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Stakeholder Perspectives on Maternal Health Service Delivery: Key Performance Indicators and System Challenges in The Gambia

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Abstract

Maternal health is a major public health concern in The Gambia. The aim of this study was to determine the current status of maternal health services in The Gambia. This study applied well-structured questionnaire to obtain information from 217 participants from seven (7) administrative regions in The Gambia. Descriptive statistics was used to analyze the data. The respondent profile was majorly males, aged 25-34 and highly educated. Findings show that 73.8% reported the presence of community awareness programs, and 83.8% affirmed their personal role in maternal health efforts. Also, the most frequently offered services during community-based maternal health outreach included health education (77.5%), family planning (59.9%), antenatal care (58.2%), and immunization (56.6%). The results also showed that family planning and birth spacing initiatives (65.5%) had the highest implementation rates regarding awareness. Resource and system constraints (55.5%), data availability and quality issues (50.9%), limited technical and human capacity (46.2%), and coordination/communication gaps (32.9%) were frequently reported. Based on the findings of this study, ANC and PNC attendance (67.5%), skilled birth attendance (55.6%), and place of delivery (52.7%) were the most monitored key indicators. The significant representation of nurses/midwives and public health officers is very important, as these professionals are at the forefront of implementing community-based maternal health initiatives. Findings show a strong emphasis on community awareness and engagement in maternal health. Meeting national and international health goals and providing equitable, high-quality maternal health services depend on addressing these issues through focused policy changes and capacity building.

Keywords: *Challenges, Health Service, Key Performance Indicator (KPI), Maternal, Stakeholder.*

Introduction

Maternal health remains a vital component of public health and a key determinant of a country's overall progress and the effectiveness of its healthcare system. Medical care given to women throughout pregnancy, childbirth, and the postpartum phase is referred to as maternal healthcare [1]. It is essential for lowering the incidence of maternal morbidity and death. A variety of services, such as prenatal care, skilled attendance during childbirth, and postnatal care, are included in the World Health Organization's (WHO) definition of adequate maternal healthcare [2]. According to Al Amin, [3] approximately 300,000 maternal deaths and 2.5 million neonatal deaths occurred in 2018, with over 94% of these deaths occurring in areas with inadequate resources. The majority of these deaths take place in sub-Saharan Africa, where more than a million babies pass away on their first day of life every year. Furthermore, problems during pregnancy and delivery cause 800 women and 7700 newborns to die every day, and the postnatal period

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records about 7300 women who report stillbirths [4]. These deaths could be avoided with quality services, robust programs, and interventions prior to and during pregnancy, during labour and delivery, and during the critical postpartum period [1].

The Sustainable Development Goals (SDGs), which seek to lower the global maternal mortality ratio to less than 70 per 100,000 live births by 2030, have made efforts to lower maternal mortality and improve maternal health outcomes a top priority for health agendas around the world [5]. Delivering efficient and fair maternal health services is particularly difficult in sub-Saharan Africa, where maternal death rates are still disproportionately high. This is the case in nations like The Gambia. The Gambia still faces systemic obstacles that make it difficult to provide high-quality maternal care, particularly in marginalised and rural areas, despite significant advancements in recent years [6].

The Gambia, which is one of the smallest nations in mainland Africa, is distinguished by its small geographic profile along the Gambia River, which makes it difficult for rural residents to access healthcare services [7]. The Primary Healthcare Units (PHUs), secondary care facilities, and tertiary care centres make up the majority of the three tiers of the Gambian health system. The cornerstone is primary healthcare, with community health posts acting as the initial point of contact for services related to maternal health. The delivery of maternal health services is severely impacted by the health system's major problems, which include poor infrastructure, a shortage of medical supplies, and a shortage of human resource [8]. At around 1:10,000, the doctor-to-population ratio is significantly lower than what the WHO recommends [9].

There are about 2,221,301 million people living in the Gambia [10, 11] and 101,262 births each year. The Ministry of Health oversees managing these medical institutions and making sure they offer crucial services related to maternal health. With a reported maternal mortality ratio of over 300 deaths per 100,000 live births as of 2020, maternal health is still a major public health concern in The Gambia [12]. This statistic emphasizes how urgently effective initiatives are needed to lower maternal fatalities.

In The Gambia, maternal health-seeking behaviour is also greatly influenced by traditional beliefs. Many cultures still have significant cultural customs surrounding delivery, such as favouring home births and traditional birth attendants [6]. These customs are frequently based on cultural and religious views that consider childbirth to be a natural process that needs little medical assistance [13]. Patriarchal social structures are another sociocultural component that has a big influence on women's autonomy when it comes to making healthcare decisions. Research shows that 65% of women need their spouse's consent to seek medical attention, which inhibits them from using maternal health services promptly and increases their financial reliance on their husbands or partners [14]. The dynamics of a woman's marriage can also impact her access to healthcare and result in different degrees of partner-controlling behaviours, including gender-based violence [15], which has been linked in studies to poor maternal health. Many women have no say in how their husbands' money is spent, even though they may have access to land or maintain control over their own income [16]. This could indicate that women are more reluctant to decide for themselves how much money should be spent on costly expenses like medical care.

Increasing access to competent care during childbirth has been made possible by the training and deployment of Community Health Workers (CHWs) and Traditional Birth Attendants (TBAs), two of the most popular community-based maternal healthcare

interventions [17]. This study concentrated on community-based medical facilities found in a few chosen urban and rural areas of The Gambia. Because of their varied socioeconomic environments and disparities in access to medical care, these regions have been recognized as crucial locations for maternal health interventions. This study also attempted to present a comprehensive picture of how well community-based interventions work to improve maternal health outcomes in The Gambia using qualitative insights from community interactions.

To detect gaps, assess performance, and create relevant solutions, it is crucial to comprehend the viewpoints of important stakeholders, including community leaders, policymakers, healthcare practitioners, and service users. In addition to being the providers and recipients of maternal health services, stakeholders are also key drivers of change whose perspectives can provide light on the reality of service delivery in the field [18]. Their perspectives and experiences offer a comprehensive picture of the current maternal health system's advantages and disadvantages, providing important background information for analysing key performance indicators (KPIs) and directing future programmatic and policy decisions. Key performance indicators serve as vital tools for monitoring and evaluating maternal health outcomes [19]. Key performance indicators such as the Maternal Mortality Ratio (MMR), Antenatal Care Coverage, Skilled Birth Attendance, Postnatal Care Visits, Contraceptive Prevalence Rate, and Community Health Workers Engagements are indicators of the efficacy and impact of maternal health interventions. Aspects of government initiatives (such as policies that support maternal health and efficiently allocate resources), community engagement (including local leaders and community members in health programs), training programs (which provide ongoing training for healthcare providers and community health workers), and partnerships (working with NGOs and international organisations to improve service delivery) also play a part in contributing to its success [20].

With an emphasis on key performance indicators and systemic issues, this study attempts to investigate stakeholder perspectives on the provision of maternal health services in The Gambia. The research aims to give a thorough grasp of the current status of maternal health services and pinpoint practical suggestions for improvement by looking at the opinions of various stakeholders. The specific objectives of this study were to; (i) determine the socio-demographic information of the respondents in the study area; (ii) to determine the prevention and community intervention to maternal health challenges; (iii) determine maternal health awareness programs implemented in the study area between 2010-2020; (iv) to assess community-based maternal health interventions that the respondents have personally participated in between 2010-2020; (v) determined the Key Performance Indices measured during the programs.

Methods

Research Design and Site Description

This study assessed community-based health interventions for maternal health in The Gambia using a retrospective quasi-experimental design. Structured questionnaires and hospital interviews were used to provide qualitative insights for 7 administrative regions (Brikama, Kerewan, Mansakonko, Banjul, Janjanbureh, Kuntaur and Basse) in The Gambia.

Sample Size and Techniques

The population size for this study was 217 participants and stratifying the participants were selected from all the 7 regions, which implies that 31 participants per region. Information on effectiveness of the community-based maternal healthcare interventions were

obtained from Community health workers, midwives, healthcare facilities, traditional birth attendants and healthcare professionals.

Data Collection

Data were extracted from well-structured questionnaires distributed evenly across the seven administrative regions of The Gambia using the three KPIs from the opinion of maternal healthcare service workers within 2010 – 2020. Data were separated into the following categories: Socio-demographic and matrix of three major key performance indicators of community-based maternal healthcare interventions. Each data was manually recorded into a standardized Excel spreadsheet, with separate sheets for each administrative region. For hospital review, it was distributed to healthcare professional.

Data Analysis

Data on the effectiveness of the community-based maternal healthcare interventions using the three KPIs from the opinion of maternal healthcare service workers was analysed to using univariable analysis. Values obtained were compared for the reports. For avoidance of errors in analysis, experts in the field of statistical analysis were employed to first filer the data collected and use appropriate statistical tools such as SPSS. Excel etc.

Results

Socio-demographic Information of the Respondents

The study included 206 respondents, with males comprising the majority at 57.8% compared to females at 42.2%. The largest age group was 25-29 years at 38.6%, followed by 30-34 years at 25.2%, and 20-24 years at 12.9%. The majority of respondents held tertiary education qualifications at 87.9%, while 10.6% had secondary education and 1.4% had vocational training. For marital status, 48.5% were single, 40.7% were married in monogamous relationships, 8.3% were in polygamous marriages, 1.5% were divorced or separated, and 1.0% were widowed. The predominant professional category was nurses/midwives at 62.0%, followed by public health officers at 19.5% (n=40), other categories at 9.3%, heads of facilities at 4.9%, and doctors at 4.4%. Geographically, the Western Coast Region (WCR) had the highest representation at 32.2%, followed by Kanifing Municipal Council (KMC) at 18.3%, Lower River Region (LRR) at 16.3%, Banjul at 11.1%, North Bank Region (NBR) at 8.7%, and both Central River Region (CRR) and Upper River Region (URR) at 6.7% each. The vast majority of respondents, 92.1%, were assigned to the Ministry of Health, while 5.0% were in other institutions, 1.5% were with CSOs, 1.0% were with development partners, and 0.5% were with the Ministry of Gender.

Table 1. Socio-demographic Profile of Respondents

Demographic Information	Frequency (n)	Percent (%)
Sex		
Male	119	57.8
Female	87	42.2
Age		
15-19 years	1	0.5
20-24 years	27	12.9
25-29 years	81	38.6
30-34 years	53	25.2

35-39 years	23	11.0
40-44 years	7	3.3
45-49 years	9	4.3
50+	9	4.3
Highest level of education		
Secondary Education	22	10.6
Tertiary education (college/university)	182	87.9
Vocational Training	3	1.4
Marital Status		
Divorced/ Separated	3	1.5
Married (monogamous)	83	40.7
Married (polygamous)	17	8.3
Single	99	48.5
Widowed	2	1.0
Current level in the Health Facility		
Doctor	9	4.4
Head of the facility	10	4.9
Nurse/ Midwives	127	62.0
Other	19	9.3
Public Health Officer	40	19.5
Region of Assignment		
Banjul	23	11.1
CRR	14	6.7
KMC	38	18.3
LRR	34	16.3
NBR	18	8.7
URR	14	6.7
WCR	67	32.2
Institution of Assignment		
CSO	3	1.5
Development Partners	2	1.0
Ministry of Gender	1	0.5
Ministry of Health	186	92.1
Other	10	5.0

Prevention and Community Intervention to Maternal Health

Table 1 shows respondents' perspective on prevention and community intervention to maternal health. Majority of the respondents (73.8%) indicated that community awareness programs focusing on maternal and child health were present in their communities, while 17.5% of respondents were unsure and 8.7% reported no such programs. The majority of respondents (83.8%), reported having a role in maternal health in The Gambia, while 16.2% indicated they had no role. Community health worker visits to households/health facilities between 2010-2020 occurred monthly for 28.9% of

respondents, followed by once every 3 months at 16.5%, once a year at 16.0%, other frequencies at 13.4%, weekly visits at 12.9%, and once every 6 months at 12.4%. The most commonly offered service during community-based maternal health outreach was health education at 77.5%, followed by family planning at 59.9%, antenatal care at 58.2%, and immunization at 56.6%. Regarding program challenges in tracking or reporting KPIs, resource and system constraints were the most frequently cited at 55.5%, followed by data availability and quality challenges at 50.9%, limited technical and human capacity at 46.2%, and coordination and communication gaps at 32.9%. For community outreach forms, community health volunteers providing health education were most prevalent at 58.3%, followed by radio programs on maternal health at 50.0%, mobile clinics providing antenatal care at 48.9%, religious or traditional leader engagement at 23.3%, and other forms at 3.3%.

Table 2. Prevention and Community Intervention

Questions	**Frequency (n)**	**Percent (%)**
Are there community awareness programs in your community that focusses on maternal and child health?		
Yes	152	73.8
No	18	8.7
I don't know	36	17.5
Do you have a role in maternal health in The Gambia?		
Yes	171	83.8
No	33	16.2
I don't know	0	0
How often have community health workers visited your household/health facilities to provide maternal health education or services between 2010-2020?		
Monthly	56	28.9
Once a year	31	16.0
Once every 3 months	32	16.5
Once every 6 months	24	12.4
Other	26	13.4
Weekly	25	12.9
Which services were offered during the community-based maternal health outreach?		
Antenatal care	106	58.2
Immunization	103	56.6
Health Education	141	77.5
Family Planning	109	59.9
What challenges did the program face in tracking or reporting KPI?		
Data availability and quality challenges	88	50.9
Limited technical and human capacity	80	46.2
Resource and system constraints	96	55.5
Coordination and communication gap	57	32.9
What forms of community outreach for maternal health services are available in your community?		
Mobile clinics providing antenatal care	88	48.9
Community health volunteers providing health education	105	58.3

Religious or traditional leader engagement in maternal health promotion	42	23.3
Radio programs on maternal health	90	50.0
Other	6	3.3

Maternal Health Awareness Programs Implemented in the Study Area between 2010-2020

Figure 1 answers the question of which maternal health awareness programs have been implemented in your community between 2010-2020? As shown in the chart, antenatal and postnatal care programs achieved the highest implementation rate at 66.5%, followed closely by family planning and birth spacing initiatives at 65.5%. Safe childbirth education programs (53.3%) and breastfeeding promotion programs (54.8%) indicating moderate implementation levels, while maternal nutrition education lagged at 50.8%. Notably, "other" programs represented only 7.6% of implementations.

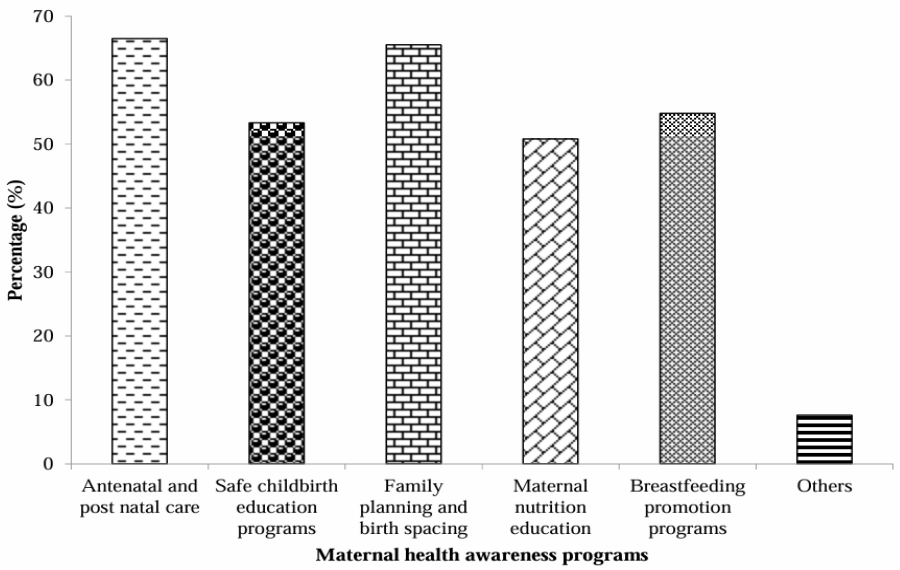

Figure 1. Which Maternal Health Awareness Programs have been Implemented in your Community between 2010-2020?

Assessment of community-based maternal health interventions that the respondents have personally participated in between 2010-2020

Figure 2 answered the question of which community-based maternal health interventions have you personally participated in between 2010-2020? Data showed that women's support groups for maternal health demonstrated the highest participation at 47.2%, indicating strong peer-to-peer engagement mechanisms. However, participation in traditional birth attendant training programs was limited to 26.7% of respondents. Critical emergency and economic support systems showed particularly low engagement: community emergency transport systems (18.8%), home-based maternal care visits (20.5%), and community savings schemes for healthcare costs (15.9%). The 17.6% participation in "other" interventions suggests some diversification in community-level activities beyond the measured categories.

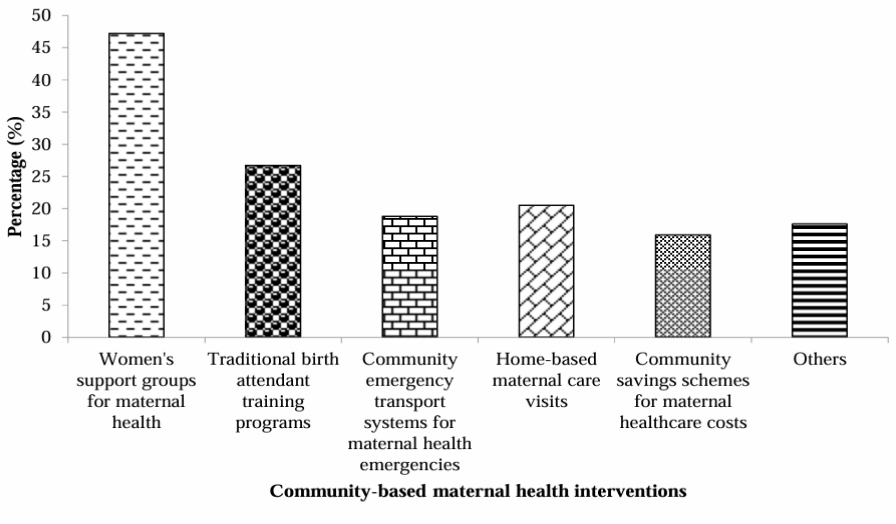

Figure 2. Which Community-based Maternal Health Interventions have you Personally Participated in between 2010-2020?

Key Performance Indices Measured during the Programs

Figure 3 answered the question on which Key Performance Indices (KPIs) were measured. As shown in the chart, ANC and PNC attendance had the highest monitoring rate at 67.5%, followed by skilled birth attendance (55.6%) and place of delivery (52.7%). Family planning indicators showed moderate monitoring, with contraceptive use at 45.6% of programs and birth intervals in 42% of cases. Preventive health measures like tetanus protection were monitored in 31.4% of programs. Concerning gaps emerged in adolescent birth monitoring (18.9%) and measles, mumps, and rubella (MMR) at 14.2%, indicating potential blind spots in comprehensive maternal health surveillance.

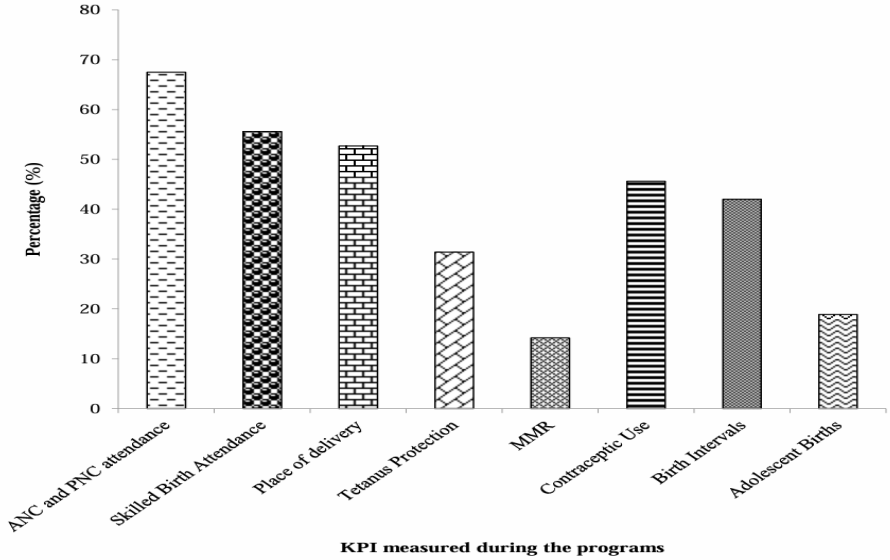

Figure 3. Which Key Performance Indices were Measured during the Programs?

Discussion

The respondent profile which was majorly males, aged 25-34 and highly educated, largely reflects the professional cohort within The Gambian health sector. The significant representation of nurses/midwives and public

health officers is very important, as these professionals are at the forefront of implementing community-based maternal health initiatives. Their geographical distribution, with high representation from the Western Coast Region (WCR) and Kanifing Municipal Council (KMC), agrees with the fact that these areas are densely populated and urbanized areas where health facilities and programs are often concentrated. It is important to note that this information, offers a valuable insight into the perceptions of skilled health cadres regarding systemic challenges and successes [21, 22].

Findings show a strong emphasis on community awareness and engagement in maternal health. A substantial majority of respondents reported the presence of community awareness programs, and affirmed their personal role in maternal health efforts. This high level of engagement among professionals shows the recognition of community-level interventions as fundamental to improving maternal outcomes. Furthermore, the most frequently offered services during community-based maternal health outreach included health education, family planning, antenatal car, and immunization. This broad scope of services suggests a comprehensive approach to maternal and child health at the community level, aligning with integrated primary healthcare models advocated globally [23]. Also, Community Health Worker (CHW) visits, while varied in frequency, showed monthly visits as the most common, indicating a foundational level of routine engagement.

Data from this present study showed that family planning and birth spacing initiatives had the highest implementation rates regarding awareness. This is a positive indicator of focused programming on critical stages of maternal health. However, a significant difference was observed when examining personal participation in community-based interventions. While women's support groups for maternal health showed commendable participation, participation in crucial areas such as traditional birth attendant (TBA) training, community emergency transport systems, home-based maternal care visits, and community savings schemes for healthcare costs was notably low. This differences between program awareness/implementation by health workers and actual community participation in critical support systems points to potential barriers in access, mobilization, or perceived relevance from the perspectives of each the community [24]. In addition, limited engagement in emergency transport and savings schemes is particularly concerning, as these are vital components for addressing delays in accessing care and catastrophic health expenditures, which are major contributors to maternal mortality in low-resource settings [25-26].

A critical finding from the questionnaire was the identification of significant challenges in tracking or reporting KPIs. Resource and system constraints, data availability and quality issues, limited technical and human capacity, and coordination/communication gaps were frequently reported. These challenges directly impact the ability to accurately assess the effectiveness of interventions and make evidence-based adjustments, thereby reducing the efforts to improve maternal health outcomes using technology and efficient data management system [27].

The lack of robust data systems and capacity for analysis can make real progress very difficult in the nation. Based on the findings of this study, ANC and PNC attendance, skilled birth attendance, and place of delivery were the most monitored key performance indicators. This shows how much the nation as well as global agencies in the count prioritizes to promote facility-based deliveries and continuum of care [23].

Conclusion

This comprehensive study of the changes in maternal health indicators and the efficacy of community-based interventions in The Gambia reveals both notable successes and enduring difficulties that define maternal health systems throughout sub-Saharan Africa. Stakeholder perspectives on the delivery of maternal health services in The Gambia provide important insights into performance indicators and systemic challenges. Although there have been improvements in skilled labour and antenatal coverage, ongoing problems like inadequate infrastructure, a lack of workforce, and limited data reliability continue to hinder progress. To achieve more substantial improvements, more intensive efforts are required to reduce the inefficiencies. Stakeholders emphasise the need for community engagement, stronger inter-sectoral collaboration, and investment in health systems to ensure sustainable maternal care. Meeting national and international health goals and providing equitable, high-quality maternal health services depend on addressing these issues through focused policy changes and capacity building.

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Conflict of Interest

The authors declare no conflict of interest.

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