Opportunities and Challenges of Advanced Practice Midwifery (APM) in Kenya: A Discussion Paper

Florence Mbuthia¹, Joyce Jebet², Elijah Kirop³

¹School of Nursing and Midwifery, Dedan Kimathi University of Technology, Kiganjo/Mathari, B5, Nyeri, Kenya
²School of Nursing Sciences, University of Nairobi, University Way, Nairobi, Kenya
³School of Nursing and Midwifery, Moi University, Eldoret, Kenya

Abstract: Background: The high maternal and neonatal deaths remain a global concern especially in Low- and Middle-Income Countries. This is largely attributed to the limited skilled workforce including midwives who are required to offer quality maternal and neonatal care. Advanced Practice Midwifery (APM) training has been highlighted as critical in achieving high-quality maternal and neonatal care in all settings and countries. In Kenya, the APM training is at the initial stages, having been launched in May 2022. This paper presents the results of a literature review regarding opportunities and challenges for the APM training and practice with a goal of availing information to any institution willing to begin the program in Kenya and other LMICs.

Methodology: A descriptive overview was undertaken through a rapid literature review of the relevant local and international literature to highlight the opportunities and challenges for the APM training and practice based on the Kenyan Context.

Results: The APM training and practice has expansive opportunities such as the increased demand for quality care and reduced cost services, supportive policies, advances in technology, profession recognition and regularisation of the training and availability of midwives trained at lower levels. The challenges that the APM training is likely to experience includes; Lack of expert trainers, technological challenges, workload challenges due to the high population in need of the services and clinical environment challenges.

Conclusion: APM training and practice has enormous opportunities despite the challenges that may be experienced. Therefore, for any institution preparing to start the APM training, there is need to exploit the existing opportunities and address the likely challenges to ensure the APM training and practice meets the desired outcomes.

Keywords: Advanced Practice Midwifery, Midwife, Opportunities, Challenges.

INTRODUCTION

Maternal and neonatal morbidity and mortality remains a global burden and a public health concern, particularly in sub-Saharan Africa where maternal mortality still remains significantly high despite numerous efforts and/or interventions (WHO, 2019). This has been compounded by inadequate workforce, including lack of skilled attendance especially midwives thereby hindering access to quality midwifery care (United Nations, 2019). Globally more than one million midwives are required who should be well-trained, skilled, and motivated midwives to help evert over 85% of the deaths (UNFPA, 2022). The roles of midwives in any given society cannot be underestimated. From time immemorial midwives have been highly regarded and respected in providing care that result into optimal health outcomes (Walker et al., 2014). Midwifery practice has been highlighted as critical in achieving high-quality maternal and neonatal care in all settings and countries (Schober, 2020). Midwives across the globe practice autonomously to the full scope of their practice. With continuous acquisition of knowledge and skills, they gain experience and are able to function at an advanced level of practice (Smith et al., 2010). It is paramount for any government to recognise this advanced role that midwives play and equip them with training that will enable them remain at per with other allied professional albeit being autonomous.
Training a midwife to improve his/her competencies is essential in contributing to high quality healthcare and for the development of the profession (Mattison et al., 2020). A midwife who is trained to practice in midwifery is able to provide care in an independent capacity for various patients’ populations in different settings. Advanced Midwifery practice (APM) is a program that provides an opportunity for nurses training at bachelor’s level to further their studies at a Master’s level and practice at an independent level. The training allows midwives to fully maximize their competencies and bridge the gap of inaccessibility to midwifery, sexual and reproductive specialized health care. In addition, the APM training is necessary to meet the increasing epidemiological, socio-economic, and technological challenges (Goemaes et al., 2020). There are limited institutions offering advanced practice midwifery training in LMICs.

In Kenya, most training institutions are ‘all-inclusive’, that is, training all the specific components (medical-surgical nursing, mental health, community health nursing and midwifery) as a unified package of the nurse-training programmes. Although the nurse-training programmes in Kenya are intensive, arguably they may also be limited in providing more focus to core areas of the above-stated areas, especially in developing core professional competencies during the training such as in midwifery. This has informed the recent shift towards the specific training of midwives at degree level and beyond, including APM. The APM training and practice in Kenya is at the initial stages with only two institutions (Masinde Muliro University of Science and Technology and the Agha Khan University) currently offering APM (Shaibu, 2020). The very few practicing Advanced Practice midwives have been trained in foreign countries. However, Kenya has made significant strides in healthcare, including universal health care, Linda Mama initiative among others which has seen improved access to quality care. The recent launch of the APM in Kenya by the Nursing Council of Kenya in May 2022 (NCK, 2022) is highly commendable and welcome as this would see a positive transformation of midwifery education and practice both locally and regionally. For any given institution to begin APM training and to ensure APM practice is implemented in the country, its paramount to acknowledge some of the opportunities available and challenges that are likely to be faced. This discussion paper therefore sought to highlight the opportunities and challenges of APM training and practice in Kenya based on literature.

**Methodology**

A descriptive overview was undertaken through a rapid literature review of the relevant local and international literature to highlight the opportunities and challenges for the APM training and practice. Literature review is a methodology highly recommended to provide answers for a number of research questions. Literature reviews are useful when the aim of a study is to provide an overview of a certain issue or evaluate the state of knowledge on a particular topic (Snyder, 2019). It can be used, for example, to create research agendas, identify gaps in research, or simply discuss a particular matter (Snyder, 2019). In this article, literature review through systematic key word searches in PubMed, Google, and Google Scholar was used to discuss the opportunities and challenges of APM training and practice.

**Opportunities for APM training and practice**

Advanced practice midwifery as a program has the opportunity to grow and thrive in every society, given the increasing health care demands especially in rural and hard to reach areas where this specialisation is needed most (Schober, 2020). Moreover, a midwife who is trained at an advanced level has got widespread opportunities to deliver services ranging from leadership, policy, education and primary health care level. This is because at APM, a midwife is trained to be practitioners, leaders, innovators, clinical scholars, healthcare advocates and collaborators able to address current and future health and healthcare delivery needs at the individual, group, population and system level (Mattison et al., 2020; Schober, 2020). The opportunities are discussed further in detail.

**Increased demand for quality care and reduced cost services**

Globally, there is heightened demand for every nation to offer quality care to their populations more so across reproductive lifespan (World Health Organization, 2018). To achieve quality maternal and neonatal care, excellence in midwifery care is essential in all settings to achieve optimal health outcomes, increase women satisfaction and enhance continuity of care (Coyne et al., 2016; Donald et al., 2013). Evidence shows that quality of care and optimum health outcome is achievable through midwife led care compared to physician-led care (Renfrew et al., 2014). As such the midwife need to be well equipped with right competencies to continue giving quality care and this will lead to a rapid and sustained reductions in maternal and neonatal mortality (World Health Organization, 2018). In low- and middle-income countries, majority of population lives in rural areas, where specialised care for women and families by obstetrician and gynaecologist is rarely available. As a result, APM services will be highly needed since the services are associated with reduced cost as well as improved quality of care (Perriman et al., 2018; Torrens et al., 2020; Tracy et al., 2014).

**Supportive policies**

Globally there is a shifting trend to increase accessibility of health care services through universal health coverage as one strategy towards realisation of Sustainable Development Goal(SDG) number three
which states “Good health and well-being” (United Nations, 2019). With supportive policies on universal health coverage, the accessibility to healthcare services where they are needed most such as rural areas and where the greater population dwell in will be achieved (Schober, 2020; World Health Organization, 2018). Advanced practice midwifery program is meant to train midwives with such specialisations that are accessible everywhere in every setting. For this to take place, there is a need to have well established policies for guiding midwifery education, practice and regulation. The nursing and midwifery policies in Africa are supportive of such training as evidenced by recognition and regularisation of the midwifery practice at advanced level (Geyer & Christmals, 2020) therefore, providing a conducive environment for the program to thrive. In Kenya, the Kenya Health policy as well as the Kenyan Constitution are supportive of every citizen receiving highest standard of health care including reproductive Health (Government of Kenya, 2010; Ministry of Health, 2014). With the supportive policies, there will be a wider coverage of maternal and neonatal health care services.

### Large number of midwives trained at lower levels

Studies that have explored the potential for advanced practice nursing noted that the nurses/ midwives who practiced autonomously were mostly of the lower cadre. Those with high qualifications moved to management and education as they did not see prospects of academic growth in the clinical area (East et al., 2014). There is huge number of midwives who have been trained at the basic level and who are already taking advanced roles with no formalised training in several LMICs. For instance, during the COVID-19 pandemic, many midwives were able to provide delivery services as independent midwives (Geyer & Christmals, 2020; Zakiah et al., 2021) (Zulfa, S. Z., Emilia, O., & Hidayat, A., 2021). These large number of nurses requires a formalised training to practice fully as independent midwives. Kenya has more 29 Universities that are approved to train nurses at Bachelor’s degree level. The graduands from these institutions will definitely provides prospective trainees for the APM training.

### Advances in technology

Over recent decades pregnancy and childbirth processes have been greatly transformed under the influence of technology (Topçu & Brown, 2019). Day by day, there are growing demands in midwifery practice owing to technological advancements or increasing literacy among the population thus making the practice complex (Goemae et al., 2020a). Technological advances require competent health professionals to guide women in making informed decisions. A midwife trained at advanced level will be in a position use the technology to manage complicated cases, and consistently help women and families to get the answers, support, and guidance that they need to enjoy a more holistic and safe pregnancy and birth. An APM program help a midwife to keep abreast of the technological advancements and innovations as well as elevate their capabilities to match what both clients and the health care sector require for exceptional care. In addition, the training will prepare midwives for future advancements and innovations that may impact their roles as practitioner midwives.

### Professional recognition and regularization

Absence of legislation to support regulatory activities is recognized as a factor that limit the recognition, scope and the ability for midwives to practise as an autonomous profession (Mattison et al., 2020). Lack of alignment of regulation and the roles of advanced practice midwifery/ nursing has been noted in African countries (McCarthy et al., 2013). A number of countries have already regularised the training of APM and recognised the profession like all other specialised health related program (Mayra et al., 2021). Kenya has launched the training materials for training APM in May 2022, making it easy to implement the program. With recognition and regularization, an advanced practice midwife will be able to venture into different careers such as in leadership, research, innovation while still in line of practice. As a result, the midwife will be endowed with greater renumeration opportunity.

### Challenges for APM training and practice in Kenya

Advanced practice midwifery (APM), an equivalent of advanced nursing practice is a new practice in Kenya that is in its infancy stages. However, this training and practice like any other may not be without challenges. The challenges may vary from rural urban disparities, inadequate trainer, workload, acceptability, limited resources, delay in completion, technological and clinical environmental challenges.

### Inadequate trainers

To successfully implement an APM program, trainers at advanced level are highly recommended. At the moment such trainers are lacking in most LMICs. For instance, the few institutions offering the training have had to recruit from foreign countries. The few nurse trainers in most training institutions currently have the orientation of a nurse/midwife and have not undergone the advanced practice midwife specialty. The available midwives are too few and may be too stretched compared to the number of students being trained. This means there is a possibility that the students will be trained by those that are not specialized in this field. Competency of trainers in education and training is essential in ensuring trainees who will be equally competent in practice.

### Workload challenges

Chronic shortage of midwifery staff in many LMICs, affects midwives’ ability to function effectively which has an implication on care delivery (Adatara et al., 2021). With the high birth rates in many countries,
the maternity units are busy with many clients, some having complications. In Kenya, there has been inability of the County governments to absorb the workforce graduating every year due to lack of resources owing to limited budgetary allocation to the health sector. The private facilities may have the capacity to employ many midwives, however, some facilities have poor terms of service which do not make them competitive. In addition, a number of qualifying nurses and midwives seek greener pastures abroad in countries like United States of America, Canada, Australia and United Kingdom where the terms of service are better. As a result, the few midwives practicing become overwhelmed with workload challenges given the fact that most of health facilities in Kenya deal with a high patient volume. This is likely to impact on the quality of care provided to the clients/patients.

Acceptability challenges

Acceptability of the APM programme by any training institution is critical since this is a new programme, therefore having a buy in is key to allow for the programme to be accommodated and necessary resources be provided. At the same time the practice of midwifery needs to be accepted by the clientele as well as the employers of the trained midwife. In many instances, this has not been the case. Many midwives have previously been placed at work places where their specific midwifery professional competences were not useful, failing to recognise or accept the profession. In other cases, they are transferred according to their supervisor’s preferences rather than their specific practice to allow them to practise their profession (Adatara et al., 2021; Bogren et al., 2020). This makes the midwives to be demotivated and possibly loose skills due to lack of practicing over time.

Limited resources

In many instances, training institutions are not willing to have new programmes, since there are huge resources required to run a programme, both human and capital resources. At times, despite the programme running in the institution, the resources provided may not be adequate, as such this will risk the quality of the training. This becomes challenging since it is difficult to run a programme without resources. A study in South Africa revealed that lack of resources which included shortage of classrooms, library facilities, accommodation medical supplies, equipment and other materials affected the quality of learning (T Malwela et al., 2017). Other than the classroom resources, clinical area resources are also a challenge that can affect the quality of learning. In the clinical sites, the practicing midwives are mentors and/or clinical instructors to the student midwives depending on the training institution. Owing to the shortages of human resource, medical supplies and equipment, the students may not learn the ideal practice since they will be forced to work with the available resources. Shortage of midwives and work overload also may make the midwives to be reluctant to teach or mentor the students (Thivhulawi Malwela et al., 2016). This leads to a compromise on the quality of training and the products.

Delay in completion of the training by the trainees

Completion of a programme is coupled with a number of challenges. The advanced midwifery programme targets those that already have their first degree. This implies that the trainees of the programme will mostly be mature students. This being the case, this category of students tends to have more demands which include family, workplace and their education. For those that may be too hard up, they may be forced to drop out or defer from the programme, intrinsically affecting their completion of the programme. Completion of the programme is also affected by lack of/ or inadequate supervision of students (Bharj & Embo, 2018; Talato et al., 2022). Students who are adequately supervised have a better motivation and are likely to complete their programme as compared to those who receive less supervision.

Technological challenges

Technology is another challenge. A scoping review of 28 studies established that nurse educators’ competencies need to be advanced, as well as training institutions should ensure readiness for a technology-rich environment (Nes et al., 2021). Although the world is becoming technologically advanced, the developing countries are still struggling with access to technology. This will be a limitation especially if students are required to have online classes. In addition, there might be other challenges for instance poor network, lack of money to purchase bundles or being technologically incompetent.

Clinical environment challenges

An enabling clinical environment is necessary in achievement of competencies in midwifery. An ideal clinical environment that will allow the learners to achieve their objectives is essential in the quality of training and competency (Berhe & Gebretensaye, 2021). There could be challenges in the clinical area whereby the programme may be viewed as a threat to other specialists for example the obstetricians, especially when they do not understand the mandate of APMs. This will make it difficult for the students to receive support in the case where the obstetricians and other team members’ support is needed. Other challenges in the clinical setting will include lack of assessments by the clinical instructors, inadequate time for the students in clinical placement and negative attitude of the health care providers towards the students (Khosla et al., 2020).

Rural Urban disparities

The training of APM is mainly provided by training institutions located in urban areas and the graduands are mostly absorbed in the urban cities. In
Kenya, most of the people live in the rural areas, thus indicating the need to have more facilities in the rural settings. Unfortunately, there is inequity in distribution of the health facilities. The midwives, owing to the location of the health facilities will be forced to put up in the rural areas. This makes it challenging for the rural population to access the specialized care, whereas, this training is more appropriate when offered in primary level facilities (Schober, 2020). Community midwifery can make great impact in the rural communities as the midwives will reach the populace in their homes, thus expanding access, as such increase the coverage of specialized health workforce.

CONCLUSION

The APM training and practice has enormous opportunities despite the challenges that may be experienced. Therefore, for any institution willing to initiate the program, there is need to utilise the existing opportunities and address the likely challenges to ensure that the APM training and practice meets the desired outcomes.

LIMITATIONS

This paper was based on a Kenyan Context and though this may not be different from other LMICs context, generalisation of the findings must consider the specific context in question.

Funding: This research received no funding.

Acknowledgments: We acknowledge the support received from library in Dedan Kimathi University, University of Nairobi and Moi University.

Disclosure statement: The author declares no potential conflict of interest.

REFERENCES

- Adatara, P., Amooba, P. A., Afaya, A., Salia, S. M., Avane, M. A., Kuug, A., Maaalman, R. S. E., Atakro, C. A., Attachie, I. T., & Atachie, C. (2021). Challenges experienced by midwives working in rural communities in the Upper East Region of Ghana: a qualitative study. *BMC Pregnancy and Childbirth*, 21(1), 1–8. https://doi.org/10.1186/s12884-021-03762-0
- Berhe, S., & Gebretensaye, T. (2021). Nursing students challenges towards clinical learning environment at the school of nursing and Midwifery in Addis Ababa University. A qualitative study. *International Journal of Africa Nursing Sciences*, 15. https://doi.org/10.1016/j.jans.2021.100378
- Bharj, K. K. & Embo, M. (2018). Factors affecting quality of midwifery students learning in the workplace: Results of two ICM congress workshops. *Midwifery*. https://doi.org/10.1016/j.midw.2018.03.018
- Bogren, M., Grahn, M., Kaboru, B. B., & Berg, M. (2020). Midwives’ challenges and factors that motivate them to remain in their workplace in the Democratic Republic of Congo - an interview study. *Human Resources for Health*, 18(1), 1–10. https://doi.org/10.1186/s12960-020-00510-x
- Coyne, I., Comiskey, C. M., Lalor, J. G., Higgins, A., Elliott, N., & Begley, C. (2016). An exploration of clinical practice in sites with and without clinical nurse or midwife specialists or advanced nurse practitioners, in Ireland. *BMC Health Services Research*, 16(1), 1–17. https://doi.org/10.1016/s12913-016-1412-8
- Donald, F., Martin-Misener, R., Carter, N., Donald, E. E., Kausalainen, S., Wickson-Griffiths, A., Lloyd, M., Akhtar-Danesh, N., & Dicenso, A. (2013). A systematic review of the effectiveness of advanced practice nurses in long-term care. *Journal of Advanced Nursing*, 69(10), 2148–2161. https://doi.org/10.1111/jan.12140
- East, L. A., Arudo, J., Loeffer, M., & Evans, C. M. (2014). Exploring the potential for advanced nursing practice role development in Kenya: A qualitative study. *BMC Nursing*, 13(1). https://doi.org/10.1186/s12912-014-0033-y
- Geyer, N., & Christmals, C. Dela. (2020). Advanced Practice Nursing in Africa. In *Advanced Practice Nursing Leadership: A Global Perspective* (pp. 63–76). Springer Link.
- Goemaes, R., Beeckman, D., Verhaeghe, S., & Van Hecke, A. (2020a). Sustaining the quality of midwifery practice in Belgium: Challenges and opportunities for advanced midwife practitioners. *Midwifery*, 89. 10.1016/j.midw.2020.102792
- Goemaes, R., Beeckman, D., Verhaeghe, S., & Van Hecke, A. (2020b). Sustaining the quality of midwifery practice in Belgium: Challenges and opportunities for advanced midwife practitioners. *Midwifery*, 89. 102792. https://doi.org/10.1016/j.midw.2020.102792
- Government of Kenya. (2010). *Laws of Kenya: Constitution of Kenya, 2010*. National Council for Law Reporting. www.kenyalaw.org
- Khosla, P., Nursing, G., Biswal, A., Student, B. S. N., Roy, D., & Student, B. S. N. (2020). Nursing Student’s Perception and Challenges Faced In The Clinical Learning Environment. *European Journal of Molecular & Clinical Medicine*, 7(11).
- Malwela, T, M.S, M., & R.T, L. (2017). Availability of Resources as a Factor Influencing Integration of Midwifery Theory with Clinical Practice at Training Institutions of Vhembe District, South Africa. *Nursing & Primary Care*, 2(1). https://doi.org/10.33425/2639-9474.1013
- Malwela, Thivhuwalu, Maputle, S. M., & Lebese, R. T. (2016). Factors affecting integration of midwifery nursing science theory with clinical practice in vhembe district, limpopo province as...
perceived by professional midwives. *African Journal of Primary Health Care and Family Medicine*, 8(2), 1–6. https://doi.org/10.4102/phcfm.v8i2.997

- Mattison, C. A., Lavis, J. N., Wilson, M. G., Hutton, E. K., & Dion, M. L. (2020). A critical interpretive synthesis of the roles of midwives in health systems. *Health Research Policy and Systems*, 18(1), 1–16. https://doi.org/10.1186/s12961-020-00590-0

- Mayra, K., Padmas, S. S., & Matthews, Z. (2021). Challenges and needed reforms in midwifery and nursing regulatory systems in India: Implications for education and practice. *PLoS ONE*, 16(5). https://doi.org/10.1371/journal.pone.0251331

- McCarthy, C. F., Voss, J., Salmon, M. E., Gross, J. M., Kelley, M. A., & Riley, P. L. (2013). Nursing and midwifery regulatory reform in east, central, and southern Africa: A survey of key stakeholders. *Human Resources for Health*, 11(1). https://doi.org/10.1186/1478-4491-11-29

- Ministry of Health. (2014). *Kenya Health Policy 2014 - 2030*. Ministry of Health. http://www.health.go.ke

- Nes, A. A. G., Steindal, S. A., Larsen, M. H., Heer, H. C., Lærum-Onsager, E., & Gjevjon, E. R. (2021). Technological literacy in nursing education: A scoping review. In *Journal of Professional Nursing* (Vol. 37, Issue 2). https://doi.org/10.1016/j.profnurs.2021.01.008

- Perriman, N., Davis, D. L., & Ferguson, S. (2018). What women value in the midwifery continuity of care model: A systematic review with meta-synthesis. *Midwifery*, 62. https://doi.org/10.1016/j.midw.2018.04.011

- Renfrew, M. J., McFadden, A., Bastos, M. H., Campbell, J., Channon, A. A., Cheung, N. F., Silva, D. R. A. D., Downe, S., Kennedy, H. P., Malata, A., McCormick, F., Wick, L., & Declercq, E. (2014). Midwifery and quality care: Findings from a new evidence-informed framework for maternal and newborn care. *The Lancet*, 384(9948), 1129–1145. https://doi.org/10.1016/S0140-6736(14)60789-3

- Schober, M. (2020). *Guidelines on Advanced Nursing Practice*. https://www.icn.ch/system/files/documents/2020-04/ICN_APN_Report_EN_WEB.pdf

- Shaibu, S. (2020). *Introduction of an Advanced Practice Nurse Program in Kenya: A New Era in Nursing Education*.

- Smith, R., Leap, N., & Homer, C. (2010). Advanced midwifery practice or advancing midwifery practice? *Women and Birth*, 23(3), 117–120. https://doi.org/10.1016/J.WOMBI.2009.11.002

- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104(July), 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

- Talato, T., Patrice, N., Pilabre, A. H., Yacouba, P., Téwende, K. A., Abibata, B., Doulaye, T., Nestor, B., & Dieudonné, S. (2022). Barriers and facilitators of the effectiveness of the clinical pedagogical supervision of nursing and obstetric students in sub-Saharan Africa: A systematic review. *Journal of Nursing Education and Practice*, 12(6). https://doi.org/10.5430/jnep.v12n6p35

- Topçu, S., & Brown, P. (2019). The impact of technology on pregnancy and childbirth: creating and managing obstetrical risk in different cultural and socio-economic contexts. *Health, Risk and Society*, 21(3–4), 89–99. https://doi.org/10.1080/13698575.2019.1649922

- Torrens, C., Campbell, P., Hoskins, G., Strachan, H., Wells, M., Cunningham, M., Bottone, H., Polson, R., & Maxwell, M. (2020). Barriers and facilitators to the implementation of the advanced nurse practitioner role in primary care settings: A scoping review. *International Journal of Nursing Studies*, 104. https://doi.org/10.1016/j.ijnurstu.2020.103443

- Tracy, S. K., Welsh, A., Hall, B., Hartz, D., Lainchbury, A., Bisits, A., White, J., & Tracy, M. B. (2014). Caseload midwifery compared to standard or private obstetric care for first time mothers in a public teaching hospital in Australia: A cross sectional study of cost and birth outcomes. *BMC Pregnancy and Childbirth*, 14(1). https://doi.org/10.1186/1471-2393-14-46

- UNFPA. (2022). *Midwifery*. https://www.unfpa.org/midwifery

- United Nations. (2019). *The sustainable development goals report 2016*. https://doi.org/10.29171/azu_acku_pamphlet_k324_0_s878_2016

- Walker, D. S., Lannen, B., & Rossie, D. (2014). Midwifery Practice and Education: Current Challenges and Opportunities. *OJIN: The Online Journal of Issues in Nursing*, 19(2), Manuscript 4.

- WHO. (2019). *Trends in maternal mortality: 2000 to 2017*. WHO.

- World Health Organization. (2018). *World health statistics 2018: monitoring health for the SDGs, sustainable development goals*. WHO Press, Geneva.

- Zakiah, S., Emilia, O., & Hidayat, A. (2021). *Midwives Preparation to Provide Delivery Services in Indonesia*. Ministry of Health. (2014). *Kenya Health Policy 2014 - 2030*. Ministry of Health. http://www.health.go.ke

- WHO. (2019). *Trends in maternal mortality: 2000 to 2017*. WHO.

- World Health Organization. (2018). *World health statistics 2018: monitoring health for the SDGs, sustainable development goals*. WHO Press, Geneva.

- Zakiah, S., Emilia, O., & Hidayat, A. (2021). *Midwives Preparation to Provide Delivery Services in Indonesia*. Ministry of Health. (2014). *Kenya Health Policy 2014 - 2030*. Ministry of Health. http://www.health.go.ke

- WHO. (2019). *Trends in maternal mortality: 2000 to 2017*. WHO.