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Utilization Of Postpartum Care Services Among Women In Hodan District, Mogadishu-Somalia

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Abstract

Globally, more than half a million women die each year from complications of pregnancy and childbirth. A large proportion of maternal deaths occur during the first 48 hours after delivery and account for 99% of all deaths in developing countries (WHO, 2013). Postpartum care is an important link in the continuum of care for maternal health to prevent mortality and morbidity. In China, coverage and quality of postpartum care are poor, and these also apply to low- and middle-income countries in Africa (Chen et al., 2014). The period soon after childbirth is critical to the health and survival of the mother and her newborn infant. Yet the postpartum period receives less attention from health care providers than pregnancy and childbirth. Care in the period following birth is critical not only for survival but also for the future of mothers and newborn babies. Major changes occur during this period that determine their well-being and potential for a healthy future (WHO 2013). Postpartum care is the care given to the mother and her newborn baby immediately after birth and for the first six weeks of life. The purpose of the study was to examine factors affecting the utilization of postpartum services among women in Hodan district, Mogadishu, Somalia. The researcher investigated the three most relevant specific objectives: socio-demographic factors, health facility-related factors, and individual factors. The study used a quantitative cross-sectional research design targeting a sample size of 384 respondents from all mothers of reproductive age living in Hodan District of Mogadishu, Somalia. Primary data was collected using a self-administered questionnaire. After the data was collected, it was entered into Statistical Package for the Social Sciences (SPSS) version 20 software to analyze, interpret, and make meaningful conclusions and recommendations. The study concluded that health facility-related factors influencing utilization of PPC services are: availability of health facilities near residence; availability of PPC services; HCWs friendliness; availability and helpfulness; service charges; and waiting time. They are significant and dependent on PPC utilization. The study therefore rejects the null hypothesis and adopts an alternate conclusion by concluding that health facility-related factors have an influence on the utilization of PPC services. The study recommends raising more awareness about PPC during the ANC period and availing and using MCH booklets, health care workers, and community health volunteers' involvement in follow-ups in every care unit (CU) to increase awareness of PPC services to include visits, access, importance, and timing. Community involvement and collaboration of teams (HCWs, religious leaders, and elders) on PPC service utilization to mitigate socio-cultural factors.

1. INTRODUCTION

The postpartum period biologically refers to the time immediately after birth to six weeks thereafter when the mother's body, including her hormone levels and uterus size, returns to pre-pregnancy conditions (WHO, 2013). Postpartum care (PPC) is offered to a mother from the time of placental expulsion up to six weeks after delivery, extending to six months. It involves health promotion, prevention, early detection and treatment of complications and disease, the provision of advice regarding contraception, nutrition, and immunizations, and the Kenya Maternal and Newborn Health Model (KMNH, 2009). Targeted postpartum care is an approach that defines a set of PPC services delivered to a mother in a minimum of four visits spread throughout the first six months following delivery (WHO, 2013).

Globally, more than half a million women die each year from complications of pregnancy and childbirth. A large proportion of maternal deaths occur during the first 48 hours after delivery and account for 99% of all deaths in developing countries (WHO, 2013). Postpartum care is an important link in the continuum of care for maternal health to prevent mortality and morbidity. In China, coverage and quality of postpartum care are poor, and these also apply to low- and middle-income countries in Africa (Chen et al., 2014).

Each year, 287,000 women die from complications related to pregnancy and childbirth, and about 99% of these deaths occur in developing countries. The first hours, days, and weeks after childbirth are a dangerous time for both the mother and the newborn infant. Between 50% and 71% of maternal deaths happen during the postpartum period, particularly in the first few hours. This figure shows a great discrepancy between developed and developing countries. Maternal mortality ratio (MMR) in developing regions is 15 times (240/100,000 live births) higher than in developed regions (16/100,000 live births). Sub-Saharan African countries (SSA) had the highest MMR at 500 maternal deaths per 100,000 live births (UNICEF, 2010).

Based on data from the Demographic and Health Survey (DHS) in 23 African countries, it has been found that approximately two-thirds of women in Sub-Saharan Africa give birth at home. However, only 13 percent of all women receive a postnatal visit within two days. Although there is a positive trend in attendance at antenatal care (ANC), there are significant concerns regarding the provision of ANC services. The reported coverage statistics are usually based on women who have only had one ANC visit, whereas it is recommended that women should have at least four visits. Additionally, the quality of ANC services varies. There is limited knowledge about the utilization of postnatal care (PNC), although its importance has recently been highlighted.

Most maternal deaths occur during labor, delivery, or the first 24 hours after giving birth. It is challenging to reliably predict or prevent most complications during labor, but prompt and appropriate diagnosis and care can successfully treat them. The neonatal period, which spans 28 days, accounts for 38 percent of deaths in children under 5 years of age. The ANC and PNC have the potential to reduce maternal and child morbidity and mortality. The World Health Organization (WHO) has been advocating for improvements in maternal health services through its Safe Motherhood Initiative (SMI). Regular antenatal care has long been recognized as important for identifying a small minority of women at higher risk of adverse pregnancy outcomes and for fostering a positive relationship between women and their healthcare providers.

Somalia has been engulfed in conflict for more than 20 years. Consequently, basic facilities such as referral hospitals, maternal and child health (MCH) facilities, and services are damaged or totally destroyed. Only 6.0% of all births are attended by a skilled health worker in South Central Somalia. UNICEF estimates maternal mortality at 1,400 per 100,000 live births, which puts Somali women as one of the most high-risk groups' worldwide.

As postnatal services are available in most of the hospitals and health centers in Somalia, each facility operates according to its own regulations, rules, and conditions of service, depending on the available resources. Mothers who are expected to go for postnatal services at any hospital of their choice vary by age, socio-economic background, or educational level. However, there is great concern about the small number of people who turn up for these services. Somalia's targets do not directly address postpartum care as a major component of maternal health, yet there is ample evidence to show that postpartum care use is very low. It is reported that only 23 percent of the mothers who had had live births received

postpartum care within the critical first two days after delivery, and overall, 74 percent of the women did not receive postpartum care at all (Erin et al. 2007). This study especially concerns women in Hodan district, Somalia. It is estimated that only 18 percent of Somali women attend postpartum care at the facility. This study therefore aims at establishing the major loopholes in the levels of utilization of postpartum care services, with the vision of improving their utilization by mothers.

2.1 Socio-demographic factors

There are several factors that promote the utilization of postpartum care services, which include the mother's age, educational level, increased income, male involvement in reproductive health, place of delivery, and attendance at antenatal care. The mother's age may sometimes have a positive influence on PNC services because older women have increased reasoning capacity (Chakraborty et al., 2002; Jonazi, 2008). The Malawi multiple indicator cluster survey (MICS) report of 2006 (NSO and UNICEF, 2008) reported that the education of mothers plays a major role in determining attendance for postnatal PNC.

It was reported that women with secondary education or higher are more likely to go for PNC within 42 days after delivery (54.0%), compared to women with no education (29.0%). Women who are working have better financial status and the ability to access postnatal services since they are empowered to make decisions on when to go for PNC (Dhakal et al., 2007; Chakraborty et al., 2002; Nankwanga, 2004; Mullany et al., 2006). A study carried out in urban Nepal by Mullany et al. (2006) discovered that male involvement in reproductive health decisions and practices, especially during antenatal health education, increased postpartum care utilization among women.

The socio-demographic factors are associated with several factors that affect postpartum care services. These include age, education, marital status, occupation, place of residence, and religion.

The marital status of a mother highlights the difficulty she may face, as she might have to rely on her husband to secure access to medical treatment, both financially and practically (Rahman, 2000). For instance, she may require her husband's support or permission if she has to travel a long distance for medical consultation. A study focusing on rural Ethiopia found that married women were more likely to use antenatal care than their unmarried counterparts but found no difference in the use of postnatal care services among the two groups (Mekonnen & Mekonnen, 2002).

2.2 Health facility-related factors

This may be measured by distance, travel time, means of transportation, and any other physical barriers that could keep the client from receiving ANC and PNC services. Nearly 80% of rural women live more than 5 kilometers from the nearest hospital. Long distances to health services are often seen to impact health service utilization (Ikamari, 2004).

It is cited in several studies as a reason why women deliver at home rather than at a health facility (Amooti & Nuwaha, 2000; Parkhurst & Sengooba, 2005). The impact of distance across income groups is believed to be different, with the poor usually having inferior transport, and distance on its own may not impact the use of health services. Parkhurst and Ssengoba (2005) found that some women can travel to the most popular health facilities or those regarded to be of better quality, irrespective of the distance.

Similarly, Mwaniki et al. (2002) conducted a cross-sectional descriptive study on a sample of 200 mothers to determine the utilization of postpartum care services and maternity services in four rural health centers in Mbeere district, Kenya. The findings of the study revealed that utilization of health facilities was significantly influenced by the distance to the facilities. In addition, the mothers who were living less than 5 kilometers from the health facilities utilized the services better than those who lived 5 kilometers away and beyond. Other reasons for not utilizing the services, which were mentioned in the study, include lack of satisfaction with the quality of the services, lack of cleanliness in the health facilities, poor quality of catering services, lack of money for transport, and hospital fees.

There are several health facility-related factors, such as accessibility, place of delivery, location of the facility, availability, and affordability.

2.3 Individual factors

The individual-level factors affecting postpartum care services are categorized into parity, birth order,

pregnancy-wontedness, antenatal care, and awareness.

Birth order is an important predictor in explaining the utilization of postnatal care services. Due to the uncertainty and the perception of risk associated with first pregnancies, women are more likely to seek medical attention for first-order births than for subsequent ones. For instance, in Malawi, adolescent women with a high order of birth (birth order 2/3) had a lower probability of utilizing postnatal services compared to adolescent women with a first birth order (1) (Singh et al., 2013). This finding correlates with the observations made by studies conducted in Nigeria (Rai, Singh, & Singh, 2012) and Turkey (Celik& Hotchkiss, 2000). This study showed that women are significantly more likely to use maternal healthcare services for their first child. Another reason could be that women are more cautious about the health risks of their first pregnancy (Raj et al., 2009). However, with each preceding pregnancy, women may tend to believe that modern health care is not necessary and rely more on past experiences, provided that they have not had any bad experiences (Mekonnen & Mekonnen, 2002). There is evidence that a higher birth order suggests a greater family size, and hence fewer resources are available to access PNC services (Bhatia & Cleland, 1995).

Unwanted fertility increases the probability of underutilization of maternity healthcare (Gauge, 1998). In a cross-sectional study in Namibia and Kenya, it was concluded that unwanted pregnancy and poor timing of pregnancy were associated with low utilization of ANC (Gauge, 1998). A study using data from the California Maternal and Infant Health Assessment sought to understand the link between pregnancy-wantedness and postnatal care-seeking behaviors. They concluded that women who were happy with their pregnancy were significantly more likely to seek postnatal care-taking services (Libet, 2003). There are results from Indonesia that show that the opposite can happen. In Indonesia, mothers who intended to become pregnant were actually more likely not to utilize postnatal care services (Titaley, 2009). The reason for this in Indonesia could be as a result of maternal education or household wealth index.

- **Methods and Materials**

In this study, the researcher used a cross-sectional research design. This research design was selected because it permits the researcher to analyze the variables under study from one given point in time to another. In addition, the research used a quantitative research approach. Quantitative research design involves the collection of numerical data that gives facts about given study variables.

The target population for this study is all mothers of reproductive age living in Hodan District who attend PNC. From the accessible population, the researcher selected a sample size of 384 respondents. The study used a convenience sampling method to select the participants. Any woman was found during her PNC visit at the district health center and was asked for her consent.

In this study, a questionnaire will be used to collect data. The questionnaire was designed according to the research objectives and in line with the conceptual framework of the study variables. After data collection, it was stored, and a backup was made. Data was first entered into the Statistical Package for the Social Sciences (SPSS) version 20 software, which provides a detailed analysis and is then cleaned to minimize errors. Descriptive statistics were then used to summarize the data, which was presented in frequencies, percentages, pie charts, and bar graphs.

- **RESULTS**

4.1 Antenatal attendance and place of delivery

Item	Response	Freq.	Percent
ANC attendance	Yes	381	99.1
	No	3	0.9
Number of ANC visits	1	87	22.6
	2	223	58
	3	57	14.8
	4+	6	1.5
	Don't know	11	2.8
Place of current (this) Delivery	Health Facility	296	77
	Home	83	21.6
	Others (TBA)	3	0.8
	Prefer not to say	2	0.6

Source: primary data, 2021

As shown in Table 4.2, the majority of women, 99.1% (n = 381), had attended ANC. The study also established that 58% of women had attended ANC at least two times consistently from visits 1–2, with a majority of 77.0% (n = 296) delivered in a health facility.

4.2 Relationship between reasons for attendance and PPC utilization

Item	Utilization of PPC services Postpartum care	
Reasons for attendance	Value	Asymp. Sig.
As advised by HCW	9.000	0.003**
Family members and counseling	4.902	0.021**
There is a need for some children's servicesuch as immunizations, medicines, and nutritional advice.	114.255	0.000**
Complications after delivery and the need for a checkup	6.767	0.008**
Previous experiences, such as giving birth	4.803	0.019**
Need for family planning services	163.248	0.000**

Source: primary data, 2021

The analysis above shows that there is a strong relationship between the independent variables and PPC utilization, with a P-value less than 0.05.

4.3 Cultural beliefs and practices

The findings established that there were specific cultural beliefs and practices during the postpartum period on PPC and remaining indoors by a majority of 42.5% (n = 91), as shown in Table 4.6. From one (FGD, Hodan District) on beliefs and rituals, women said, "After you are allowed to go out, you rise up early before others wake, so as no one sees you, as there are other birds in the air, if they defecate on you, your baby's fontanel will not close, and as a mother, you may develop some bad illnesses. Also, your father-in-law is the first person to hold the baby and smear it with ashes, so nothing bad happens to both of you.

4.4 socio-demographic beliefs and PPC utilization

On the relationship between culture and utilization of PPC services, the Pearson chi-square test was not significant. Some of these specific cultural beliefs and practices were dependent on PPC utilization, thereby being significant. They included remaining indoors to avoid bad omens, witchcraft, and child naming, shaving, burying placentas, and washing children.

On religious beliefs and practices and utilization of PPC services, the Pearson chi-square was significant. Since the P <0.05, the study rejects the null hypothesis and concludes there is a dependent relationship between religious beliefs on PPC and the utilization of PPC at a 95% confidence interval.

4.5 **Knowledge Factors and Utilization of PPC**

Item	Utilization of postpartum care		
		Value	Asymp. Sig.
Knowledge of attending	Chi-Sq	27.269	0.000**
PPC	N	292	
Informed of PPC during	Chi-Sq	33.029	0.000**
ANC	N	206	
<48 Hours	Pearson Chi-Square	5.09	0.024**
1-2 Weeks	Pearson Chi-Square	0.778	0.378
4-6 Weeks	Pearson Chi-Square	1.233	0.267
4-6 Months	Pearson Chi-Square	5.908	0.010**

Source: primary data, 2021

On the relationship between knowledge factors and utilization of PPC services, Pearson chi-square results Table 4.13 shows there is a relationship between knowledge-related factors and PPC utilization. knowledge of attending PPC it was significant. Regarding informing mothers of PPC during ANC and raising awareness of various timings, this too was found to be significant to the utilization of PPC. Therefore, the study rejects the null hypothesis and asserts that knowledge on attendance, period in the timings (48 hours and 4-6 months) and prior information at ANC and utilization are dependent on each other.

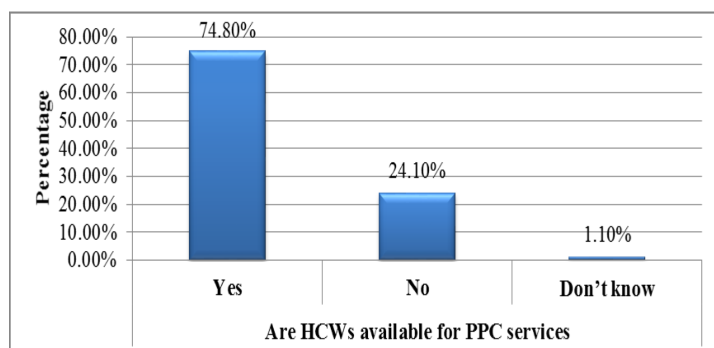
4.6 Health Facility-Related Factors Influencing PPC Service Utilization

Item	Response	Freq. (384)	Percentage
Health facilities near place of residence	Yes	377	98.3%
	No	7	1.7%
Type of health facility near the place of residence	Hospital	156	40.6%
	Health Centre	143	37.3%
	Dispensary	71	18.4%
	Private hospital	14	3.6%
	Others	1	0.3%
Distance to the nearest health facility	1 Km	187	48.6%
	2 Km	112	29.1%
	3 km	68	17.6%
	4 Km	17	4.5%

Source: primary data, 2021

The majority of women, 98.3% (n = 377), had health facilities near their place of residence, while only 1.7% (7 n =) were far away. The majority were residing near the main sub-county hospitals of Hodan District and Hodan District, with 40.6% (n = 156) and 3.6% (n = 14) at private hospitals around. The health center is located adjacent to the hospital. The farthest distance they traveled to seek PPC services is estimated at 4 km by 4.5% (n = 17) of the women, and the shortest is 0.3% (n = 1) of a few meters with a mean of 1.78 km, as shown in Table 4.14.

4.7 Availability of HCWs to offer PPC services



The results, as shown in Figure 4.7, showed a majority of 74.8% (n = 166) HCWs were available.

On availability from the FGD, women said, “Even if the nurses are there most of the time, they are few, like one nurse to over 20 mothers. If you are unwell, you go back home unattended, and this makes you not come back again" (FGD,Hodan District &Hodan District).

From the interviews, the HCWs said they cover the MCH clinic as a whole, 1 or 2 each day, for a variety of services to include FP, ANC, postnatal, Immunization, regular booked maternal clinics, making them overstretched" (HCWs, Hodan District &Hodan District).

4.8 PPC services available

Item	Response	Frequency	Percentage
Received any of the PPC Services	Yes	180	81.0%
	No	42	19.0%
Services received by women during PPC	Family planning	175	79.0%
	Danger signs	175	78.7%
	Counseling	133	59.9%
	Laboratory Tests	119	53.8%
	Physical examination	111	49.9%
	Drugs and commodities	89	40.3%
	Treat complications/danger signs above	86	38.9%
	Others	2	1.1%

Source: primary data, 2021

From the findings, the majority (81%, n = 180) received important or basic PPC services, while

19% (n = 42) did not. For the type of services received, majority (79%, n = 175) received FP, 78.7% (n = 175) received observation of danger signs, and 38.9% (n = 86) received treatment of complications or danger signs such as heavy bleeding, fever, severe headache, foul-smelling vaginal discharge, fits, and engorged breasts, among others, as shown in Table 4.16.

From the FGD, women in both groups reported FP as the main PPC service received. Others "asserted they were not aware they were supposed to attend PPC clinics but knew some services a woman receives during PPC, such as FP, and expressed their interest in understanding PPC" (FGD Hodan District and Hodan District). In FGD, Hodan District, the majority of women, however, said that “though we get, we don’t

get all PPC services, and we did not know we were entitled to."

4.9 **Relationship between health facility factors and the utilization of PPC**

Item	Have you utilized postpartum care?		
Health facility near the place of residence	Chi-Sq	3.837	0.061
HCWs are available for PPC services.	Chi-Sq	14.637	0.000**
HCW is helpful and friendly.	Chi-Sq	7.28	0.005**
Waiting time	Chi-Sq	26.974	0.000**
Charging the services	Chi-Square	7.893	0.005**

Pearson chi-square results, as shown in Table 4.19, showed that a facility near the place of residence is not. On the availability of HCWs for PPC services, HCWs perceived helpfulness and friendliness, waiting time, and charges for services by Pearson chi-square were significant. Since the P <0.05, the study rejects the null hypothesis and concludes that the availability of HCW for PPC services, HCWs friendliness and helpfulness, waiting time, and charges on services are dependent on the utilization of PPC services, therefore significant.

- **Discussion Conclusions and Recommendations**

5.1 Discussion

On parity, the majority (51.8%) had one or two children. In this study, this can imply that if a mother initially did not utilize PPC care in subsequent deliveries they are unlikely to do so. The women in this study may have considered themselves aware of the service as they had basic formal education, the majority delivered in health facilities. They may have assumed the initial information given and care were sufficient during this period, so there was no need to come back. The majority (94.1% of the women were Muslims. In this study, religious beliefs and practices, which included staying indoors for a period ranging from days to weeks, hindered women from receiving the relevant PPC services during these periods. Though in this study area the common religion is Islam, it's evident that religious beliefs and practices affect PPC service utilization.

On the proportion of women utilizing PPC services, the majority (57.9%) of the respondents had ever received PPC service(s). Those who received 33.0% and 38.3% did so in the most crucial periods of 48 and 1-2 weeks, respectively. In the FGD, they said you come to the clinic a number of times but don't know the frequency or why. This is in agreement with Tesfahun et al. (2014), who found out that though utilization generally was high by mothers, the most crucial elements, especially in the first 2 weeks, were very low, and the majority of them utilized only immunization services. More than half were utilized once, and the rest three or more times within six weeks. In this study, the majority of the women did not know the frequency of visits or utilization of PPC and utilized it more in the 4-6 weeks, which is largely the FP component.

This study established that after delivery, 43% of the women said they were supposed to stay indoors for a period ranging from a few days to 30 days and even more. In one of the FGDs, all women stayed indoors for a specified period. "I was told you stay indoors for 3 days, 7 days, or even a month, they echoed." This is in agreement with Qureshi & Pacquiao (2013), who found out that mothers are expected to rest and be

pampered for a period of 40 days, lactating for the same period, and not go out of the house. Staying indoors in this study was passed from generation to generation and was culturally embraced.

The study established that 76.0% of the women were aware they were supposed to go for PPC services. This agrees with Tesfahun et al. (2014), who found out that the majority of mothers were aware that they were supposed to receive PPC services after delivery. At the same time, it contrasts with Chen et al. (2014), who found out that there was a lack of awareness about the availability of free services but that people were strongly willing to receive postpartum care. This may have been so because, in this study, the majority of the women attended ANC clinics delivered in health facilities and were told by the HCWs, thereby increasing awareness. In this study, women were aware, but utilization was poor, implying there may be other factors surrounding PPC that made them not go get the services.

The study assessed health facility related factors influencing the utilization of PPC services, and the following was discussed: On availability of facilities, the study established that the majority of women (98.3%) had health facilities near their place of residence. On where they went for primary PPC healthcare, the majority mentioned all levels of facilities. This is in agreement with Tesfahun et al. (2014), who found out that half of mothers utilized services from HCWs and community health agents in outreach services, and nearly half were from health institutions directly. In this study area, health facilities are within the 5km MOH acceptable range, making distance not a major cause as to why women don't use PPC services. This implies that there could be other factors, like sociocultural factors, in this study other than distance, leading to PPC underutilization.

5.2 Conclusions

PPC service utilization was poor, as marked by the low attendance of three mandatory visits. All periods in the four visits of forty-eight hours to six months' are dependent on utilization, implying they are essential in the maternal continuum of care. On reasons for non-utilization, some women were not aware of the service and were not informed by the HCWs.

The socio-cultural factors influencing the utilization of PPC services included religious and cultural beliefs. The main practices were seclusion and staying indoors for a period ranging from days to weeks. Utilization of PPC was significant and dependent on religious beliefs and practices on PPC, thus rejecting the null hypothesis and adopting an alternate hypothesis.

The knowledge-related factors influencing PPC utilization were the number of mandatory visits and their timings, sources of information (the MCH booklet and ANC clinic), and knowledge on complications. Findings revealed that there was a dependent and significant relationship between knowledge of attending PPC, informing mothers of PPC during ANC timings (48 hours and 4-6 months), and the utilization of. The study rejects the null hypothesis and concludes that there is a significant dependent relationship between knowledge of attending PPC,ANC awareness and timings, and the utilization of PPC at a 95% confidence interval.

Health facility-related factors influencing utilization of PPC services are the availability of health facilities near residence, the availability of PPC services, HCWs friendliness, availability and helpfulness, service charges, and waiting time. They are significant and dependent on PPC utilization. The study therefore rejects the null hypothesis and adopts an alternate conclusion by concluding that health facility-related factors have an influence on the utilization of PPC services.

5.3 Recommendations

Based on the study findings, the following recommendations have been made:

1. Raising more awareness about PPC during the ANC period and availing and using MCH booklets.
2. Health care workers and community health volunteers' involvement in follow-ups in every care unit (CU) to increase awareness of PPC services to include visits, access, importance, and timing.
3. Community involvement and collaboration of teams (HCWs, religious leaders, and elders) on PPC service utilization to mitigate socio-cultural factors.
4. Continuous capacity building of health care workers on PPC interventions, including family planning.

5. MOH and facility managers to implement policies that emphasize PPC service provision, including full integration of MNCH services and curbing staff shortages.

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