International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Socioeconomic, Cultural, and Institutional Determinants of Focused Antenatal Care (FANC) Utilization among Pregnant Women in Selected Urban Health Facilities of Lusaka District, Zambia

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Abstract

- **Background:** The World Health Organization's Focused Antenatal Care (FANC) model optimizes maternal outcomes through individualized clinical paths. Despite national policy integration in Zambia, late booking and suboptimal service utilization remain critical public health challenges. This study investigated the socioeconomic, cultural, and institutional factors influencing FANC utilization among pregnant women in Lusaka District.
- **Methodology:** A convergent mixed-methods design was executed across urban health facilities in Lusaka. Quantitative tracking monitored gestational timelines at clinical entry for an analytic sample of 68 women. Qualitative Focus Group Discussions and In-Depth Interviews explored maternal attitudes and systemic bottlenecks.
- **Results:** Quantitative data revealed that only 20.6% of participants initiated FANC within the recommended first trimester, while 70.6% registered during the second trimester, and 8.8% delayed care until the third trimester. Qualitative findings identified severe institutional barriers, including prolonged facility waiting times and acute personnel shortages. Sociocultural constraints included rigid expectations surrounding early pregnancy concealment and a pronounced lack of spousal involvement.
- **Conclusion:** FANC utilization remains critically inadequate in urban Lusaka. Suboptimal engagement is driven by a complex interplay of institutional resource constraints, deep-seated cultural norms, and restricted female autonomy in the absence of male partner support.

Keywords: Focused Antenatal Care (FANC), Maternal Health, Late Booking, Spousal Involvement, Lusaka District, Zambia, Public Health.

1. Introduction

The maternal mortality ratio in Sub-Saharan Africa remains among the highest globally, necessitating structured clinical interventions to mitigate preventable pregnancy-related complications. In 2001, the World Health Organization introduced the Focused Antenatal Care (FANC) model as a strategic, goal-oriented approach to maternal health (WHO, 2002). Unlike traditional models that mandated frequent, routine clinic visits, FANC condenses care into a minimum of four targeted, evidence-based visits for

low-risk pregnancies. This model prioritizes early screening, disease prevention (such as malaria prophylaxis and prevention of mother-to-child transmission [PMTCT] for HIV), and birth preparedness plans.

Zambia integrated the FANC framework into its national health strategy to reduce maternal morbidity and mortality. Despite the Ministry of Health eliminating user fees for maternal services to achieve universal coverage, structural and behavioral gaps persist. National health data consistently show that while overall antenatal attendance is high, a stark minority of women book their first appointment during the critical first trimester of pregnancy. Delayed booking drastically diminishes the clinical efficacy of FANC interventions, leaving undetected complications unmanaged until advanced gestation.

1.1 Statement of the Problem and Rationale

In the urban landscape of the Lusaka District, maternal health infrastructure is highly accessible, yet clinical registries demonstrate persistent delays in antenatal registration. The underlying reasons for this paradox are multi-faceted. Existing literature suggests that structural issues within clinics, along with local cultural beliefs and socioeconomic barriers, create a disconnection between service availability and timely use. This study addresses this gap by investigating the specific institutional, social, and behavioral dynamics that shape how and when pregnant women in Lusaka engage with FANC services.

1.2 Research Objectives

To comprehensively understand the dynamics of care utilization, this study was guided by the following objectives:

1. To assess pregnant women's operational knowledge regarding the benefits and timing of FANC.
2. To evaluate the attitudes of both pregnant women and healthcare workers toward early FANC booking.
3. To identify structural, socio-demographic, and systemic factors associated with late antenatal registration.
4. To investigate potential interventions to optimize FANC service delivery at the community level.

2. Literature Review

The transition from the traditional antenatal care (ANC) model to the Focused Antenatal Care (FANC) framework represents a paradigm shift toward goal-oriented, evidence-based maternal health interventions (Chama-Chiliba & Koch, 2015). While the traditional model emphasized the frequency of clinical visits, FANC prioritizes the quality of clinical interactions through at least four targeted assessments for low-risk gestations (Getachew et al., 2014). Early initiation of FANC—defined as clinical registration within the first 12 weeks of gestation—is critical for the timely diagnosis of pre-existing conditions, administration of malaria prophylaxis, and execution of birth preparedness plans (Conrad et al., 2012; Kisuule et al., 2013).

2.1 Contextual and Institutional Bottlenecks in Lusaka District

Lusaka District faces a high concentration of maternal health demands, with women of childbearing age comprising approximately 22% of its rapidly expanding urban population (Central Statistical Office [CSO], 2014). The district's institutional framework includes 41 health facilities facing severe structural constraints (Lusaka District Health Management Information System [LDHMIS], 2016). Acute shortages of skilled healthcare providers (HCPs), particularly midwives, lead to excessive clinical workloads that compromise care quality and contribute to practitioner burnout (Nansubuga, 2011; Tembo et al., 2017). Furthermore, supply chain deficits manifest as persistent stockouts of essential

laboratory reagents required for critical screenings, such as maternal syphilis testing and urinalysis (Tembo et al., 2017).

2.2 Sociocultural and Behavioral Determinants of FANC Utilization

Beyond structural barriers, health-seeking behaviors in Zambia are deeply intertwined with complex sociocultural dynamics. Delayed initiation of care is frequently linked to community misbeliefs, such as attributing pregnancy-related complications like eclampsia to spiritual possession or witchcraft rather than manageable medical conditions (Agus & Horiuchi, 2012; Sinyange et al., 2016). Traditional beliefs about birth preparedness also discourage early procurement of infant items, as planning is sometimes seen as a harbinger of misfortune (M'soka et al., 2013).

Furthermore, gender roles heavily influence healthcare engagement; women who rely solely on their husbands or spouses for clinical decision-making exhibit lower utilization and late registration. This dynamic is reinforced by traditional views that categorize antenatal care strictly as a female domain, rendering male participation socially anomalous. Consequently, the lack of spousal financial, emotional, and physical accompaniment to clinics severely restricts female autonomy and reinforces late booking patterns across urban communities.

3. Methodology

3.1 Study Design and Setting

A convergent mixed-methods design was utilized to simultaneously collect and analyze quantitative tracking data and qualitative narrative data. This study was conducted across selected urban health facilities within the Lusaka District of Zambia, an environment characterized by dense population pockets and high maternal service demands.

3.2 Sample Selection and Participant Flow

We initially tracked 74 pregnant women presenting for antenatal care services. After data cleaning, records with missing clinical data or incomplete gestational profiles were excluded from the analysis. The final analytical sample consisted of 68 women (n=68) for quantitative evaluation. For the qualitative component, purposive sampling selected participants for 4 Focus Group Discussions (FGDs) and 10 In-Depth Interviews (IDIs) with pregnant women and frontline healthcare workers.

3.3 Data Collection and Analysis

- **Quantitative:** Structured data extraction sheets captured exact gestational ages at the first booking visit. We analyzed quantitative parameters using descriptive statistics to calculate proportions across trimesters.
- **Qualitative:** FGDs and IDIs were audio-recorded, transcribed verbatim and analyzed using thematic analysis to identify systemic bottlenecks and behavioral themes.

4. Results and Discussion

4.1 Quantitative Tracking of Antenatal Timelines

The quantitative analysis revealed a stark trend toward delayed antenatal booking among the sampled women in the Lusaka District. The distribution of gestational timelines at first clinic entry is outlined below:

- **First Trimester** (Early Booking ≤ 12 Weeks): **14 participants** (20.6%)
- **Second Trimester** (Late Booking 13–26 Weeks): **48 participants** (70.6%)
- **Third Trimester** (Critically Delayed ≥ 27 Weeks): **6 participants** (8.8%)

As these tracking metrics show, only 20.6% of pregnant women initiated FANC within the clinically optimal first trimester. A substantial majority (70.6%) delayed registration until the second trimester, while 8.8% delayed care until the final trimester. This indicates that four out of five pregnant women miss the critical window for early screening.

4.2 Qualitative Themes: Institutional and Household Barriers

- **Systemic Institutional Bottlenecks:** Qualitative narratives from both patients and providers highlighted long facility waiting times and acute shortages of midwives as major deterrents. Participants noted that spending several hours at a facility often discouraged early registration for subsequent pregnancies. Physical stockouts of basic testing kits further reduced trust in facility readiness.
- **Sociocultural Barriers and Partner Dynamics:** A primary socio-behavioral barrier was the cultural norm surrounding early pregnancy secrecy, driven by a desire to protect the pregnancy from spiritual harm or community gossip during the vulnerable initial weeks. This dynamic explicitly drives first-trimester booking delays. Furthermore, the findings emphasized a severe lack of spousal involvement. Men frequently view ANC attendance as a strictly feminine responsibility, and the resulting absence of emotional, financial, and logistical support from male partners heavily limits a woman's capacity to access timely, early gestational monitoring.

5. Conclusion and Recommendations

5.1 Conclusion

Despite the provision of free maternal health services in urban Lusaka, FANC utilization remains critically inadequate. Eliminating structural user fees is insufficient to guarantee early healthcare access. Suboptimal service utilization is driven by a complex interplay of systemic institutional bottlenecks, deeply rooted cultural norms regarding pregnancy concealment, and restricted female autonomy resulting from a distinct lack of spousal and paternal engagement.

5.2 Recommendations

1. **Leverage Community Structures:** Public health interventions must utilize localized, community-based frameworks such as Safe Motherhood Action Groups (SMAGs) to conduct household-level health education. These efforts should target both pregnant women and their partners to dismantle socio-cultural taboos surrounding early pregnancy disclosure.
2. **Promote Male Inclusion at Facilities:** Clinics should implement structural incentives, such as fast-track queues or couple-friendly consultation blocks, to actively welcome and incentivize spousal accompaniment.
3. **Address Health Infrastructure Deficiencies:** The Ministry of Health must strengthen the sub-district supply chain to eradicate routine kit stockouts and increase staffing levels to minimize overextended clinical workloads and excessive patient waiting timelines.

3. Acknowledgements and Declarations

Declarations

Acknowledgements

The author would like to extend profound gratitude to the maternal health staff, nursing administrators, and frontline midwives at the selected urban health facilities in the Lusaka District for their operational support during the data tracking phase of this study. Special thanks are given to the women who

voluntarily participated in the In-Depth Interviews and Focus Group Discussions, generously sharing their personal stories and maternal experiences to help advance women's health delivery in Zambia. Finally, the author acknowledges the academic guidance provided by the faculty within the Department of Life Sciences at the University of Roehampton London.

Ethical Considerations

Ethical approval and administrative clearance were obtained from appropriate institutional review channels prior to data collection. Informed verbal and written consent was securely obtained from all participating pregnant women and healthcare professionals prior to the execution of interviews and tracking assessments. All participant data were de-identified to maintain strict anonymity.

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