹².

These success stories reflect the critical role of sustained political commitment, community engagement, and strong health systems in improving maternal and child health outcomes. In contrast, even high-income countries like the United States are experiencing setbacks, including a rise in maternal mortality among marginalized populations. This highlights the enduring impact of structural inequities, which persist despite the availability of substantial resources¹³.

Maternal and child health outcomes are shaped by the complex interplay of clinical care, socioeconomic status, cultural norms, and governance structures. This has driven a policy shift away from vertical, disease-specific programs toward integrated, multisectoral strategies. These newer approaches address not only health services, but also social determinants including education, poverty, gender inequality, and access to social protection¹⁴.

Improved maternal health is associated with better human capital development, as healthier mothers are more likely to achieve higher educational attainment and contribute economically¹⁵. Effective policy interventions have played key roles in expanding healthcare access, reducing mortality rates, and promoting equitable health outcomes across diverse settings.

Therefore, this review aims to identify key maternal and child health policies implemented globally, assess their effectiveness based on measurable outcomes, and explore challenges and gaps. It also seeks to highlight factors associated with successful policy implementation and sustainability.

2. Methods

A narrative review approach was employed to synthesize evidence from diverse sources on maternal and child health policy. The review followed a structured method designed to capture the range of MCH interventions implemented globally.

Databases searched included PubMed, The Lancet, ScienceDirect, Cochrane Library, Google Scholar, and Scopus. Search terms were formulated using Boolean operators to combine keywords including:

- (maternal health OR child health OR newborn health)
- AND (policy OR policies OR strategy OR strategies OR program OR intervention OR plan OR project)
- AND (evaluation OR assessment OR effectiveness OR impact OR outcome)

Only English-language studies were included, and there were no restrictions on publication date. A total of 24 studies were reviewed following abstract/title and full text review. Studies comprises of eight literature reviews, eight descriptive studies, and three analytical studies, with evidence drawn across seven countries including China, United States, Nepal, Rwanda, Nigeria, Uganda, and South Sudan.

3. Overview of Global MCH Policy Landscape

Global maternal and child health policy frameworks have been shaped by decades of international collaboration, evidence-based evaluations, and evolving public health priorities. Institutions such as the World Health Organization (WHO), the United Nations International Children's Emergency Fund (UNICEF), and the World Bank have played key roles in defining goals and supporting policy development worldwide.

3.1. Key global initiatives

The Safe Motherhood Initiative (1987): Marked the launch of global efforts to reduce maternal mortality, emphasized skilled birth attendance, emergency obstetric care, and improved surveillance¹⁶.

The Millennium Development Goals (2000–2015): Goals 4 and 5 focused on reducing child and maternal mortality. By 2015, under-five mortality had declined by 53%, and maternal mortality by 44% (UN, 2015).

The Sustainable Development Goals (2016–2030): SDG 3 targets a global maternal mortality ratio (MMR) below 70 per 100,000 live births and aims to end preventable deaths of newborns and children under five by 2030⁷.

Every Woman Every Child (EWEC) Strategy (2010): Mobilized multi-stakeholder commitments and later evolved into the Global Strategy for Women's, Children's and Adolescents' Health (2016–2030)¹⁷.

Every Newborn Action Plan (ENAP, 2014): Jointly launched by WHO and UNICEF, ENAP focuses on reducing neonatal mortality and stillbirths through targeted interventions, aiming for ≤ 10 newborn deaths per 1,000 live births by 2035¹⁸.

Ending Preventable Maternal Mortality (EPMM, 2015): Emphasizes a human rights-based, systems-oriented, people-centered approach to maternal and newborn health¹⁹.

The Partnership for Maternal, Newborn & Child Health (PMNCH, 2005): A global alliance of over 1,500 organizations focused on advocacy, equity, and multi-sectoral collaboration to strengthen maternal and child health²⁰.

Global Strategy for Women's, Children's and Adolescents' Health (2016–2030): Provides a unified strategic roadmap aligned with SDGs to eliminate preventable maternal and child deaths²¹.

Despite these global frameworks, regional variations persist. For example, sub-Saharan Africa prioritized community health worker (CHW) models and task-shifting to address workforce shortages²², while South Asia scaled up maternal vouchers and conditional cash transfer programs²³.

3.2. Policy Successes and Achievements

Several countries have implemented maternal and child health policies with measurable success. In Rwanda, the deployment of community health workers (CHWs) significantly contributed to a reduction in maternal mortality, decreasing from 1,071 deaths per 100,000 live births in 2000 to 203 in 2020²⁴. Focused Antenatal Care (FANC) has proven effective in reducing maternal morbidity, and its integration with HIV services, as demonstrated in South Africa, has further contributed to the reduction of mother-to-child transmission rates²⁵.

Additionally, the Global Alliance for Vaccines and Immunization (GAVI) has supported the vaccination of over 760 million children, preventing more than 13 million deaths. Specifically, measles immunization alone is estimated to have prevented 23.2 million deaths globally between 2000 and 2018²⁶.

In Latin America, Peru achieved notable progress in addressing child malnutrition by reducing stunting rates from 28% in 2008 to 13% in 2016. Similarly, Ethiopia and several other countries have successfully implemented micronutrient and food fortification programs to address undernutrition²⁷. Nepal adopted a continuum of care model, contributing to a reduction in under-five mortality from 91 to 39 per 1,000 live births between 2001 and 2016²⁸.

In Nigeria, several policy interventions have demonstrated innovation and impact. The Midwives Service Scheme (MSS), launched in 2009, temporarily redeployed midwives from urban to rural communities, leading to improvements in maternal health indicators, although challenges with staff retention were noted²⁹. The Better Obstetrics in Rural Nigeria (BORN) study, which was designed to evaluate the effectiveness of the Midwives Service Scheme (MSS), found a 12%

increase in antenatal care at program clinics and a 6% increase in overall antenatal care utilization. There was also a modest rise in the proportion of births attended by skilled health personnel³⁰.

The Subsidy Reinvestment and Empowerment Programme Maternal and Child Health (SURE-P MCH), a conditional cash transfer initiative, improved the utilization of skilled maternal health services and positively influenced long-term care-seeking behavior³¹. Similarly, the Basic Health Care Provision Fund (BHCPF) was established as a catalytic funding mechanism to enhance access to primary healthcare and accelerate progress toward universal health coverage. This initiative has shown high provider awareness and utilization at the facility level³².

These examples highlight how the strategic deployment of health workers, innovative financing mechanisms, and context-specific policy measures can significantly improve maternal and child health outcomes.

3.3. Implementation Barriers and Challenges

Despite successes, significant barriers persist in achieving universal MCH outcomes. These barriers include:

- Human resources: WHO projects a 10 million shortfall in health workers by 2030, largely in low- and lower-middle-income countries³³.
- Infrastructure: Gaps in facility readiness, availability of essential medicines, emergency transport, and clinic functionality
- Quality of care: Poor provider competence and disrespectful maternity care deter health service utilization. One study estimated 60% of maternal deaths in LMICs are due to poor quality care, not lack of access³⁴.
- Financing: High out-of-pocket spending as seen in Nigeria, where it exceeds 70% of health expenditures hampers care-seeking. Dependency on donors threatens program sustainability⁴¹.
- Data systems: Weak civil registration and vital statistics (CRVS) systems in LMICs result in underreporting of maternal and child deaths, limiting data-driven decision-making³⁶.

Emerging challenges in maternal and child health include the rising burden of non-communicable diseases during pregnancy, maternal mental health concerns, and adolescent pregnancy which are all critical areas often underrepresented in national health strategies³⁵. At the same time, digital health innovations, which have great potential to expand access and improve care, remain underutilized in many underserved communities due to persistent infrastructure and connectivity barriers.

In Nigeria, governance-related issues further deepen implementation gaps. Ineffective strategic purchasing, limited stakeholder engagement, and inequitable resource allocation continue to undermine program efficiency³⁷. For example, the Midwives Service Scheme (MSS), though initially promising, struggled with challenges such as inadequate housing for midwives, irregular salary payments, poor clinic infrastructure, and cultural resistance to facility-based care.¹⁰ In South Sudan, maternal health outcomes are further compromised by ongoing post-conflict instability and weak health systems.

In addition to these systemic challenges, gender inequality remains a persistent and deeply rooted barrier to effective MCH policy implementation. It reinforces disparities in access, autonomy, and quality of care, particularly for women and girls in low-resource settings. Findings reveal that these inequalities are not peripheral, but central drivers of poor MCH outcomes yet they remain insufficiently addressed in current policy frameworks⁴².

To effectively address these complex issues, multi-sectoral and community-driven strategies are essential. Investments must go beyond health service delivery to include education, gender equity, governance reforms, and infrastructure development.

4. Discussion

This review synthesized global evidence on maternal and child health policies, highlighting significant strides made in reducing maternal and child mortality through global frameworks and national initiatives. However, despite this progress, significant disparities in outcomes persist both across and within regions, indicating the need for equitable policy measures.

Key factors that have enabled the successful implementation of MCH policies include strong political leadership, sustainable and innovative financing mechanisms, investments in health system strengthening and human resources, and the active engagement of communities through mechanisms that promote accountability. Countries including

Rwanda, Peru, and Thailand demonstrate how context-specific delivery models such as the deployment of community health workers and the implementation of conditional cash transfer programs can align national priorities with local needs, resulting in transformative health outcomes^{24,27}.

Despite these successes, significant implementation barriers persist, particularly in low- and middle-income countries. Governance inefficiencies, fragmented service delivery, socio-cultural barriers, and inadequate financing continue to hinder progress. In sub-Saharan Africa, for example, weak accountability mechanisms and high out-of-pocket expenditures remain key obstacles to ensuring accessible and continuous care⁴⁰.

These barriers contribute to stark regional disparities. While high-income countries have achieved near-universal coverage of MCH services, many LMICs struggle with limited infrastructure, high fertility rates, and critical shortages in the health workforce. Such disparities highlight the importance of adopting equity-focused and context-sensitive strategies in the design and implementation of MCH policies.

Moreover, as the MCH landscape evolves, emerging priorities are becoming increasingly apparent. Issues such as adolescent reproductive health, maternal mental health, and the growing burden of non-communicable diseases during pregnancy are often inadequately addressed in national strategies. The COVID-19 pandemic further exposed systemic vulnerabilities in MCH service delivery, highlighting the urgent need for resilient and adaptable policy frameworks that can withstand future public health emergencies.

4.1. Policy Implications

To achieve sustained improvements in maternal and child health, policymakers must prioritize equity-driven interventions and ensure that strategies are context-specific, evidence-informed, and inclusive of vulnerable and marginalized populations. Cross-sectoral collaboration, capacity building, and active community engagement are essential to enhancing both the accessibility and quality of MCH services. Furthermore, greater investment in implementation research is needed to refine delivery mechanisms, evaluate what works in diverse settings, and close the persistent gap between policy intent and practical outcomes.

5. Conclusions

Although global maternal and child health policies have contributed to measurable progress, such as the sharp reduction in Rwanda's maternal mortality ratio, the decline in childhood stunting in Peru, and the prevention of millions of child deaths through GAVI-supported immunization programs, yet significant disparities persist. The continued burden of approximately 260,000 maternal deaths annually, most occurring in low- and middle-income countries, reflects a persistent gap between policy design and real-world implementation.

Several structural and systemic challenges continue to impede progress. These include critical shortages in the health workforce, inadequate and unsustainable financing mechanisms, low quality of care, weak health information and data systems, and structural inequities, particularly affecting rural and underserved communities.

Achieving future success in MCH will require a coordinated focus on key enablers. These include sustained political commitment, strengthened domestic financing mechanisms, community participation, robust governance and data systems, and the adoption of equity-focused, rights-based policy frameworks. Countries that have successfully embedded MCH within broader national development agendas such as Rwanda and Ethiopia demonstrate the value of community engagement, multisectoral collaboration, and strategic alignment with social and economic development goals.

Realizing the full potential of MCH policies will depend not only on technical interventions but also on a deep and sustained commitment to equity, human rights, and social justice within health systems worldwide.

This review is subject to certain limitations. The use of a narrative synthesis approach may introduce interpretive bias, as findings are contextually integrated rather than statistically aggregated. Furthermore, the predominance of descriptive studies constrains the ability to establish causal relationships. The potential for publication bias, where studies with significant or positive results are more likely to be published, may also limit the generalizability of the findings to broader populations or settings.

Compliance with ethical standards

Disclosure of conflict of interest

Authors declare no competing interests.

Statement of ethical approval

No Ethical approval and Consent were obtained as there was no need for one.

Funding

This study was not funded.

Authors Contributions

JM and TK conceptualized the review. JM conducted the literature search, screened and synthesized the data and developed the draft manuscript with support from TK, MS, RR. DD provided guidance and reviewed all manuscript drafts. All authors reviewed and approved the final manuscript for submission.

References

- [1] World Health Organization. "Maternal Mortality." *World Health Organization*, 7 Apr. 2025, www.who.int/news-room/fact-sheets/detail/maternal-mortality.
- [2] Trends in maternal mortality estimates 2000 to 2023: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva: World Health Organization; 2025. Licence: CC BY-NC-SA 3.0 IGO.
- [3] Global and regional causes of maternal deaths 2009–20: a WHO systematic analysis, Cresswell, Jenny A et al, *The Lancet Global Health*, Volume 13, Issue 4, e626 - e634
- [4] A global analysis of the determinants of maternal health and transitions in maternal mortality, Souza, João Paulo et al, *The Lancet Global Health*, Volume 12, Issue 2, e306 - e316
- [5] UNICEF. "Maternal Mortality." *UNICEF Data*, UNICEF, Apr. 2025, data.unicef.org/topic/maternal-health/maternal-mortality/.
- [6] McDowell, Knudson-Martin & Bermudez, 2022, Osío, 2023, Webster & Wyatt 2020.
- [7] United Nations. "Goal 3 | Ensure Healthy Lives and Promote Well-Being for All at All Ages." *United Nations*, 2015, sdgs.un.org/goals/goal3#targets_and_indicators.
- [8] World Health Organization (2023). *Global Strategy for Women's, Children's and Adolescents' Health Data Portal*. [online] platform.who.int. Available at: <https://platform.who.int/data/maternal-newborn-child-adolescent-ageing/global-strategy-data>.
- [9] The Federal Democratic Republic of Ethiopia Ministry of Health Sector Transformation Plan. Addis Ababa: Ministry of Health; 2015 October 2015.
- [10] World Health Organization . Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, world bank group and UNDESA/population division [Internet]. Geneva: World Health Organization; 2023. Available: <https://www.who.int/publications/i/item/9789240068759>[Google Scholar]
- [11] India's Janani Suraksha Yojana, a conditional cash transfer programme to increase births in health facilities: an impact evaluation, Lim, Stephen S et al., *The Lancet*, Volume 375, Issue 9730, 2009 – 2023
- [12] Yang L, Wang H. Primary health care among rural pregnant women in China: achievements and challenges in maternal mortality ratio. *Prim Health Care Res Dev*. 2019 Jun 25;20:e97. doi: 10.1017/S1463423619000306. PMID: 32800000; PMCID: PMC8060817
- [13] Crear-Perry J, Correa-de-Araujo R, Lewis Johnson T, McLemore MR, Neilson E, Wallace M. Social and Structural Determinants of Health Inequities in Maternal Health. *J Womens Health (Larchmt)*. 2021 Feb;30(2):230-235. doi: 10.1089/jwh.2020.8882. Epub 2020 Nov 12. PMID: 33181043; PMCID: PMC8020519.

- [14] Sutarsa, I. N., Campbell, L., Ariawan, I. M. D., Kasim, R., Marten, R., Rajan, D., & Hall Dykgraaf, S. (2024). Multisectoral interventions and health system performance: a systematic review. *Bulletin of the World Health Organization*, 102(7), 521–532F.
- [15] Barbera, S.L. (2023). *Investing in Maternal Health: Economic Benefits and Policy Implications*. [online] Preprints.org. doi:https://doi.org/10.20944/preprints202307.1747.v1.
- [16] Starrs, A.M. (2006). Safe motherhood initiative: 20 years and counting. *The Lancet*, 368(9542), pp.1130–1132. doi:https://doi.org/10.1016/s0140-6736(06)69385-9.
- [17] Sustainabledevelopment.un.org. (n.d.). *Every Woman Every Child ... Sustainable Development KnowledgePlatform*. [online] Available at: https://sustainabledevelopment.un.org/sdinaction/everywomaneverychild.
- [18] WHO, UNICEF. 2014. *Every Newborn: an action plan to end preventable deaths*. Geneva: World Health Organization.
- [19] Ending preventable maternal mortality (EPMM). (2021). World Health Organization.
- [20] pmnch.who.int. (n.d.). PMNCH - Partnership for Maternal, Newborn and Child Health. [online] Available at: https://pmnch.who.int.
- [21] 2016 Global Strategy for Women's, Children's and Adolescent's Health (2016-2030)
- [22] Idriss-Wheeler, D., Ormel, I., Assefa, M., Rab, F., Angelakis, C., Yaya, S., & Sohani, S. (2024). Engaging Community Health Workers (CHWs) in Africa: Lessons from the Canadian Red Cross supported programs. *PLOS global public health*, 4(1), e0002799.
- [23] Jehan, K., Sidney, K., Smith, H. and de Costa, A. (2012). Improving access to maternity services: an overview of cash transfer and voucher schemes in South Asia. *Reproductive Health Matters*, 20(39), pp.142–154. doi:https://doi.org/10.1016/s0968-8080(12)39609-2.
- [24] Binagwaho, A., Farmer, P.E., Nsanzimana, S., Karema, C., Gasana, M., de Dieu Ngirabega, J., Ngabo, F., Wagner, C.M., Nutt, C.T., Nyatanyi, T., Gatera, M., Kayiteshonga, Y., Mugeni, C., Mugwaneza, P., Shema, J., Uwaliraye, P., Gaju, E., Muhimpundu, M.A., Dushime, T. and Senyana, F. (2014). Rwanda 20 years on: investing in life. *The Lancet*, 384(9940), pp.371–375. doi:https://doi.org/10.1016/s0140-6736(14)60574-2.
- [25] Armstrong-Mensah, E., Ruiz, K., Fofana, A. and Hawley, V. (2020). Perinatal HIV Transmission Prevention: Challenges among Women Living with HIV in sub-Saharan Africa. *International Journal of Maternal and Child Health and AIDS (IJMA)*, 9(3), pp.354–359. doi:https://doi.org/10.21106/ijma.404.
- [26] www.gavi.org. Annual Progress Report 2018. [online] Available at: https://www.gavi.org/progress-report.
- [27] Revisiting maternal and child undernutrition in low-income and middle-income countries: variable progress towards an unfinished agenda, Victora, Cesar G et al. *The Lancet*, Volume 397, Issue 10282, 1388 – 1399
- [28] Ministry of Health, Nepal; New ERA; and ICF. 2017. *Nepal Demographic and Health Survey 2016*. Kathmandu, Nepal: Ministry of Health, Nepal.
- [29] Abimbola S, Okoli U, Olubajo O, Abdullahi MJ, Pate MA. The midwives service scheme in Nigeria. *PLoS Med*. 2012;9(5):e1001211. doi: 10.1371/journal.pmed.1001211. Epub 2012 May 1. PMID: 22563303; PMCID: PMC3341343.
- [30] The Better Obstetrics in Rural Nigeria (BORN) Study: An Impact Evaluation of the Nigerian Midwives Service Scheme, by Edward N. Okeke, Peter Glick, Isa Sadeeq Abubakar, A.V. Chari, Emma Pitchforth, Josephine Exley, Usman Bashir, Claude Messan Setodji, Kun Gu, and Obinna Onwujekwe, RR-1215-3ie, 2015 (available at www.rand.org/t/RR1215)
- [31] Onwujekwe O, Ensor T, Ogbozor P, Okeke C, Ezenwaka U, Hicks JP, Etiaba E, Uzochukwu B, Ebenso B, Mirzoev T. Was the Maternal Health Cash Transfer Programme in Nigeria Sustainable and Cost-Effective? *Front Public Health*. 2020 Nov 4;8:582072. doi: 10.3389/fpubh.2020.582072. PMID: 33251176; PMCID: PMC7673437.
- [32] Ibrahim, Z.A., Konlan, K.D., Moonsoo, Y. et al. Influence of Basic Health Care Provision Fund in improving primary Health Care in Kano state, a descriptive cross-sectional study. *BMC Health Serv Res* 23, 885 (2023). https://doi.org/10.1186/s12913-023-09708-w

- [33] Boniol M, Kunjumen T, Nair TS, Siyam A, Campbell J, Diallo K. The global health workforce stock and distribution in 2020 and 2030: a threat to equity and 'universal' health coverage? *BMJ Glob Health*. 2022;7(6):e009316. doi: 10.1136/bmjgh-2022-009316.
- [34] Kruk, Margaret E et al. "High-quality health systems in the Sustainable Development Goals era: time for a revolution." *The Lancet. Global health* vol. 6,11 (2018): e1196-e1252. doi:10.1016/S2214-109X(18)30386-3
- [35] Fisher, J., Cabral de Mello, M., Patel, V., Rahman, A., Tran, T., Holton, S., & Holmes, W. (2012). Prevalence and determinants of common perinatal mental disorders in women in low- and lower-middle-income countries: a systematic review. *Bulletin of the World Health Organization*, 90(2), 139G–149G.
- [36] Mikkelsen, Lene et al. "A global assessment of civil registration and vital statistics systems: monitoring data quality and progress." *Lancet (London, England)* vol. 386,10001 (2015): 1395-1406. doi:10.1016/S0140-6736(15)60171-4
- [37] Ogbuabor DC, Onwujekwe OE. Scaling-up strategic purchasing: analysis of health system governance imperatives for strategic purchasing in a free maternal and child healthcare programme in Enugu State, Nigeria. *BMC Health Serv Res*. 2018 Apr 5;18(1):245. doi: 10.1186/s12913-018-3078-x. PMID: 29622003; PMCID: PMC5887245.
- [38] UNFPA South Sudan. (2017). *Maternal Health*. [online] Available at: <https://southsudan.unfpa.org/en/topics/maternal-health>.
- [39] Mugo, Ngatho & Zwi, Anthony & Botfield, Jessica & Steiner, Caitlyn. (2015). Maternal and Child Health in South Sudan: Priorities for the Post-2015 Agenda. *SAGE Open*. 5. 10.1177/2158244015581190.
- [40] Travis, Phyllida et al. "Overcoming health-systems constraints to achieve the Millennium Development Goals." *Lancet (London, England)* vol. 364,9437 (2004): 900-6. doi:10.1016/S0140-6736(04)16987-0
- [41] World Development Report 2021: Data for Better Lives. [online] wdr2021.worldbank.org. Available at: <https://wdr2021.worldbank.org>.
- [42] Kayode, T., Singh, M., Sidi-Ali, M., Ottoho, E., Rodrique, R., et al. (2024). Gender inequality and public health: Exploring the negative impacts. *International Archives of Public Health and Community*, 8, 100. <https://doi.org/10.23937/2643-4512/1710100>