



**Disparities of Use among Modern and Traditional Family
Planning Method Users and Those with Unmet Need in Jordan:
A Multivariable Quantitative Analysis Enhanced by a Qualitative Approach**



2025

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Preface

The Higher Population Council places special emphasis on enhancing the policies and programs that contribute to advancing sexual and reproductive health of the population, fulfilling the generative aspirations of families, and fostering integration between population dynamics and development. This emphasis stems from the Council's recognition that these policies and programs are a cornerstone of primary healthcare, with couples' use of family planning methods being a key element of this level of care.

Ensuring that couples enjoy the right to "freely and responsibly decide the number, spacing, and timing of their children" enhances women's health and the well-being of all family members, towards comprehensive sustainable development. The use of modern contraceptive methods enables couples to achieve their fertility desires and manage the timing and number of children they have throughout their lives, allowing them to decide to stop or postpone childbearing according to their needs, and making "every pregnancy wanted and every child intended." Data from the latest household survey indicate that about one-fifth of births in Jordan are unintended at the time of conception, and 27% of births occur less than two years after a preceding sibling. Such reproductive behavior does not promote the health of mothers and children, their education, nor family well-being.

Within this framework, the Council is pleased to present this study, prepared with funding from the UNFPA Jordan Country Office. The study aims to examine the characteristics and factors related to the use and non-use of modern and traditional family planning methods, and the persistence of unmet need for modern methods among many families. This study employed a mixed-methods research approach, integrating statistical analysis of data from the 2023 Jordan Population and Family Health Survey with a qualitative methodology based on the views of women and key stakeholders in the family planning service system to support and interpret the quantitative analysis findings.

The study report is divided into five chapters. The first presents the study problem, objectives, and methodology; the second presents related previous studies; the third is dedicated to the quantitative analysis of data on family planning method use and unmet need; the fourth presents the results of the qualitative component of the study; and the study concludes with the fifth chapter that discusses the results and presenting recommendations.

The outputs of this study are closely linked to achieving several of the 2030 Sustainable Development Goals (SDGs), particularly Goal 3 related to ensuring universal access to sexual and reproductive healthcare services, including family planning services and information, and Goal 5 related to reproductive rights and ensuring universal access to sexual and reproductive health services.

In conclusion, we are confident that this study will provide a valuable addition to other national research efforts and will serve as a reliable reference for policymakers and programs planners seeking to achieve the objectives of the National Population Strategy 2021-2030 and the Jordan's National Strategy for Sexual and Reproductive Health 2020-2030.

May Allah bless us with all success in serving our beloved Jordan under the leadership of His Majesty King Abdullah II bin Al-Hussein, may Allah protect and safeguard him, and guide his endeavor on the path of goodness and prosperity.

Secretary-General
Prof. Dr. Issa Al-Masarweh

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Special thanks are due to the Department of Statistics for granting us access to the raw data from the 2023 Jordan Population and Family Health Survey and providing the relevant data files for this study, and for nominating the Survey Director to participate in the study's Technical Committee.

The Higher Population Council also extends its appreciation and gratitude to the members of the study's Technical Committee members, Dr. Hadeel Al-Saeh from the Ministry of Health, Dr. Eman Bny Mfarej from Department of Statistics, Lt. Col. Rima Kiwan from the Royal Medical Services, Dr. Mona Al-Malik from Mutah University, Mr. Ali Al-Gharabli from the United Nations Population Fund, and Mr. Mohammad Al-Alami (Independent Consultant), for their follow-up and support throughout all stages of the study's preparation. Their technical feedback had substantial impact on enhancing the quality of the study outputs.

We would also like to take this opportunity to extend our thanks to the United Nations Population Fund (UNFPA) in Jordan for supporting the achievement of the study. We highly value the efforts of the technical staff at the Higher Population Council who worked on supporting, reviewing, refining, and producing the final version of this study.

May God grant us success.

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Executive Summary

Reproductive health and family planning are fundamental pillars for achieving sustainable development and improving the quality of life for individuals and families in Jordan. Over the past decades, Jordan has made significant progress in family planning indicators, ensuring continuous and free services within the essential health package for all groups, reflecting a strong national commitment to promoting family planning.

Key challenges lie in clear geographical and social disparities affecting the use of family planning methods. Reliance on traditional versus modern methods varies across governorates, as do rates of unmet need—rising from 10.8% nationally to 23.6% in Mafraq. Furthermore, the unmet need decreased from 13.8% among uneducated women to 8.7% among women with education above secondary level, and was highest among women in the lowest wealth quintile at 15.8% compared to 6.6% in the highest wealth quintile. The core of this problem is attributed to contraceptive agency, which requires women's ability to make and implement decisions about using family planning methods. Exercising the right to family planning requires empowering women with access to accurate information, awareness of available choices, and the ability to implement their decisions in an environment that respects their values and specific circumstances. This remains a fundamental obstacle to achieving effective and balanced use of modern family planning methods, as the modern contraceptive prevalence rate remains modest and declined to 38.4%, while traditional method use rose to 21.7%.

Therefore, this study adopts a rights-based approach, focusing on enhancing women's ability to control their reproductive choices, while considering the social, cultural, and economic factors affecting this agency. The study aims to analyze disparities between users of modern and traditional methods and identify factors influencing family planning use and unmet need, to design person-centered health interventions that promote equitable access and meet the needs of different groups.

The study employed a mixed-methods research design combining quantitative and qualitative analysis. The methodology also included a systematic literature review to ensure comprehensive scientific evidence and update the study's theoretical framework, enhancing the reliability of findings and their basis in the latest studies in reproductive health and family planning.

Quantitatively, the study used data from the 2023 Jordan Population and Family Health Survey, covering a nationally representative sample of married women of reproductive age (15-49 years). Statistical methods included chi-square tests, binary and multinomial logistic regression, and

logistic regression analysis for unmet need, used for the first time in Jordan within this study.

Qualitatively, designed based on quantitative findings, semi-structured interviews were conducted with the vast majority of policy-makers and family planning service providers in the Jordanian health sector, along with focus group discussions with women from various governorates. These included areas with the lowest and highest use of traditional methods, and highest resistance toward modern methods – the refugee camps. These interviews aimed to deepen the understanding of social and cultural factors affecting family planning behavior and women's interaction with the health system.

Key findings highlighted the importance of education, inclusive economic empowerment, location (governorate), nationality, age, reproductive preferences, number of living children, spousal discussion of the decision, and quality of interaction with the health system as major determinants of contraceptive agency including decision-making and implementation of that decision.

Geographical Disparities: Clear disparities between regions and governorates were confirmed. Governorates like Mafraq, Karak, and Ma'an recorded the lowest modern contraceptive likelihood rates, with women in Mafraq being over twice as less likely to use modern methods compared to Amman. Regarding unmet need, women in the Southern Region were nearly half as likely to have their need met compared to the Central Region. Women in rural areas had about 20% lower odds of having their need met compared to urban areas. These disparities reflect the impact of intertwined social, cultural, and economic factors, such as higher fertility preferences, weaker well-being indicators, and limited livelihood opportunities, which restrict women's decision-making and implementation agency—primarily decision-making agency and freedom to access services.

Education: Education emerged as a crucial factor in determining the use of family planning methods, as well as in unmet need. Higher education levels significantly increased the likelihood of using any family planning method both modern and traditional. Women with higher education were about twice as likely to use family planning compared to those with no education. Conversely, women with lower education, especially those with no education, recorded higher rates of non-use and unmet need, with unmet need nearly double that of educated women. This underscores education's role not only in enhancing awareness and decision-making agency but also in reducing the gap in meeting needs, this highlights the importance of promoting education as a key entry point for improving reproductive health and family planning in Jordan.

Economic Factors: Women in higher wealth quintiles were over one and a half times more likely

to use family planning compared to the lowest quintile, including traditional and modern methods. Women in lower quintiles recorded higher rates of non-use and unmet need, with unmet need odds nearly double those in higher quintiles. It is important to note that the overall economic situation, rather than financial wealth, was the decisive factor. Direct material barriers did not have a significant impact on access to services, as the statistical and qualitative results confirmed that free services greatly reduced these obstacles. Therefore, comprehensive economic empowerment—linked to well-being and quality of life—had the most significant effect on awareness, adoption of family planning, and decision-making regarding the use of family planning methods.

Nationality: Nationality was a key factor in family planning use and unmet need. The likelihood of using modern methods is about 30% lower among Syrian women, while unmet need is about 40% higher among Syrian and other non-Jordanian women compared to Jordanian women. Patterns of family planning use among refugees are also shaped by deep cultural factors, higher fertility preferences, and complex, multidimensional displacement experiences. Syrian refugees living outside camps face low awareness of available free services, alongside multiple access barriers, which limit their ability to benefit effectively. Refugees in camps—namely Za’atari and Azraq—experience an isolated environment with a complex social reality, where weak social integration and limited economic capacity intersect, making them more susceptible to misinformation and negative framing regarding family planning methods. Despite the availability of health services and generally high satisfaction with them, these settings are characterized by a high fertility culture that emphasizes birth spacing rather than limiting births, which reinforces resistance to modern methods and increases challenges for sustainable adoption of family planning, influenced by the isolated environment and negative framing that constrain women’s empowerment to make informed reproductive decisions.

Fertility Preferences & Living Children: The study results also indicate a clear relationship between the number of living children and the ideal number preferred by women in Jordan, and how this significantly affects the use of family planning methods, particularly modern ones. The number of living children was among the strongest predictors. This likelihood increases even further among women who have seven or more children. As for the ideal number of children, it is negatively associated with the use of family planning methods: the higher the desired number of children, the lower the likelihood of use, reflecting the influence of fertility preferences on actual behavior. Regarding unmet need, mothers with four to six children show a higher likelihood of having their needs met compared to other groups, indicating that current family size plays an important role in women’s desire and ability to meet their family planning needs.

Age & Age at Marriage: Use of traditional methods increased with women age, especially over 40, and among those married early (under 20). Modern method use was higher among younger women, especially those married at ages 20-24 as they were more open to modern methods. Odds of having the need met increased clearly with age, peaking for women aged 40+, while later marriage was associated with lower odds of meeting the need, indicating a gap in meeting spacing needs early in marriage. Despite higher modern method use among younger women, unmet need remained high. Among those married under 20, despite low method use, rates of met need were higher, reflecting high fertility preferences, a tendency towards spacing over limiting, and the influence of social norms and weak independent decision-making agency, which may weaken the rights aspect and mean the need is not fundamentally perceived.

Interaction with the Health System: Quality of interaction with health staff, spousal involvement in decision discussions, and appropriateness of the health system to be responsive and respectful of individual and cultural privacy are fundamental factors enhancing women's agency. Jordan's health system provides family planning services through comprehensive centers offering an integrated package of methods and counseling, including spousal involvement. However, clear gaps exist in infrastructure and service provision between governorates, with most suffering from a shortage of qualified personnel, especially midwives, notably in governorates like Ma'an with high traditional method use. Rural health centers also face staff shortages, limiting the diversity and quality of mix methods. These service delivery and infrastructure gaps deepen geographical and social disparities which undermines women's ability to exercise their right to make and implement their reproductive decisions. Despite the existence of a referral system, challenges in coordination between different levels of care and the diverse service providers within the health system—especially in remote areas and governorates with high refugee density—constitute another barrier to implementing these decisions. Therefore, there is a need to strengthen integration across levels of care, harmonize service packages, develop the skills of service providers, and engage civil society to ensure equitable and effective access that enhances women's linkage to the health system.

Drivers for Using Traditional Methods: Drivers are a complex mix of social and cultural factors, but misinformation and negative framing from various sources play a key role in promoting use despite awareness of lower effectiveness compared to modern methods. Negative framing—presenting accurate information in a way that exaggerates concerns about side effects—undermines women's trust in information even from the most trusted source (health system staff). This creates a clear dissonance between source credibility and mistrust in the information, limiting women's ability to decide on modern methods and opting for the 'safer' choice—traditional methods—to avoid side effects. Weak health counseling, due to staff shortages

and inadequate training programs, sometimes makes providers an unintentional source of reinforcing negative framing, as they may lack necessary communication skills or targeted counseling to dispel fears or providing balanced information, which leads to heightened anxiety and increased doubts among women. This interacts with complex social and political narratives, including health and cultural fears, and sometimes conspiracy theories, reinforcing the preference for traditional methods even among educated women. In this environment, empowering women through person-centered counseling, providing accurate and balanced information, and supporting decision-making agency are crucial for enhancing agency in using effective and sustaining modern methods.

Study Recommendations to Enhance Family Planning in Jordan

The findings reflect the need for an integrated approach enhancing women's agency to make and implement informed family planning decisions, ensuring equitable and effective access to high-quality services. Recommendations include:

1.Enhance National Policies and Strategies: Update legislation/policies to align with international human rights standards, focusing on vulnerable groups. Effectively integrate family planning within Universal Health Coverage, ensuring sustainable financing and clear monitoring. Develop an advanced indicator system for monitoring and evaluation covering counseling quality, free choice, and access equity, linked to a unified national information system that supports transparency and accountability. Strengthen multi-sectoral coordination between health, education, gender, and economic empowerment to ensure the integration of efforts and the achievement of sustainable impact.

2.Health System Strengthening and Service Provision: Address infrastructure gaps and ensure qualified personnel, especially in low-use governorates (e.g., Ma'an, Mafrq), rural areas, and refugee-dense areas. Standardize and integrate service packages across care levels, focusing on reducing missed opportunities and improving client experience. Enhance counseling quality through continuous provider training, communication skills development, and combating biases, promoting person-centered counseling. Ensure sustainable availability of modern methods, focusing on long-acting reversible contraceptives, and enhance effective counseling on traditional methods in response to informed, knowledge-based decisions by women aware of higher failure risks.

3.Invest in Human Resources: Strengthen the midwifery profession by increasing the number of qualified midwives, developing their counseling skills, and ensuring equitable workforce distribution. Strengthen professional development programs for family planning providers,

focusing on improving counseling quality and culturally sensitive communication.

4.Promote Community and Digital Approaches: Activate the role of community health committees as sustainable mechanisms supporting reproductive health, with periodic training programs and accredited educational tools. Expand digital solutions for family planning service delivery, including an effective appointment system, phone communication, and mobile health platforms, to enhance access especially in remote areas and among youth.

5.Enhance Awareness and Community Demand: Implement multi-channel media campaigns integrating positive religious and cultural discourse, involving men and civil society, with tailored content for youth, refugees, and rural areas. Support religious institutions in correcting misconceptions and promoting acceptance of modern methods within a supportive religious and social framework. Develop educational curricula to enhance awareness of reproductive health and family planning, focusing on building youth decision-making skills.

6.Respond to Refugee Needs: Integrate refugee needs within comprehensive, multi-sectoral planning frameworks encompassing social development, economic empowerment, and protection. Design targeted awareness campaigns considering the cultural and social specificities of all refugees, enhancing awareness of reproductive health rights and the availability of free services among refugees in out-of-camp settings.

7.Research and Development: In light of the study's comprehensive findings, it is recommended to enhance the development of modern family planning methods by investing in adopting new generations focused on client experience and reducing side effects, promoting acceptance and continuation of use. Furthermore, Research as well should be directed to understand the experience of Syrian refugees and its impact on their high fertility choices, focusing fundamentally on how the displacement experience shapes fertility patterns and their psychosocial drivers, including fear of losing cultural identity. Finally, a specific study is recommended on health workforce numbers, their workload package requirements, their perceptions of service integration, missed opportunities, and their career incentives to ensure continuity and prevent high staff turnover.

Chapter One

Introduction and Methodology

1.1 Introduction

The Higher Population Council, in partnership with the United Nations Population Fund (UNFPA), recognizes the critical role that family planning plays in enhancing the sexual and reproductive health of families in Jordan. Empowering families to achieve their desired family size and ensure healthy birth spacing effectively contributes not only to individual well-being but also to broader national development goals. This includes linking the demographic transition to socio-economic growth, so that population growth rates are balanced with economic growth rates, thereby improving household living standards and the quality of essential services such as health, education, and employment. Consequently, family planning serves as a strategic lever for aligning population dynamics with socio-economic progress.

Family planning is a cornerstone of sexual and reproductive health and rights, empowering individuals and couples to make informed, voluntary decisions about the number of children they desire, the spacing between births, and the timing of parenthood. According to UNFPA, family planning extends beyond the provision of contraceptive methods; it encompasses a comprehensive package of policies and services that include infertility care, maternal health, and support for reproductive intentions across the life course. This holistic approach promotes reproductive autonomy and well-being, positioning family planning as a fundamental right rather than a narrow focus on contraception alone¹. In this study, we will focus on the preventive aspect of policies and services related to family planning methods.

The UNFPA's 2025 State of World Population Report, titled *The Real Fertility Crisis*, argues that rather than reacting with alarm to declining birth rates, a more constructive approach is to strengthen "reproductive agency"—the capacity of individuals to make informed decisions about sexual relationships, sexual health, family planning, and family formation, and to effectively act on those decisions. The report underscores a persistent gap between people's reproductive aspirations and the outcomes they achieve, calling for policies that dismantle structural barriers—economic, social, legal, and health-related—that constrain choice and hinder the alignment of reproductive intentions with lived realities – in other words, that restrict people's choices and weaken the alignment of these choices with their desires.²

In this context, Jordan's fertility rate trajectory has exhibited complex dynamics: an early decline

1. UNFPA strategy for Family Planning, 2022-2030: Expanding choices – ensuring rights in a diverse and Changing World. The United Nations sexual and reproductive health agency. <https://www.unfpa.org/publications/unfpa-strategy-family-planning-2022-2030>

2. The real fertility crisis (2025). The United Nations sexual and reproductive health agency. <https://www.unfpa.org/swp2025>

that began around 2009, followed by a prolonged stagnation, then a return to decline and a period of relative stability, culminating in a new decrease according to the latest surveys. The final results report of the 2023 Jordan Population and Family Health Survey – DHS 2023 confirmed a decline in the total fertility rate from 2.7 (according to the 2017-18 survey) to 2.6 births per woman (according to the 2023 survey), which is the lowest level recorded to date, with variations between rural and urban areas and among governorates.

Although a range of theoretical explanations exist for the stagnation phase in the total fertility rate, the key determinants remain inconclusive.³ One of the most significant studies analyzed the role of proximate determinants (marriage, contraceptive use, abortion, post-partum infertility) in shaping fertility trends over time. While it pointed to a stagnation in modern method use as a contributing factor, it also drew attention to shifts in ideal family size and the complex interaction between education and economic opportunities. Although conclusions were not definitive, the study stressed the importance of broadening the view to consider the "distal or background" social, economic, cultural, and environmental determinants to understand and predict future fertility trends in Jordan.

Globally, total fertility rates are currently estimated at approximately 2.2 births per woman, a significant decline from levels nearing 4.8 in the early 1970s, with substantial regional disparities persisting. For Jordan and its region – the Middle East and North Africa – recent estimates point to a continued decline in total fertility rates toward below-replacement levels over the next two decades—with projections indicating they may fall below 2.1 births per woman by 2044. This reflects a broader shift towards smaller family sizes across diverse socio-economic contexts.⁴

Over the past thirty years, Jordan has demonstrated a notable commitment to its family planning program,⁵ which is reflected in its advanced regional standing. The Atlas of Family Planning Policies in the Middle East and North Africa region highlights country performance using a precise methodology encompassing the legal framework, policy enforcement, and resource allocation. Jordan's performance has improved over time and it is classified within the "Good tier" with a score of 55.4%⁶, indicating positive progress toward comprehensive and rights-based sexual and reproductive health services.

Regarding access to family planning services, Family planning services are integrated into the

3. Krafft, C., Kula, E., & Sieverding, M. (2021, August 27). An investigation of Jordan's fertility stall and resumed decline: The role of Proximate Determinants (volume 45 - Article 19: Pages 605–652). Demographic Research. <https://www.demographic-research.org/articles/volume/45/19/>

4. World fertility 2024 United Nations - Department of Economic and Social affairs
https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/undesd_pd_2025_wfr_2024_final.pdf

5. Global Partnership (FP2030), which promotes voluntary, rights-based family planning and monitors progress achieved across different regions. The FP2030 initiative highlights Jordan's role in advancing reproductive health and gender equality through policies, service delivery, and regional leadership. See FP2030 – Family Planning 2030.

6. European Parliamentary Forum for Sexual & Reproductive Rights <https://www.epfweb.org/sites/default/files/2024-07/White Paper MENA 2023LoRes.pdf>

essential health services package in the public sector and are provided free of charge at Ministry of Health (MoH) facilities, with refugees included in this coverage⁷.

Service delivery is supported by a broad network of partners, with the MoH serving as the primary provider of modern contraceptive methods. Public sector contributors include the Royal Medical Services and university hospitals, complemented by international organizations and local NGOs. Key local actors include the Jordanian Association for Family Planning and Protection, the Institute for Family Health – King Hussein Foundation, and the National Center for Women’s Health Care. International partners encompass UNRWA, UNHCR, UNFPA, and NGOs such as the Jordan Health Aid Society and the International Rescue Committee, alongside private sector providers.

In terms of sources for obtaining modern methods, analyses from the DHS 2023 show that the Ministry of Health remains the primary source for modern methods (52%), although the private sector contributes significantly (48%).

Ensuring the sustainability of Jordan’s demographic and economic progress requires embedding a rights-based approach to family planning and developing a nuanced understanding of fertility determinants both proximate and background. Addressing these determinants through high-quality, preventive policies and services is essential to meet actual demand and close the gap between reproductive aspirations and outcomes.

The approach adopted in this study aligns with the Jordanian National Strategy for Sexual and Reproductive Health (2020–2030), which seeks to achieve universal access to integrated SRH services and information, thereby enhancing individual and family well-being and contributing to Sustainable Development Goal 3, Target 7 by 2030. It also reflects Jordan’s commitments under the 2019 Nairobi Summit, which set transformative objectives, including achieving zero unmet need for family planning by 2030.

1.2 Study Problem and Research Questions

Despite notable progress in national family planning indicators—where the overall contraceptive prevalence rate (CPR) has risen to 60.1% in 2023—considerable challenges persist, constraining women's and families' ability to exercise contraceptive agency. The rate of modern contraceptive method use remains modest and has actually declined compared to 2012 (38.4% in 2023 versus 42.3% in 2012). Conversely, the use of traditional methods has increased from 18.9% in 2012 to 21.7% in 2023. These traditional methods are known for their higher failure rates⁸.

7. UNHCR - Jordan

8 . Polis CB;Bradley SE;Bankole A;Onda T;Croft T;Singh S; (n.d.). Typical-use contraceptive failure rates in 43 countries with demographic and Health Survey Data: Summary of a detailed report. Contraception. <https://pubmed.ncbi.nlm.nih.gov/27018154/>

While the Middle East and North Africa (MENA) region, in general, shows a higher reliance on traditional methods⁹ compared to other regions globally^{10 11}, Jordan is distinguished by a particularly high and increasing reliance on traditional methods, which is exceptional both within its region and globally. The increase in the overall CPR from 52% (DHS 2017/18) to 60% (DHS 2023) was achieved almost entirely due to a rise in traditional method use alone, from 14% to 22%. This pattern suggests a combination of supply-side constraints (e.g., potentially limited method mix, inadequate counseling services) and demand-side factors (e.g., cultural preferences, widespread fear of side effects associated with modern methods). This necessitates deeper investigation into service delivery mechanisms and the socio-cultural interactions that frame method choice and continuation.

Furthermore, the DHS 2023 reveals that the total unmet need for family planning is 10.8%, but this figure masks significant disparities among subgroups and regions. It rises to 17.8% among non-Jordanian women compared to 10.8% among Jordanian women, peaks in Mafrag governorate at 23.6%, and falls to around 9% in Amman, Irbid, and Aqaba. Unmet need decreases with education level—from 13.8% among women with no education to 8.7% among those with post-secondary education or higher.

It is highest among women in the lowest wealth quintile (15.8%) compared to the highest (6.6%). These disparities highlight the vulnerabilities of specific groups and the unequal opportunities they face in accessing suitable methods that enhance their contraceptive agency.

The complex picture is further complicated by volatile usage behaviors. The discontinuation rate (women who stopped using a contraceptive method for any reason within 12 months of starting) remains high at 28.7% of all episodes of contraceptive use in the five years preceding the survey. Moreover, 68.7% of currently married non-users report no intention to use family planning in the future, while only 23.4% intend to use. Conversely, a significant portion of currently married women aged 15-49—regardless of current use—desire to delay or limit childbearing: 15.3% wish to wait two or more years, and 54.3% want no more children. Data also reveal missed opportunities for education and counseling; nearly 75% of non-users who have ever been married did not discuss family planning with any provider¹². These indicators reflect deficiencies in guidance and counseling quality, substantially weakening the capacity to meet women's family planning needs effectively.

9. Bertrand JT; Ross Sullivan TM; Hardee K; Shelton JD; Contraceptive method mix: Updates and implications. Global health, science and practice. <https://pubmed.ncbi.nlm.nih.gov/33361234/>

10. Bertrand, J. T., Ross, J., & Glover, A. L. (2021, July 16). Declining yet persistent use of traditional contraceptive methods in low- and middle-income countries: Journal of Biosocial Science. Cambridge Core. <https://www.cambridge.org/core/journals/journal-of-biosocial-science/article/declining-yet-persistent-use-of-traditional-contraceptive-methods-in-low-and-middle-income-countries/5AA5E6C9282E30BC011F1BEF79578C0F>

11. Few countries in the Middle East and North Africa (MENA) follow the same pattern in terms of reliance on traditional method characteristics, with Tunisia and more recently Lebanon and Egypt sharing similarities, but differing in prevalence. Jordan's pattern is, however, distinctive, even on a global scale, showing comparable prevalence with countries like Colombia and Nepal.

12. This figure represents (4,187) women who are not using any family planning method and have not discussed the topic of family planning with any service provider, out of a total of (5,610) ever-married women who are not using family planning methods. These 5,610 women constitute 44.5% of all ever-married women

At the service delivery level, demand estimates from the DHS 2023 show that only 54.1%¹³ of the total demand for family planning is satisfied by modern methods, compared to 30.6% satisfied by traditional methods, leaving 15.3% of demand totally unmet. When combining the unmet demand with the demand satisfied by traditional methods, the total unmet demand for modern methods reaches 45.9%—an alarmingly high percentage that forewarns of increased unintended or unplanned pregnancies.

This carries significant health, social, and economic risks for women, families, and society. Indeed, 18.3% of births to ever-married women aged 15-49 in the three years preceding the survey were reported as unwanted at the time of conception, comprising 9.7% mistimed and 8.6% unwanted altogether.

The core problem this study addresses is explaining why—despite the increase in the overall contraceptive prevalence rate—modern method use remains below target levels and has declined from its earlier peak, why reliance on traditional methods is increasing, why unmet need persists and varies widely, and why disparities between governorates and population groups are deepening. The study aims to distinguish the differentiating factors between women who use modern methods, those who use traditional methods, and those with an unmet need. This will inform the design of practical interventions to expand choice, improve the quality of counseling programs and continuation rates, and support meeting the family planning needs of women across all population groups.

Study Questions

The study questions encompass two main areas:

Part One: Use of Family Planning Methods (Currently Married, Non-Pregnant Women)

1. What is the proportional distribution of modern method use, traditional method use, and non-use of any method among currently married, non-pregnant women?
2. How do women's socio-demographic characteristics (e.g., age, education, place of residence, wealth quintile) influence the type of family planning method used?
3. What is the impact of husbands' characteristics (e.g., education, occupation, reproductive preferences) on women's choice of a family planning method?
4. Does exposure to family planning messages or interaction with health services increase the likelihood of using modern methods compared to traditional methods or non-use?

13. UNFPA. (2016). SDG 2: Target 3.7: Indicators 3.7.1 definitions, metadata, ... Capacity Development Workshop on SDG Indicators https://unece.org/fileadmin/DAM/pau/icpd/UNFPA-UNECE_meeting_2016/3__SDG_3.7.1_EECARO_Nov_1.pdf

5. Are there disparities in the use of family planning methods at the governorate or population group level (Jordanians, other nationalities, refugees) among currently married, non-pregnant women?

Part Two: Unmet Need for Family Planning (Currently Married Women)

1. How do socio-demographic factors (e.g., age, parity, education, wealth quintile, place of residence) affect the unmet need for family planning?
2. What is the relationship between reproductive preferences (e.g., desire for more children, ideal family size) and the unmet need for family planning?
3. How do a woman's decision-making capacity and negotiating power within the household influence the unmet need for family planning?
4. Are there gaps or disparities in the unmet need for family planning at the governorate or population group level (Jordanian residents, other nationalities, Syrian refugees) among currently married women?

1.3 Study Objectives

General Objective:

To study the determinants and factors influencing the use of modern methods, traditional methods, and non-use of family planning methods, as well as the persistence of unmet need, through a mixed-methods research approach. This integrates statistical analysis of data from the 2023 Jordan Population and Family Health Survey – DHS 2023 with qualitative dimensions derived from the perspectives of women and key stakeholders within the family planning service system, which support the quantitative analysis findings.

Specific Objectives:

Quantitative Component:

1. Analyze differences in the determinants of women who use modern methods, traditional methods, and those who use no method.
2. Identify factors associated with the intention to use family planning methods among women with unmet need.
3. Explore the factors of method choice (modern vs. traditional) and reasons for non-use.
4. Assess geographic, social, and economic disparities in contraceptive use and unmet need across governorates.
5. Explore the factors that have contributed to the existence of unmet need for family planning methods.

Qualitative Component:

1. Corroborate the findings derived from the quantitative study and demonstrate cross-analysis
2. convergence in trends and patterns among different variables, thereby enhancing the reliability of the final results.
3. Explore women's experiences, decision-making processes, and their perceived sense of control and self-empowerment in using family planning methods, as well as barriers to accessing services, to support the interpretation of quantitative analysis results.
4. Examine the perspectives of service providers and planners regarding policy implementation, service delivery quality, method mix diversity, and the broader integration of family planning into health services.
5. Analyze institutional and organizational factors that influence access to family planning methods, the quality of counseling/consultation, and the interactions between beneficiaries and service providers.

1.4 Significance of the Study

This study aims to develop a comprehensive understanding of the determinants influencing the use of family planning methods and the unmet need for them in Jordan, by integrating quantitative and qualitative evidence. The study also seeks to provide information that supports the design of rights-based and beneficiary-centered programs. This is achieved through analyzing patterns of family planning method use and exploring the experiences, perceptions, and decision-making capacity of women and service providers in this field.

1.5 Linking Quantitative & Qualitative Approaches, and Introduction to Contraceptive Agency Framework

This study adopted a mixed-methods design, combining quantitative and qualitative methodologies in a sequential explanatory approach. The aim was to achieve a comprehensive and integrated understanding of family planning use behavior among married women in Jordan and the factors determining it.

The first phase involved quantitative analysis through secondary analysis of the DHS 2023. Appropriate statistical tests (chi-square tests and logistic regression) were used to examine the relationship between a set of demographics, social, and economic variables and the use of family planning methods.

The second phase, the qualitative component of the study, aimed to interpret the statistical findings and deepen their understanding within their social, cultural, and institutional contexts. This was achieved by conducting semi-structured interviews with decision-makers and family planning service providers (12 Interviews), and three focus group discussions with female clients distributed across three regions. This mixed-method design enabled the linkage between statistical quantitative analysis and interpretive qualitative analysis through the analytical framework of Contraceptive Agency, allowing for the derivation of deeper and more comprehensive conclusions that reflect the complex interactions between individual, social, and political determinants of family planning use in Jordan.

This framework was developed by Holt and other researchers (2024)¹⁴. It defines Contraceptive "Agency" as the ability to make and act upon decisions about avoiding or delaying pregnancy – when a woman is not in an active phase of trying to conceive. It remains neutral regarding contraceptive use itself – meaning it applies whether a woman uses a method or not. It reflects respect for her right to make her own decisions based on her values and circumstances, without external interference or pressure.

This concept (centered on agency as defined above) aligns with the identification of gaps and advocacy priorities in the UNFPA Family Planning Strategy 2020-2030 and the Higher Population Council's framework within the National Sexual and Reproductive Health Strategic Plan 2020–2030. It is also consistent with the emphasis of the aforementioned "The Real Fertility Crisis" 2025 report mentioned in the study's introduction.

The framework encompasses two core domains:

Decision-Making agency– Clarity of values, access to information, awareness of rights, critical thinking, sense of control, and self-efficacy.

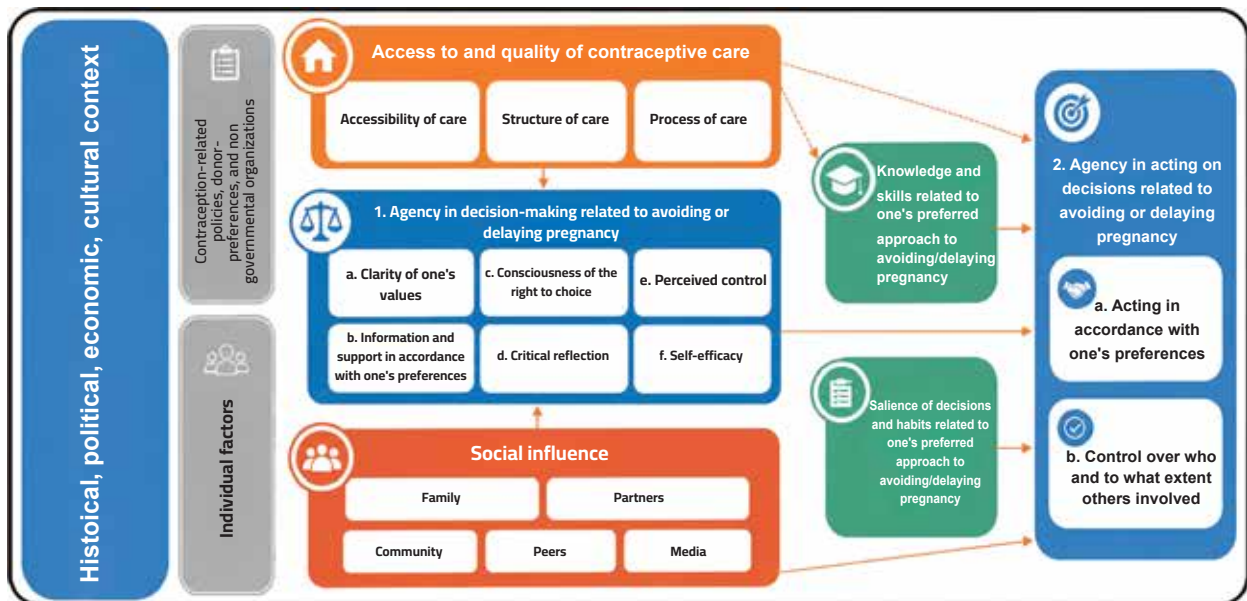
Action agency – The ability to implement preferences and control the involvement of others.

The process of integrating quantitative and qualitative findings was conducted following the cross-interpretation (triangulation) methodology, as documented in methodological literature (Fetters et al., 2013; Guetterman et al., 2015; O’Cathain et al., 2010). This approach was employed to ensure the systematic integration of different data sources, thereby contributing to the enhancement of result reliability and the expansion of their interpretative scope.

14 Holt, K., Challa, S., Alitubeera, P., Atuyambe, L., Dehlendorf, C., Galavotti, C., Idiadi, I., Jegede, A., Omoluabi, E., Waiswa, P., & Upadhyay, U. (2024a, February 28). Conceptualizing contraceptive agency: A critical step to enable human rights-based family planning programs and measurement. *Global health, science and practice*. <https://pmc.ncbi.nlm.nih.gov/articles/PMC10906552/>

1.6 Quantitative Methodology

1.6.1 Study Design and Data Sources



The current study relied on a secondary quantitative analysis using data from the 2023 Jordan Population and Family Health Survey – DHS 2023. This survey is part of the international Demographic and Health Surveys (DHS) Program, which aims to provide high-quality, standardized data on reproductive health indicators, family planning, maternal and child health, and geographic and social factors.

The survey in Jordan was implemented by the Jordanian Department of Statistics in cooperation with the Jordanian Ministry of Health, with technical support from ICF International, which provides methodological oversight and quality assurance for all DHS implemented globally. This survey is based on a national sampling frame derived from the 2015 General Population and Housing Census, which was updated to accurately reflect the population distribution at the time of the survey.

1.6.2 Study Population

Sample Design: The DHS 2023 utilized a stratified multi-stage cluster sampling design to achieve national and regional representation while accounting for urban-rural distribution.

First Stage (Selection of Enumeration Areas): Jordan was divided into strata based on geographic location (the three regions: Central, Northern, Southern) and type of residence (urban/rural). From within each stratum, Enumeration Areas (EAs) were selected using Probability

Proportional to Size (PPS) sampling, meaning areas with more households had a higher probability of selection.

Second Stage (Selection of Households): From each selected EA, a complete listing of households was conducted. Then, a systematic random sample of households was drawn. All eligible women (aged 15–49 years) residing in those households at the time of the survey were interviewed.

Levels of Representation

This design ensures representation at the following levels:

1. **1.National Level:** Results reflect the general situation for all women of reproductive age in Jordan.
2. **2.Regional Level:** Covers the three regions (Central, Northern, Southern).
3. **3.Urban–Rural Level:** Captures differences in behavior patterns and health services between cities and villages.
4. **4.Governorate Level:** The survey was also designed to be representative for each governorate individually (e.g., Amman, Irbid, Zarqa, Mafraq, Karak... etc.).

Sample Size:

This study utilized data from the DHS 2023, which targeted women of reproductive age (15–49 years) at the national level. This age range is the standard reference category in DHS surveys for studying reproductive health and family planning indicators.

For analysis purposes, the study focused on currently married women, in line with the DHS methodology which uses this category when analyzing contraceptive use and unmet need. This is because these indicators are closely linked to the context of marriage and childbearing. Different sub-samples were derived from the women's dataset (JOIR81FL) according to the specific objective of each analysis and the type of indicator studied.

Given that the sample sizes used varied depending on inclusion/exclusion criteria and the type of statistical analysis, Appendix (1) is dedicated to presenting a detailed description of the sample used in this study. This includes the original sample size and the specific sub-samples used in the analysis of contraceptive use and the analysis of unmet need for family planning, ensuring methodological clarity and ease of reference for details supporting the results.

1.6.3 Study Variables and Statistical Analysis

Study Variables:

Dependent Variables

1. Contraceptive Use: Defined as a multicategory (trichotomous) variable:

- Does not use any method.
- Uses a traditional method.
- Uses a modern method.

This analysis included all currently married women, excluding those who were pregnant, as current pregnancy precludes contraceptive use.

2. Unmet Need for Family Planning (v626a): Defined as a binary variable:

- Unmet need (Yes)
- Need met (No)

Independent Variables

A set of demographics, social (including economic, reproductive, and empowerment- related) factors were selected based on previous literature and their availability in the survey questionnaire, as detailed in Appendix (2).

Statistical Analysis

Analysis was conducted using Stata version 17 and SPSS version 29. Identical results were obtained with high precision in both software packages to ensure accuracy and output consistency so stata was the software used for analysis.

Initially, the suitability of the data for Discriminant Analysis, as originally proposed in the study design, was assessed by reviewing its core assumptions, such as homogeneity of variance-covariance matrices and multivariate normality.

However, the diagnostic checks revealed that these assumptions were not sufficiently met, rendering Discriminant Analysis unsuitable for interpreting relationships within this data. Consequently, Logistic Regression, the second alternative outlined in the terms of reference, was adopted as a more statistically and practically appropriate method.

For the purposes of this study:

- Binary Logistic Regression was used to analyze the determinants of unmet need for family planning (binary variable: unmet need vs. no need).

- Multinomial Logistic Regression was applied to study the determinants of contraceptive use (three categories: non-use, traditional method use, modern method use), with non-users as the reference category.

Sampling weights (v005/1,000,000) were applied, and the complex survey design (Stratified Multi-stage Clustered Sampling) was accounted for using the survey (svy) commands in Stata and by applying weight coefficients in SPSS.

This analysis was used to present core characteristics:

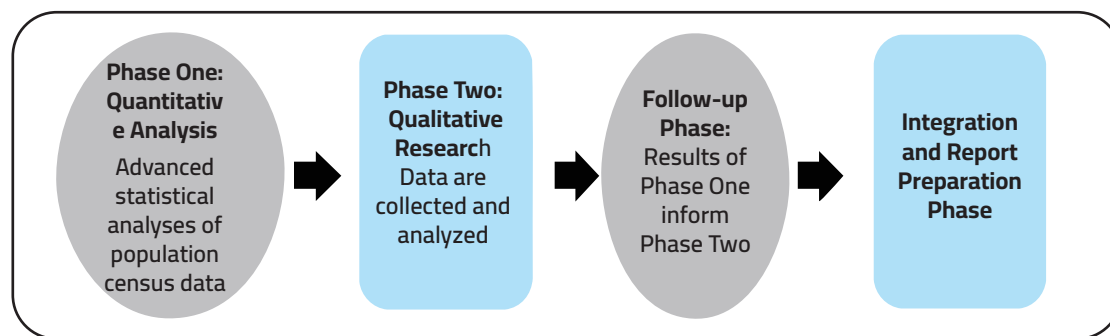
1. Hypothesis tests and relationships between independent and dependent variables as a preparatory step for logistic regression (see Appendix I).
2. Goodness-of-fit tests (e.g., Pearson's χ^2) and assessment of the predictive power of models using the Area Under the ROC Curve (AUC).
3. A significance level of $p < 0.05$ was adopted.

1.7 Qualitative Methodology:

The qualitative component of the study adopted a sequential explanatory design. The qualitative analysis was implemented in the second phase of the research with the aim of interpreting the quantitative findings and deepening their understanding within their social and institutional contexts. This approach is based on the model proposed by Creswell & Plano-Clark (2007).

The qualitative research instruments were developed based on the most significant statistical results derived from the quantitative analysis of the DHS 2023, which included advanced logistic regression and other statistical methods. The results revealed clear disparities in family planning method use and unmet need across multiple variables, including: reproductive desire, number of living children, economic level – wealth quintile, and other geographic factors, most notably the governorate.

Building on this, the qualitative research was designed to explore the underlying reasons for these disparities, understand the social, cultural, and administrative determinants, and their interaction with determinants related to the health system in its comprehensive sense. This includes the programs, activities, and interventions concerned with family planning. This linkage aims to explain family planning use behavior and generate insights for improving existing programs and services. The research will also address the interpretation of traditional method use, focusing on understanding couples' drivers for switching to or continuing the use of these methods.



1.7.1 Qualitative Research Tools and Their Components

The qualitative research comprised two main tools:

First: Semi-Structured Interviews

Twelve (12) individual interviews were conducted with policymakers, service providers, and planners. Participants represented various relevant local and international entities involved in the research topic. These included: the Ministry of Health, Royal Medical Services, United Nations High Commissioner for Refugees (UNHCR), United Nations Population Fund (UNFPA), United Nations Relief and Works Agency for Palestine Refugees (UNRWA), National Center for Women's Health Care, King Hussein Institute for Family Health – King Hussein Foundation, Jordan Health Aid Society, World Health Organization (WHO), Jordan Pharmacists Association, Jordan Society of Obstetricians and Gynecologists, and an administrative manager of a private pharmacy chain.

Participants were selected based on specific criteria to ensure comprehensive representation of experiences and perspectives. Criteria included: their practical experience in reproductive health and family planning services, their leadership or technical positions within institutions, their direct role in policy formulation or service delivery, and representation from multiple entities to guarantee diversity of experiences across national and international levels.

The semi-structured interviews aimed to explore participants' perspectives on:

- The results of the quantitative analysis.
- Current family planning policies and strategies.
- An assessment.
- An assessment of the structure and performance of the health system, including determinants of supply and demand, governance mechanisms, and the ability of programs to adapt to the needs of different population groups.

The research also sought to gather recommendations and suggestions for developing specific policies and programs that address the causes of unmet need and work towards increasing modern method use rates, thereby contributing to enhanced reproductive health in Jordan.

Key discussion themes included:

1. The adequacy of family planning services in terms of coverage and quality.
2. Challenges in targeting groups with lower utilization rates, such as women in governorates with Low modern method use, refugees, and other women's groups based on age.
3. Disparities in modern method use according to the strongest statistical determinants, and motivations for using traditional family planning methods.
4. Evaluation of national programs and internationally funded projects, analyzing why the quality of some programs has not translated into reduced unmet need and increased use, despite high satisfaction with services and awareness of side effects associated with modern family planning methods and how to manage them.
5. Future visions for improving the family planning-related health system.

Interview tool: The tool was designed based on the Contraceptive Agency Framework, focusing on its upper-level attributes such as qualitative access to services, government policies, donor strategies, and relevant economic, cultural, and contextual characteristics. Verification questions linked to the quantitative analysis results were also included. (See Appendix 3)

Second: Focus Group Discussions (FGDs)

Focus group discussions were conducted in three governorates: Mafraq, Ma'an, and Balqa. These governorates were selected based on quantitative analysis results to ensure representation of different family planning use patterns.

- Ma'an was chosen as a governorate showing the highest likelihood of traditional method use.
- Balqa was selected as the governorate with the lowest likelihood of using these methods in Jordan, allowing for an understanding of factors supporting or limiting modern method use in contrasting contexts.
- Mafraq was chosen due to the presence of the Zaatari Syrian refugee camp, as women in this group show the lowest use of modern family planning methods, the highest resistance to them, and have the highest likelihood of having an unmet need.

The objectives of these groups were to understand:

- Women's experiences and attitudes towards family planning method use.
- Reasons for unmet need, reliance on traditional methods, and discontinuation of modern methods.

- Factors that may enhance or hinder the ability to use contraception, as indicated by quantitative analysis results, most notably spatial and cultural factors and their interaction with the health system – barriers to access and availability, sources of family planning knowledge, and the impact of exposure to media and the internet.

Discussion themes included:

1. Level of knowledge about different family planning methods and sources of information.
2. The role of the husband and family in the decision to use family planning methods.
3. Ease of access to health services and participants' satisfaction with the quality of these services and their providers.
4. Suggestions for improving awareness programs and services provided in the field of family planning.

The discussion guide was designed based on the Contraceptive Agency Framework, focusing on its lower-level attributes, which address the social influences that shape awareness, information, and decision-making capacity. This includes the role of the husband, family, community, and information sources. Verification questions linked to the quantitative analysis results were also included, tailored to the characteristics of participants in each group. (See Appendix 4)

1.7.2 Participant Selection and Implementation Procedures

Participants were selected using purposive sampling based on their expertise and knowledge of the subject.

- **Policymakers:** Selection included representatives from administrative, executive, and technical levels, considering institutional diversity.
- **FGD Participants:** They were selected through health centers and local community institutions in the chosen governorates. Two groups consisted of Jordanian women in Balqa and Ma'an governorates, and one group consisted of Syrian women in Zaatari camp, Mafraq.

Most interviews and FGDs were conducted face-to-face by the research team after obtaining verbal and written informed consent. Full confidentiality was ensured, and no personal identifying data was recorded.

1.7.3 Qualitative Data Analysis

Framework Analysis, as outlined by Gale et al. (2013), was adopted, based on the Contraceptive Agency Framework—a form of thematic analysis. It was implemented through seven stages:

1. Transcription
2. Familiarization to gain a comprehensive understanding of the texts
3. Coding relevant text segments using NVivo 12 software
4. Adaptation and Development of the analytical framework
5. Charting codes into a framework matrix with main and sub-themes
6. Identifying common patterns and differences between regions
7. Comparing qualitative findings with quantitative indicators to interpret and deepen understanding.

1.8 Ethical Considerations

The study obtained approval from the Scientific Research Ethics Committee at the Ministry of Health, under letter number MOH/REC/2025/453 dated September 19, 2025, based on the application submitted by the Higher Population Council.

The research team obtained informed consent from all participants in the semi-structured individual interviews and focus groups discussions.

Focus Group Discussions: Discussions were held inside health centers after reviewing the specific recruitment criteria for participants. Participants were informed in advance of the location and time in coordination with these centers. All discussions were conducted in Arabic, with each session lasting approximately one hour on average. Participants were provided with a nominal transportation allowance.

Individual Interviews: Each participant was contacted directly to agree on a suitable time and place. Interviews were conducted either at the participant's affiliated institution or remotely using Zoom or Google Meet, according to the participant's preference. The individual interviews were conducted by two researchers from the research team. One led the conversation and asked questions, while the other was responsible for recording and note-taking. The interviews lasted between half an hour and an hour and a half.

Focus Groups: A researcher from the research team facilitated the discussions with the support of an auxiliary team consisting of two midwives specifically hired for this purpose (external to the health centers where discussions took place). This was to ensure better handling of sensitive topics and the dynamics emerging from the discussions. The facilitating researcher was responsible for recording, observing, and taking notes.

All recordings were transcribed verbatim by the principal researcher. All information that could identify participants was removed from the transcripts. Data were stored in a secure file, and access was strictly limited to the research team.

It is worth noting that the possibility of positive bias, whether social or towards the health sector in general, existed due to the facilitation of discussions by midwives or the location of focus groups inside health centers. This may have led participants to provide more socially desirable answers or responses aligned with their experiences within the health facility. This potential bias was taken into consideration during data analysis.

Chapter Two

Literature Review

In this chapter, a systematic search strategy was adopted encompassing three main conceptual domains. The first domain focused on family planning, including terms such as “family planning,” “birth spacing,” “contraception,” “birth intervals,” “sexual education,” and “unmet need.” The second domain specified Jordan as the geographical focus of the study. The third area addressed family planning services, policies, interventions, programs, and related research.

Based on these conceptual domains, a search was conducted in the PubMed database, with results limited to studies published in the last seven years. This initial search yielded 30 studies. Following the screening of titles and abstracts, 18 studies were selected. An additional four sources were identified through grey literature and the snowballing technique, resulting in a final total of 22 studies.

This review aims to situate the study’s findings within the broader evidence base specific to Jordan. Reviewing previous studies provides essential context for understanding how national policies, service delivery systems, community norms, and individual behaviors influence family planning outcomes. The reviewed literature also highlights the experiences of specific population groups and documents programmatic initiatives aimed at improving access to services and the quality of care. The evidence is synthesized thematically, and the Contraceptive Agency Framework is applied to identify persistent gaps and opportunities for strengthening family planning programs.

1.2 National Policy Documents

The search strategy identified two complementary national documents that shape the reproductive health and population landscape in Jordan within the broader framework of the Ministry of Health's 2020-2025 Strategy, which included a specific pillar on primary healthcare encompassing reproductive health.

The Jordanian National Strategy for Sexual and Reproductive Health 2020-2030,¹⁵ prepared by the Higher Population Council with support from UNFPA in Jordan, is a cornerstone of the strategy's vision to achieve universal access to integrated sexual and reproductive health services and information, contributing to the well-being of individuals and families in Jordan. It is rights-based

15. Higher Population Council, The Jordanian National Strategy for Sexual and Reproductive Health 2020-2030

and structured around four pillars: the Enabling Environment; Services and Information; Community; and Sustainability and Governance. It also establishes robust performance monitoring frameworks, including baseline indicator cards, a monitoring and evaluation system, and multi-sectoral technical and steering committees. It is noteworthy, in the same context, that Jordan's reproductive health field has been influenced by a series of national initiatives reflecting both global commitments and local realities. The first official population policy in Jordan appeared in 1993 with the adoption of the National Birth Spacing Program by the National Population Committee, which aimed to improve maternal and child health while respecting cultural and religious dimensions and individual choice.

This was followed by the development of the National Population Strategy in 1996, later updated in 2000, which integrated international and regional recommendations, as well as national reproductive health/family planning action plans for 2003-2007, 2008-2012, and 2013-2018.

The latest Sexual and Reproductive Health Strategy of the Higher Population Council strongly reinforces the enabling environment and the importance of providing integrated, comprehensive, quality sexual and reproductive health services and information through standardizing service packages, ensuring quality, defining financing pathways, and enhancing accountability. By stabilizing these conditions, the range of reliable choices is expanded, supporting implementation and continuation through better counseling services and effective monitoring mechanisms. Complementing this, the Jordan National Population Strategy 2021-2030¹⁶ adopts a demographic framework and macro-planning approach, linking population dynamics and development outcomes across four strategic pillars: Health and Reproductive Health; Social and Socio-economic Protection; Migration, Refugees, and Crises; and Women and Youth Empowerment. The strategy aligns with the Sustainable Development Goals and regional commitments, is based on scenario-based projections (e.g., population growth, health workforce, education, water, energy, housing), cost forecasting, and a formal monitoring and evaluation framework linked to core indicator values and target achievement.

The National Population Strategy emphasizes and reinforces the adoption of enabling policies, updated data systems, sustainable financing, and governance to monitor progress and ensure inter-sectoral coordination. It also anticipates significant needs in health and education infrastructure and labor markets under different population growth scenarios, highlighting the importance of transforming demographic opportunities such as an increased working-age population—into economic gains through expanding women's labor force participation and youth employment.

16. Higher Population Council, The Jordanian National Strategy for Sexual and Reproductive Health 2020-2030

Together, these two strategies—the Jordanian National Strategy for Sexual and Reproductive Health 2020-2030 and the National Population Strategy 2021-2030—describe an integrated path towards universal health coverage, rights-based sexual and reproductive health, and data-driven population development.

The Sexual and Reproductive Health Strategy provides policy architecture and service delivery models that establish the enabling environment for contraceptive agencies through standardized service packages, quality assurance, financing pathways, and accountability mechanisms. Simultaneously, the Population Strategy determines the scale and timing of investments needed to sustain these conditions, projecting workforce, infrastructure, and budgetary needs under different demographic scenarios. By aligning demographic planning with rights-based service delivery, the two strategies reinforce the principle of informed choice—ensuring that individuals, especially women and youth, can make informed and voluntary decisions about family planning within a supportive system. This integrated approach enhances implementation, continuity, and equity across sectors, strengthening Jordan's commitments to reproductive rights and sustainable development.

2.2 Service Delivery, Service Providers, and the Health System

Studies indicate that the family planning landscape is shaped by a complex interplay of service availability, provider competency, systemic gaps, and social and cultural norms. A series of seven studies conducted between 2016 and 2025 (study conduct dates, not necessarily publication) provides a multi-dimensional view of how these factors influence contraceptive access and family planning use across the public, private, and community sectors.

One of the most recent and methodologically robust contributions comes from Khader et al. (2025) in their cross-sectional study titled "Family Planning in Jordan: A Cross-Sectional Study on Service Availability, Women's Knowledge and Attitudes".¹⁷ This study is distinguished by its dual-method approach, integrating a Service Availability and Readiness Assessment (SARA) across 40 facilities in six governorates with a survey of 972 postpartum women visiting Primary Health Care centers.

Findings reveal that while family planning services are available in Comprehensive and Primary Health Care Centers (PHC & CPHC), they are severely limited in Village Health Clinics, particularly for adolescents and unmarried women. Training gaps were prominent, especially in rural areas, along with the absence of a full range of contraceptive methods. On the demand side,

17. Khader, Y., Khudair, S. A., Nsour, M., Alyahya, M. S., Badran, E., & AlQutob, R. (2025, August 18). Family planning in Jordan: A cross-sectional study on service availability, knowledge and attitudes among women. *BMJ Public Health*. <https://bmjpublichealth.bmj.com/content/3/2/e002926>

knowledge about family planning was concentrated around pills and IUDs, with limited awareness of other modern methods. Misconceptions about the cost, safety, and effectiveness of family planning methods persist, and spousal communication remains low, as concluded by the study. In a similar context, the Village Health Clinics Project, evaluated through a 2025 quasi-experimental study titled "The Impact of the Village Health Clinics Project on Family Planning Use Behaviors in Rural Areas of Jordan: A Difference-in-Differences¹⁸ Analysis", provides important insights into family planning service delivery in rural areas. The study was conducted in five intervention and five control villages. It found that integrating facility-based services with community outreach led to increased consultations, access to family planning methods, and participation in health education programs—although the increase in modern contraceptive use was not statistically significant, trends suggest that community engagement can drive long-term behavioral changes.

Regarding Pharmacies and the Private Sector: The role of pharmacists as frontline service providers in offering emergency contraception has been explored through several studies. These studies employed various methodologies to examine closely related topics. A study based on field research in 2016, titled "Emergency contraception in Jordan: Assessing retail pharmacists' awareness, opinions, and perceptions of need",¹⁹ revealed widespread knowledge gaps and regulatory ambiguity. Despite the absence of a registered dedicated emergency contraceptive product at that time, pharmacists expressed significant interest in providing it if approved. However, attitudes were mixed, with ethical concerns and misconceptions about the mechanism of action and safety of emergency contraception affecting dispensing behavior.

Building on this, the 2022 cross-sectional study titled "Evaluating Community Pharmacists' Awareness, Perception, and Role in Providing Emergency Contraception in Jordan",²⁰ which included 299 pharmacists, found that while knowledge scores were relatively high, misconceptions persisted, particularly regarding the effect of emergency contraception on an existing pregnancy. Only 38% of them had prior experience in dispensing emergency contraception. Attendance at training workshops significantly increased the likelihood of providing these methods.

Subsequently, a qualitative study conducted in 2024, titled "Perceptions and Practices of Community Pharmacists Regarding Emergency Contraception in Jordan: A Qualitative Study",²¹ shed further light on pharmacists' perceptions and practices. Through semi-structured interviews

18. Komasaawa, M., Yuasa, M., Shirayama, Y., Sato, M., Komasaawa, Y., & Alouri, M. (2019, October 29). Impact of the Village Health Center project on contraceptive behaviors in rural Jordan: A quasi-experimental difference-in-differences analysis. *BMC public health*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6820982/>

19. El-Mowafi, I. M. A. (2020). Emergency contraception in Jordan: Assessing retail pharmacists' awareness, opinions, and perceptions of need. *Contraception*, 101(2), 116–121. <https://pubmed.ncbi.nlm.nih.gov/31655070/>

20. Evaluating Community Pharmacists Awareness, perception and roles in providing emergency contraceptives in Jordan - ScienceDirect. (n.d.-b). <https://www.sciencedirect.com/science/article/abs/pii/S0010782424001951>

21. Jum'Ah D;Binsaleh AY;Shilbayeh SA;Halboup A;Abu-Farha R; Perceptions and practices of community pharmacists regarding emergency contraceptives in Jordan: A qualitative study. *African journal of reproductive health*. <https://pubmed.ncbi.nlm.nih.gov/40135411/>

with 20 pharmacists in Amman and Irbid, the study revealed that dispensing decisions were often influenced by the client's appearance, marital status, and sense of responsibility. Counseling practices were more reactive than proactive, while ethical and religious considerations dominated most client interactions.

An exploratory study titled "²² Unforeseen uses of oral contraceptive pills: Exploratory study in Jordanian Community pharmacies ", conducted in 2020, highlighted the prevalence of improper use, including high post-coital doses and non-contraceptive uses (e.g., for treating acne and hair growth). Among 380 pharmacists surveyed, 53% reported encountering misuse, and 83% dispensed oral contraceptive pills without a prescription. While most provided counseling upon suspecting misuse, the findings point to regulatory gaps and the need for stricter controls and enhanced training.

Finally, the qualitative study by Alnuaimi et al. (2020), titled " Resumption of sexuality and health education in postpartum period: From Jordanian Health Care Professionals' perspectives "²³, adds a crucial dimension to the service delivery narrative. Conducted through focus group discussions with 22 healthcare providers (midwives, nurses, and obstetrician/gynecologists) in three regions, it explored cultural, professional, and systemic barriers to postpartum sexual education. The results revealed widespread silence on the topic of sex due to embarrassment, cultural taboos, and lack of provider training. Healthcare providers often felt it was not their role to initiate discussions, and many lacked the knowledge or confidence to do so. Male dominance in sexual decision-making was a recurring theme, with women often resuming sexual activity early due to pressure from their husbands.

Importantly, this study highlights a missed opportunity for family planning counseling during the postpartum period. Although postpartum visits represent a crucial moment to discuss contraception, sexual life, and reproductive intentions, these interactions are often limited to biomedical assessments, leaving important psychosocial and relational aspects unaddressed. The study calls for structured sexual education during prenatal care, male engagement, and culturally sensitive approaches such as involving religious leaders or digital platforms. It also emphasizes the need to expand the scope of postpartum care to include comprehensive counseling that supports informed decision-making and bodily autonomy.

Taken together, these seven studies indicate that Jordan's family planning and emergency contraception landscape, while evolving, remains fragmented. Across both public and private

22. Barakat M;Al-Qudah R;Akour A;Al-Qudah N;Dallal Bashi YH; (n.d.). Unforeseen uses of oral contraceptive pills: Exploratory study in Jordanian Community pharmacies. PloS one. <https://pubmed.ncbi.nlm.nih.gov/33347511/>

23. Alnuaimi K;Almalik M;Mrayan L;Mohammad K;Ali R;Alshraifeen A; (n.d.). "Resumption of sexuality and health education in postpartum period: From Jordanian Health Care Professionals' perspectives." Journal of sex & marital therapy. <https://pubmed.ncbi.nlm.nih.gov/32458741/>

sectors, including pharmacies, the studies highlight constraints on decision-making capacity, including lack of information, provider bias, and pressure from social norms, as well as constraints on fulfilling demand, such as inconsistent method availability, regulatory ambiguity, and lack of privacy in service delivery.

The study by Khader et al. (2025) is particularly significant for Jordan as it links facility readiness with women lived experiences, providing actionable insights for policy and programming. The pharmacy studies underscore the need to engage non-traditional providers in reproductive health, while the Village Health Clinics project highlights the potential of community-based approaches to enhance agency in rural settings.

Interestingly, both the Village Health Clinics project and the Khader et al. (2025) study focused on northern Jordan and employed a similar level of analysis. While the geographic scope limits the generalizability of the findings, both studies offer important insights.

The AlNuaimi et al. (2020) study expands the framework's relevance to the postpartum sexual context, illustrating how cultural silence and gender-based power dynamics undermine women's contraceptive agencies to make informed decisions and act on their preferences. It also reveals that the absence of structured counseling during postpartum care represents a systemic gap and a missed opportunity that limits contraceptive agencies.

To enhance contraceptive agency in Jordan, future efforts must align with individual preferences and rights, strengthen provider training across sectors, and address the social and cultural dynamics that shape reproductive decision-making. Only through such actions can the health system support women and couples in making informed, autonomous decisions about their reproductive lives.

2.3 Community and Individual Determinants

This section integrates five studies ranging from national analyses to focused community surveys.

The study titled "Are Modern and Traditional Contraceptive Users in Jordan Different?"²⁴ by Al-Malik et al. (2018) provided an early national perspective using data from the 2012 Jordan Population and Family Health Survey. The study found that while modern method users tended to be urban, educated, and have a higher number of children, education did not emerge as a distinguishing factor between modern and traditional method users. This suggests that other variables—such as region, age, and husband's preferences—play a more decisive role in method choice. However, the more recent study titled "Determinants of Modern Contraceptive Use in

24. Al-Maliki Mona, Sultan, M., & Mssarawh, I. (2018). Are users of modern and traditional contraceptive methods in Jordan different? *Eastern Mediterranean Health Journal*, 24(6), 521–530. <https://pubmed.ncbi.nlm.nih.gov/29972232/>

Jordan" (2020),²⁵ based on data from the 2017–2018 Jordan Population and Family Health Survey, reveals that education has a clear and consistently positive association with modern contraceptive use across all three tested models (modern method users, traditional method users, and non-users). Educated women, as well as those with educated husbands, were significantly more likely to adopt modern methods. This shift in findings may reflect changing social norms, improved access to information, and increased autonomy among educated women in recent years. The study also highlights other key determinants of modern contraceptive use, including residence in urban areas, higher number of children, exposure to family planning messages, and joint decision-making with the husband. These factors collectively underscore the importance of both structural elements and personal practices in shaping family planning use behavior.

In rural areas, the study titled "Demand for Family Planning Satisfied with Modern Methods among Married Women of Reproductive Age in Rural Areas of Jordan (2020)"²⁶ provides additional insights. Conducted in Irbid Governorate, it found that only 54.7% of women identified with a demand for contraception had that demand satisfied with modern methods. The strongest predictive factors were husband's approval, knowledge of modern methods, and receiving counseling at health centers. These findings highlight the crucial role of male involvement and targeted education in rural areas, where access is often limited while awareness of services can be high.

Another study explored the psychosocial dimension of contraceptive use. Titled "Violence against women and its consequences on women's reproductive health and depression" (2021)²⁷, it was conducted on a hospital-based sample of 300 married women. High levels of psychological violence and controlling behavior were documented, with 50% of participants showing significant depressive symptoms.

Although violence did not show a strong association with overall contraceptive use—aligning with the aforementioned findings of the "Determinants of Modern Contraceptive Use in Jordan" (2020) study—it was associated with decreased use of fertility awareness methods and an increased history of abortion (patient history of number of abortions). These findings suggest that violence may not directly affect whether women use family planning methods, but it influences how they use them, the methods they choose, and whether they feel safe and supported in their reproductive decisions.

25. Sara Riese1,2 Christina Juan1,2 (2020) Determinants of Modern Contraceptive Use in Jordan: Further Analysis of the Jordan Population and Family Health Survey 2017-18 <https://dhsprogram.com/pubs/pdf/FA140/FA140.pdf>

26. Komasa M; Yuasa M; Shirayama Y; Sato M; Komasa M; Alouri M; (2020). Demand for family planning satisfied with modern methods and its associated factors among married women of reproductive age in rural Jordan: A cross-sectional study. PLoS one. <https://pubmed.ncbi.nlm.nih.gov/32187224/>

27. Damra J; Abujbran S.; (2021). Violence against women and its consequences on women's reproductive health and depression: A Jordanian sample. Journal of interpersonal violence. <https://pubmed.ncbi.nlm.nih.gov/29673301/>

The study "Do Modern Contraceptive Methods Affect Women's Quality of Life?" (2019)²⁸ adds a vital dimension to understanding contraceptive use behavior. Conducted on 548 women who had used modern methods for an average of five years, it assessed quality of life across physical, psychological, social, and environmental domains. The study found that method choice significantly impacts well-being: IUD users reported better physical health, while women whose husbands' used condoms experienced higher psychological and social quality of life. Sterilization, on the other hand, was associated with lower scores across all domains. These results highlight the importance of patient-centered counseling and shared decision-making, as the user experience with a method can significantly influence satisfaction, continuation, and overall well-being.

2.4 Special Groups

Refugees

This subsection on special groups draws on three studies addressing access to Sexual and Reproductive Health (SRH) and contraceptive agency among refugee populations in Jordan. The first is a systematic literature review conducted by Amiri, El-Mawafi, Chahien, Yousef, and Kobbeyssi (2020) titled "An overview of the sexual and reproductive health status and service delivery among Syrian refugees in Jordan, nine years since the crisis: A systematic literature review"²⁹. It encompassed 19 research papers, studies, and reports, including two documents from the Higher Population Council: "Reproductive Health Services provided to Syrians Residing Outside Camps in Jordan"³⁰ and "The Jordanian Agenda for the Sexual and Reproductive Health and Rights Knowledge Platform"³¹.

These reviews revealed persistent barriers to SRH access and utilization, especially outside camps. These barriers included information gaps on sexual and gender-based violence, the prevalence of early marriage, poor knowledge and use of family planning, insufficient coverage of HIV/STIs, and difficulties in implementing the Minimum Initial Service Package (MISP) for SRH. The review confirmed the fragility of the enabling environment and called for improved coordination, provider training, and enhanced community engagement.

Furthermore, a field survey conducted in camps during (2016–2017) titled "Impediments to use of oral contraceptives among refugee women in camps, Jordan."³² included 425 women who had

28. Alyahya MS;Hijazi HH;Alshraideh HA;Al-Shehab NA;Alomari D;Malkawi S;Qassas S;Darabseh S;Khader YS; (2019). Do modern family planning methods impact women's quality of life? Jordanian women's perspective. Health and quality of life outcomes. <https://pubmed.ncbi.nlm.nih.gov/31615524/>

29. Amiri M;El-Mowafi IM;Chahien T;Yousef H;Kobbeyssi LH; (n.d.). An overview of the sexual and reproductive health status and service delivery among Syrian refugees in Jordan, nine years since the crisis: A systematic literature review. Reproductive health. <https://pubmed.ncbi.nlm.nih.gov/33115474/>

30. Higher Population Council of Jordan. (2016). Reproductive health services for Syrians living outside the Camps... [https://www.hpc.org.jo/sites/default/files/Reproductive Health Services for Syrians Living Outside Camps in Jordan.pdf](https://www.hpc.org.jo/sites/default/files/Reproductive%20Health%20Services%20for%20Syrians%20Living%20Outside%20Camps.pdf)

31. King Hussien Foundation & Higher Population Council (2015, August). Jordan agenda setting for sexual and reproductive, Share-Net International https://haqqi.s3.eu-north-1.amazonaws.com/2020-08/HAQQI_Annex-9-Jordan-agenda-setting.pdf

32. Sanaa Bardawaa & others (2019). Impediments to use of oral contraceptives among refugee women in camps, Jordan. Women & health. <https://pubmed.ncbi.nlm.nih.gov/30040539/>

previously used oral contraceptive pills. The survey recorded a low level of knowledge about correct use (only 21.2%), a pregnancy rate of 10.6% while using the pills, and high reporting of side effects (about 75%). Knowledge was strongly correlated with education and exposure to information, revealing significant gaps in method knowledge and the need for tailored education and ongoing follow-up.

Finally, H. Pierce (2019) conducted a secondary analysis of data from the 2012 Jordan Population and Family Health Survey in the study titled " Reproductive Health Care Utilization among refugees in Jordan: Provisional Support and Domestic Violence".³³ The study compared users of UNRWA services with other providers and compared camp residents with non-camp residents. Although UNRWA clients enjoyed better access to family planning and counseling services, they also reported higher exposure to domestic violence, highlighting the tension between improved service delivery and continued social vulnerability.

In summary, based on the previous studies concerning the refugee population as a whole, the preconditions for contraceptive agency—namely, reliable information and consistent method availability—are often unstable (not continuously and consistently available). The enabling environment is further weakened by issues with official documentation, movement restrictions, and safety risks. Even when access to services improves, choice and continuity are undermined by exposure to sexual and gender-based violence, economic instability, and ambiguity regarding rights to safely access health facilities.

It is noteworthy that while there is ample literature on refugees and SRH services in the aforementioned studies, significant literature gaps remain. Studies on fertility and family planning among refugees in Jordan have been framed within a context of vulnerability and needs—explaining high unmet need, high total fertility rates, and poor access to family planning, with these factors often shaped in these studies by interaction with restrictive cultural norms. The gap in the aforementioned literature lies in the question of how displacement and the refugee life experience affect fertility preferences and reproductive decision-making, especially given the notably high fertility rates among Syrian refugees—4.9 in camps and 3.9 outside—which constitutes a stark difference with host communities. This issue gains particular importance considering that 49.4% of Syrian refugees in Jordan are under 18 years old—meaning most were born in Jordan.³⁴

33. Pierce, H. (2019). Reproductive Health Care Utilization among refugees in Jordan: Provisional support and domestic violence. Women's health (London, England). <https://pmc.ncbi.nlm.nih.gov/articles/PMC6681265/>

34. UNHCR Portal - <https://data.unhcr.org/en/situations/syria/location/36>

Here, the DHS 2023 represents a significant advancement by disaggregating data according to four nationality categories: Jordanians, Syrians residing inside camps, Syrians residing outside camps, and other nationalities. This disaggregation enables more precise comparisons regarding SRH and access to family planning services, as well as experiences of gender-based violence. For example, 18.3% of Jordanian women reported experiencing physical, sexual, or psychological violence by their current or most recent husband in the past 12 months, compared to 12.3% among Syrian women (10.8% inside camps and 12.6% outside).

Interestingly and somewhat surprisingly, Syrian refugees in camps showed stronger indicators of informed contraceptive decision-making, including higher scores on the Method Information Index and greater awareness of method switching options. Complementary results from the 2024 Health Access and Utilization Survey (HAUS) suggest that 97% of refugees are satisfied with family planning services, and their method mix is more diverse compared to host communities, based on descriptive results.

Despite previous literature focusing primarily on access and service quality, our understanding of how gender norms, cultural expectations, and the psychosocial effects of displacement shape SRH behaviors in humanitarian contexts remain limited. This underscores the need to examine how the intersection of gender norms and refugee experience influences reproductive decision-making.

Youth

This subsection on special groups is based on two studies. The first study, titled "Landscape Analysis of family planning research, programmes and policies targeting young people in Jordan"³⁵ by Gausman et al. (2020), employed a systematic review of 37 documents alongside consultations with stakeholders from 18 organizations to assess the state of youth-oriented family planning programs in Jordan. The study revealed that youth aged 10–24 face significant barriers in accessing family planning information and services. At the individual level, young people's knowledge about contraceptive methods and service locations was limited, with a tendency to trust community sources over digital platforms.

Social norms related to gender and reproduction constrain male involvement, and unmarried youth seeking reproductive health services face stigma.

Service delivery systems were found to be inadequately adapted to youth needs, with issues like lack of privacy, long waiting times, and documentation requirements posing particular obstacles for refugee youth. While policy documents often reference adolescent and youth sexual and

35. Who Emro | Landscape Analysis of family planning research, programmes and policies targeting young people in Jordan: Stakeholder assessment and systematic review | volume 26 issue 9 | EMHJ volume 26 2020.(2020).
<https://www.emro.who.int/emhj-volume-26-2020/volume-26-issue-9/landscape-analysis-of-family-planning-research-programmes-and-policies-targeting-young-people-in-jordan-stakeholder-assessment-and-systematic-review.html>

reproductive health (AYSRH), they frequently lack actionable implementation plans and clear measurement indicators. Some legal provisions (such as parental consent or marriage permits) also practically hinder access. The study identified three key opportunities: developing youth-friendly service models, integrating family planning into broader youth development programs, and implementing consistent standards with strong monitoring and evaluation mechanisms.

The second study, titled " Exploring disparities and drivers of contraceptive use among Syrian refugee youth: Evidence from a mixed-methods study in Jordan " (2025),³⁶ focused on married youth aged 15–24, using quantitative and qualitative methods to examine contraceptive use in camps, host communities, and informal tented settlements. The quantitative component included 313 ever-married adolescent girls (272 Syrian, 41 Jordanian), while the qualitative component comprised 117 in-depth interviews, 12 focus groups with caregivers, and 24 key informant interviews. (Data were collected through a nested cross-sectional survey implemented during 2022–2023, part of the Gender and Adolescence: Global Evidence (GAGE) longitudinal study.) The results showed that Jordanian youth had a higher contraceptive prevalence rate (63.4%) compared to Syrian refugees (42.8%), with Syrians in host communities having the highest usage rates and camp residents the lowest. Pills and withdrawal dominated the method mix, while IUD use was notably low among Syrians. Multivariate logistic regression analyses indicated that place of residence, education, number of children, and cohabitation with the husband were significant predictors of use, whereas age at marriage, wealth index, and spousal age difference showed no significant effect.

The qualitative data highlighted barriers including mobility restrictions within camps, strong community norms favoring childbearing, widespread misinformation about side effects, and economic pressures that made birth spacing more desirable. Importantly, the study noted that some non-use was intentional and culturally consistent, complicating the interpretation of unmet need.

The two studies reveal that youth in Jordan—particularly refugee youth—face constrained conditions for exercising contraceptive agency, including limited access to accurate information, privacy, and youth-friendly service points. Their ability to negotiate contraceptive use is restricted by social stigma, restrictive norms, and legal barriers, while implementation falls short due to poor service quality, lack of follow-up, and limited method availability.

The studies underscore the need for multi-level and culturally sensitive interventions that integrate family planning into broader youth development and SRH programs, expand access to

36. Luckenbill, S., Baird, S., Alheiwidi, S., & Jones, N. (2025, July 25). Exploring disparities and drivers of contraceptive use among Syrian refugee youth: Evidence from a mixed-methods study in Jordan - conflict and health, BioMed Central.
<https://conflictandhealth.biomedcentral.com/articles/10.1186/s13031-025-00690-0#:~:text=Results,both%20refugee%20status%20and%20residence> .

marginalized areas, and engage community leaders to shift prevailing norms. Strengthening the enabling environment through policy reform, standardizing service guidelines, and targeted investment in youth-friendly infrastructure is essential to ensure that youth in Jordan—regardless of marital or refugee status—can make informed, independent decisions about their reproductive health.

2.5 Programmatic Innovation and Community Platforms

This section comprises two studies. The first, titled “Family Planning Interventions in Jordan: A Scoping Review”³⁷ by AlHamawi et al. (2023), provides a comprehensive mapping of family planning initiatives implemented between 2010 and 2022. The review utilized both peer-reviewed and grey literature and identified a wide range of interventions targeting service providers, communities, and beneficiaries.

Through these reviews, several studies focused on measuring the outcomes of interventions and accompanying innovations in family planning showed positive results. In one study, engagement with religious leaders in Irbid Governorate led to an increase in family planning-related sermons and a marked improvement in general knowledge on the topic. However, these messages did not translate into tangible behavioral changes at the community level, as behavioral responses were inconsistent or fell short of expectations compared to the cognitive improvement.

Another study, examining antenatal education programs delivered through Maternal and Child Health centers, showed promising results in promoting exclusive breastfeeding and building trust between women and health service providers. Nevertheless, logistical barriers, such as transportation difficulties and the need for spousal consent, contributed to restricting access to these programs.

A third study found that pharmacist-led education on oral contraceptives improved knowledge and attitudes towards their use, but it did not lead to sustained behavioral change – this study was also addressed in our report within the results of the search strategy section.

Finally, another research paper revealed that counseling interventions, particularly those involving husbands, were associated with increased use of modern family planning methods and contributed to improved spousal communication.

Despite these positive trends, the review highlights persistent gaps in implementation, especially

37. AlHamawi, R., Khader, Y., Al Nsour, M., AlQutob, R., & Badran, E. (2023). Family planning interventions in Jordan: A scoping review. *Women's health* (London, England). <https://pmc.ncbi.nlm.nih.gov/articles/PMC10154992/>

concerning postpartum family planning, the integration of digital health, and community engagement. The authors call for more rigorous and theory-based evaluations to guide the scaling of interventions and enhance policy coherence and alignment. The second study, titled “An Interactive Mobile Phone Application to Improve Family Planning Services in Jordan: A Quasi-Experimental Study”³⁸ (2024), presents a focused evaluation of a digital health intervention designed to enhance postpartum family planning use. The study was conducted at the Jordan University Hospital and involved 274 postpartum mothers, randomly assigned to two groups: one receiving routine counseling, and the other receiving counseling plus access to a dedicated family planning mobile application.

The application contributed to promoting the early adoption of modern family planning methods, showing statistically significant differences in method use rates and participants' confidence in their decision-making ability at six weeks postpartum. Although continuation rates at six months did not show statistically significant differences in the types of methods used, application users reported lower levels of decisional conflict and higher satisfaction, particularly due to the feature enabling communication with a counselor via WhatsApp. About 30% of participants continued using the application after hospital discharge, indicating sustained engagement.

The study highlights the potential of culturally adapted, offline-capable digital tools to expand the reach of family planning counseling beyond clinical settings, especially in contexts where transportation and follow-up access are limited. However, the generalizability of the results remains limited due to the study's single-site design and convenience sampling.

The two studies reveal a shared focus on enhancing the prerequisites for informed decision-making: namely, ensuring access to accurate information, providing high-quality counseling, and offering multiple service delivery platforms. The scoping review demonstrates that community-based interventions and provider-led initiatives can build foundational knowledge and trust, while the mobile application study shows how digital tools can reduce decisional conflict and enhance continuation.

Both studies contribute to improving the quality of choice and negotiation, particularly by enhancing spousal communication and fostering culturally sensitive participation. However, structural constraints such as cost, provider bias, and logistical barriers remain obstacles to effective implementation. The National Sexual and Reproductive Health Strategy provides a strong supportive environment for scaling these innovations, but future efforts should focus on postpartum interventions, rigorous evaluation designs, and the integration of digital and community platforms

38. Suha Tailakh, Asma Basha, Rawan Salem Kasassbeh, (2024) Interactive Mobile Phone Application for Better Family Planning Services in Jordan: A Quasi-experimental Study, Interactive Mobile Phone Application for Better Family Planning Services in Jordan: A Quasi-experimental Study

to ensure equitable empowerment of all youth in Jordan to make informed and sustainable family planning decisions.

It is noted that, in comparison with other Arab states, Jordan and Egypt are among the countries with the most extensive documentation of these interventions and programs that have positive effects on family planning, as also examined in the document Family planning interventions across the League of Arab States, which was mentioned earlier.³⁹

39. Sara Luckenbill, Sarah Baird, Sarah Alheiwidi & Nicola Jones (2025) Family planning interventions across the League of Arab States: a regional scoping review
<https://academic.oup.com/inthealth/advance-article/doi/10.1093/inthealth/ihaf055/8131809>

Chapter Three

Quantitative Analysis Results

This chapter aims to present the findings derived from the quantitative data analysis, providing a clear picture of the patterns, trends, and relationships between the studied variables associated with the use of family planning methods and unmet need. The chapter focuses on presenting information objectively and systematically along two main axes: family planning method use and unmet need. It highlights the significant results that help answer the research questions or test the hypotheses, without delving into detailed discussion or interpretation, which will be addressed in the dedicated chapter for discussion and analysis.

3.1 Use of Family Planning Methods

3.1.1 Detailed results of Chi-square tests for the relationship between independent and dependent variables related to the use of family planning methods.

1. Educational Level

Table (1) illustrates the relationship between educational level and the current use of family planning methods by type among married women (N=10,743). Percentages were calculated on a column basis; meaning each column represents 100% of a usage category (non-use, traditional methods, modern methods), and this percentage is distributed across different educational levels. This allows for understanding the educational composition within each usage pattern.

Table (1): Relationship between Educational Level and Use of Family Planning Methods

Employment Status	Non-Use	Traditional Methods	Modern Methods	Total
No Education	3.2%	1.3%	1.8%	2.2%
Primary	7.3%	3.4%	6.0%	5.9%
Secondary	56.5%	55.3%	58.0%	56.8%
Higher	33.0%	40.1%	34.2%	35.1%
	100%	100%	100%	100%
Pearson $\chi^2(6) = 99.0$, $F(5.56, 5222.28) = 7.9831$, $P = 0.00$, $N=10,743$				

First: Non-use of Family Planning Methods

The column for non-use shows that the vast majority of non-users are those with secondary education, constituting 56.5% of all non-users. This was followed by women with higher education at 33.0%, while the proportions of non-users with primary education (7.3%) and no education (3.2%) were relatively low. This distribution indicates that non-use of family planning methods is not limited to less-educated groups but is also widespread among women with medium and high

educational levels. This reflects the complexity of factors influencing the decision of non-use, which are not limited to a lack of education.

Second: Use of Traditional Methods

Regarding traditional methods, a similar pattern is evident. Women with secondary education constituted the largest proportion of users of these methods at 55.3%, followed by women with higher education at 40.1%. In contrast, the rate of traditional method use among those with primary education (3.4%) and no education (1.3%) was very limited. This column-based distribution indicates that reliance on traditional methods is concentrated primarily among more educated women, not among less-educated groups as might be traditionally assumed.

Third: Use of Modern Methods

As for the use of modern methods, women with secondary education also recorded the highest rate, constituting 58.0% of all users of modern methods. They were followed by women with higher education at 34.2%, then those with primary education at 6.0%, and finally women with no education at only 1.8%. This gradient clearly shows that the use of modern methods is positively associated with higher educational levels, with very weak representation of less-educated women within this category.

Comparing the three columns, it is clear that women with secondary education constitute the largest bloc across all usage patterns—whether non-use, use of traditional methods, or use of modern methods. This reflects the general educational composition of the sample on one hand, and on the other hand, highlights that secondary education represents a focal point in reproductive behavior patterns. In contrast, higher education clearly emerges as a factor associated with increased reliance on modern methods compared to non-use or traditional methods. Meanwhile, less-educated women remain represented at a very limited rate across all usage patterns, particularly in the use of modern methods.

Summary of Table Analysis

These results, taking into account the column-based nature of the percentages, suggest that educational level plays a pivotal role in shaping the pattern of family planning method use. This is not only in terms of transitioning from non-use to use but also in terms of the type of method used. The importance of education, especially higher education, in promoting the use of modern methods is highlighted. Meanwhile, the widespread prevalence of traditional methods among educated women reveals the need for qualitative interventions that go beyond merely raising educational levels. These interventions should focus on improving counseling quality, expanding choices, and addressing fears and preferences associated with using modern methods.

The Chi-Square Test confirmed this relationship between educational level and current use of family planning methods. Pearson's Chi-Square value was ($\chi^2(6) = 99.0$), and the F-test result for the design was $(5.56, 5222.28) = 7.9831$, with a probability value $P = 0.00$, indicating a strong statistical significance for the relationship between the two variables.

2. Current Employment Status

Table (2) shows the relationship between current employment status and the use of family planning methods by type, with percentages calculated on a column basis so that each column represents 100%. The results indicate a high degree of similarity in the distribution of employment status across all usage patterns. Non-working women constituted the majority in the categories of non-use (87.0%), use of traditional methods (85.6%), and use of modern methods (87.4%). In contrast, the proportions for currently working women were limited, ranging between 12.6% and 14.4%. This similarity reflects that employment status does not distinguish between patterns of family planning method use. This is confirmed by the statistical results, as significance tests did not show a meaningful relationship between the two variables ($\chi^2(2) = 4.6061$; Adjusted F for sample design = 1.0942; $P = 0.3341$). These results suggest that the observed differences reflect the general distribution of employment status in the sample more than they reflect an independent effect of employment status on family planning method use.

Table (2): Relationship between Current Employment Status and Use of Family Planning Methods by Type

Employment Status	Non-Use	Traditional Methods	Modern Methods	Total
Not Working	87.0%	85.6%	87.4%	86.8%
Currently Working	13.0%	14.4%	12.6%	13.2%
	100%	100%	100%	100%
Pearson: $\chi^2(2) = 4.6061$, F = 1.0942, P = 0.3341				

3. Wealth Quintile

Table (3) shows the relationship between wealth level and the use of family planning methods by type. The column percentages indicate a noticeable variation in the distribution of wealth levels across different usage patterns.

In the non-use category, the proportion of women in the lowest quintile (22.0%) and the middle quintile (21.5%) was higher compared to the highest quintile (18.1%), indicating a relative tendency for non-use among less affluent groups.

In contrast, the use of traditional methods was more prominent among women in the fourth (22.1%) and second (21.4%) quintiles, while it was relatively lower in the lowest quintile (15.7%).

As for modern methods, their distribution was more balanced across wealth quintiles, with relatively higher proportions in the middle (21.2%), fourth (20.3%), and highest (20.5%) quintiles,

compared to the lowest quintile (18.1%). This pattern reflects a gradual relationship between wealth level and the type of family planning method used, where relatively higher-affluence groups tend to use modern methods more compared to lower groups.

Table (3): Relationship between Wealth Level and Use of Family Planning Methods

Employment Status	Non-Use	Traditional Methods	Modern Methods	Total
Lowest	22.0%	15.7%	18.1%	18.9%
Second	20.3%	21.4%	20.0%	20.4%
Middle	21.5%	20.0%	21.2%	21.0%
Fourth	18.2%	22.1%	20.3%	20.0%
Highest	18.1%	20.7%	20.5%	19.7%
	100%	100%	100%	100%
Pearson: $\chi^2(8) = 57.7393$, $F(7.09, 6662.82) = 2.9234$, $P = 0.0045$				

4. Number of Living Children

Table (4) illustrates the relationship between the number of living children and the use of family planning methods by type. The column percentages reveal a clear and gradual pattern of use.

Table (4): Relationship between Number of Living Children and Use of Family Planning Methods

Employment Status	Non-Use	Traditional Methods	Modern Methods	Total
0–3	65.2%	53.2%	42.3%	52.9%
4–6	30.7%	42.9%	51.3%	42.0%
7 or more	4.1%	3.8%	6.5%	5.0%
	100%	100%	100%	100%
Pearson $\chi^2(4) = 441.5606$, $F(3.86, 3629.04) = 43.5336$, $P = 0.0000$				

In the non-use category, women with 0–3 children constituted the largest proportion (65.2%), compared to a noticeable decline among those with 4–6 children (30.7%) and a very limited proportion for those with 7 or more children (4.1%). This indicates that non-use of family planning methods is concentrated primarily among women with fewer children.

In contrast, the use of modern methods is more evident among women with 4–6 children, who constituted 51.3% of all modern method users, compared to 42.3% for those with 0–3 children, and only 6.5% for those with 7 or more children.

As for traditional methods, an intermediate pattern was recorded, with relatively high representation among women with 0–3 children (53.2%) and 4–6 children (42.9%).

This distribution clearly reflects that an increasing number of children is associated with a transition from non-use to the use of family planning methods, particularly modern methods.

5. Ideal Number of Children

Table (5) shows the relationship between the ideal number of children and the use of family planning methods by type. The column percentages indicate a high degree of similarity in the distribution of the ideal number of children across different usage patterns.

In all categories, women who prefer to have 4–6 children constituted the majority, whether among non-users (57.8%), users of traditional methods (55.9%), or users of modern methods (60.0%). Women who prefer 0–3 children were distributed in similar proportions across the three usage patterns, ranging between 36.6% and 40.5%. Meanwhile, the representation of women who prefer 7 or more children remained very low and nearly constant across all categories (around 3–4%). This pattern reflects that ideal reproductive preferences do not fundamentally differ based on the use or type of family planning method.

Table (5): Relationship between Ideal Number of Children and Use of Family Planning Methods

Employment Status	Non-Use	Traditional Methods	Modern Methods	Total
0–3	38.5%	40.5%	36.6%	38.2%
4–6	57.8%	55.9%	60.0%	58.3%
7 or more	3.7%	3.6%	3.4%	3.5%
	100%	100%	100%	100%
Pearson $\chi^2(4) = 11.9483$, $F(3.80, 3571.21) = 1.2180$, $P = 0.3013$, $N=10,732$				

6. Desire for More Children

Table (6) illustrates the relationship between the desire for more children and the use of family planning methods by type. The column percentages reveal clear and sharp variations in usage patterns according to reproductive desire.

Table (6): Relationship between Desire for More Children and Use of Family Planning Methods

Employment Status	Non-Use	Traditional Methods	Modern Methods	Total
Wants soon	24.0%	7.2%	4.2%	11.9%
Wants later	12.0%	16.6%	11.8%	13.0%
Wants, timing undecided	0.1%	0.1%	0.1%	0.1%
Undecided / Unsure	7.7%	9.1%	8.9%	8.5%
Does not want more	37.6%	64.4%	67.9%	56.3%
Sterilized (permanent)	0.0%	0.0%	5.9%	2.4%
Declared not wanting clearly	18.7%	2.6%	1.4%	7.8%
	100%	100%	100%	100%
Pearson $\chi^2(12) = 2416.0761$, $F(10.51, 9875.50) = 92.7886$, $P = 0.0000$, $(N=10,743)$				

In the non-use category, the proportion of women who declared a desire to have children soon (24.0%) or were unsure/not clearly stating a desire (18.7%) was high, alongside a considerable proportion of those who do not want more children (37.6%).

In contrast, the use of both traditional and modern methods is concentrated primarily among women who do not want more children, constituting 64.4% and 67.9% of users, respectively. Additionally, the category of permanent sterilization is almost exclusively confined to modern method users (5.9%), which is a theoretically expected pattern.

These distributions indicate a high degree of alignment between actual reproductive desire and the type of family planning method use. Non-use tends to be associated with a desire to have children, while method use—particularly modern methods—is linked to not wanting more children.

7. Husband's Desire for Number of Children and Use of Family Planning Methods

Table (7) illustrates the relationship between the husband's desired number of children and the use of family planning methods by type. The column percentages show that the vast majority of women across all usage patterns reported that both partners want the same number of children. This proportion was 67.0% among non-users, 69.9% among traditional method users, and 67.4% among modern method users. In contrast, the category where the husband wants more children constituted approximately a quarter of cases in all groups, with a relatively higher proportion among modern method users (25.8%) compared to non-users (24.3%). Cases where the husband wants fewer children remained relatively limited, ranging between 5.0% and 7.5%. The proportion of those who do not know their husband's preference was very low, particularly among traditional method users (1.0%) and modern method users (0.9%). This distribution reflects that spousal agreement or disagreement on reproductive desire is an influential factor in the pattern of family planning method use.

Table (7): Relationship between Husband's Desired Number of Children and Use of Family Planning Methods by Type

Husband's Preference	Non-Use	Traditional Methods	Modern Methods	Total
Both want same number	67.0%	69.9%	67.4%	67.8%
Husband wants more	24.3%	21.6%	25.8%	24.2%
Husband wants less	5.0%	7.5%	6.0%	6.0%
Does not know	3.8%	1.0%	0.9%	2.0%
	100%	100%	100%	100%
Pearson $\chi^2(6) = 128.2581$, F (4.98, 4685.11) = 8.6660, P = 0.0000				

8. Woman's Age at First Marriage

Table (8) illustrates the relationship between the woman's age at first marriage and the use of family planning methods by type. The column percentages reveal a clear distribution pattern based on age at marriage.

Women who married under 20 years constituted the highest proportion among modern method users (40.6%), with medium representation among traditional method users (32.9%) and non-users (32.1%). The 20–24 years age group recorded the highest overall usage rate (41.4%), distributed relatively evenly across modern (42.4%), traditional (43.2%), and non-use (39.2%) categories.

In contrast, usage proportions declined with increasing age at marriage. Women who married between 25–29 years had relatively low rates, and the lowest proportions were among those who married at 35 years or older across all usage patterns.

This distribution reflects that marriage at a younger age is associated with higher modern method use, while use generally decreases as the age at first marriage increases.

Table (8): Relationship between Woman's Age at First Marriage and Use of Family Planning Methods

Age at First Marriage	Non-Use	Traditional Methods	Modern Methods	Total
< 20 years	32.1%	32.9%	40.6%	35.8%
20–24 years	39.2%	43.2%	42.4%	41.4%
25–29 years	18.7%	18.8%	13.7%	16.7%
30–34 years	6.1%	4.2%	2.3%	4.1%
≥ 35 years	4.0%	0.8%	1.0%	2.0%
	100%	100%	100%	100%
Pearson $\chi^2(8) = 283.6158$, F (7.38, 6934.18) = 13.5574, P = 0.0000				

9. Current Age

Table (9) shows the relationship between the woman's current age and the use of family planning methods by type. The column percentages reveal a gradient pattern associated with increasing age.

In younger age groups (15–19 and 20–24), proportions of modern and traditional method use remain relatively low, with a slight increase in non-use. As age increases (25–29, 30–34, 35–39), proportions of modern and traditional method use rise noticeably, while non-use remains lower. The 40 years and older age group records the highest non-use rate (47.9%) alongside high rates for traditional (38.7%) and modern (40.4%) methods. This reflects a gradual shift in reproductive behavior with age towards more diverse method use or cessation of use in some cases. This pattern indicates a clear relationship between a woman's current age and the type of family planning method used.

Table (9): Relationship between Current Age and Use of Family Planning Methods by Type

Age Group	Non-Use	Traditional Methods	Modern Methods	Total
15–19	2.2%	0.5%	0.7%	1.2%
20–24	6.8%	5.4%	5.6%	6.0%
25–29	12.8%	16.2%	12.3%	13.4%
30–34	14.6%	19.6%	20.1%	18.0%
35–39	15.8%	19.6%	20.9%	18.8%
≥ 40	47.9%	38.7%	40.4%	42.7%
	100%	100%	100%	100%
Pearson $\chi^2(10) = 182.6910$, F (9.24, 8688.55) = 8.1383, P = 0.0000, (N = 10,743)				

10. Owning a Personal Wallet or Credit Card

Table (10) shows the relationship between a woman owning a personal wallet or credit card and the use of family planning methods by type. The column percentages reveal that the vast majority of women, across all usage patterns, do not own a wallet or card (approximately 85% among non-users, 85–85.1% among traditional and modern method users). The proportion of those who own a wallet or card did not exceed 14–15% in any category.

These results indicate the absence of any clear difference or distinctive pattern in family planning method use based on ownership of a personal wallet or credit card.

Table (10): Relationship between Owning a Personal Wallet/Credit Card and Use of Family Planning Methods

Owens Wallet/Card	Non-Use	Traditional Methods	Modern Methods	Total
No	86.0%	85.1%	84.9%	85.3%
Yes	14.0%	14.9%	15.2%	14.7%
	100%	100%	100%	100%
Pearson $\chi^2(2) = 2.1810$, F (1.97, 1852.19) = 0.4482, P = 0.6359, (N = 10,743)				

11. Attitudes towards Physical Violence to the wife

Table (11) shows the relationship between Attitudes towards Physical Violence to the wife and the use of family planning methods by type. The column percentages indicate that the majority of women across all usage patterns consider Physical Violence unacceptable, with proportions of 66.8% among non-users, 64.6% among traditional method users, and 65.6% among modern method users. Women who consider Physical Violence acceptable constituted a relatively lower proportion, ranging between 33.2% and 35.4% across the three categories.

These results indicate the absence of any fundamental difference in family planning method use based on women's Attitudes towards Physical Violence to the wife.

Table (11): Relationship between Attitudes towards Physical Violence to the wife and Use of Family Planning Methods

Attitudes towards Physical Violence to the wife	Non-Use	Traditional Methods	Modern Methods	Total
Not Acceptable	66.8%	64.6%	65.6%	65.8%
Acceptable	33.3%	35.4%	34.4%	34.3%
	100%	100%	100%	100%
Pearson $\chi^2(2) = 3.2748$, F (1.93, 1815.53) = 0.6265, P = 0.5292				

12. Regions and Governorates

The results of Tables (12 and 13) show the relationship between geographic location and the use of family planning methods by type, detailing the column percentages for each usage category.

For the regional division (Table 12), the Central region represents the majority of women across all usage patterns, with non-use at 64.0%, traditional method use at 63.3%, and modern method use at 69.9%. This indicates both a concentration of the sample in this region and a relatively higher level of access to modern methods.

The Northern region recorded medium proportions, ranging between 24.7% and 30.7% depending on usage type. The Southern region was the lowest across all categories (5–6%), reflecting disparities in service access or differing socio-economic habits in the south of the Kingdom.

At the governorate level (Table 13), a more detailed and rich distribution emerges. Amman leads in family planning method use proportions, with non-use at 45.3%, traditional method use at 44.4%, and modern method use at 47.6%. This reflects the central role of the capital as a hub for health and educational services.

Table (12): Relationship between Regions and Use of Family Planning Methods by Type

Region	Non-Use	Traditional Methods	Modern Methods	Total
Central	64.0%	63.3%	69.9%	66.3%
Northern	29.1%	30.7%	24.8%	27.7%
Southern	6.9%	6.0%	5.4%	6.0%
	100%	100%	100%	100%
Pearson $\chi^2(4) = 47.2742$, F (3.08, 2892.08) = 7.4585, P = 0.0000, (N = 10,743)				

Table (13): Relationship between Place of Residence (Governorate) and Use of Family Planning Methods by Type

Governorate	Non-Use	Traditional Methods	Modern Methods	Total
Amman	45.3%	44.4%	47.6%	46.0%
Balqa	5.3%	4.3%	6.1%	5.4%
Zarqa	11.8%	13.3%	14.0%	13.1%
Madaba	1.5%	1.4%	2.2%	1.8%
Irbid	18.6%	23.7%	17.8%	19.4%
Ma'fraj	7.1%	2.4%	2.9%	4.3%
Jerash	2.1%	2.8%	2.4%	2.4%
Ajloun	1.4%	1.8%	1.7%	1.6%
Karak	2.9%	1.8%	2.1%	2.3%
Tafilah	0.8%	1.1%	0.9%	0.9%
Ma'an	1.5%	1.6%	0.0%	
	100%	100%	100%	100%
Pearson $\chi^2(22) = 196.9813$, F (11.71, 11005.35) = 8.6352, P = 0.0000, (N = 10,743)				

In contrast, governorates like Tafilah (0.9–1.0%), Ma'an (0–1.6%), and Madaba (1.5–2.2%) record very low proportions across all usage patterns.

Medium disparities are also evident in governorates like Irbid, Zarqa, and Mafraq, where these governorates represent a mix of high proportions in some categories and low in others, reflecting internal diversity within a single region.

Overall, the analysis indicates that geographic location is an influential factor in the pattern of family planning method use, both at the regional and governorate levels. There is a greater concentration on modern methods in central regions and major governorates, contrasted with a clear decline in the south and some less densely populated or less accessible governorates. These results highlight the importance of targeted geographic planning for awareness and provision of family planning methods, taking into account regional and local differences.

13. Health Insurance Coverage

Table (14) illustrates the relationship between health insurance coverage and the use of family planning methods by type. The column percentages indicate that the vast majority of women across all usage patterns are covered by health insurance, with proportions of 67.1% among non-users, 73.9% among traditional method users, and 69.2% among modern method users. Women not covered by health insurance constituted a relatively lower proportion, ranging between 26.0% and 32.9% across the three categories.

These results indicate a statistically significant association between health insurance coverage and the use of family planning methods, where insured women tend to use methods more compared to uninsured women.

Table (14): Relationship between Health Insurance Coverage and Use of Family Planning Methods

Health Insurance Coverage	Non-Use	Traditional Methods	Modern Methods	Total
No	32.9%	26.0%	30.8%	30.4%
Yes	67.1%	74.0%	69.2%	69.6%
	100%	100%	100%	100%
Pearson $\chi^2(2) = 34.2991$, F (1.95, 1835.88) = 5.6692, P = 0.0038				

14. Visit by a Community Health Worker

Table (15) illustrates the relationship between a woman being visited by a Community Health Worker in the past 12 months and the use of family planning methods by type. The column percentages indicate that the vast majority of women across all usage patterns were not visited, with proportions of 85.9% among non-users, 87.8% among traditional method users, and 88.1% among modern method users. Women who were visited constituted relatively low proportions, ranging between 11.9% and 14.1% across the three categories.

These results indicate the absence of a strong statistically significant relationship between receiving a Community Health Worker visit and the use of family planning methods, as no clear pattern distinguishes users from non-users based on this visit.

Table (15): Relationship between Being Visited by a Community Health Worker (CHW) in the Past 12 Months and Use of Family Planning Methods by Type

Employment Status	Non-Use	Traditional Methods	Modern Methods	Total
Not Visited	85.9%	87.8%	88.1%	87.3%
Visited	14.1%	12.2%	11.9%	12.7%
	100%	100%	100%	100%
$\chi^2(2) = 9.2561$, $F(1.95, 1831.15) = 2.3009$, $P = 0.1019$, $(N = 10,743)$				

15. Internet Use

Table (16) illustrates the relationship between internet use and the use of family planning methods by type.

The column percentages reveal that the vast majority of women across all usage patterns use the internet, with proportions of 74.5% among non-users, 84.5% among traditional method users, and 81.0% among modern method users. The proportion of women who do not use the internet did not exceed 15.5–25.5% across the three categories.

These results indicate a strong statistically significant association between internet use and an increased likelihood of using family planning methods, whether traditional or modern, with a clear tendency for users to adopt more modern methods.

Table (16): Relationship between Internet Use and Use of Family Planning Methods by Type

Internet Use	Non-Use	Traditional Methods	Modern Methods	Total
Does Not Use	25.5%	15.5%	19.0%	20.5%
Uses	74.5%	84.5%	81.0%	79.5%
	100%	100%	100%	100%
Pearson $\chi^2(2) = 103.6676$, $F(1.98, 1861.86) = 17.9702$, $P = 0.0000$				

Summary

The results indicate that the use of family planning methods among married women in the sample is influenced by several demographic, educational, and social factors, while some variables show no significant effect.

The relationship with education level showed that women with secondary and higher education are the most frequent users of modern methods, while non-use is spread across all categories, with strong statistical significance. In contrast, employment status did not show a significant effect on use.

Wealth level and number of living children were clearly associated with use patterns. Women with higher income and a moderate number of children are more inclined to use modern methods, while women with fewer children tend more towards non-use.

The desire for childbearing (or lack thereof) was clearly associated with the use of modern methods. The husband's preferences also played an important role, as spousal agreement was linked to increased use.

Age at marriage and current age influenced the usage pattern. The use of modern methods increased with marriage at a younger age or among middle-aged groups, while non-use rates increase among older age groups.

Regarding economic and social variables, health insurance coverage and internet use showed a significant association with increased use. However, receiving a field researcher visit, owning a personal wallet or credit card, and Attitudes towards Physical Violence to the wife did not have a significant effect.

Finally, geographical results revealed clear disparities. The Central region and the capital, Amman, recorded the highest rates of modern method use. In contrast, there was a significant decline in the southern governorates and some less dense governorates, with strong statistical evidence for the influence of geographic location on method use.

3.1.2 Logistic Regression Analysis

In this phase of statistical analysis, Binary Logistic Regression was used to identify the factors most predictive of family planning method use among married, non-pregnant women aged 15–49 in Jordan, based on data from the DHS 2023. This analysis complemented the previous descriptive and analytical phase, which used Chi-Square Tests to determine statistically significant relationships between independent variables (such as education, employment status, wealth quintile, number of living children, fertility desire, age, region, etc.) and the variable of current family planning method use.

Variables that showed statistically significant relationships in the Chi-Square tests were selected for inclusion in the logistic regression model. The aim was to build a more robust explanatory model to identify the predictive factors most influencing the likelihood of using modern or traditional family planning methods versus non-use.

The logistic regression model allows for the estimation of the Odds Ratio (OR), a statistical measure expressing how much the probability of using a family planning method changes given the presence of a specific factor compared to its absence, while holding other factors constant. An OR value greater than 1 indicates that the variable increases the probability of method use, while a value less than 1 indicates a decreased probability.

In this part of the study, three logistic regression models were conducted to comprehensively understand the factors influencing patterns of family planning method use:

1.The first analysis studied family planning method use in general (regardless of method type—modern or traditional) compared to non-use, to identify the fundamental determinants of use.

2.The second analysis included only women currently using family planning methods (both traditional and modern), excluding non-users and those not currently married.

3.The third analysis focused on distinguishing factors that explain the use of modern methods versus traditional methods, in addition to comparing both to the category of non-users, to clarify behavioral and social differences among the three usage patterns.

Each model was analyzed separately to arrive at the best explanation for the factors affecting family planning method use in Jordan. This enabled the extraction of precise quantitative results and evidence-based practical recommendations that can be utilized in developing national policies and programs. Model quality was assessed using the Area Under the ROC Curve (AUC) and Goodness of Fit tests to ensure model fit and predictive accuracy.

3.1.2.1 Logistic Analysis of Family Planning Method Use vs. Non-Use Among Married, Non-Pregnant Women

Model Fit Assessment

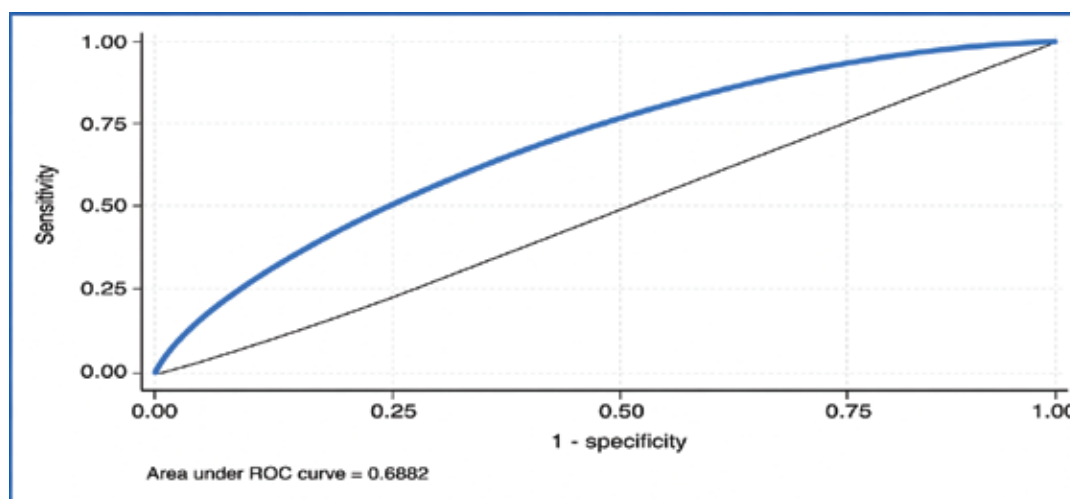
The logistic regression model built on data from the DHS 2023 for married, non-pregnant women in Jordan (sample size = 10,743) showed acceptable statistical discriminatory power. The Area Under the ROC Curve (AUC) value was 0.70. This means the model can distinguish between women who use family planning methods and non-users with about 70% accuracy, which is an acceptable rate in behavioral and social analyses.

The results also showed that the predicted probabilities generated by the model were centered around a mean of 0.616 with a standard deviation of 0.160, and a range from 0.073 to 0.926. This indicates a wide individual variation among women in the probability of using family planning methods, reflecting the ability of the explanatory variables to capture real differences between groups.

Table 17: Summary of Probabilities

Variable	Number of Observations	Mean	Standard Deviation	Minimum	Maximum
Probability	12,595	0.6157872	0.1598436	0.0731993	0.92603

- The Pearson Chi-square Goodness of Fit Test, based on 10,743 observations and 8,441 covariate patterns, yielded a result of $\chi^2(8,408) = 8,537.11$ with a probability value ($p = 0.1597$). Since this result is not statistically significant ($p > 0.05$), it indicates no evidence of poor model fit to the data. In other words, the model provides a good fit and acceptable agreement with the actual data, enhancing the reliability of its results and predictive power.



Results

Based on the analysis of data from 10,743 married, non-pregnant women in Jordan within the 2023 Population and Family Health Survey, as detailed in Table (18), the logistic regression model identified a number of influential factors that clearly predict the likelihood of using family planning methods, regardless of whether the method is modern or traditional.

I. Demographic and Social Factors

- **Nationality:** Results showed that Syrian women are less likely to use family planning methods compared to Jordanian women ($OR=0.78$, $p<0.001$), while other nationalities did not show significant differences.
- **Education Level:** Education emerged as one of the strongest determinants; the likelihood of use gradually increases with higher education levels. Women with higher education are more than twice as likely to use methods compared to those with no education ($OR=2.13$, $p<0.001$).
- **Wealth Index (Wealth Quintile):** Higher Wealth Index was associated with a gradual increase in the likelihood of use. Women in the highest quintile are almost twice as likely to use methods compared to the poorest ($OR=1.76$, $p<0.001$).

II. Reproductive Characteristics

- **Number of Living Children:** This is one of the strongest predictive variables, with the likelihood of use steadily increasing with the number of children. Women with 6–4 children are

- nearly three times more likely to use methods compared to those with 3–0 children (OR=2.96, $p<0.001$), and the likelihood increases further for those with 7 or more children.
- **Ideal Number of Children:** The association is negative; as the desired number increases, the likelihood of use decreases, reflecting the impact of reproductive attitudes on actual behavior.

III. Age-Related Factors

- **Age at First Marriage:** Women who married at a later age (≥ 30 years) were less likely to use family planning methods compared to those who married before age 20 (OR=0.34, $p<0.001$).
- **Current Age:** The likelihood gradually increases with age until the mid-thirties, peaking in the 25–34 years age group (OR $\approx$ 3.2), then gradually declines after age 40.

IV. Social and Behavioral Factors

- **Owning a Wallet or Credit Card:** Was associated with a slight decrease in the likelihood of use (OR=0.87, $p<0.05$), suggesting that personal financial empowerment does not necessarily translate into family planning practices.
- **Employment Status, Attitudes towards Physical Violence to the wife, and Type of Residence (Urban/Rural):** Did not show any significant relationship with method use.
- **Health Insurance:** Although usage rates were higher among insured women, the difference was not statistically significant ($p>0.05$).

V. Geographic Factors

The results showed highly significant regional differences. Women in the Northern and Southern regions were less likely to use methods compared to the Central region (OR=0.75 and 0.76 respectively, $p<0.001$).

Model Summary

It is evident that the use of family planning methods in Jordan is primarily influenced by factors such as education, wealth index, number of living children, reproductive attitudes, age at marriage, current age, and geographic location. Indicators of financial empowerment, health insurance, and other social factors appear to have less influence.

Table (18): Logistic Regression for Use vs. Non-Use of Family Planning Methods Among Married Women (Non-Pregnant) in Jordan

	Variable / Category	Odds Ratio (OR)	CI 95%
Nationality	Jordanian (Ref.)	1.00	
	Syrian	0.78***	0.68, 0.90
	Other	0.90	0.71, 1.13
Education Level	No Education (Ref.)	1.00	
	Primary	1.47**	1.12, 1.92
	Secondary	1.80***	1.41, 2.30
	Higher	2.13***	1.64, 2.77
Current Employment Status	No (Ref.)	1.00	
	Yes	1.07	0.93, 1.23
Wealth Quintile	Lowest (Ref.)	1.00	
	Second	1.37***	1.21, 1.55
	Middle	1.29***	1.13, 1.48
	Fourth	1.60***	1.39, 1.85
	Highest	1.76***	1.48, 2.11
Number of Living Children	0–3 (Ref.)	1.00	
	4–6	2.96***	2.66, 3.29
	≥7	3.37***	2.75, 4.14
Ideal Number of Children	0–3 (Ref.)	1.00	
	4–6	0.80***	0.73, 0.88
	≥7	0.60***	0.49, 0.73
Age at First Marriage	<20 (Ref.)	1.00	
	20–24	1.00	0.90, 1.11
	25–29	0.91	0.79, 1.05
	30–34	0.73**	0.59, 0.91
	≥35	0.34***	0.24, 0.48
Current Age	15–19 (Ref.)	1.00	
	20–24	3.26***	2.19, 4.87
	25–29	3.27***	2.22, 4.83
	30–34	3.07***	2.08, 4.53
	35–39	2.60***	1.75, 3.85
	≥40	1.53*	1.03, 2.26
Owning Personal Wallet/Card	No (Ref.)	1.00	
	Yes	0.87*	0.77, 0.98
Attitudes towards Physical Violence to the wife	No (Ref.)	1.00	
	Yes	1.05	0.96, 1.15
Type of Residence	Urban (Ref.)	1.00	
	Rural	0.94	0.84, 1.05
Region	Central (Ref.)	1.00	
	Northern	0.75***	0.68, 0.83
	Southern	0.76***	0.68, 0.85
Health Insurance	No (Ref.)	1.00	
	Yes	1.07	0.96, 1.19
*Significant at p<0.05, ** Significant at p<0.01, *** Significant at p<0.001 Number of Cases = 10,743			

3.1.2.2 Logistic Regression for Use of Modern vs. Traditional Family Planning Methods Among Currently Married Women

The binary logistic regression analysis for the use of modern versus traditional family planning methods showed that the model was statistically significant overall ($F = 3.39$, $P < 0.001$), indicating significant statistical differences between the groups under study.

The analysis included 6,707 currently married women, with 962 sampling units, 26 strata, a weighted sample size of 6,976, and design degrees of freedom of 936.

Detailed results by variable are presented in Table (19).

Nationality:

No statistically significant difference was found between Syrian and Jordanian women in the use of modern versus traditional methods ($OR=0.85$, $P=0.264$, 95% CI: 0.632–1.134). Similarly, there was no significant difference for women of other nationalities compared to Jordanians.

Education:

Although women with primary education were more likely to use modern methods compared to those with no education ($OR=1.43$), the difference was not significant ($P=0.242$). Secondary or higher education levels also did not show statistically significant differences.

Employment:

Women's employment did not have a significant effect on method use.

Wealth Index – Wealth Quintile:

No significant effect was found for any wealth quintile compared to the poorest, although women in the "poorest" category were less likely to use modern methods compared to traditional ones.

Number of Living Children:

This variable showed a strong and significant effect as follows:

- Women with 4–6 children were more likely to use modern methods ($OR=1.47$, $P<0.001$).
- Women with 7 or more children were significantly more likely to use modern methods ($OR=1.96$, $P=0.005$).

Ideal Number of Children:

The ideal number of children did not show a statistically significant relationship with the actual use of modern methods.

Woman's Age at First Marriage:

Women who married at 25–29 years were less likely to use modern methods compared to those who married before age 20 (OR=0.73, P=0.030). This likelihood decreased further for women who married between 30–34 years (OR=0.54, P=0.004). For the age group 35 years and older, no significant difference in the likelihood of using modern methods was found.

Current Age:

None of the current age categories showed a significant relationship with modern method use.

Financial Ownership (Owning Money/Wallet):

Women's financial ownership was not significantly associated with modern method use (OR=1.18, P=0.151).

Attitudes towards Physical Violence to the wife:

No significant relationship was found between Attitudes towards Physical Violence to the wife and method use (P=0.413).

Place of Residence:

No difference was found between rural and urban women (OR≈1.00, P=0.992).

Geographic Region:

Women in the Northern region were less likely to use modern methods compared to the Central region (OR=0.76, P=0.002), while the difference in the Southern region was not significant (P=0.099).

Visit by a Community Health Worker:

A health worker visit did not have a significant effect.

Exposure to Health Awareness Campaigns:

Exposure to awareness campaigns did not have a significant effect.

Summary of this model:

The model shows that the most influential factors for the use of modern family planning methods are:

Number of Living Children: Modern methods use increases with a higher number of children.

Woman's Age at First Marriage: Modern methods use decreases with marriage at an older age.

Geographic Region: Modern method use is lower in the North compared to the Central region.

Other variables such as education, wealth, employment, or place of residence were not statistically significant after controlling for other factors.

Table (19): Results of the Logistic Regression Model for Modern vs. Traditional Family Planning Method Use Among Currently Married Women

Variable	Category	Odds Ratio (OR)	P-value	CI 95%
Nationality	Jordanian (Ref.)			
	Syrian	0.8469	0.264	0.632–1.134
	Other	1.0241	0.92	0.642–1.633
Education	No Education (Ref.)			
	Primary	1.4313	0.242	0.784–2.612
	Secondary	0.8778	0.624	0.521–1.480
	Higher	0.8433	0.54	0.489–1.455
Employment	Yes vs. No	0.9348	0.589	0.732–1.194
Wealth Quintile	Poorest (Ref.)			
	Second	0.8744	0.231	0.702–1.090
	Third	1.0264	0.844	0.792–1.331
	Fourth	0.9043	0.469	0.688–1.188
	Richest	0.9399	0.68	0.700–1.263
No. of Living Children	0–3 (Ref.)			
	4–6	1.4724	0	1.191–1.820
	≥7	1.9639	0.005	1.231–3.134
Ideal No. of Children	0–3 (Ref.)			
	4–6	1.0743	0.42	0.903–1.279
	≥7	0.7381	0.189	0.469–1.162
Age at First Marriage	<20 (Ref.)			
	20–24	0.9021	0.352	0.726–1.121
	25–29	0.7281	0.03	0.547–0.969
	30–34	0.5381	0.004	0.353–0.821
	≥35	1.2678	0.575	0.552–2.911
Current Age	15–19 (Ref.)			
	20–24	0.8257	0.677	0.335–2.036
	25–29	0.6119	0.295	0.244–1.536
	30–34	0.7783	0.594	0.309–1.960
	35–39	0.7362	0.521	0.288–1.879
	40–44	0.6783	0.411	0.269–1.713
	45–49	0.6887	0.44	0.267–1.777
Owns Wallet/Card	Yes vs. No	1.1814	0.151	0.941–1.483
Attitudes towards Physical	Yes vs. No	0.93	0.413	0.782–1.107
Violence to the wife	Rural vs. Urban	1.0009	0.992	0.832–1.204
Place of Residence Region	Central (Ref.)			
	Northern	0.7604	0.002	0.642–0.900
	Southern	0.8438	0.099	0.690–1.032
Health Worker Visit	Yes vs. No	0.8506	0.145	0.684–1.058
Exposure to Awareness	Yes vs. No	0.899	0.277	0.742–1.089

Number of Cases = 6,707

3.1.2.3 Multivariate Analysis of Family Planning Method Use Among Married Women in Jordan

This section presents the results of the multivariate analysis examining the factors influencing family planning method use among married women in Jordan in 2023, with a focus on identifying variables significantly associated with reproductive behavior and family planning decision-making.

Detailed results by variable are shown in Table (20).

Place of Residence

Urban vs. Rural: No significant difference was found between urban and rural areas in the use of family planning methods, whether modern or traditional.

Ma'raq: A significant and substantial decrease in the likelihood of using both modern methods ($RRR = 0.40$, $p < 0.001$) and traditional methods ($RRR = 0.33$, $p < 0.001$) compared to Amman, meaning much lower use of all methods.

Karak: A decrease in the use of modern methods ($RRR = 0.67$, $p < 0.01$) and traditional methods ($RRR = 0.52$, $p < 0.001$), indicating lower use than Amman, especially for traditional methods.

Ma'an: A significant decrease only in the use of modern methods ($RRR = 0.59$, $p < 0.05$), with no difference for traditional methods, meaning a lower likelihood of using modern methods compared to Amman.

Balqa and Madaba: A decrease only in the use of traditional methods ($RRR = 0.72$ and 0.70 , respectively, $p < 0.05$).

Other Governorates: No significant differences were recorded in the use of any methods, indicating usage similar to Amman after controlling for other factors.

The analysis of Relative Risk Ratios (RRR) for family planning method use in Jordan revealed notable geographic disparities. Rural versus urban residence had no significant effect, but governorate of residence showed substantial differences. Women in Ma'raq were much less likely to use both modern and traditional methods compared to women in Amman. The same pattern appeared in Karak and Ma'an (for modern methods), and in Karak also for traditional methods. Use of traditional methods was also lower in Balqa and Madaba.

Nationality

- Syrian women were less likely to use modern methods compared to Jordanian women ($RRR=0.71$, 95% CI: 0.54–0.93, $p < 0.05$).

- No significant differences for modern or traditional methods for other nationalities compared to Jordanian.

Education

- Higher education, compared to no education, was strongly associated with an increased likelihood of using both modern methods (RRR=1.75, 95% CI: 1.14–2.70, $p<0.05$) and traditional methods (RRR=2.14, 95% CI: 1.20–3.84, $p<0.05$), meaning higher education increases the likelihood of using all methods.
- Primary/Secondary education, compared to no education, was not strongly significant, although secondary education showed a trend toward increased use of both modern and traditional methods.

Employment Status

- No significant differences were found between employed and non-employed women in the use of modern or traditional methods.

Wealth Index (Wealth Quintile)

- No significant association with method use was found, meaning economic well-being is not a strong influence on family planning method use in this model.

Health Insurance

- Not significant for modern methods.
- Showed a borderline association with traditional methods (RRR=1.23), but not significant – at the 5% level.

Internet Use

- Women who use the internet, compared to those who do not, were more likely to use traditional methods (RRR=1.58, $p<0.05$).
- There is no significant difference in the use of modern methods between internet users and non-users.

Number of Living Children (Parity Effect)

- 0–3 children compared to the reference category (4–6 children): Higher likelihood of using modern methods (RRR=1.37) and traditional methods (RRR=1.57).
- ≥ 6 children compared to the reference category (4–6 children): Very high likelihood of using modern methods (RRR=2.28) and traditional methods (RRR=1.61), reflecting a strong parity effect.

Age at First Marriage

- Women who married after age 25 were less likely to use both modern methods (RRR=0.33) and traditional methods (RRR=0.60) compared to those who married before age 18. This is a logical result, as later marriage is associated with a lower need for family planning methods.
- Marriage between 18–25 years: No significant difference.

Desired Number of Children

- Desire for 4–6 children was associated with a lower likelihood of using both modern methods (RRR=0.75) and traditional methods (RRR=0.67) compared to the reference category (0-3 children).
- Desire for ≥ 7 children was associated with a significant decrease in modern method use (RRR=0.55, $p<0.01$) compared to the reference category (0-3 children). No significant differences were found for traditional method use.

Visit by Community Health Worker

- Modern Methods: A borderline association with decreased use.
- Traditional Methods: A significant decrease in use was associated with a health personnel visit (RRR=0.72, 95% CI: 0.59–0.88) compared to the reference category of no visit. This could indicate encouragement toward using modern methods.

Summary

The multivariate analysis of family planning method use among married women in the DHS 2023 reveals that urban-rural differences are not statistically significant, suggesting that the type of population cluster itself is not a major determinant after controlling for other factors. However, geographic and regional disparities are highly pronounced. Mafraq, Karak, and Ma'an recorded the lowest probabilities of using modern methods compared to Amman governorate, with lower traditional method use also observed in Balqa and Madaba.

The results also showed that Syrian women are less likely than Jordanian women to use modern methods, reflecting access barriers, cultural considerations, or other factors among refugees.

Higher education emerged as one of the strongest determinants, while employment status, wealth index, and health insurance did not show strong associations. Internet use was linked to traditional methods, suggesting a role for information exposure.

Number of living children was a key determinant, with the probability of use increasing

significantly with a higher number of children. Furthermore, it is evident that age at marriage and reproductive preferences clearly influence use: late marriage and a desire for a large family reduce the likelihood of method use.

Interestingly, visits by the Community Health Workers were associated with a decrease in the use of traditional methods.

Overall, the results highlight the importance of addressing geographic, educational, and reproductive disparities, prioritizing programs in governorates like Mafraq, Karak, and Ma'an, and targeting under-served groups such as Syrian refugee women, women with limited education, and those with a high fertility desire.

Table 20: Logistic regression for Use of Modern and Traditional Family Planning Methods vs. Non-Use Among Currently Married Women (15–49 years) and non-pregnant

	Variable / Category	Modern Methods		Traditional Methods	
		RRR	%95 CI	RRR	%95 CI
Place of Residence	Urban (Ref.)	1.00	-	1.00	-
	Rural	0.94	0.81, 1.10	1.06	0.89, 1.27
Governorate	Amman (Ref.)	1.00	-	1.00	-
	Balqa	1.04	0.81, 1.34	0.72*	0.55, 0.93
	Zarqa	0.94	0.75, 1.18	0.96	0.73, 1.27
	Madaba	1.11	0.84, 1.45	0.70*	0.49, 1.00
	Irbid	0.87	0.68, 1.12	1.19	0.91, 1.55
	Mafraq	0.40***	0.31, 0.51	0.33***	0.24, 0.46
	Jerash	0.90	0.71, 1.14	1.03	0.77, 1.37
	Ajloun	0.94	0.72, 1.23	0.97	0.71, 1.33
	Karak	0.67**	0.51, 0.88	0.52***	0.38, 0.71
	Tafilah	0.96	0.73, 1.27	1.05	0.78, 1.43
	Ma'an	0.59*	0.39, 0.90	1.20	0.66, 2.18
	Aqaba	0.89	0.67, 1.17	0.86	0.63, 1.18
Nationality	Jordanian (Ref.)	1.00	-	1.00	-
	Syrian	0.71*	0.54, 0.93	0.83	0.61, 1.13
	Other	0.81	0.55, 1.18	0.75	0.44, 1.26
Education	No Education (Ref.)	1.00	-	1.00	-
	Primary	1.33	0.84, 2.12	0.98	0.52, 1.84
	Secondary	1.44	0.96, 2.16	1.66	0.96, 2.87
	Higher	1.75*	1.14, 2.70	2.14*	1.20, 3.84
Employment Status	Not Working (Ref.)	1.00	-	1.00	-
	Currently Working	1.07	0.86, 1.32	1.09	0.84, 1.42

	Variable / Category	Modern Methods		Traditional Methods	
		RRR	95% CI	RRR	95% CI
Wealth Quintile	Lowest (Ref.)	1.00	-	1.00	-
	Second	1.02	0.84, 1.24	1.13	0.89, 1.44
	Middle	1.02	0.84, 1.25	0.97	0.75, 1.25
	Fourth	1.07	0.86, 1.34	1.13	0.86, 1.50
	Highest	1.03	0.78, 1.38	1.02	0.74, 1.41
Health Insurance	No (Ref.)	1.00	-	1.00	-
	Yes	1.00	0.82, 1.22	1.23	0.99, 1.52
Internet Use	No (Ref.)	1.00	-	1.00	-
No. of Living Children	Yes	1.31	0.95, 1.80	1.58*	1.05, 2.39
	0–3	1.37**	1.13, 1.68	1.57***	1.25, 1.96
	4–6 (Ref.)	1.00	-	1.00	-
Age at First Marriage	≥6	2.28***	1.98, 2.63	1.61***	1.35, 1.93
	<18 (Ref.)	1.00	-	1.00	-
	18–25	0.86	0.71, 1.04	1.07	0.87, 1.33
Desired No. of Children	>25	0.33***	0.24, 0.44	0.60**	0.42, 0.86
	0–3 (Ref.)	1.00	-	1.00	-
Community health worker Visit	4–6	0.75***	0.64, 0.88	0.67***	0.57, 0.79
	≥7	0.55**	0.38, 0.80	0.74	0.48, 1.14
	No (Ref.)	1.00	-	1.00	-
	Yes	0.82	0.67, 1.00	0.72**	0.59, 0.88
*Significant at p<0.05, ** Significant at p<0.01, *** Significant at p<0.001, RRR = Relative Risk Ratio					

3.2 Unmet Need

This component of the quantitative analysis in this study involved a logistic regression analysis of met versus unmet need for family planning among currently married women in Jordan, to examine the factors influencing women's ability to meet their reproductive needs with available methods.

The third definition of the variable for unmet need for family planning (v626a) was adopted. According to the original table, women with an unmet need for spacing constituted 4.93% of the total sample, while the unmet need for limiting births was 5.91%, resulting in a total unmet need of 10.84%.

The data also showed that the use of family planning for spacing represented 16.73%, while use for limiting births constituted the larger proportion at 43.36% of the total sample. The proportion of women with no unmet need was 13.29%, while women who were infecund or menopausal constituted 15.77%.

For the purposes of this research and to conduct the logistic regression analysis, the analysis was limited only to the categories relevant to the analysis: unmet need (both for spacing and limiting), plus met need through the use of family planning for spacing or limiting births. Consequently, women who were infecund, menopausal, or had no need were excluded. Based on these methodological criteria, the final sample used for analysis was 8,234 women.

The sample used for this study breakdown is as follows:

- Unmet need for spacing: 726 women (8.8%).
- Unmet need for limiting: 793 women (9.63%), bringing the total unmet need to 18.45% of the final sample.
- Use for spacing: 1,949 women (23.67%).
- Use for limiting: constituted the largest category with 4,766 women (57.88%).

Thus, the final sample used in the statistical analysis for this study is 8,234 women (100%).

3.2.1 Results of the Logistic Regression Analysis:

The results of the logistic regression model, as shown in Table (21), reveal a set of demographic and socio-economic factors associated with the probability of having an unmet need for family planning among married women. Several variables show statistically significant effects at different levels (0.05, 0.01, 0.001), indicating important differences between various groups.

I. Nationality: Syrian women and women of other nationalities have a lower probability of having their need met compared to Jordanian women (OR=0.7 and 0.6, respectively, $p<0.05$). This indicates greater challenges in accessing family planning services among these groups.

II. Education: Women with higher education show a higher probability of having their need met compared to women with no education (OR=1.7, $p<0.05$), reflecting the link between educational empowerment and better access to reproductive information and services. Primary and secondary education did not show a significant association.

III. Wealth Index: This plays an important role. The probabilities of having needs met gradually increase with the wealth index, reaching their highest levels in the richest category, with highly significant differences. This demonstrates that overall economic status remains an influential factor in the ability to use family planning methods.

IV. Number of Living Children: Mothers with 4–6 children have a higher probability of having their need met (OR=1.3, $p<0.05$), while the association for those with ≥ 7 children was not significant.

V. Age at First Marriage: This is inversely associated with having needs met. Marriage at ages 20–24, 25–29, 30–34, and ≥ 35 reduces the probability of needs being met compared to those who married before age 20, with statistical significance in most categories.

VI. Current Age: In contrast, the probability of needs being met increases significantly with advancing age. Women aged 25–29 up to ≥ 40 have much higher probabilities of having their needs met compared to those aged 15–19, with strong significant differences. This reflects increased awareness and actual use with age.

VII. Attitude towards Domestic Physical Violence to the wife: Women who reported Attitudes towards Physical Violence to the wife show higher probabilities of having their needs met compared to those who do not justify it (OR=1.3, $p<0.01$), a non-intuitive result requiring in-depth qualitative interpretation.

VIII. Place of Residence: Women in rural areas have lower probabilities of having their needs met compared to women in urban areas (OR=0.8, $p<0.05$), a clear and statistically significant effect reflecting a gap in service availability.

IX. Geographic Region: Women in the Southern region have lower probabilities of having their needs met compared to the Central region (OR=0.7, $p<0.001$), a significant association. The Northern region was also lower but without strong significance.

Other variables such as the ability to access money or the ideal number of children did not show clear significant associations.

Overall, the model indicates that overall economic status (wealth index), geographic disparities, age, higher education, and nationality-related factors are the most influential in explaining whether family planning needs are met among women. These results pave the way for a deeper understanding of the gaps that need addressing within reproductive health policies targeting qualitative and quantitative access to family planning services.

Table 21: Logistic Regression for Met vs. Unmet Need for Family Planning Among Married Women

	Variable / Category	Odds Ratio (OR)	95% CI
Nationality	Jordanian (Ref.)	1.00	-
	Syrian	0.7*	0.5, 0.9
	Other	0.6*	0.4, 0.9
Education	No Education (Ref.)	1.00	-
	Primary	1.1	0.7, 1.8
	Secondary	1.2	0.8, 1.9
	Higher	1.7*	1.0, 2.9
Employment Status	Not Working (Ref.)	1.00	-
	Currently Working	0.9	0.6, 1.3
Wealth Quintile	Poorest (Ref.)	1.00	-
	Second	1.1	0.9, 1.5
	Middle	1.5**	1.1, 2.0
	Fourth	1.5**	1.1, 2.2
	Richest	2.0***	1.3, 3.1
No. of Living Children	0–3 (Ref.)	1.00	-
	4–6	1.3*	1.1, 1.7
Ideal No. of Children	≥7	1.3	0.8, 2.1
	0–3 (Ref.)	1.00	-
	4–6	1.0**	0.8, 1.2
	≥7	1.0	0.6, 1.5
	<20 (Ref.)	1.00	-
Age at First Marriage	20–24	0.8*	0.6, 1.0
	25–29	0.6**	0.4, 0.9
	30–34	0.4***	0.2, 0.6
	≥35	0.4**	0.2, 0.8
Current Age	15–19 (Ref.)	1.00	-
	20–24	2.1	0.9, 4.5
	25–29	3.3***	1.7, 6.8
	30–34	3.7***	1.7, 7.9
	35–39	3.3**	1.6, 7.2
	≥40	4.7***	2.2, 10.2
Owns Wallet/Card	No (Ref.)	1.00	-
	Yes	0.8	0.6, 1.2
Attitude towards Domestic Physical Violence to the wife	No (Ref.)	1.00	-
	Yes	1.3**	1.1, 1.6
Place of Residence	Urban (Ref.)	1.00	-
	Rural	0.8*	1.0-0.6
Region	Central (Ref.)	1.00	-
	Northern	0.8	0.7, 1.0
	Southern	0.7***	0.6, 0.9
Health Worker Visit	No (Ref.)	1.00	-
	Yes	1.2	1.0, 1.5
• Significant at p<0.05, ** Significant at p<0.01, *** Significant at p<0.001 • Sample Size = 8,234			

Summary of Quantitative Results

In light of the quantitative results derived from the analysis of the 2023 Jordan Population and Family Health Survey data, which included 10,743 currently married women aged 15–49, the overall picture of family planning use in Jordan can be summarized as follows:

1. Use of Family Planning Methods

The analysis results revealed that the use of family planning methods among currently married, non-pregnant women in Jordan is influenced by a variety of demographic, social, empowerment and geographic factors. Education level emerged as one of the most significant determinants, with a markedly higher likelihood of using family planning methods—both modern and traditional—among women with higher educational attainment. Additionally, the number of living children is positively associated with the probability of using any family planning method, particularly modern methods, as women with more children tend to adopt family planning more frequently than those with fewer children.

Conversely, age at marriage and the desire to have a larger number of children are linked to a decreased likelihood of using family planning methods, reflecting the influence of reproductive preferences on contraceptive decisions. The use of modern methods increases notably among women who desire fewer children, especially those with an ideal number of children between four and six. Regarding current age, a gradual pattern was observed where the overall likelihood of using family planning methods rises in the 25–34 age group. Meanwhile, the use of traditional methods increases with advancing age, particularly among women over 40 and those who married before age 20, whereas modern method use is higher among younger women, especially those who married between 20 and 24 years.

The findings also highlighted nationality-related disparities, with Syrian women being less likely to use modern methods compared to Jordanian women. Economically, women in higher wealth quintiles were more than one and a half times as likely to use family planning methods—both modern and traditional—compared to those in lower quintiles. Other social variables, such as employment status, health insurance coverage, or personal financial assets, showed no significant impact on family planning use after controlling for other factors.

Geographically, clear spatial disparities were evident in family planning use, with the lowest levels of modern method use recorded in the governorates of Mafraq, Karak, and Ma'an, while traditional method use was notably lower in Balqa and Madaba. Furthermore, internet use was positively associated with increased likelihood of using traditional methods, whereas visits by Community Health Workers were linked to decreased use of these methods.

2.Unmet Need for Family Planning

The statistical model shows that meeting the need for family planning among women is influenced by several interrelated factors. Syrian women are less able to have their needs met compared to Jordanian women. Higher education enhances the possibility of having needs met, while the wealth index plays a crucial role, with probabilities of needs being met clearly rising among women in higher wealth groups. Furthermore, women with 4–6 children have a greater probability of having their needs met compared to those with fewer children. Age at marriage shows an inverse relationship, while the probability of needs being met strongly increases with the woman's advancing current age. Also, women in rural areas and the Southern region have lower rates of having their needs met compared to urban areas and the Central region. These results indicate that overall economic inequalities, education, nationality, geographic location, and age are among the most prominent determinants influencing the ability to use family planning methods.

Chapter Four

Results of the Qualitative Analysis

This chapter builds upon the quantitative analysis and literature review presented in Chapters Two and Three to provide a deeper understanding of the social, cultural, and institutional context that influences the use of modern and traditional family planning methods, as well as the persistence of unmet need.

This chapter aims to present an in-depth reading of the experiences and opinions expressed by representatives of national and international institutions, healthcare providers, as well as women in local communities and the Syrian refugee community, through semi-structured individual interviews and focus group discussions. This qualitative analysis allows for the uncovering of hidden factors not evident in quantitative data, such as social perceptions, health concerns, counseling patterns, and the impact of policies at the implementation level.

It is important to note that the methodology adopted in this chapter is to be read as complementary to the methodology presented in Chapter One. We employed an **Explanatory Sequential Mixed Method** design that integrates quantitative and qualitative analysis within a single framework, ensuring that statistical results are interpreted in light of empirical explanations.

This chapter is divided into two main parts: a description of the characteristics of participants in the interviews and focus groups and the criteria for their selection, and the presentation of qualitative results addressing policies, the health system from supply and demand perspectives, and community perceptions of family planning methods.

4.1 Participant Characteristics:

4.1.1 Semi-Structured Individual Interviews:

In-depth semi-structured interviews were conducted with a group of participants from local and international entities relevant to the research topic, aiming to ensure a diversity of perspectives and experiences. These interviews took place between September 21, 2025, and November 6, 2025. Twelve interviews were conducted, involving 14 individuals. Two individuals participated in joint interviews, while the rest were individual. Six interviews were conducted face-to-face, and the other six were conducted remotely using video communication tools.

Participants were selected based on specific criteria to ensure comprehensive representation of

experiences and opinions. Criteria included their practical experience in reproductive health and family planning services, their leadership or technical positions within institutions, their direct role in policy formulation or service delivery, and representation from multiple entities to ensure diversity of experiences at national and international levels.

The entities represented by participants included: Ministry of Health, Royal Medical Services, (4 entities) from local community organizations, (3 entities) from the private sector and (4 entities) from United Nations organizations.

Regarding gender distribution, it was balanced, with 7 males and 7 females participating.

In terms of functional categories, participants varied between health program and policy planners (9 participants), clinic managers (2 participants), a manager of a private pharmacy chain (1 participant), and professional association representatives (2 participants). This reflects the intentional diversity in the studied sample

4.1.2 Focus Group Discussions:

Focused group discussions were conducted in three governorates: Mafraq, Ma'an, and Balqa. These governorates were selected based on the results of the quantitative analysis to ensure representation of different family planning usage patterns. Ma'an was chosen as a governorate showing the highest likelihood of traditional method use, while Balqa was selected as the governorate with the lowest likelihood of using these methods in Jordan, allowing for an understanding of factors that support or limit modern method use in contrasting contexts. Mafraq was chosen because it contains the Zaatari Syrian refugee camp, as women in this group show the lowest likelihood to use of modern family planning methods and the highest resistance to them, and because the refugee category has the highest likelihood of unmet need.

The group discussions were conducted between November 5 and 23, with the participation of 32 women, most of whom had a medium level of education. Participant characteristics varied across several criteria:

- Age Group: Included 5 participants aged 20-24, 14 aged 25-35, and 13 over 35.
- Education Level: Included 4 with no formal education, 3 with primary education, 15 with secondary education, and 10 with university education.
- Number of Children: Distributed as 9 participants with 0-3 children, 15 with 4-7 children, and 8 with more than 7 children.
- Patterns of Family Planning Use: The results showed that 21 participants currently are using modern family planning methods, 8 are using traditional methods, and 3 are using no method.

This distribution reflects the diversity in attitudes and behaviors towards family planning among women in different governorates, with a clear influence of social, cultural, and spatial factors on these patterns.

4.2 Results:

Following the review and analysis of the texts derived from the individual interviews and focus groups, the themes were reorganized into main and sub-attributes reflecting the core issues addressed by the study as follows:

First: The attribute of Policies and Strategies, the results of which were limited to the individual interviews due to the nature of the topic related to the national frameworks for sexual and reproductive health and implementation and monitoring mechanisms that concern policymakers and service providers.

Second: The attribute of the Health System – Supply Side, from which several sub-attributes emerged, most notably: Supply and Procurement, Method Mixed Availability, Allocations and Financing, Human Resources and Family Planning Services, Service Integration and Missed Opportunities, Appropriateness, Health Program Attitudes Towards Traditional Methods, in addition to Social Approaches and Awareness Campaigns.

Third: The attribute of Influencing Individual and Social Factors – Demand Side, which included spatial and age determinants, empowerment determinants, nationality determinants, as well as drivers associated with the use of traditional family planning methods.

4.2.1 Policies and Strategies

The individual interviews with policymakers and service providers showed broad consensus on their awareness of clear sexual and reproductive health policies, represented by the National Sexual and Reproductive Health Strategy (2020–2030) and the National Population Strategy (2021–2030). Participants confirmed that definitions of unmet need and related national goals are understood and consistent with the general framework of health policies.

Despite the clarity of policies, they were not comprehensive, especially in adopting multi-sectoral dimensions in their formulation and implementation. Participants reported that current policies may appear general and lack focus on activities that should be prioritized in family planning.

One participant pointed to the need to develop an independent family planning strategy that goes beyond being part of a comprehensive health strategy, becoming an interconnected system aligned with developmental goals and designed to focus on specific and targeted activities rather than less

defined objectives. This strategy, according to their view, should be adopted as a national priority requiring a multi-sectoral approach that integrates gender, climate, and resource use indicators. This proposed strategy, in the opinion of the participants, should be central to political decision making and health priority-setting, especially with the decline in international support. Having an independent strategy would enhance the correct understanding among political decision-makers and program/policy planners across all sectors: that family planning is cross-sectoral and requires concerted efforts from all systems to support the health system, rather than being a gap specific to the health sector that must be addressed solely by increasing and improving health services.

Regarding health priorities, one participant indicated that family planning has declined on the priority ladder over the past five years in favor of more pressing issues, such as universal health coverage. Consequently, they believe that reintegrating family planning as a national priority should occur within the framework of Universal Health Coverage and improving the quality of primary healthcare services, not as a horizontal program from their perspective.

Regarding hindering factors, the most prominent one that, from the perspective of one participant, hindered the implementation of family planning strategies were the impact of the COVID-19 pandemic, which diverted resources and attention towards communicable diseases and pandemic response, impeding the implementation of the Costed Implementation Plan for Family Planning (2020–2024).

Additionally, one participant pointed to the significant impact of fluctuating policies regarding refugees' access to the government health sector, which negatively affected awareness of the free family planning services which are available for them. Data showed that only 44%⁴⁰ of Syrian refugees are aware of the free access to these services, despite their continued inclusion in the essential package.⁴¹

“Although the policy change introducing a preferential rate was implemented six years ago, a significant proportion of refugees remain unaware that family planning services are free. We are talking about less than half are aware—so at the end, only about 20–30% of the total actually use these services. This gap highlights a critical issue: when refugees are excluded from the broader health service package, even essential services—despite being free—are underutilized.”

Participant No. 6

40. UNHCR 2024 - Health Access and Utilization Survey (HAUS 2024) among "Syrians living in non-camp setting" - Jordan (August 2024) – Jordan <https://reliefweb.int/report/jordan/health-access-and-utilization-survey-haus-2024-among-syrians-living-non-camp-setting-jordan-august-2024>

41. Policies governing refugees' access to healthcare services have undergone several phases. Services were provided free of charge until 2014, after which refugees were charged according to the reduced preferential rate applied to insured Jordanians until 2018. Subsequently, the pricing was adjusted to the highest rate, that of foreigner rate, before reinstating the reduced rate for insured Jordanians from 2019 to the present.

Regarding the private sector, participants confirmed that the level of alignment with national strategic objectives remains limited. References to national strategies and engagement with their content are often confined to specific, usually internationally funded projects, such as the USAID initiative with private pharmacies to enhance access to modern methods.

Additionally, some pointed to the perception that private pharmacies, despite being the main source of methods in the private sector, only learn about national policies through limited channels such as syndicate circulars or continuing medical education, which weakens awareness of their importance and alignment with national strategic goals. Private sector participants agreed that strengthening the role of the private sector as a key actor in achieving UHC is a prerequisite for improving alignment with national priorities, especially topics related to family planning.

"We only know about these policies from what reaches us through Pharmacy syndicate and Ministry of Health circulars. The level of engagement with them, in my estimation, is limited."

Participant No. 10

In the context of measuring the impact of policies, strategies, and family planning programs, participating entities have employed a range of tools and methodologies, participants indicated that Population and Family Health Survey (DHS) data was the most important tool for measuring impact at the national level, due to the comprehensiveness of the data and its ability to provide accurate indicators on use and unmet need. Most participants also referred to the Higher Population Council's publications of policy and strategy reviews and follow-ups.

Observations also emerged about the weak focus on imposing monitoring and evaluation mechanisms, especially those measuring achievement at the level of health centers and facilities, which limits the effectiveness of accountability and institutional performance improvement. Participants emphasized that adopting accurate indicators at the local level and linking them to national monitoring would enhance the ability of relevant directorates and departments to improve service quality. Furthermore, they stressed the need to clarify the roles and responsibilities of service providers and the mechanisms of their intersection with health facility management and higher levels of health administration, particularly in the clinical and administrative monitoring of family planning services and counseling.

Participants working with refugee communities confirmed that project log frames, usually donors-driven, along with program evaluations, represent key tools for measuring impact in the context of targeted interventions. Meanwhile, UNHCR considered the Health Access and Utilization Survey (HAUS), which measures behavioral and knowledge impact, among the most important methods for assessing behavioral change impact in urban and camp settings, serving as additional tools for them to measure impact.

For its part, WHO indicated that impact measurement matrices integrated into national strategies, alongside Population and Family Health Surveys, were among the most prominent tools it relied on to track progress towards national goals.

4.2.2 The Health System – Supply Side:

The interviews showed significant agreement on most sub-themes in this topic, while the focus groups differed on some of them.

a. Supply and Procurement

The individual interviews showed a high degree of consensus among participants on most sub-areas related to the health system – supply side, while the focus groups expressed some differences of opinion on a number of these areas.

Participants in the individual interviews unanimously agreed that the public sector supply system functions effectively, with no fundamental issues reported. They commended the system's efficiency, the consistent availability of a mix methods of modern family planning methods across all clinics, and the flexibility and rapid response of the logistical system in addressing any potential stock-outs. Representatives from institutions supplied by the Ministry of Health confirmed that no shortages of any method have been recorded over the past five years – taking into account the level of health facilities, expected services, and available staff. However, some participants acknowledged that this picture may appear ideal, particularly when factoring in the challenges posed during the COVID-19 pandemic.

Participants further explained that forecasting and supply operations are managed directly by the Maternal & Child Health Directorate (MCHD), operating outside the Ministry of Health's general procurement and supply framework. This approach ensures rapid response and timely resupply based on inventory data and logistical leads monitored by the Directorate. Stock reports are submitted by health governorate directorates and other public sector entities, enabling the MCHD to generate electronic forecasts for six-month periods according to reported stock levels – tailored to the health center level.

However, one participant noted that the effectiveness of this system relies heavily on accurate inventory and stock-taking processes at the health center level. These tasks require administrative human resources, which are not always available. This creates an additional burden for implementing partners, as donor frameworks typically fund personnel for direct service delivery.

b. Method Availability

- Individual Interview Participants' Views:

Participants confirmed the availability of a mix method of family planning methods, including five main methods: condoms, IUDs, implants, pills (combined and progestin-only), and injectables. However, they pointed to other constraints beyond supply that affect the full availability of this mix, most notably the classification of the health center and the availability of trained staff.

In remote health centers where no trained midwife is available, the mix is often limited to only three methods. In UNRWA clinics, implants are not available due to a lack of specialists, although they have been provided in the past two years in health clinics for Syrian refugee camps, which has been successful and in high demand by this group, according to one participant.

Participants unanimously agreed that the methods provided in the public sector are safe and appropriate for the Jordanian cultural context and enjoy high satisfaction among women.

Additionally, participants confirmed the availability of the full method mix in private sector pharmacies without interruption, as their owners are keen to provide it as an important part of sales and linked to high customer demand. They clarified that implants are the only method not available in pharmacies, as they require a minor surgical procedure in a hospital or external clinic, necessitating clients to go to the public sector or specialist doctors. All other methods are permanently available. Private sector representatives pointed to the existence of pills from more advanced generations with fewer side effects, which they do not believe are available yet in the public sector, although they praised the existing ones even if from older generations.

- Focus Groups' Views:

Regarding the focus groups, women confirmed the permanent availability of the method mix in public health centers. They reported receiving education about all available methods, tailored to their health status, reproductive plan, and personal preferences. However, their opinions varied on the effectiveness of some methods and the safety of others due to the circulation of varying information through social networks and the local community, which will be discussed later. The IUD was perceived as the safest method, while condoms ranked lower than other methods, and knowledge about implants varied among the women.

c. Allocations and Financing

Knowledgeable participants highlighted that allocations for family planning methods within the Ministry of Health's general budget are treated as a priority, consuming a substantial share of the MCHD budget—often at the expense of other essential activities. The annual allocation for family planning commodities is estimated at approximately half a million dinars, with flexibility to exceed this amount when necessary. These allocations receive top priority during budget reallocation by

the Prime Minister's office to meet the growing demand for modern family planning methods across six public sector entities, including international and local implementing organizations and Ministry of Health facilities. While family planning commodities are prioritized, other critical activities—such as staff training and monitoring and evaluation—are significantly affected.

Participants unanimously agreed that the discontinuation of USAID-funded programs would create a major gap in training health staff, particularly in counseling, as well as in awareness campaigns and multi-sectoral engagement. They warned that the absence of such training could undermine service quality and threaten the sustainability of family planning programs, especially as experienced trainers retire or leave. Without clear measures to ensure continuity, reactivating these programs in the future would become increasingly difficult.

d. Human Resources and Quality of Family Planning Services

- Individual Interview Participants' Views:

Participants in the individual interviews unanimously agreed that family planning services remain insufficient, though their perspectives varied between concerns about quantitative availability and qualitative quality. All participants identified the core issue as the availability and competence of human resources responsible for delivering these services, even though opinions differed regarding the underlying causes of this gap:

First: Shortage of Health Staff and High Turnover

Some participants indicated that the main reason lies in the shortage of health staff, alongside high turnover rates, which most health directorates in Jordan suffer from. This is attributed to work pressure and weak incentives and allowances, leading to an inability to retain trained staff and consequently a decline in counseling quality and family planning services.

" All health directorates across the Kingdom face a persistent shortage of human resources dedicated to family planning services."

Participant No. 3

Second: Absence of Periodic Training

Others believed that the absence of periodic training related to counseling for modern family planning methods, including communication and interpersonal skills, represents the fundamental cause of the gap. All participants confirmed that no recent training focusing on counseling quality had been implemented, with the latest training limited to logistical aspects or clinical procedures for IUD and implant insertion.

Third: Weak Monitoring and Evaluation Mechanisms

Some participants pointed out that weak mechanisms and sensitive indicators for monitoring constitute a major obstacle, as current systems do not allow supervisors at the administrative and central levels to detect deficiencies in counseling activities and family planning services at the health facility level. It was also noted that the standard service package and approved protocols lack precise indicators and standardized checklists to ensure high-quality service delivery and bridge existing gaps.

Fourth: Bias in Counseling

In addition to competency gaps, bias among some health staff emerged as an attribute agreed upon by most participants. This bias takes multiple forms, including:

- Method Bias: Bias towards a method based on the provider's personal stance or individual experience, making counseling closer to personal advice.
- Avoidance of Complex Methods: Avoiding complex methods like implants (Implanon) due to lack of knowledge or a desire to avoid long-term follow-ups and potential medical complications, leading to directing women towards easier-to-manage methods.
- Bias Based on Age and Reproductive Plans: Avoiding counseling on long-acting methods for newly married women or those under thirty, despite some of them wanting to delay childbearing, reflecting the staff's projection of what they deem appropriate for women.

-Feedback on the Private Sector

In the private sector, participants indicated that the fundamental gap lies in weak communication and dialogue skills among pharmacists, despite the demand for modern family planning methods. They confirmed that pharmacists are not trained to initiate dialogue and seize opportunities to provide appropriate recommendations and counseling, despite not having bias or knowledge deficiencies, contrary to some studies that indicated bias and reluctance to provide services to unmarried individuals or those perceived as having improper conduct.

"Based on my knowledge of Jordanian community pharmacists, the phenomenon of bias does not exist; their cultural and scientific level is high. If it exists, it's at the individual level... We confirm that the basic gap is how the pharmacist opens the topic to provide counseling, meaning how the pharmacist possesses some kind of dialogue skill, takes the initiative, and opens the topic with the patient (client), overcoming embarrassment and shyness, to provide the correct counseling."

Participant No. 11

-Focus Groups' Views

In contrast, most women in the focus groups praised the competence of health staff and did not notice the mentioned forms of bias, with the exception of Ma'an governorate. Participants there complained of staff shortages affecting efficiency, as family planning services are not permanently available, and when available, they are limited to one midwife at the governorate level, causing long wait times and weak responsiveness.⁴² They also pointed to weak outreach to rural communities and some tent-dwelling populations.

Furthermore, Trust in health staff as the primary source of receiving information and correct counseling when considering family planning topics was a prominent feature in the focus groups. This reflects a discrepancy with the views from individual interviews and may indicate that the phenomena of incompetence and bias exist in contexts different from those health centers.

e. Service Integration and Missed Opportunities

Definition of Service Integration according to WHO:

Integration of family planning services in primary healthcare refers to the coordinated and integrated delivery of family planning services with other health services such as maternal and child health, reproductive health, and chronic disease services, within the same facility or through an effective referral system that ensures continuity of care and reduces missed opportunities for counseling and essential services.

WHO 2018

- Individual Interview Participants' Views:

This study revealed weak integration of services within government health centers. One participant emphasized that fragmentation in the health system and poor coordination between services are among the main reasons for eroding clients' trust and missing opportunities for family planning counseling. For example, when a woman is required to visit another facility for an ultrasound or laboratory tests unavailable at the initial center, it negatively affects her perception of the health system's responsiveness and imposes indirect burdens such as transportation costs and time away from home or work.

Another participant highlighted the significant burden faced by women with chronic conditions, particularly cancer, in accessing appropriate family planning services. These cases are often referred away or avoided at the primary healthcare level, despite their stable condition and ability

42. According to the World Health Organization, responsiveness is defined as the extent to which a health system can meet the legitimate expectations of the population regarding the non-therapeutic aspects of healthcare—that is, how individuals are treated and the environment in which they receive care. This encompasses elements such as dignity, privacy, autonomy, timely access to services, social support, availability of basic amenities, and the freedom to choose a healthcare provider.

to receive services. At the same time, tertiary-level facilities—where these women are typically referred—do not provide family planning services. This gap leaves many women in a state of non-use or unmet need, underscoring a critical disconnect in service delivery for vulnerable clients.

Participants further explained that missed opportunities for family planning counseling often arise from competing health priorities. For instance, during pregnancy visits, the focus is primarily on breastfeeding and warning signs for maternal and fetal health, while family planning is addressed only briefly in the final months of pregnancy or after delivery. Additionally, one of the most significant missed opportunities is the weak referral mechanism from hospitals to health centers following childbirth. Strengthening this referral system is essential to ensure service integration, timely counseling, and early adoption of modern family planning methods.

-Focus Groups' Views:

The focus groups showed variation in participants' experiences. Some women, especially in Ma'an governorate, pointed to their burden from health system fragmentation and lack of service integration, while others in Balqa and Zaatari did not face such problems.

However, on the positive side, the majority of participants agreed that they received family planning counseling through maternal and child health services, particularly during pregnancy follow-up visits and immunization programs. This indicates that counseling is provided in some cases in an integrated manner with other services. This reflects a discrepancy with what was mentioned in the individual interviews and confirms that the phenomenon of missed opportunities might not be associated with the centers they use.

f. Health Programs Attitudes Towards Traditional Family Planning Methods

- Individual Interview Participants' Views:

Participants unanimously agreed that health programs in institutions do not promote the use of traditional family planning methods. These programs adopt a scientific approach that primarily directs women towards more effective modern methods. However, some participants indicated that if a woman has the agency to make a decision while understanding the consequences of failure and the probability of pregnancy, her decision should be respected, and counseling should be reframed to align with her desire. They emphasized that this approach is not institutional but remains an individual stance among some service providers.

- Focus Groups' Views:

Participants in the focus groups confirmed these attitudes, noting that counseling within the health system primarily emphasizes the ineffectiveness of traditional methods and the challenges of

sustaining their use. In health centers, the counseling provided focuses exclusively on modern methods, which are presented as safer and more effective options

g. Appropriateness

According to the WHO definition, appropriateness refers to:

"Delivering health interventions that align with the clinical, social, and cultural needs of individuals, are consistent with professional standards and scientific evidence, and are implemented in a way that respects personal values and preferences."

This concept ensures that health services are not only effective and safe but also appropriate for the context in which they are delivered, enhancing their acceptance and use by beneficiaries.

WHO 2020

- Individual Interview Participants' Views

Participants unanimously agreed that privacy and the availability of a dedicated counseling room for family planning are among the most important factors for increasing service uptake. One noted that such a room guarantees a dedicated midwife or health educator for counseling, while its absence often leads to staff being redirected to other tasks. Although participants stressed its importance, some considered this unrealistic given infrastructure limitation in many health centers.

One participant praised the success of the family model⁴³ offered by UNRWA, which increased demand for modern methods, bridged counseling gaps, and involved men in decision-making. Another highlighted the effectiveness of women-friendly health centers, where all services for women and girls are leveraged as opportunities for family planning counseling across the life course.

Among the most influential factors enhancing demand was granting midwives the authority to insert IUDs, which improved cultural appropriateness and clinic workflow by redistributing tasks—allowing doctors to focus on complex cases and high-risk pregnancies. However, this model is currently limited to Ministry of Health and Royal Medical Services centers and has not been extended to international/local organizations or the private sector. One participant noted that transferring this experience to the private sector might not yield similar results due to differing priorities—private providers focus on safety and comfort, while public services emphasize cultural sensitivity.

Finally, participants highlighted the importance of the Medical Eligibility Criteria (MEC) wheel as

43. The UNRWA Family Approach to Family Planning is an integrated health model that embeds family planning services within primary healthcare for Palestinian refugees. It prioritizes individualized counseling while incorporating social support, empowerment, and protection programs, ensuring sensitivity to cultural and social norms. The approach treats the family as a unit, coordinating visits for different members—such as combining vaccination appointments with family planning counseling—to maximize access and continuity of care.

a standardized tool for selecting the most suitable method based on age, health status, and reproductive plans, despite its limited application outside Ministry of Health and Royal Medical Services centers.

- Focus Groups' Views

The focus groups emphasized the importance of personal counseling and respect for privacy in government health centers, through the presence of sufficient and trained staff responsive to women's needs. They also highlighted the role of counseling for husbands in cases of spousal resistance, as well as the role of community health worker visits in the Zaatari camp as one of the factors influencing trust in services.

"The first thing I do when I think about pregnancy or delaying it is talk to my husband. If he agrees, he tells me to go to the health center for advice. But sometimes he completely refuses, and there's pressure from the community—sometimes from him, sometimes from his family. Some women say they might use a method without telling their husbands if there's no way to convince them, because they want to protect their health. Still, it's always better to take him to the health center, where staff can explain things and address both religious and medical concerns. The problem is that most clinics don't allow husbands inside because they're mainly for women, so he feels uncomfortable going. But it's better than hiding it and creating problems we'd rather avoid."

Woman from Group No. 1

h. Community Approaches and the Role of Civil Society:

The quantitative results showed that Community Health Worker visits had no significant impact on modern method use or meeting unmet need for family planning, but they were associated with a noticeable decrease in traditional method use.

- Individual Interview Participants' Views:

Most participants expressed strong support for the role of Community Health Committees in promoting local community and civil society engagement on family planning issues, considering them among the most effective community-based approaches. These committees are local structures designed to strengthen health awareness and community participation in public health programs, including family planning. Unlike models that rely on home visits by Community Health Workers, Community Health Committees operate under the Health Awareness Directorate of the Jordanian Ministry of Health and coordinate closely with primary health centers. Their membership typically includes representatives from community organizations, civil society bodies, religious leaders, influential community members, and health center administrators. Their primary

functions are to promote social accountability, disseminate health information, and encourage healthy behaviors within the community.

While, on the other side, participants representing local and international organizations working in refugee camps highlighted that the community approaches they implement in Zaatari and Azraq camps—primarily through Community Health Workers—are among the most effective strategies for awareness and community mobilization. These approaches play a critical role in nutrition, family planning, linking communities to health centers, and fostering inter-sectoral coordination. According to participants, these models are fundamental pillars for the success of family planning programs, as reflected in the high levels of awareness and satisfaction among Syrian refugees in the camps.

-Focus Groups' Views:

At the focus group level, two distinct perspectives emerged, reflecting differences in context and the appropriateness of community approaches between urban areas and refugee camps. Groups in Balqa and Ma'an reported that home visits by Community Health Workers were generally unsuitable for their settings, except in remote rural areas and among tent-dwelling populations—a point specifically raised by women in the Ma'an group. In contrast, participants in Zaatari camp viewed these visits as essential and highly relevant to their needs, noting their strong impact on awareness of family planning and related rights. They described these visits as a cornerstone of community-based approaches, serving as a foundation for health education, social mobilization, collaboration with community leaders, and linking families to health centers, while also facilitating inter-sectoral coordination

i. Awareness Campaigns

-Individual Interview Participants' Views:

Most participants agreed that national mass awareness campaigns were not effective in delivering the intended messages or influencing community awareness, and if messages did reach, their impact was limited. The majority of participants could not remember the last time they saw these campaigns or the channels used. Some believed they were not targeted towards new generations and did not keep pace with modern communication patterns with people, making the messages fail to penetrate public consciousness. Conversely, one participant indicated that the campaigns were sufficient in terms of coverage and diversity of channels used.

-Focus Groups' Views:

Television and radio were mentioned as sources of information on family planning methods, but

they were not considered the most influential. Participants emphasized that health centers and both traditional and modern social networks play a more significant role, along with Community Health Worker visits in Zaatari camp. When seeking accurate and reliable information—or guidance that could influence a husband’s decision, the most trusted sources were health centers, familiar social networks, and relevant YouTube videos tailored to their situation. The role of Community Health Workers in Zaatari was repeatedly highlighted as a key factor in strengthening awareness and facilitating informed decision-making.

4.2.3 Influencing Social and Individual Factors – Demand Side

These factors were among the most discussed with individual interview participants based on the listed quantitative results, and they formed the basis for discussion topics in the focus groups.

i. Spatial Determinants – Regions and Governorates:

The quantitative results showed clear disparities between regions and governorates in the likelihood of using modern and traditional family planning methods, as well as non-use.

-Individual Interview Participants' Views:

These disparities were unsurprising to most participants, who acknowledged clear cultural and social differences between governorates. Lower utilization rates in certain areas were also expected, as participants attributed these variations primarily to cultural and social determinants rather than health system factors.

Several participants with long-term experience in Mafrq—either as service providers or clinic managers—observed notable differences compared to clinics under their current responsibility in Amman. They linked these differences mainly to reproductive preferences and social expectations favoring large families, which remain prevalent among a significant segment of Mafrq’s population. Additionally, economic constraints and limited livelihood opportunities in the governorate reinforce these patterns, further shaping social determinants of health.

One participant highlighted that governorates like Mafrq include a substantial proportion of public sector employees, particularly in the military and security forces, who tend to prefer larger families. Their work schedules, involving long shifts away from home, also hinder access to health centers. This challenge is compounded by traditional norms restricting women from visiting health facilities alone, especially given the governorate’s size and the considerable distance between health centers and residential areas.

-Focus Groups' Views:

Women confirmed that socio-cultural motivations often outweigh health system factors in shaping

family planning decisions. Reproductive preferences and the desire for larger families emerged as key drivers. For many participants, modern family planning methods were more strongly associated with limiting births rather than spacing them. Negotiation power within households also played a critical role—whether with husbands or other family members. Differences were noted across focus groups: women in Salt (Balqa) reported greater agency to negotiate with husbands’ wishes or social norms compared to those in Zaatari and Mafraq.

However, the Ma’an focus group highlighted health system-related determinants, such as staff shortages that affect responsiveness and service availability for rural communities, remote populations, and tent-dwellers. The dispersed nature of these settlements further limits access to government health centers, compounding barriers to care.

“I’m 34 years old. My husband works in Amman and only comes home two days a week. There’s no health center nearby, and transportation is almost impossible. Even when I manage to get there, sometimes the midwife isn’t available—and she’s the only one who inserts IUDs. So I end up going back without getting any service. That’s why I use traditional methods, but honestly, they don’t work. I’ve already had seven children, and counting hasn’t worked for me.”

Woman from Group No. 2

ii. Educational Determinants:

The quantitative analysis results showed that education is a consistent indicator of increased family planning likelihood of use across all models, with its effect more pronounced at the secondary level and above. However, method choice becomes more nuanced, with a bias towards traditional methods at higher educational levels.

-Individual Interview Participants' Views:

While participants unanimously agreed that education plays a critical role in shaping women’s agency for family planning—and logically influences use versus non-use—most found it difficult to explain the choice of method (traditional versus modern). This finding surprised some stakeholders involved in policy and strategy development, whereas those working directly in clinic management confirmed the observation as consistent with their experience.

"I feel it's a paradox, especially regarding education level. Since education, within the triangle of social determinants—health, wealth, and education—always leads to increased health literacy and consequently access to and use of health facilities, I expected to see higher use of modern methods."

Participant No. 8

"Yes, I'm not surprised. In the clinic, we see them from all educational levels. Someone with basic education might insist on taking a modern method, and we see resistance to modern methods from university graduates and those with higher degrees."

Participant No. 9

iii. Empowerment Determinants:

The quantitative analysis showed that the wealth index was among the strongest determinants of family planning use, while other empowerment determinants such as employment status, health insurance, and having a bank account or digital wallet did not show a significant impact on use.

-Individual Interview Participants' Views:

Most participants agreed that the wealth index is one of the most significant determinants of family planning use, ranking as the most influential among empowerment-related factors. Several participants reinforced this point when discussing the paradox observed in quantitative results. The explanation lies in the role of quality-of-life considerations: as living standards rise, indicators of well-being improve, making family planning a key strategy for preserving and enhancing those standards.

"The more decisions are guided by quality of life—whether to maintain or improve it—the more thoughtful they become, and this often raises questions about family planning. Timing and number of children become critical considerations because I want to enroll my son or daughter in a specific school, ensure they complete a strong academic path, and make other choices tied to these social aspirations."

Participant No. 1

"I expect that quality of life here is a fundamental factor prompting people to think about the future. Unfortunately, I'm not surprised that poorer communities show less likelihood to use. The reason isn't financial because these methods are provided for free, but because their connection to quality of life is different. For example, I live in Amman, and what's different from governorate (X)? Welfare and quality of life are higher, so I strive to be within a certain economic class based on my surroundings, which requires specific commitments from me to enroll my children in the best available quality of education. Thus, thinking about the number of children and family planning becomes important and decisive."

Participant No. 7

-Focus Groups' Views:

These results align with discussions in the focus groups. Women agreed that direct material factors such as health insurance coverage, having a bank account, or a digital wallet do not constitute a barrier to accessing modern family planning methods, as these services are available for free within the basic package provided at health centers. However, they confirmed that other factors tangibly affect the ability to access services, including the availability and cost of transportation, as well as work leave for those who are employed, which remain challenges they might face in obtaining these services as empowering factors.

Meanwhile, spousal approval and agreement were considered among the strongest determinants for using modern family planning methods according to most women in the three focus groups. However, women in the Salt (Balqa) governorate demonstrated a higher agency for independent decision-making.

"The first thing I do when I think about pregnancy or delaying it is talk to my husband. If he agrees, he tells me to go to the health center for advice. But sometimes he completely refuses, and there's pressure from the community—sometimes from him, sometimes from his family. Some women say they might use a method without telling their husbands if there's no way to convince them, because they want to protect their health. Still, it's always better to take him to the health center, where staff can explain things and address both religious and medical concerns. The problem is that most clinics don't allow husbands inside because they're mainly for women, so he feels uncomfortable going. But it's better than hiding it and creating problems we'd rather avoid."

Woman from Group No. 1

iv. Age Determinants:

The quantitative analysis showed that the likelihood of using traditional methods increases with women's age—especially over 40, or among those who married early (under 20)—while rates of modern method use are higher among younger women and those who married in the 20-24 age group.

The probability of having needs met increases clearly among women in older age groups. Age at marriage shows an inverse relationship.

The majority of study participants expected results similar to what the statistical models showed regarding use, but trends in unmet need were harder to interpret. Their knowledge about women's age characteristics and the likelihood of family planning use was consistent, providing detailed answers about age groups with lower method use.

Participants reported that the tendency to use modern methods appears greater among younger women, especially those who married between ages 20-24, attributed to their openness and acceptance of modern treatments. One participant pointed to the influence of new school curricula that included courses on sexual and reproductive health.

"I've started noticing recently the influence of curricula on married clients in their early twenties; whenever I bring up a certain topic, they mention they studied it."

Participant No. 9

This influence is not seen among women who married at an early age, especially before age 20, as they lack sufficient decision-making agency regarding family planning from the beginning of marriage. This situation continues even after completing the desired number of children, leading many of them to rely on traditional methods or abstain from using any method.

"Young women are often unaware. We counsel them once, twice, even three times, but in the end, we usually have to speak with the person accompanying them—often the mother-in-law or the husband. This shows a real problem with their ability to make decisions on their own – agency to make the decision."

Participant No. 9

As for women in their forties, participants pointed to the sharp decline in the use of family planning methods, both modern and traditional. This results from a combination of factors leading to reliance on less effective methods or non-use, thereby increasing the risk of unmet need for this group. This is because women at these ages have often completed their reproductive plans and alternate between modern and traditional methods. They perceive having acquired control due to accumulated knowledge and experience in safely managing less effective methods, such as traditional or short-term modern methods. All this is accompanied by decreased sexual activity and lower fertility risk at this life stage, reducing usage rates and leading to unmet need.

"These cases are happening increasingly, and we notice them not only in the clinic but within family and work circles. I have a colleague who is 43 and experienced unmet need, and I have three sisters who also experienced unmet need."

Participant No.9

v. Nationality Determinants – Refugees:

The quantitative analysis results showed that nationality was an important determinant in patterns of family planning use. Syrian women showed a lower likelihood of using any method, especially modern methods, compared to Jordanian women, while no clear difference was found in traditional

method use. Other nationalities did not show these differences. Nationality (any other non-Jordanian nationality) was associated with an increased likelihood of unmet need after controlling for other factors.

-Individual Interview Participants' Views:

Here, the individual interviews provided many informed interpretations of the quantitative results. A large number of participants in the individual interviews had extensive experience working with the refugee population – of various nationalities.

Participants in the study reported that fertility rates among refugees are significantly influenced by the host society, where their reproductive choices gradually become similar to the surrounding community. This is more evident among Palestinians due to the longer duration of their refugee crisis compared to the Syrian crisis, as their usage patterns align with Jordanians across all statistical models studied—and do not align with the Syrian nationality case—due to the relative brevity of the crisis.

"We must differentiate between Palestinian refugee camps and Syrian refugee camps. We deal with Palestinians using the same indicators and determinants as the host Jordanian society regarding family planning, chronic diseases, and other matters. For us, a Palestinian in Irbid is expected to have the same usage patterns as a Jordanian in Irbid. Yes, the difference existed in the 1950s, 60s, and 70s of the last century, but over time it has aligned with the host society – the Jordanian."

Participant No. 2

However, this observation holds if comparing family planning usage patterns, and the lower fertility rates among refugees residing outside camps compared to those inside camps—Zaatari and Azraq camps—where the latter are relatively higher, as they are closed camps lacking integration with the surrounding Jordanian society.

"I've noticed that Syrian refugee women—who are frequent clients at our clinic in Amman—begin to change their attitudes after several visits. Over time, they become more open to our counseling and family planning practices. For example, a woman who initially resisted modern methods eventually chose a suitable method after repeated engagement and support."

Participant No. 5

Regarding the Syrian refugee community, the discussion deepened concerning their apparent paradoxes regarding family planning usage patterns, their higher resistance to modern methods, and their lower likelihood of using modern methods according to the multinomial logistic model.

Four main factors emerged according to the opinion of most participants who worked with them:

1.Reproductive Preferences and Culture: The reproductive preferences and culture among Syrian refugees clearly differ from the local Jordanian society. Syrians tend to consider the ideal number of children larger, and social expectations to achieve this ideal number affect them more compared to Jordanians. Also, the majority of groups who sought refuge in Jordan, especially camp residents, come from rural areas, which is reflected in fertility patterns and marriage age, noticeably different from the host society.

2.Limited Knowledge and Access (Out of Camp setting or Urban refugees): The limited use of modern family planning methods by out of camps refugees is attributed to weak awareness and knowledge of services available in the public sector, in addition to other barriers. Refugees are less informed about them and more isolated from the government health system, leading to lower usage rates.

"Out-of-camps refugees are more separated—from the public/government health system—so they know less and consequently use modern family planning methods less."

Participant No. 6

3.Impact of the Refugee Experience: The influence of the displacement experience was present in explaining high fertility rates. Participants linked this to it being a form of compensation for the loss of relatives and family due to the conflict. Childbearing also gives additional meaning to life amidst limited work and creative opportunities, scarcity of livelihoods and basic services, especially inside camps.

4.Strategic Dimension of Obtaining Aid: Some participants indicated that increasing family size might be used as a means to obtain larger humanitarian aid or better privileges, as larger families have increased chances of resettlement or due to higher numbers of dependents. However, this view was not unanimous, as the majority of participants expressed a completely opposite viewpoint, rejecting a direct link between family size and seeking aid.

-Focus Groups' Views:

In the Zaatari camp group, reproductive culture emerged as a pivotal factor. Social pressure to achieve a large number of children appeared, driven by cultural values and the social perspective linking childbearing to family belonging and social well-being—the concept of "Uzwah" (strength in numbers/clan support)—in addition to considering it a divine gift.

Therefore, the concept of family planning among participants was more associated with birth spacing rather than limiting or reducing the number of children, reflecting a continued orientation

towards high fertility even amidst what they perceived as integrated health services. This cultural pattern partially explains the quantitative results showing that Syrian women in camps are less likely to use modern methods compared to Jordanian women.

"I have two sons and two daughters and had an IUD. My husband pressured me so I removed it. They found fibroids in me and advised me not to get pregnant, but my husband said, 'Do you want to deprive us of Allah's blessing?' I kept going for nine months until I got pregnant, after..."

Woman in Group No. 3

Economic motivations and transformations linked to displacement were also evident, though they contrasted with some views expressed in individual interviews. Contrary to the assumption that humanitarian aid tied to family size incentivizes childbearing, participants described it as the humanitarian aids are barely sufficient to secure basic needs—not a driver for having more children. In fact, the loss of agricultural livelihoods (When they were in Syria) and growing awareness of child-rearing costs have shifted attitudes in the opposite direction. This tension between economic realities and traditional beliefs emerged as one of the most influential factors shaping women's reproductive choices.

"Honestly, I don't have any problem with the health services in the camp; all the organizations here have done their part. They come to our homes for visits, give us consultations, and explain every family planning method in detail. The clinic is open anytime we need a method or want to ask about something. The medical staff is qualified and treats us with respect, and they never leave any of our questions unanswered. But we, as women, listen to each other—we listen to our neighbors and their experiences, and many times we are more convinced by what they say than by what the nurse says. Honestly, the reason we have so many children is our traditions; we Syrians love having a big family. Before we came to Jordan, we didn't worry about the cost of raising children—livelihood was abundant, the land was ours, and food supplies were available. But after what happened to us, we started to feel how hard it is to provide for many children. Still, the older generation clings to the idea that 'a child comes with his own sustenance,' and even my husband might get upset if I don't give him 6 or 7 children; he tells me, 'They are my pride –Uzwah.'"

Woman in Group No. 3

vi. Drivers for Using Traditional Methods:

The results of the quantitative analysis showed an increase in the use of traditional family planning methods from 14% to 21% between 2018 and 2023. The likelihood of use was associated with many economic and social determinants in a manner similar to modern methods. The probability of

use was higher with increased education levels compared to non-use, internet usage, and older current age, especially above 40 years. Clear geographic patterns and reproductive determinants were also evident, including the number of living children (0–3 or six or more) compared to non-use, a higher ideal number of children above seven, and marriage before the age of 20.

"The WHO distinguishes between misinformation and disinformation. Misinformation is sharing false or inaccurate information without intent to deceive, often spread due to misunderstanding or lack of knowledge, Such as the misconception that modern contraceptives cause infertility. Disinformation is the deliberate dissemination of false information to mislead or harm, often through organized campaigns."

WHO 2020

Through this study, we identified a third factor: Negative Framing. We mean by this presenting correct information in a biased or anxiety-provoking manner, through excessive focus on risks or rare side effects, creating a negative impression among women and deterring them from using modern methods despite their effectiveness and safety. This term was used to clarify a widely present condition. It differs from misinformation in being factually correct and not lacking scientific evidence. It differs from disinformation in intent, as it is not programmed or systematic deception. However, it lacks many aspects, most importantly person-centered care or a person-centered approach, aimed at increasing agency to decision-making and agency to implement decisions, rather than leaving the recipient in a state closer to abstaining from using modern family planning methods, even if the information is correct and complete.

-Individual Interview Participants' Views:

Most participants pointed to a mix of social and cultural motivations, along with increased misinformation, disinformation, and negative framing of family planning methods, linking them to side effects at the expense of benefits. All of this is exacerbated by weak response and counseling from the health sector side.

One participant also indicated that reasons for people's aversion to modern methods and turning to traditional ones are linked to weakened trust in the public health sector, a cumulative weakness resulting from the failure of some health and sectoral policies in dealing with the COVID-19 pandemic, in addition to the growth of conspiracy theory rhetoric.

Another participant raised that the wars affecting the region, especially the Gaza war, have invisible psychological effects that limit people's motivation and desire for proper family planning.

"I know these wars have an effect, especially this recent war. I don't know how, but I know it has affected. I see this in the clinic; people's positive engagement with everything has decreased."

Participant No. 5

Negative framing emerged here as one of the clear factors from multiple sources. One participant pointed out that merely searching for any information about side effects of modern family planning methods leads to negative framing.

"Look—pointing to his mobile phone—just by typing 'modern family planning methods side effects' in a search engine, you find a reliable source talking about them negatively—which is the X agency news network. I think the average user won't search the Ministry of Health or WHO website but will settle for the information they get from the first search hit."

Participant No. 3

One participant emphasized that counseling outcomes should be measured based on actual impact. Descriptive results indicate the weakness of the complete counseling index, as the percentage of women who received complete counseling on family planning methods does not exceed 56%, reflecting a clear gap in ensuring informed choice.⁴⁴ They added that completing the Method Information Index, which includes the three basic elements (available alternatives, potential side effects, how to manage them), is not sufficient by itself. It must translate into a tangible positive impact, represented in enhancing informed family planning agency and mitigating the negative framing associated with side effects, even when women are informed about them.

"There's a big difference between a woman coming after an IUD insertion visit, starting the counseling with, 'Didn't we tell you it causes bleeding!?' versus saying, 'The IUD is a very effective family planning method, and these symptoms are often temporary; we need an adjustment period, and these symptoms usually gradually decrease within 3 to 6 months after insertion, etc...'"

Participant No. 1

Focus Groups' Views:

The most important factor was the inclination towards what is traditional, natural, and socially framed as the most commonly used among couples, through supportive surrounding social networks. This exists alongside a mix of other mentioned factors: negative framing, with confirmation from the majority of women about the existence of misinformation as well, which forms a strong barrier to decision-making. All of this sometimes extends to the husband, complicating the picture. Among the most mentioned pieces of misinformation were: infertility, temporary infertility, and long-term effects of hormonal methods.

44. The Method Information Index is a measure of the quality of family planning counseling. It calculates the percentage of women who were informed about the available alternatives, potential side effects, and how to manage them. This reflects the extent to which women are empowered to make an informed decision regarding contraceptive use.

"Honestly, I'm afraid... We hear many stories about complications, and there are women who say it causes problems. My husband works in the army and also rejects the idea because he heard from our relatives about complications that happened to one woman. We don't have anyone to explain to us properly and be patient, so we end up relying on the talk we hear from each other."

Woman from Group No. 2

"Hormonal methods, meaning you're introducing hormones into your body; that's why we avoid them."

Woman from Group No. 1

Women in the focus groups also confirmed that side effects represent an additional barrier to family planning use. Bleeding and irregular periods with the IUD, nervousness, mood swings, headaches, and weight gain with pills were mentioned, while experience with implants was less common among them. Women indicated that the most important way to deal with these symptoms was replacing the method with another one rather than trying to adapt to it.

They also expressed fears about procedures inside the clinic, such as IUD insertion, mentioning pain and potential complications, in addition to the possibility of method failure due to medical errors. Women also mentioned the potential failure of modern methods, including condoms and IUDs, despite being appropriate and safe and having been correctly inserted.

Women pointed out that long waiting times and shortages of health staff, especially midwives, constitute the most prominent barriers in Ma'an governorate. They all agreed that the religious dimension does not pose a barrier to using traditional methods, and the religious factor was not mentioned as a determinant for modern method use; rather, it was considered a positive factor encouraging uptake.

Summary of Chapter Four:

The findings of this chapter demonstrate that women's agency in family planning is shaped by an interrelated set of structural, social, and cultural determinants. At the decision-making level, notable gaps were identified in the quality of counseling and the tendency to frame information negatively, coupled with weak communication strategies targeting vulnerable groups such as refugees. These shortcomings limit women's agencies to make informed choices, despite having basic knowledge of available methods. Regarding access and implementation, the analysis revealed significant spatial and structural disparities within the health system, particularly affecting rural areas and certain governorates. In terms of effective use, the preference for traditional methods was

found not to stem from a lack of knowledge, but rather from mistrust in the information provided and poor quality of interaction with service providers—underscoring the absence of a person-centered approach. Finally, agency in decision-making remains constrained by entrenched social norms, gender dynamics, and intra-family power negotiations, rendering reproductive choices the outcome of a complex interplay between individual aspirations and community expectations. Placed within the broader literature, these findings reaffirm that strengthening women’s agencies require multi-level interventions, including improving counseling quality, ensuring equitable access to services, and adopting culturally and socially sensitive policies. These implications will be explored further in Chapter Five in relation to existing studies

Chapter Five

Discussion of Results and Recommendations

This final chapter of the study presents a comprehensive discussion of the findings, placing them within the context of existing literature and previous studies, highlighting points of agreement and divergence with national, regional, and international research. The chapter begins by analyzing policies and strategies, then moves to assess health system performance, social and individual factors, and the specific experience of refugees and drivers for continued traditional method use, culminating in an explanation of the unmet need gap. The chapter concludes with a set of strategic and program-level recommendations.

5.1 Discussion of Results

5.1.1 Policies and Strategies⁴⁵

Strategic directions for family planning in Jordan are increasingly influenced by the global context, characterized by shrinking support for sexual and reproductive health and a decline in international funding from major donors like the United States Agency for International Development (USAID), which had been a prominent supporter and advocate for family planning in Jordan.

These global shifts have impacted the Jordanian context across several dimensions. Most notably, family planning has seen a relative decline in priority in recent years compared to its status as a top priority in the past decade. Additionally, there has been a decrease in the financial resources that were mobilized through international aid and dedicated to capacity building, training, enhancing health system resilience, and communication and media activities—which have recently become concerning gaps. With this sudden shortfall, the Jordanian Ministry of Health has had to mobilize domestic resources to compensate for the deficit.

The policy discourse is also shifting towards integrating family planning under the umbrella of Universal Health Coverage (UHC) instead of maintaining it as a program with greater autonomy. However, this transition carries risks; the absence of a clear and intentional strategy for family planning may dilute the program's needs amidst competing health priorities. Furthermore, the private sector, a major service provider, operates inconsistently with national strategic goals, with its alignment limited to sporadic international projects rather than systematic policy integration.

45. Methodological Note: This thematic area was derived entirely from the qualitative findings generated through individual interviews with policymakers and service providers, due to the absence of direct quantitative indicators in the statistical analysis. To address this limitation, triangulation with existing literature and previous studies was conducted to enhance understanding and provide a reference comparison.

The National Sexual and Reproductive Health Strategy (2020–2030) and the National Population Strategy (2021–2030) provide a clear framework for action among policymakers, including definitions, alignment with global Sustainable Development Goals, and the adoption of a rights-based approach. However, several aspects requiring further development in policy design emerged. The first is the weakness of the multisectoral approach; the strategy could have benefited more from broadening its multisectoral scope and explicitly outlining collaborative mechanisms, such as establishing a coordination body or joint action plans. Interviews with policymakers confirmed this point, indicating that current strategies still operate primarily within the health sector, with limited activation of family planning as a cross-cutting developmental goal encompassing climate, gender, and resource management.

Secondly, the absence of a clear accountability structure: policies could have benefited from establishing a more defined accountability structure across all strategic levels, from the health facility level up to key decision-makers. This would have ensured quality counseling and follow-up on specific actions, such as progress in counseling, preventing gray areas between service providers, nurses, midwives, and managers.

Thirdly, shortcomings in monitoring and evaluation (M&E) mechanisms: developing real-time digital M&E systems capable of measuring performance at the facility level or enforcing accountability for counseling quality would have addressed some of the challenges identified in this study.

There is growing consensus among stakeholders that the current reliance on indicators like "met need" and the "Contraceptive Prevalence Rate (CPR)" as key performance indicators is scientifically insufficient for the Jordanian context. These aggregate indicators mask nuances and do not adequately reflect the concept of "unmet need." Other significant challenges include implementing the Costed Implementation Plan for Family Planning (2020–2024). A close examination of implementation mechanisms revealed that this plan, designed to bridge the gap between strategy and action, faced delays and challenges. The intersection of the COVID-19 pandemic with a sudden shift in donor priorities towards responding to communicable diseases disrupted the plan's implementation and prevented the allocation of necessary resources for family planning priorities. The plan could have benefited from a mid-term review to adjust the budget in line with reduced international aid and to prioritize investments. Following the suspension of USAID programs that supported components like provider training and awareness campaigns, the gap became more evident, underscoring the need for an alternative framework and national leadership mechanisms to address this gap.

Fluctuations in refugee access policies to government health facilities have, in the end, created confusion between free services and preferential pricing, leading to uncertainty among many Syrian refugees regarding their eligibility for free family planning services in the public sector.

Ultimately, the emphasis on maintaining free access to some critical basic services, including family planning, throughout these policy changes did not ensure sustained demand. This was due to weak targeted communication strategies, which left a significant proportion of refugees unaware of their rights, effectively disconnecting them from part of the essential free service package, including family planning—despite the restoration of positive policies towards them.

Policymakers indicated that current campaigns are outdated and unable to reach target groups or counter new communication patterns focusing on circulating risks and side effects rather than explaining benefits, which is likely contributing to increased use of traditional methods.

These factors reveal that while the policy landscape in Jordan appears coherent on paper, it suffers from clear operational gaps. Facing these challenges, the Ministry of Health has demonstrated flexibility in mobilizing internal resources to ensure supply security and continuity of service delivery.

5.1.2 The Health System

No statistically significant difference was found between urban and rural residence regarding method use. Similarly, multinomial logistic regression models did not show significant differences in the use of modern versus traditional methods across regions. Furthermore, Community Health Worker visits had no impact on the use of modern methods.

Despite this, qualitative data revealed clear gaps in the health system affecting family planning service delivery. At the primary healthcare level, centers are divided into three tiers: comprehensive centers, primary healthcare centers, and village healthcare centers. Village centers were described as the least equipped, often lacking trained midwives and limited to providing only three methods, whereas comprehensive centers offer a better-integrated mix of five methods and counseling services.

This disparity in capacities might not constitute a barrier if service integration conditions were met, as indicated in Chapter Four. However, given the fragmentation within the health system, the situation is exacerbated. The multiplicity of facility levels and varying service packages lead to significant disparities in care quality and access, particularly in rural and remote areas. In this specific context, qualitative data indicated that the Ministry of Health has a plan to integrate village healthcare centers into primary healthcare centers to standardize service quality and improve

operational efficiency. Additionally, a basic standardized package for primary healthcare services is on its way to being approved by the Ministry for dissemination across directorates. This direction aligns with broader health sector reforms, including digital transformation and the adoption of the Family Health Team model. However, participants confirmed that the pace of implementation remains slow, and rural communities continue to face access gaps.

Other structural challenges highlighted included a shortage of counseling rooms, inadequate human resources, provider bias,⁴⁶ and poor communication skills. Some participants reported that pharmacists in the private sector lack proactive counseling, reflecting a training gap. Discussions showed that women value personalized counseling and shared decision-making with their husbands, but these services are not consistently available in public facilities.

Regarding trust and responsiveness, some communities expressed satisfaction and confidence in government primary care services, while others, especially in remote areas, reported long waiting times, staff shortages, and a sense of neglect. In the context of refugees, qualitative data showed that poor knowledge of the free services available in the public sector—among Out-of-camps setting—constitutes an additional barrier to use.

Our data align with what was highlighted by Al-Khader et al. (2025) and the Village Health Clinics Project study, which found that the shortage of qualified personnel, especially midwives trained in IUD insertion, limits the health system's ability to respond to women's needs, with only 40% of village centers providing family planning services. Our qualitative results also showed that counseling practices in the private sector are predominantly reactive, with information provision dependent on client inquiry rather than provider initiative. This was confirmed by the "Assessment of Community Pharmacists' Awareness" study, which showed that only 38% had prior experience providing emergency contraception, and their attitudes were influenced by social norms and marital status.

While our data were not conclusive regarding bias among pharmacists, the study "Perceptions and Practices of Community Pharmacists Regarding Emergency Contraceptive Pills in Jordan: A Qualitative Study" revealed persistent biases in dispensing decisions, with about 48% of pharmacists acknowledging ethical reservations about providing emergency contraception. This reflects a gap between beneficiary expectations and actual practices, necessitating regulatory and training interventions to standardize practices and ensure equitable access to services, confirming the existence of bias.

46. Health workers' values and preferences regarding contraceptive methods globally: A systematic review, doi: 10.1016/j.contraception.2022.04.012. Epub 2022 May 5. [https://www.contraceptionjournal.org/article/S0010-7824\(22\)00129-9/fulltext](https://www.contraceptionjournal.org/article/S0010-7824(22)00129-9/fulltext)

Although quantitative analysis did not reveal significant differences between urban and rural areas, qualitative analysis clarified that service fragmentation and weak People-centered counseling constitute a major barrier to effective use. This aligns with the study "Determinants of Modern Contraceptive Use in Jordan" (2020), which confirmed that discussing family planning with a provider increases the likelihood of using modern methods by 1.5 times, and with the study by Al-Malik et al. (2018), which explained urban-rural differences by factors like the availability of health centers and family planning programs. Combining quantitative and qualitative analyses in our study enabled a deeper interpretation of barriers not captured by statistical indicators alone, strengthening conclusions and clarifying that the quality of interaction with the health system, alongside spousal dialogue, are fundamental determinants of reproductive behavior.

These findings also align with the study "Resumption of Sexual Life and Postpartum Health Education: From the Perspective of Jordanian Healthcare Providers," which revealed a clear gap in counseling practices not only in family planning but also in postpartum sexual health education. The study showed that care providers hesitate to broach sensitive topics due to cultural constraints, lack of knowledge, and workload pressure, leading to an absence of proactive counseling and a reliance on responding only to women's questions when asked. This pattern matches what we observed in Chapter Four and reinforces the need to integrate counseling as a core component of the healthcare service package and develop training programs focusing on communication skills and cultural sensitivity to ensure more appropriate service delivery and enhance community trust in the health system.

While our qualitative data pointed to the importance of developing and supporting community health committees as a community-based approach that grants civil society a role in improving the positive climate and encouraging uptake of modern family planning methods, these directions align with the recommendations of the comprehensive review conducted by Al-Hamawi et al. (2023), based on the evaluative literature review of both the "Consultation and Choice" and "Village Health Centers" projects.

The results of this section reveal that the absence of statistical differences does not imply equal access opportunities or service quality; rather, structural challenges, health system fragmentation, and weak people-centered counseling constitute fundamental obstacles to the effective use of family planning methods. Improving integration between care levels, standardizing service packages, developing provider skills in communication and counseling, alongside engaging civil society, are essential pillars for ensuring equitable and effective access and enhancing trust in the health system, in line with broader national reforms.

5.1.3 Social and Individual Factors

The statistical models revealed that education, along with age, wealth index, and number of children, were among the most influential determinants of family planning method use and unmet need.

Education

A higher level of women's education was associated with a progressively increasing likelihood of adopting any method of family planning (vs. non-use), a finding consistent with previous studies in Jordan, particularly "Determinants of Modern Contraceptive Use in Jordan" (2020). Our results align more closely with Al-Malik et al. (2018), which showed that education influences the adoption of use rather than the choice of method type; a higher educational level was also associated with the use of traditional methods, becoming more pronounced among women with university education compared to non-users. This suggests that education is a strong indicator of the agency to adopt family planning, while within the category of users (traditional vs. modern), other factors intervene to determine the chosen method type.

Age and Life Cycle Dynamics

Age is a fundamental determinant of usage patterns. Younger women, especially those married between ages 20–24, are more inclined to use modern methods due to greater openness and school-based health education, which enhances decision-making agency. In contrast, those married early (under 20) face challenges in maturity and decision-making, increasing their likelihood of relying on traditional methods or non-use even after completing their desired family size, often deferring the decision to others, typically their husbands. Women over forty show decreased use of both modern and traditional methods due to completed reproductive plans, decreased sexual activity, and a perceived sense of acquired control.

These patterns are consistent with Al-Malik et al. (2018) and "Determinants of Modern Contraceptive Use in Jordan" (2020), which confirmed that younger groups are more associated with modern methods, while use declines with age due to completed fertility and decreased fecundity.

Geographical and Cultural Disparities

While statistical models did not reveal significant differences between urban and rural areas, they did uncover notable variations across governorates. Qualitative findings suggest that individual and social determinants transcend the conventional rural–urban divide yet remain critical in shaping spatial disparities in family planning usage patterns.

In governorates such as Mafraq and Ma'an, prevailing norms favor large families and impose restrictions on women's autonomy—patterns influenced by the nature of local employment, limited livelihood opportunities, and weaker well-being indicators. Narratives highlight that social expectations for having many children, combined with diminished bargaining power for women, significantly affect decisions regarding family planning. In these contexts, the husband often plays a decisive role in accepting or rejecting modern contraceptive methods.

These insights are consistent with quantitative evidence from previous studies, including *Determinants of Modern Contraceptive Use in Jordan* (2020) and Komasaawa et al. (2020), which underscore that husband's approval remains the most influential factor in meeting the need for modern methods, alongside accurate knowledge of their effectiveness.

Wealth and Economic Empowerment

Quantitative analysis identified the wealth index as one of the strongest determinants of family planning use, regardless of the method type. In contrast, other indicators of economic empowerment—such as employment status, health insurance coverage, or ownership of a bank account—did not demonstrate a statistically significant effect.

Qualitative findings provide further context, revealing that wealth is strongly associated with quality of life: the higher the standard of living, the greater the perceived importance of family planning as a means to maintain that quality. This relationship is clearly reflected in reproductive behavior.

Emphasizing quality of life in this context represents a novel contribution to research in Jordan, distinguishing this study from previous work. Unlike earlier studies, we comprehensively assessed multiple dimensions of economic empowerment, including wealth index, employment, bank account ownership, financial wallet, and health insurance—and found that only the wealth index exerted a tangible influence. This suggests that direct economic empowerment does not automatically translate into informed reproductive choices; rather, overall well-being and living standards remain the decisive factors shaping reproductive decisions, as corroborated by qualitative insights.

These findings underscore the need for policies that prioritize enhancing quality of life and comprehensive well-being as a fundamental entry point for improving reproductive behavior and expanding family planning uptake

Number of Children and Ideal Family Size

Our results align with Al-Malik et al. (2018) and "Determinants of Modern Contraceptive Use in

Jordan" (2020) in that the number of living children is one of the strongest factors influencing use; the higher the number, the greater the likelihood of using modern compared to traditional methods. Regarding ideal family size, results showed that women who desire fewer children are more inclined to use modern methods compared to those who prefer larger families. Conversely, the effect of this factor on the use of traditional methods was weak or non-significant in most studies. These findings reveal that social and individual determinants—such as education, age, wealth, number of children, and spousal negotiation dynamics—form the fundamental pillars of women's agency to practice family planning, surpassing the impact of the health infrastructure alone.

Enhancing accurate knowledge, supporting decision-making agency, engaging partners, and tailoring interventions to the cultural and economic context are keys to empowering women with informed and sustainable choices, ensuring unmet need is met and transforming reproductive preferences into effective behavior.

5.1.4 Refugees

Usage Patterns and Cultural Factors

Results showed that cultural factors, reproductive preferences, and the displacement experience itself govern family planning usage patterns among refugees in Jordan.

Syrian refugees outside camps show lower use of modern methods due to weak awareness of the availability of free services and other barriers to accessing the public health sector. In contrast, with fewer barriers to accessing health services, camp refugees are influenced by misinformation and negative framing about family planning methods. Coupled with high reproductive preferences and a culture restrictive of the ability to use methods, resistance to modern methods is compounded.

This finding aligns with the review "Sexual and Reproductive Health Status among Syrian Refugees in Jordan" (Amiri et al., 2020), which highlighted major gaps in knowledge and use, and with the study "Disparities and Motivations for Contraceptive Use among Syrian Youth in Jordan" (Lokenbil et al., 2025), which confirmed that residing in camps is associated with lower use compared to residing in host communities, with the likelihood of using modern methods in camps reduced by half.

Structural and Administrative Barriers

Our qualitative narratives revealed that weak awareness among refugees outside camps about subsidized pricing is a major barrier, but there are other barriers such as transportation costs, non-medical expenses, and documentation requirements for accessing health facilities, in addition to weak health system responsiveness due to poor facility distribution and service providers'

communication skills. These results align with the Jordanian Ministry of Health report (Assessment of Supply and Demand in Primary Healthcare, 2018)⁴⁷ and the study "Health Needs and Priorities of Syrian Refugees in Camps and Urban Areas in Jordan"⁴⁸, which highlighted the impact of poor infrastructure and weak communication, as well as the study "The Perceived Barriers of Access to Health Care Among a Group of Non-camp Syrian Refugees in Jordan"⁴⁹ which confirmed that administrative obstacles pose a major challenge for vulnerable groups.

Role of Alternative Models

Our qualitative data indicated the suitability of the UNRWA family approach model in improving qualitative access to family planning services, consistent with Pierce's study (2019), which showed that refugee women who obtain methods through UNRWA have greater opportunities for communication with service providers, counseling, and follow-up visits, reflecting the success of the family approach in enhancing coverage and service quality despite the challenges of displacement.

Impact of Displacement Experience on Reproductive Behavior

What distinguishes our study is that it is the first to use a mixed methodology and inferential analysis on a nationally representative sample to address determinants of family planning use among refugees. The results showed that refugee indicators, as the crisis prolongs, are approaching those of the host community, particularly total fertility rates, except in camps, which remain a special context isolating indicators from the surrounding community.

Qualitative narratives also revealed that the displacement experience adds a psychological and social dimension to reproductive behavior; high fertility rates are linked to a concept of compensating for loss and giving meaning to life amid limited resources. This was confirmed by Diab's study (2025) in Lebanon, which clarified that fear of extinction and loss of cultural identity are major drivers behind high reproductive behavior, seen as an act of symbolic resistance against identity erasure.

Furthermore, our study did not find evidence for strategic motivations to increase family size to improve access to aid or resettlement opportunities, as this view did not gain consensus in individual interviews. Additionally, Syrian women in focus groups highlighted severe economic pressures compared to the pre-displacement period, stating that economic aspects were not previously a concern due to available resources and social support in Syria.

47. Ministry of health - Jordan – November 2018 - Primary Healthcare Report Assessment of Supply and Demand Doedens, W., Giga, N., Krause, S., Tomczyk, B., Burns, J., Spiegel, P., & Zaza, S. (2018).

48. Health needs and priorities of Syrian refugees in camps and urban settings in Jordan: Perspectives of refugees and health care providers. *Eastern Mediterranean Health Journal*, 24(3), Mal 243–253. <https://pubmed.ncbi.nlm.nih.gov/29908019/>

49. Aday, L. A., & Andersen, R. (2016). The perceived barriers to access to health care among disadvantaged populations. *International Journal of Health Services*. <https://journals.sagepub.com/doi/10.1177/0020731416636831>

Reproductive Culture and Misinformation

Interviews indicated that the reproductive culture in camps, driven by concepts of "family strength" (Uzwah) and social pressure, makes family planning more associated with birth spacing than limiting family size, explaining the persistent resistance to modern methods despite the availability of free services and full awareness of modern family planning methods and their side effects. However, misinformation, particularly the belief in temporary infertility, affects women's confidence in choosing modern methods.

5.1.5 Drivers for Using Traditional Methods

Usage Patterns and Influencing Factors

Quantitative and qualitative results are integrated to confirm that patterns of traditional family planning method use reflect a mix of social and cultural factors, along with the influence of misinformation and disinformation. A third factor emerged in our study: negative framing—presenting correct information in a way that provokes anxiety through exaggerated focus on side effects—creating a negative impression among women and deterring them from using modern methods despite their effectiveness and safety. Weak comprehensive health counseling contributed to reinforcing these patterns, as information is often provided without a person-centered approach, reducing the agency for informed decision-making.

Cognitive and Cultural Factors

These results align with Berendt et al. (2022),⁵⁰ which showed that continued use of traditional methods in low- and middle-income countries is associated with a mix of cultural and social factors, fear of side effects, and a preference for what is perceived as "natural" and safe despite lower effectiveness. The study also confirmed that a higher level of education does not eliminate the inclination to use traditional methods; in some contexts, it may even increase it, which also appeared in our results.

Similarly, they align with Lara Rostomian et al. (2024)⁵¹, which highlighted that a lack of comprehensive sexual education and the tendency for individual online information-seeking lead to the spread of misinformation and reinforce reliance on traditional methods despite women's awareness of their low effectiveness.

50. Bertrand, J. T., Ross, J., & Glover, A. L. (2022, September). Declining yet persistent use of traditional contraceptive methods in low- and middle-income countries. *Journal of biosocial science*. <https://pmc.ncbi.nlm.nih.gov/articles/PMC11753471/>

51. Rostemian Lara; Christopher J. Kliethermes; Arte Hemmerling (2024) Knowledge and attitudes regarding family planning options in Armenia. *Women's health reports* (New Rochelle, N.Y.). <https://pubmed.ncbi.nlm.nih.gov/39246306/>

Negative Framing and Trust in the Health System

What distinguishes our study is introducing the concept of "negative framing" as an independent factor and linking it to weak health counseling and bias in its delivery, clarifying its role in pushing women towards traditional methods even when correct information is available. This dissonance between accurate knowledge and decision-making capacity reflects a crisis of trust in the health system, confirmed by Faith et al. (2022)⁵² based on the "Sexual Behavior and Contraceptive Use among Youth in Germany – Results of the Second Wave of the 2022⁵³ Study," which showed that a feeling of uncertainty—not complete ignorance—is what undermines trust in providers and negatively affects perceptions towards modern methods, especially in the absence of simplified, evidence-based information, opening the door to the influence of non-scientific sources like media or social networks.

A 2024 study by Thomé in France also points to growing rejection of hormonal methods among young women, not necessarily due to a previous negative personal experience, but based on collective perceptions linking hormones to being "unnatural" or raising long-term health concerns. This inclination is accompanied by a desire for less restrictive options more compatible with lifestyle, reflecting that the drive towards natural or traditional methods is associated with a mix of health, cultural, and practical considerations, not just medical effectiveness. Including this comparison clarifies that the crisis of trust in modern methods is a cross-context phenomenon, fueled by social narratives and information charged with negativity.⁵⁴

Political Context and Conspiracy Narratives

Negative framing may increase with rising regional tensions, where health interventions, including family planning programs, are reinterpreted within a framework of suspicion and mistrust, seen as part of Western agendas extending beyond public health to affect social and cultural structures. This perception is fueled by narratives viewing most family planning projects as funded by Western donors, making them, in the eyes of some, tools for reshaping society according to external models. Interestingly, these narratives do not stem from popular bases as much as they are produced and fueled by intellectual and political elites, as observed in our qualitative narratives, which does not diminish their importance but places them in a more complex and structured framework.

52. Vieth, S. J., Hartmann-Boyce, J., Maass, N., & Jani, A. (2022, October 7). Survey of young women's state of knowledge and perceptions about oral contraceptives in Germany. *AJOG global reports*. <https://pmc.ncbi.nlm.nih.gov/articles/PMC9633744/>

53. Sexual and contraceptive behaviour of young adults in Germany – results from Kiggs Wave 2 - *Journal of Health Monitoring* 2/2022. RKI. (n.d.). https://www.rki.de/EN/News/Publications/Journal-of-Health-onitoring/GBEDDownloads/J/Focus_en/JHealthMonit_2022_02_Sexual_contraceptive_behaviour.html

54. Thomé C. Après la pilule. Le choix contraceptif des jeunes femmes à l'épreuve du rejet des hormones [After the pill. Young women's contraceptive choices in the age of hormone rejection]. *Sante Publique*. 2024 Apr 5;36(1):87-96. French. doi: 10.3917/spub.241.0087. PMID: 38580471.

As explained in the book *Orientalism and Conspiracy Theory: Politics and Conspiracy Theories in the Islamic World*,⁵⁵ supporters of these narratives often belong to educated groups or political and cultural elites, because conspiracy theory here is not merely a popular myth but an analytical tool employed to interpret global power imbalances and local policy failures, granting it symbolic legitimacy and transforming it into a framework for understanding political and social reality.

It is important to note that this narrative appeared as a feature in individual interviews but did not emerge in focus groups.

The Role of Health Staff

Furthermore, our qualitative data revealed that weak counseling has clear structural roots, most notably the shortage of qualified personnel, the absence of periodic training programs dedicated to refining skills, and weak monitoring and evaluation mechanisms that ensure service quality. These gaps affect not only the quantity of counseling provided but also its quality, as service providers lack the communication tools needed to dispel fears or rebuild trust with beneficiaries. In light of this shortcoming, health staff themselves often become a source of negative framing—not intentionally, but as a result of their inability to present a balanced discourse that clarifies benefits and risks in a way that reassures women and supports informed decision-making.

This challenge becomes more complex in a digital media environment that pumps out messages charged with negativity about modern methods. Health staff find themselves confronted with reviews containing correct information but framed in an anxiety-inducing manner, while health institutions lack counter-campaigns or effective communication tools. This dissonance between scientific knowledge and the ability to manage fears sometimes makes counseling an insufficient tool for restoring trust and may even turn it into a factor that reinforces the inclination towards traditional methods.

These findings reveal that the inclination towards traditional methods is not linked to a lack of knowledge, but to a lack of trust resulting from negative framing, weak counseling, and the pressure of cultural and sometimes political narratives. This situation undermines the capability for deciding on modern family planning methods; women's ability to make informed decisions becomes limited despite the availability of information.

5.1.6 Unmet Need

What distinguishes our study is that it presents an analytical statistical model for unmet need, used for the first time in Jordan within a nationally representative framework, employing a mixed methodology that allows for a balanced reading between statistical significance and the narratives

55. *Orientalism and conspiracy: Politics and conspiracy theory in the Islamic World* (review)
https://www.researchgate.net/publication/265833126_Orientalism_and_Conspiracy_Politics_and_Conspiracy_Theory_in_the_Islamic_World_review

of social reality. This approach redefines unmet need as a gap in trust, empowerment, and access, not reducible to traditional aggregate indicators, and makes "met need" a practical standard for measuring the impact of interventions.

Economic Dimension

Our results clarify that the wealth index stands out as the strongest economic determinant, showing a progressive association with increased likelihood of having the need met—a trend linked to increased use of family planning methods. Quality of life and the ability to maintain it are associated with higher planning awareness. In contrast, direct economic empowerment indicators—such as employment status, having health insurance, or owning a bank account or e-wallet—did not show a significant effect on use or unmet need. This is explained by the elimination of direct financial barriers through free services in the public sector, while the dimension of general well-being remains a decisive factor in reproductive decision-making.

Educational Dimension

A higher level of women's education was associated with an increased likelihood of having the need met. This effect is clearly visible on the decision to start using any method more than on influencing the choice of method type, reflecting education's role in expanding decision-making capacity. However, it remains intertwined with factors of trust and informational framing, explaining the persistence of some inclinations towards traditional methods even at higher educational levels when counseling is weak or information is subjected to negative interpretation.

Age Dimension and Marriage Dynamics

Quantitative and qualitative data diverged here, as the views of service providers conflicted with the trends in unmet need captured by quantitative data for the mentioned groups. This may be explained by the fact that quantitative data focus more on gaps or usage patterns among women in specific contexts. The results showed that current age is clearly associated with increased odds of having the need met, with these odds rising progressively with age to peak among women aged forty and above. This reflects the shift in reproductive plans from focusing on spacing at younger ages to limiting at older ages. Conversely, marrying at a later age was associated with lower odds of having met the need, indicating a gap in meeting spacing needs at the beginning of marriage, especially for those who married after age twenty-five, where opportunities to obtain suitable methods are reduced due to fears about affecting fertility or missing out on early counseling.

While modern method use increased among younger women, unmet need remained high. In contrast, among women married under age 20, despite weak method use, rates of met need were

higher—a result that seems counterintuitive but must be read in light of reproductive preferences that may be high among them (many currently desire pregnancy), their relationship to spacing more than limiting, adherence to social norms, and weak agency for decision-making, often delegated to others. This may weaken their rights dimension, meaning the need is not fundamentally perceived.

Spatial and Cultural Dimension

Quantitative data was not conclusive regarding traditional geographical determinants like region and urban/rural residence, but they presented a clear picture regarding unmet need. It was found that women in rural areas are less likely to have their need met compared to urban women, and women in the Southern Region have lower odds of having their need met compared to the Central Region. This gap is linked to weak counseling, service fragmentation, and a shortage of qualified staff in rural centers, in addition to the influence of local social norms that restrict women's bargaining power. These elements are not captured by spatial indicators alone but reflect limitations in the agency to decide on and implement family planning decisions; the ability to access services, accurate knowledge, and spousal approval remain fundamental determinants for activating a woman's choice.

Displacement-Related Dimension

The data showed that refugees are less likely to have their need met compared to the host community, associated with a combination of weak awareness of eligibility for access, administrative barriers, limited livelihood opportunities, and cultural constraints and social pressures that are exacerbated in camps. As for Palestinian refugees, despite their better access to family planning services through the UNRWA network, other factors undermine their ability to achieve balanced outcomes; structural gains are met with social fragility and weak family status, reflected in high rates of gender-based violence. This paradox reveals that camps provide better access to services but simultaneously reproduce a socially pressurized environment, where cultural constraints intersect with loss of identity and economic dependency, weakening contraceptive agencies and turning family planning into a nominal practice not accompanied by a real agency to negotiate or make independent decisions.

These results show that unmet need is not merely a gap in availability, but a reflection of the undermining of contraceptive agencies through weak trust, limited autonomy, and the pressure of cultural and economic contexts. This makes enhancing accurate knowledge, woman-centered counseling, and expanding the space for independent decision-making fundamental pillars for transforming reproductive preferences into actual and sustainable practice.

5.2 Recommendations

The results of this study highlight the challenges facing family planning in Jordan, which extend beyond merely providing health methods to include social, cultural, and systemic factors that affect women's agency to make and freely implement informed decisions. Empowering women to make independent, informed decisions about using family planning methods, while ensuring their access to necessary information and resources, and supporting the implementation of these decisions in a suitable health and social environment, forms the foundation for achieving rights-based reproductive health. From this standpoint, the recommendations that follow this introduction require an integrated approach that combines national strategies and public policies ensuring an equitable and sustainable enabling environment, with practical interventions and programs that enhance service quality, expand choices, and improve person-centered approaches and client experience. This balance between the strategic and programmatic dimensions is the key to achieving universal health coverage that meets the diverse needs of the population and addresses the structural and social gaps that limit contraceptive agencies.

5.2.1 Recommendations at the Strategic and Policy Level:

First: Review and update national legislation and policies related to sexual and reproductive health to ensure alignment with international human rights standards and guarantee the right to access comprehensive reproductive health services without discrimination, with special attention to the most vulnerable groups. Integrate family planning within Universal Health Coverage (UHC) with clear implementation guarantees and sustainable financing mechanisms through:

- Developing a national framework that ensures the effective integration of family planning services into UHC policies, safeguarding the financial sustainability of family planning programs as a national priority within primary healthcare programs to prevent their marginalization against other health needs. Establish clear monitoring and financing mechanisms that ensure the continuous availability of high-quality family planning services and training activities and define monitoring indicators to measure commitment and equity in access.
- Creating national contingency funding mechanisms to reduce the risks of external funding fluctuations and respond to crises and emergencies. This can be achieved by allocating national support funds and exploring public-private partnerships, ensuring program sustainability even in the event of donor withdrawal or a decline in international support. This approach will enhance the health system's capacity to achieve its reproductive health objectives and protect the most vulnerable groups from any service gaps.

Second: Strengthen the legal framework supporting access to high-quality sexual and reproductive health services by integrating principles of gender equity and accountability, and ensuring clear mechanisms for monitoring and implementation at the policy and program levels through:

Developing the indicator system in the National Sexual and Reproductive Health Strategy (2020–2030):

- Ensure the continued monitoring of current core national impact indicators, such as the modern contraceptive prevalence rate and the unmet need rate derived from the Population and Family Health Survey, in addition to the couple-years of protection indicator based on the Ministry of Health's supply system reports and aggregated partner reports.
- Transition towards developing more sensitive and equitable qualitative indicators that go beyond measuring mere coverage. These should be disaggregated by population groups, ensure equity, and include quality dimensions such as the quality of counseling provision, ensuring free and informed choice of methods, adherence to national protocols and standards, and monitoring barriers faced by the most vulnerable groups including refugees, women in rural areas, adolescents, and persons with disabilities. Adopting these indicators will enhance the system's ability to assess service quality and access equity, ensuring that monitoring and evaluation processes encompass rights and social dimensions, not just usage rates. This contributes to improving the ability to direct resources efficiently and enhances transparency and institutional accountability.

Developing a unified national information system for monitoring and evaluation:

In light of the issuance of waited National Digital Health Strategy, which provides a foundation, a national information system should be established to link all health facilities and relevant entities (Ministry of Health, Royal Medical Services, private sector, NGOs) through a centralized electronic platform. Mandatory periodic data entry according to the National Sexual and Reproductive Health Strategy indicators should be enforced, with focal points designated in each entity and compliance linked to binding mechanisms. This should include mechanisms for data quality verification and staff training, enhancing transparency, accountability, planning efficiency, and enabling data use for decision-making to achieve the goals of the National Sexual and Reproductive Health Strategy 2020-2030.

Enhancing multi-sectoral coordination:

- Adopt formal coordination mechanisms by activating the role of the Steering Committee for the

National Sexual and Reproductive Health Strategy in monitoring performance reports, improving resource allocation capacity, and reducing duplication.

- Ensure the development of joint multi-sectoral implementation plans with clear roles and budgets. These plans should expand the scope of family planning to link it with policies in education, gender, economic empowerment, climate, and resource management, ensuring integrated efforts and achieving the desired impact on health, social, and economic levels.

Establishing local accountability structures – social accountability:

- Adopt a multi-level accountability system starting from health facilities up to the national level, supported by clear indicators to measure counseling quality, service availability, and access equity through periodic performance reports and transparent follow-up mechanisms.
- Activate the role of existing national structures like community health committees, expanding their membership to include representatives from local and international organizations working in health, social empowerment, and refugee issues, to ensure accountability and promote safe and equitable access for the most vulnerable groups. Strengthening accountability in favor of marginalized groups not only improves service quality but also raises the overall efficiency of the health system and ensures equitable distribution for all.
- To achieve real-time performance monitoring, digital tools can be used to measure client satisfaction and service quality, which enhances transparency, boosts public trust in the health system, and stimulates continuous improvement.

Third: Increase community awareness and demand for family planning services through:

- It is recommended to continue implementing traditional and multi-channel media campaigns, including activating digital media campaigns on social networks, while developing messages and content to be more focused and appropriate for target groups by correcting misconceptions about family planning methods and highlighting their health, social, and economic benefits.
- These campaigns should incorporate positive religious and cultural discourse that enhances community acceptance, with the involvement of men and encouragement of constructive dialogue between spouses. Partnerships with civil society organizations in providing awareness and community education programs should be strengthened. Tailored content for youth, refugees, and rural communities through interactive digital platforms is preferred, linking messages to reproductive health initiatives to ensure broader and sustainable impact ⁵⁶.
- Strengthening the role of religious institutions: Imams, preachers, and church leaders can play a pivotal role in shaping community attitudes towards family planning by providing correct

56. Mwaikambo, L., Speizer, I. S., Schurmann, A., Morgan, G., & Fikree, F. (2011, June). What works in Family Planning Interventions: A systematic review. *Studies in family planning*. <https://pmc.ncbi.nlm.nih.gov/articles/PMC3761067/>

- religious guidance, correcting common misconceptions, and promoting the ethical and health understanding of these practices. Their active participation helps reduce negative framing and misinformation, promotes the acceptance of modern methods within a supportive religious and social framework, and contributes to building an enabling environment that supports decision-making in family planning.

Fourth: Strengthen and develop the inclusion of reproductive health concepts in educational curricula as a long-term preventive policy:

- Integrating reproductive health concepts into the Ministry of Education's curricula is a fundamental step to enhance awareness among male and female students about issues of growth, health, and personal responsibility. Although a curriculum currently exists, it needs development and improvement to become more comprehensive and focused on addressing misconceptions early and developing family planning decision-making skills.

This development should aim to build a generation aware of its health rights, capable of adopting positive practices that protect it from risks and support it sustainably in future life stages. The curriculum should also include tailored content appropriate for different age groups, promote open dialogue about reproductive health, and involve parents and the community to ensure a supportive educational environment. This integrated development of educational curricula will help bridge knowledge gaps, increase trust in family planning, and enhance youth's ability to make informed and responsible decisions regarding their reproductive health, in line with national reproductive health and sustainable development goals.

- Developing educational curricula in health colleges at universities by reviewing the content of both theoretical and practical medical education plans to ensure comprehensive training on providing counseling and services related to modern family planning methods, both pre-service and in-service.

Fifth: Responding to the needs of Syrian refugees within national planning frameworks:

Our study results point to an important paradox: refugee camps like Zaatari and Azraq provide good access to reproductive health and family planning services, thanks to the effective and ongoing partnership between the Ministry of Health and NGOs. However, the challenges facing family planning in these camps do not stem from a lack of health services per se, but from a complex social reality where cultural barriers intertwine with identity erosion and weak economic capacity. These conditions limit contraceptive agencies, making it a nominal procedure lacking real negotiation power or independent decision-making. Therefore, it is essential to:

- Integrate refugee needs within comprehensive planning frameworks covering all relevant sectors, such as social development, economic power, and social protection, alongside health. This multi-sectoral integration is the way to ensure a supportive environment that enhances refugee women's contraceptive agencies and make informed reproductive decisions, overcoming the social, cultural, and economic barriers that limit this.
- Develop awareness interventions targeting refugees by designing and implementing targeted, integrated awareness campaigns that consider the cultural and social specificities affecting the reproductive behavior of Syrian refugees both inside and outside camps. These should focus on correcting misconceptions and misinformation about family planning methods, raising awareness about the availability of family planning services in the public sector, generating demand for them, and enhancing awareness of reproductive health rights. These campaigns should leverage local community-based approaches used in the camp context.
- Use research evidence to guide more efficient and targeted interventions by conducting research on reproductive behavior among Syrian refugees in Jordan, focusing on the impact of the displacement experience in shaping fertility patterns and their psychosocial drivers, including the fear of losing cultural identity.

5.2.2 Recommendations at the Health System, Services, and Programs Level:

While efforts continue to improve primary healthcare and unify the essential service package, the Ministry of Health and healthcare providers simultaneously need to address pressing gaps that still limit the effectiveness of family planning services. Achieving Universal Health Coverage (UHC) goals—ensuring access, financial protection, and service quality—requires a focus on the health system's interim goals: equity and efficiency.

Equity necessitates increasing the provision of family planning services in governorates with low use, such as Ma'an and Mafraq, as well as rural areas and densely populated refugee areas in Out-of-camps settings. This should be done by addressing infrastructure gaps, increasing service integration, reducing missed opportunities, improving the distribution of primary healthcare centers, and filling the shortage of qualified personnel. Improving efficiency requires a focus on the continuity of modern family planning method options, emphasizing person-centered approaches⁵⁷ and client experience (especially for long-acting reversible contraceptives), enhancing post-use follow-up systems,⁵⁸ alongside addressing the clear gap in training and capacity building for Ministry of Health staff to ensure the quality of family planning counseling.

57. Karp C; Tikofsky S; Shiferaw S; Seme A; Yihdego M; Zimmerman L; (2024). Person-centered contraceptive counseling and associations with contraceptive practices among a nationally representative sample of women in Ethiopia. *Contraception*: X. <https://pubmed.ncbi.nlm.nih.gov/39720641/>

58. In this study, the term “client experience” refers to individuals’ perceptions and interactions with modern family planning methods, in line with the World Health Organization’s focus on patient experience and quality of care.

First: Increasing Service Provision

Improving infrastructure at service delivery points, especially in underserved areas with the greatest need, and equipping them with qualified and trained health personnel.

Enhancing partnerships with NGOs, civil society, and other service providers, leveraging their ability to reach marginalized groups through mobile clinics, educational sessions for couples, and strengthening programs for married adolescents. These partnerships can also contribute to standardizing counseling protocols and ensuring the integration of private counselling rooms and decision-making tools in all health facilities.

Strategic purchasing of services: While this may not be a realistic path in the current phase, the core problem lies in excessive centralization, which limits the health system's flexibility and weakens its ability to respond to local needs. Therefore, strategic purchasing of services should be viewed as a future option that could enhance efficiency and ensure quality across various service providers. For now, the focus should remain on strengthening the Ministry of Health's role in coordination, unifying data systems, and enhancing the integration of family planning into postnatal services.

Second: Focusing on the Client Experience through:

- Conducting surveillance studies on discontinuation of modern family planning methods, especially IUDs and pills. These studies serve as an indicator of the level of access to sufficient and accurate information about family planning, as this positively impacts the use of modern methods and reduces discontinuation rates.
- Combating negative framing related to side effects of modern family planning methods by increasing investment in developing and providing new and diverse types of modern family planning methods. This should focus on generating reliable scientific evidence that addresses widespread misconceptions and fears about these methods. It is essential to promote research and development to introduce advanced generations of family planning methods that prioritize client experience and work to reduce side effects, contributing to increased acceptance and continuation of use.^{59 60}
- Ensuring continuous and sustainable availability of modern family planning methods at service delivery points. This requires the Ministry of Health to continue procuring modern methods to meet married couples' needs and to continue supplying all government, public, and NGO/international organization service sites with these methods free of charge.

59. Evidence & learning. Hormonal IUD Access. <https://www.hormonalIUD.org/evidence-learning> Contraceptive mix and informed choice, Manas Ranjan Pradhan [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(22\)01282-X/abstract](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01282-X/abstract)

60. Contraceptive mix and informed choice, Manas Ranjan Pradhan
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(22\)01282-X/abstract](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01282-X/abstract)

- Maintaining the Ministry of Health's efficient family planning supply system, with the possibility of digitally linking it to service delivery points and different providers.
- Enhancing specialized options and counseling for modern family planning methods, especially long-acting reversible contraceptives (LARCs), while respecting the woman's freedom and decision to choose the appropriate method. If requested, specialized counseling for traditional family planning methods should be enhanced to ensure their more effective use in response to couples' preferences.
- Standardizing counseling protocols across sectors providing family planning services and strengthening supportive supervision systems.
- Enhancing the integration of sexual and health education into pre-conception, antenatal, postnatal, and post-abortion services, and capitalizing on missed opportunities such as newborn vaccination visits. Link this to quality of life by enhancing counseling on modern family planning methods. The results showed a significant gap in providing this type of education due to cultural barriers and lack of knowledge, leaving women vulnerable to long-term sexual problems and poor quality of life. Simultaneously, evidence in Chapter Two indicated that the choice of family planning method directly impacts physical and psychological health and social relationships, making it one of the most important determinants discussed in the well-being index. Therefore, providing educational sessions before, during, and after pregnancy, offering individual and couple counseling, and training health personnel in culturally sensitive communication are essential steps to ensure women's reproductive rights and improve their well-being and quality of life.

Third: Family Planning Service Providers – Improving the Effectiveness and Efficiency of Human Resource Management through:

- Investing in the midwifery profession: Data indicates that Jordan suffers from a clear shortage in the number of midwives compared to global recommendations, with a rate of about 7.2 midwives per 10,000 people, well below the World Health Organization standard. This shortage reflects structural challenges in the health system, most notably fragmentation and weak rationalization of human resources, increasing midwives' workload and negatively impacting the quality of services provided to women and newborns. Guided by the principles of the "Accelerating the Development of the Midwifery Profession"⁶¹ initiative, investing in the midwifery workforce is a strategic step to improving maternal and child health—since 90% of

61. United Nations Population Fund (UNFPA). (2025), The midwifery accelerator: Expanding health care for women and newborns. <https://www.unfpa.org/publications/midwifery-accelerator-expanding-health-care-women-and-newborn>

the reproductive health package can be delivered by midwives—through continuous training, developing counseling and guidance skills, and ensuring equitable workforce distribution.

- Ensuring the availability and appropriate distribution of sufficient human resources to provide family planning services, including replacement policies to reduce turnover among qualified personnel trained in family planning service provision, and implementing defined job descriptions for health personnel.
- Strengthening professional development programs to enhance the knowledge, skills, practices, and attitudes of family planning service providers.

Fourth: Service Integration and Missed Opportunities

- Enhancing institutional cooperation with the Jordan Pharmacists Association to raise awareness of national reproductive health and family planning strategies and involve the Association in relevant national initiatives. This includes integrating family planning topics into Continuing Medical Education (CME) programs through accredited national platforms, developing tailored training content for pharmacists covering pharmaceutical and preventive counseling protocols, effective communication skills and cultural sensitivity to reduce service provision biases, and managing misinformation and negative framing about family planning methods to ensure a balanced scientific discourse. The plan also involves designing practical training courses focusing on the safe use of emergency oral contraceptives, referral mechanisms to health facilities when needed, and ensuring free and informed methods in line with national standards. Additionally, leveraging digital solutions for CME for pharmacists in remote areas should be pursued to enhance training continuity and reduce knowledge gaps. Finally, the Association should be integrated into media and awareness campaigns to correct misconceptions about family planning methods, developing messages targeting vulnerable groups such as youth, refugees, and rural communities through multiple channels, including interactive digital platforms.
- Community-based approaches: It is recommended to strengthen the role of community health committees in villages and activate them as a sustainable mechanism to support reproductive health and family planning, with clear regulations defining roles, responsibilities, and ensuring funding continuity. Regular training programs for committee members should be implemented to build their capacity in health education, community communication skills, and combating misconceptions, providing them with accredited educational tools. These committees should be linked to comprehensive and village health centers to ensure service coordination, facilitate referrals, and unify health messages in line with national standards. This enhances integration between the community and the health system and increases intervention effectiveness.

- Expanding digital solutions for family planning service delivery is recommended by developing and implementing an appointment system that provides adequate time for service and counseling delivery, contributing to improved healthcare quality. Telephone communication should also be adopted as an effective tool to reduce missed opportunities and connect women with health facilities, helping to bridge gaps resulting from health system fragmentation. This approach should be strengthened by integrating digital solutions and telemedicine services through mobile health platforms that offer family planning education and remote consultation services, especially in remote areas and for youth facing challenges accessing health facilities. Global and local evidence indicates that these digital interventions significantly contribute to improving health knowledge, increasing adherence to family planning use, and reducing service discontinuation rates, thereby enhancing the effectiveness and sustainability of family planning programs.

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APPENDECIES

Appendix 1: Sample Size

The figure shows the distribution of women in the age group (15–49 years) according to their marital status. The study specifically relied on this group as it is the category adopted in Demographic and Health Surveys (DHS), being considered the active reproductive age group. It is evident that currently married women are the primary group included in the study's analysis of family planning method use, while the remaining percentage is distributed among unmarried, divorced, and widowed women. This distribution reflects the demographic structure of women of reproductive age in Jordan and justifies the study's focus on married women, as the use of family planning methods is linked to the context of marriage and childbearing.

The original sample of the Jordan Population and Family Health Survey included all households nationwide through the women's file (JOIR81FL), where eligible women (15–49 years) were interviewed, totaling 12,595 women. In this study, the analysis was restricted to currently married, non-pregnant women to study the determinants of family planning method use, and to currently married women (without excluding pregnant women) to study the determinants of unmet need for family planning. It is important to note that the sample size used in the analysis varies depending on the variable and the type of statistical test. The quantitative analysis in this study had two parts: the first part addressed the study of family planning method use, with the number of cases being 10,734 currently married, non-pregnant women, after excluding currently unmarried and pregnant women from the original file containing 12,595 cases.

The second part of the quantitative analysis was the study of unmet need, with the number of cases being 8,234 after excluding currently unmarried women and women with no need to use family planning methods from the original file containing 12,595 cases. The table shows the sample used for the purposes of this study.

Sample Used for the Purposes of This Study	Weighted Sample Size	Purpose of the Sample in the Current Study
Women of Reproductive Age / Women's File in the 2023 Jordan Population and Family Health Survey	12,595	Original women's file
Women of Reproductive Age Who Are Currently Married Only	11,622	
Women of Reproductive Age Who Are Currently Married, Excluding Pregnant Women	10,734	Study of Family Planning Method Use
Women of Reproductive Age Who Are Currently Married, Excluding Currently Pregnant Women, Who Use Family Planning Methods	6,707	Study of Variables Affecting Use of Traditional vs. Modern Methods
Women of Reproductive Age Who Are Currently Married and Have a Need to Use Family Planning Methods	8,234	Study of Variables Affecting Unmet Need for Family Planning

Appendix 2: Summary of Independent Variables Used in the Analysis

Dimension	Variable Name	DHS Code (Women's IR)	Categories / Coding Used in Analysis
Demographic Characteristics	Nationality	v131	• Jordanian • Syrian • Other
	Current Age (The last two categories in the original data were merged to become ≥ 40 instead of two separate categories)	v012	• 15-19 • 24-20 • 25-29 • 30-34 • 35-39 • ≥ 40
	Woman's Age at First Marriage	v511	• < 20 • 20-24 • 25-29 • 30-34 • ≥ 35
Education	Education Level	v106	• No Education • Less than Secondary • Secondary • Higher than Secondary
Economic Status	Wealth Quintile	v190	• Highest • Fourth • Middle • Second • Lowest
	Current Employment Status	v714	• Currently Working • Not Working
Reproductive Characteristics	Number of Living Children	v218	• 0-3 • 4-6 • ≥ 7
	Ideal Number of Children	v613	• 0-3 • 4-6 • ≥ 7
	Desire for More Children	v605	• Both Want Same Number • Husband Wants More • Husband Wants Fewer • Don't Know
	Husband's Desire for Number of Children	v621	• Wants Soon • Wants Later • Wants, Timing Undecided • Undecided/Unsure • Does Not Want More • Sterilized • Declared Clearly Does Not Want

Dimension	Variable Name	DHS Code (Women's IR)	Categories / Coding Used in Analysis
Empowerment and Social Factors	Owning a Personal Wallet/Card	v170 / v739a (any present)	• Missing • Yes
	Attitudes towards Physical Violence to the wife	s922d s922e s922g	• No • Yes if answered "Yes" to any item • No
Service and Media Use	Internet Use	v171a	• Yes • No
	Visit by a Community Health Worker	v395 / v394 (any yes)	• Yes • No
Residence and Location	Place of Residence	v025	• Urban • Rural
	Region	v024	• Central (Reference) • North • South
	Governorate	v101	• Amman (Reference) • Other Governorates
Health Coverage	Health Insurance	v481	• Yes • No

Appendix 3: Individual Interview Instrument

Service planning tool

Introduction:

"Good morning/afternoon. Thank you for your time. Our names are Dr. Luay Abusammour and Dr. Khaled and we are part of a research team conducting an in-depth analysis of family planning in Jordan, based on the recent DHS 2023. While the survey tells us what the trends are, our goal is to understand why these trends exist. This interview aims to gather your expert perspective on the national family planning programme's structure, policies, and challenges. The discussion will last approximately 45-60 minutes. Your responses will be kept confidential. May I have your permission to begin and to record the audio for analytical purposes?"

I. Policy and Strategic Landscape

1. From your perspective, what are the primary strategic objectives of the national family planning programme today? How is 'unmet need' defined and prioritised within these objectives?
 2. Could you describe the main policies or guidelines that shape family planning service delivery in Jordan? Have there been any significant policy shifts in recent years that might influence the use of modern methods versus traditional ones?
 3. How are resources (financial, human) allocated to meet family planning goals? Are there perceived disparities in resource allocation across different governorates?
-

II. Health System Structure and Performance (Supply-Side Determinants)

1. Method Mix and Commodity Security:

- What is the national policy on the range of contraceptive methods that should be available at different levels of the health system?
- How would you characterise the reliability of the supply chain? Are stock-outs of specific modern methods a persistent challenge? If so, which ones, and what are the primary causes?

2. Quality of Care and Service Delivery:

- Information & Counselling: What are the national standards or protocols for family planning counselling? How do we ensure women receive comprehensive information about all methods, including potential side effects and management?
- Provider Competence & Bias: What training do healthcare providers receive in family planning? Do you believe provider attitudes or biases—for instance, a reluctance to advise

- newly married women or young people—present a barrier to access?
 - Service Integration: Our initial findings suggest there may be missed opportunities to provide counselling at key moments, such as during antenatal care, post-partum visits, or child vaccination visits. From a systems perspective, why do you think these integration points are not fully utilised? How it can be further strengthened?
 - Infrastructure: Your document mentions a lack of designated private areas for counselling and a lack of formal appointment systems. How do these operational issues impact service quality and uptake from a planning perspective?
-

III. Perceived Client-Side Factors and Programme Response (Demand-Side)

1. From your point, what are the most significant social or cultural factors that influence a woman's choice to use a modern method, a traditional method, or no method at all, even if she wishes to delay pregnancy? (Probe: partner influence, desire for large families, religious interpretations, stigma).
 2. The JPHFS data will show us trends in traditional method use. What is the programme's official stance and approach towards women who prefer traditional methods? (probe: how effective are the current/previous campaigns and other interventions?)
 3. Where do you see the role of civil society in supporting demand generation? What are the existing structures and mechanisms to support that?
 4. How does the programme use data—such as the JPHFS—to adapt its strategies? Can you provide an example of how data has led to a specific programmatic change?
-

IV. Governance

1. How is progress towards the strategic plan measured? How is impact measured?
 2. To address these unmet needs. What additional resources are needed? How can these be mobilized?
-

V. Closing

1. If you could implement one strategic change to reduce the unmet need for modern contraception in Jordan, what would it be?
2. Is there anything else you believe is critical for us to understand about this topic?

Appendix 4: Focus Group Discussion Guide

(Women of Reproductive Age)

Introduction

Good morning/afternoon and thank you for joining us today.

We are here today as part of a study aimed at understanding women's experiences and opinions regarding family planning, family health, and future planning, with the goal of contributing to improving the quality of health services provided to women in Jordan.

We would like to emphasize that there are no right or wrong answers; all opinions and experiences you share are important and help us understand reality from women's own perspectives. We ask everyone to speak one at a time, respect differing opinions, and allow all participants the opportunity to express themselves freely.

We confirm that this discussion is entirely confidential. The information collected will be used for research purposes only, and the results will be presented in a general manner without mentioning names or any information that could identify any participant.

To help us document the discussion accurately, we would like to audio-record the session. The recording will be stored securely, used for research analysis purposes, and then destroyed according to the study's procedures.

Do you agree with the session being recorded?

Introductory Section for Introductions and Gathering Characteristics

Before starting the discussion, and for research purposes, it is useful to get a general idea of the characteristics of the participants in the focus group, without collecting any information that could identify any participant.

For this purpose, one of the two following options can be adopted, depending on what is suitable for the session:

- Each participant gives a brief, general introduction to herself.
- Distribute a short identification form to be filled out before the session or at its beginning.

This information will be used for analysis purposes only and will not be linked to any specific participant.

The identification form includes the following questions:

1. Age: _____ years
 2. Number of children: _____
 3. Education level: _____
 4. Employment status:
 - Works outside the home
 - Does not work
 5. Are you currently using a family planning method?
 - Yes – Traditional method
 - Yes – Modern method
 - Not using
 6. If using a traditional method, how long? _____ years
-

Axis One: General Perceptions and Information Environment Regarding Family Planning
(Estimated Duration: 10 minutes)

Objective of the Axis

This axis aims to understand how women view the concept of family planning and how this understanding is shaped by societal discourse and available information sources, thereby clarifying the cognitive context that later influences family planning method use decisions.

Introduction to the Axis

We would like to start by talking generally about the concept of family planning, how it is discussed and understood in society, and where women usually obtain information related to it.

Discussion Questions:

1. When you hear the term "family planning," what is the first thing that comes to mind?
 - How do you generally understand this concept?
 - Is it associated for you with health, number of children, birth spacing, or other matters?
2. In your opinion, what do people usually say in society about family planning?
 - Is it viewed positively or negatively?
 - Are there common ideas or misconceptions circulating?
3. Where do women usually get information about family planning from?

(The facilitator can provide examples when needed)

- Doctors or nurses

- Family
 - Friends
 - Husband
 - The internet and social media
4. Which source is most trustworthy for you? And why?
- What makes this source more trustworthy than others?
-

Axis Two: The Personal Journey – Decision-Making and Empowerment

(Estimated Duration: 25 minutes)

Objective of the Axis

This axis aims to understand a woman's personal journey in making decisions about childbearing and family planning, with a specific focus on explaining the reasons why women resort to using traditional methods or discontinue using modern methods. This aligns with the reference terms emphasizing that focus groups aim to interpret these behaviors and understand their health, social, and cultural motivations.

Introduction to the Axis

We would now like to move on to talking about a woman's own experience when thinking about having children or postponing pregnancy, how the decision is made, who is involved, and what factors influence the choice of family planning method.

First: Thinking About Childbearing or Postponing Pregnancy

1. When thinking about having a child soon or postponing pregnancy, what are the most important things a woman considers?
 - Desire to have more children or being content with a certain number
 - Women's health status
 - Existence of health problems or difficulties with childbearing
 - Economic situation
 - Current number of children
 - Woman's age
2. Who usually participates in this decision?

- The woman herself
 - Husband
 - Mother or mother-in-law
 - Others (please specify)
3. To what extent does a woman feel she has the final say in this decision?
- What enhances or weakens this feeling?

Second: Choosing a Family Planning Method

4. When using a method to postpone or prevent pregnancy, what factors lead to choosing a specific method?
- Ease of use
 - Previous experience
 - Doctor's or nurse's advice
 - Husband's or family's opinion
 - Cost
 - Availability and ease of access to the method
5. What obstacles make it difficult to use a family planning method?
- Fear of side effects
 - Husband's or family's refusal
 - Religious or cultural reasons
 - Cost
 - Difficulty accessing health centers
6. Why might some women choose to use a family planning method without their husband's or family's knowledge?
- What circumstances might lead a woman to do that?
 - How does she feel in such a case?

Third: Motivations for Using Traditional Methods (Core Axis)

7. What reasons might lead a woman to choose traditional methods instead of modern ones?
- Fear of side effects of modern methods

- Lack of confidence in modern methods
 - Lower cost
 - Husband's refusal
 - Ease of use
 - Social customs or experiences of other women
8. Do you think traditional methods are more aligned with religious or cultural beliefs? And why?
9. Do you feel that using modern methods requires husband's or family's approval more than traditional methods?
10. Do you consider traditional methods to be less harmful to a woman's health?
- Where does this belief come from?

Fourth: Discontinuing the Use of Modern Methods

11. Have you ever used a modern method and then stopped? And why?
- Side effects
 - Health problems
 - Uncomfortable experience
 - Pressure from husband or family
 - Personal decision
12. Have you previously used a modern method and experienced side effects?
- How did this experience affect your subsequent decision?
13. To what extent are you afraid of experiencing health complications as a result of using modern methods?

Fifth: Future Orientation and Empowerment

14. Are you considering using a modern method in the future? And why?
15. What might encourage you to switch from using traditional methods to modern methods?
- Clearer information or awareness
 - Reassuring medical follow-up
 - Support from husband or family
 - Reduced side effects

- Reduced cost or improved access to services
-

Axis Three: Interaction with the Health System and Quality of Services (Estimated Duration: 20 minutes)

Objective of the Axis

This axis aims to understand women's experiences with family planning service providers, assessing counseling quality, availability of choices, ease of access to methods, and the role of the health system in supporting or hindering the use of modern methods, including during postnatal and postpartum follow-up periods.

Introduction to the Axis (Read by the Facilitator)

We would now like to talk about your experiences with health centers or service providers when requesting or discussing family planning methods, and what helped or made it difficult for you to use these methods.

Discussion Questions:

1. Describe for us your last visit to a health center or a doctor/nurse where you requested a family planning method.
 - What positive aspects did you encounter?
 - And what negative aspects?
2. Did the service provider discuss more than one family planning option with you?
 - Or did you feel directed towards a specific method without explanation of alternatives?
3. Did you receive sufficient information about the potential side effects of the methods and how to manage them?
 - Did you feel comfortable asking questions or expressing concerns?
4. Is the topic of family planning raised during pregnancy visits, child immunization visits, or postnatal and postpartum follow-up visits?
 - Do you think mentioning family planning during these visits is useful? And why?
5. What kind of service or support did you wish was available but wasn't?
 - More time for counseling
 - Follow-up after using the method
 - Clearer explanation of side effects

- Involving the husband in counseling (if desired)
6. In your opinion, which services or health facilities do you consider to be of the highest quality in the field of family planning?
 - And what distinguishes them from others?
 7. To what extent does the cost of modern methods or ease of access to them affect the decision to use them?
 - Is cost a barrier?
 - Does the availability of the method at the right time contribute to continued use?
-

Axis Four: Social and Community Context (Estimated Duration: 15 minutes)

Objective of the Axis

This axis aims to understand the impact of the social and community context on women's decisions related to family planning. This includes the role of the husband, extended family, religious beliefs, interactions among women, and the impact of rumors and circulating information on choosing or avoiding family planning methods.

Introduction to the Axis

We would now like to talk about the social environment surrounding a woman and how family and community relationships and prevailing beliefs influence family planning decisions.

Discussion Questions:

1. How easy or difficult is it to talk with your husband about family planning?
 - What are the most prominent points of agreement or disagreement between spouses?
 - Does this differ based on the type of method or timing of pregnancy?
2. What is the role of in-laws and the wife's family in family planning decisions?
 - Does the opinion of in-laws or extended family influence the choice of method?
 - Does the influence of in-laws differ from that of the wife's family? How?
3. How do religious beliefs influence family planning decisions in your community?
 - Are religious beliefs used as support or an obstacle?
 - Do religious interpretations differ between individuals or families?
4. Do women feel comfortable talking about family planning methods with each other?

- With friends, relatives, or neighbors?
 - Or does the topic remain personal and secret? Why?
5. Are there rumors or circulating stories in your community about a specific method or about family planning methods in general?
 - What are the most common rumors?
 - Do these rumors relate to side effects, infertility, or other health risks?
 6. To what extent do these rumors and circulating information influence a woman's decision to use a family planning method or abstain from it?
 - Do they push women to prefer traditional methods over modern ones?
 - How do women usually deal with these rumors?
-

Axis Five: Conclusion and Recommendations from Women's Perspectives

(Estimated Duration: 5 minutes)

Objective of the Axis

This concluding axis aims to extract key messages and practical recommendations from the participants' perspectives and understand the factors that still make traditional methods a preferred choice for some women or hinder the transition to using modern methods.

Main Closing Question:

1. If you could change just one thing to make it easier for women in your community to use modern family planning methods, what would you change? And why?

Supporting Questions (depending on time):

2. Are there specific situations or circumstances that you believe make traditional methods a preferred choice for women?
 - Age
 - Having previous children
 - Breastfeeding or postpartum period
 - Health status
 - Social or economic circumstances
3. Have you personally faced, or know women who have faced, problems when using modern methods?

- Side effects
- Husband's refusal
- Cost
- Difficulty accessing health services

How did these experiences affect their decision to use traditional methods?

4. What differences do you see between traditional and modern methods in terms of:

- Effectiveness
- Safety
- Side effects
- Ease of use

5. If a woman wants to switch from a traditional method to a modern method, what obstacles might prevent that?

- Fear
- Lack of information
- Husband's or family's refusal
- Cost
- Difficulty of medical follow-up

Session Closing

Thank you very much for your time and honest participation. The opinions and experiences you shared today are very important and will be used for a better understanding of women's needs and for improving family planning services. We reaffirm that all information mentioned will remain confidential and will be used for research purposes only.



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