



Disentangling the Gender-Family Planning Links in Jordan Group Model Building Study Report

June 2017



Recommended Citation: JCAP. 2017. Disentangling the Gender-Family Planning Links in Jordan: Group Model Building Study Report. Jordan, Iris Group International for the USAID Jordan Communication Advocacy and Policy Project, Abt Associates Inc.

Disclaimer: The authors' views expressed in this report do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government.



Table of Figures

Figure 1: An example of a Causal Loop Diagram (adapted from Hovmand, 2014) Figure 2: Stakeholder Full Model

Figure 3: Career reinforcing loop

Figure 4: Self-efficacy reinforcing loop

Figure 5:Women's empowerment reinforcing loops

Figure 6:Workforce balancing loops

Figure 7: Family-Work life balance balancing loop

Figure 8: Married Women of Reproductive Age Full Model

Figure 9: Financial pressure balancing loop

Figure 10: Employment and level of thaqafa balancing Loops

15 Figure 11: Side effects balancing loop

15 Figure 12: "Right method" reinforcing loop

Figure 13: UWRA Full Model

I8 Figure 14: Quality of Care Balancing Loop

B Figure 15: Financial Pressure Balancing Loop

18 Figure 16: Factors impacting pressure for more children

Figure 17: Interpersonal Factors & Self-Advocacy

Figure 18: Influence of Muthaqafa and Internal Locus of Control

Figure 19: Quality of relationship and partner discussion

Figure 20: Men's Full Model

Figure 21: Governmental Policy Balancing Loop

Figure 22: Economic Stability Balancing Loop

Figure 23: Quality of relationship reinforcing loops

Figure 24: Factors influencing husband's desire to have more children

Figure 25: Variables influencing MC use





This research was possible thanks to the support of the United States Agency for International Development (USAID) through the Jordan Communication, Advocacy, and Policy (JCAP) project.

The research was conducted by Iris Group International, represented by Ms. Jessica Levy and Mr. Jacob Etan, who worked in collaboration with Ms. Tahani Al-Shahrouri, JCAP's Senior Gender Specialist, and Ms. Houda Khayame, JCAP's Deputy Chief of Party.

The Group Model Building (GMB) Tool was developed by Iris Group International and used for the first time in Jordan to disentangle the links between gender norms and family planning.

Finally, this study would not have been possible without the valuable cooperation and input from JCAP partners from Government and Non-Governmental Organizations as well as the community members targeted in this study.

Background and Objectives

The Jordan Communication, Advocacy, and Policy (JCAP) Project is a five-year Cooperative Agreement between the United States Agency for International Development and Abt Associates, which aims to increase the use of family planning and reproductive health services in Jordan.

It has been well documented that discriminatory gender norms negatively influence family planning outcomes.^{1,20}

The role a woman plays within the household, as well as the expectations placed on her within society, strongly influence her ability to delay childbearing, space births, and avoid unintended pregnancies. This said, a key challenge for JCAP was developing a common understanding of the pathways through which gender norms and inequalities influence family planning outcomes in lordan.1,20

Therefore, to help understand and disentangle these pathways, JCAP in collaboration with Iris Group developed the first ever Jordan gender/family planning group model building (GMB) study to help understanding these pathways.

To disentangle these pathways, JCAP conducted a series of four workshops with JCAP team members, stakeholders, and participants from various community target populations. The first of these workshops was held on December 13, 2016 with JCAP team members and project stakeholders. This initial workshop had multiple overlapping objectives:

- 1. Develop a preliminary conceptual model to be used as a foundation for dialogue on gender in ordan.
- 2. Create tools (for example, brochures and handouts) to explain important gender pathways and connections.
- 3. Explore opportunities for using Group Model Building (GMB) to build models with JCAP partners for advocacy and education messaging.
- 4. Identify potential approaches/interventions to continue to promote gender integration and improve FP outcomes within |CAP work plan.

In May of 2017, three additional workshops were conducted within the community, targeting married women of reproductive age (MWRA), unmarried women of reproductive age (UWRA), and married and unmarried men. These workshops were held to:

- 1. Corroborate the model that was developed during the stakeholder workshop in December 2016.
- 2. Deepen our understanding of the pathways with key community target groups.
- 3. Reach a consensus on a plan of action for continued advocacy and tool dissemination.

This report presents a synthesis of the information that was collected over the four workshops and provides recommendations based on these findings.

⁻ Taukobong H, Kincaid M, Levy J, Bloom S, Platt J, Darmstadt G. 2016. Does addressing gender inequalities and empowering women and girls improve health and development

programme outcomes? Health Policy and Planning. 2016; doi: 10.1093/heapol/czw074
 20 - JCAP, USAD. 2016. Exploring Gender Norms and Family Planning in Jordan: A Qualitative Study, Final Report. Available at: http://www.tawasol-jo.org/en/publications-resources

The Role of Gender

It has been well documented that discriminatory gender norms negatively influence family planning outcomes.^{1,20} The role a woman plays within the household, as well as the expectations placed on her within society, strongly influence her ability to delay childbearing, space births, and avoid unintended pregnancies. At the very least, gender dynamics are fundamental in influencing who has access to family planning related health services, who holds the power to negotiate contraceptive use or to withhold sex, who decides on family size, and who controls the economic means to obtain contraception.1,20

Across the world, studies have demonstrated a positive association between indicators of women's autonomy such access as to information, paid labor. and participation in community groups and family planning (FP) outcomes.^{2,3-5} For example, a woman who has access to information about contraception, such as which methods are most effective, and which ones will work best with her lifestyle, have the knowledge informed and power to make contraceptive decisions.

Other variables related to autonomy, including mobility/freedom of movement and control over resources, have also been shown to be strong positive predictors of contraceptive use, smaller family size, greater birth intervals. and overall improved maternal health.^{2,4-9} Being able to travel within or between communities, for example, enables opportunity and increases a woman's exposure to alternative realities and new ideas that may alter important life choices about fertility and contraception. Reduced mobility, on the other hand, makes it more difficult to complete schooling,

Table 1: Gender Terms and Concepts *

| Term | Concept |
|-----------------------------|--|
| Gender | Gender is a social construct that encompasses the economic, political, and socio-cultural attributes, constraints, and opportunities associated with being male or female. Gender varies across cultures and is dynamic and open to change over time. |
| Gender Equality | Requires working with men/boys and women/girls, to bring about changes in attitudes, behaviors, roles and responsibilities at home, in the workplace, and in the community. Genuine equality means expanding freedoms and improving overall quality of life so that equality is achieved without sacrificing gains for males or females. |
| Gender Equity | The process of being fair to women and men. To ensure fairness, measures must be taken to compensate for cumulative economic, social, and political disadvantages that prevent women and men from operating on a level playing field. |
| Gender Based Violence | Violence that is directed at individuals based on their biological sex, gender identity, or perceived adherence to culturally-defined expectations of what it means to be a woman and man, girl and boy. It includes physical, sexual, and psychological abuse; threats; coercion; arbitrary deprivation of liberty; and economic deprivation, whether occurring in public or private. |
| Female Empower- ment | Occurs when women and girls acquire the power to act freely, exercise their rights, and fulfill their potential as full and equal members of society. While empowerment often comes from within, cultures, societies, and institutions create conditions that facilitate or undermine the possibilities for empowerment. |
| Agency/ Autonomy | The ability to make decisions about one's own life and act on them to achieve a desired outcome, free of violence, retribution, or fear. |

* Adapted from USAID Automated Directives System Glossary http://www.usaid.gov

20 - JCAP, USAD. 2016. Exploring Gender Norms and Family Planning in Jordan: A Qualitative Study, Final Report. Available at: http://www.tawasol-jo.org/en/publications-resources

^{1 -} Taukobong H, Kincaid M, Levy J, Bloom S, Platt J, Darmstadt G. 2016. Does addressing gender inequalities and empowering women and girls improve health and development programme outcomes? Health Policy and Planning. 2016; doi: 10.1093/heapol/czw074

Dharmalingam A, Philip Morgan S. Women's work, autonomy, and birth control: Evidence from two South Indian villages. Popul Stud 1996;50:187-201.

^{3 -} Visaria L, Jejeebhoy S, Merrick T. From family planning to reproductive health: Challenges facing India. Int Fam Plan Perspect 1999;25:S44.

^{4 -} Corroon M, Speizer IS, Fotso J-C et al. The role of gender empowerment on reproductive health outcomes in urban Nigeria. Matern Child Health J 2014;18:307–15.

^{5 -} Do M, Kurimoto N. Women's empowerment and choice of contraceptive methods in selected African countries. Int Perspect Sex Reprod Health 2012;38:023–33.

 ^{6 -} Jejeebhoy SJ.Women's status and fertility: Successive cross-sectional evidence from Tamil Nadu, India, 1970-80. Stud Fam Plann 1991;22:217
 7 - Schuler SR, Hashemi SM. Credit programs, women's empowerment, and contraceptive use in rural Bangladesh. Stud Fam Plann 1994;25:65;

^{8 -} Vlassoff C. Progress and stagnation: Changes in fertility and women's position in an Indian village. Popul Stud 1992;46:195–212. 9 - Woldemicael G. Women's autonomy and reproductive preferences in Eritrea. J Biosoc Sci 2009;41:161.

participate in the community, engage in economic activity, and seek needed family planning related health services. Likewise, access to and control over resources, such as income or time, influences whether a woman will be able to find a method that meets her particular needs and/or whether she will have the means to obtain it.

Finally, by its very definition, autonomy involves the power to make decisions in the household and community. This power gives a woman the freedom to negotiate vital life decisions, such as whether to use family planning (and if so, what kind), whether and when to get married, and the timing of first birth. It follows logically, then, that a number of studies have shown that women with decision-making power and equitable interpersonal relationships (i.e. relationships based in mutual respect, fair treatment, and freedom from violence) are more likely to have ever used modern contraception and are less likely to have an unplanned pregnancy.^{4, 9-13}

We know from scientific and anecdotal evidence that gender dynamics are complex, ever-changing, and contextual in nature. Most of the research that explores the relationship between gender and family planning has been conducted within sub-Saharan Africa, South Asia, and South America.

¹Therefore, to increase the use of family planning and reproductive health services in Jordan – and in an attempt to address the stagnate contraceptive prevalence rate that Jordan has experienced since the early 1990s¹⁴ – we use an innovative approach called community based system dynamics to explore the complex pathways between gender dynamics within Jordan and family planning attitudes and behaviors.

I - Taukobong H, Kincaid M, Levy J, Bloom S, Platt J, Darmstadt G. 2016. Does addressing gender inequalities and empowering women and girls improve health and development programme outcomes? Health Policy and Planning. 2016; doi: 10.1093/heapol/czw074

 ^{4 -} Corroon M, Speizer IS, Fotso J-C et al. The role of gender empowerment on reproductive health outcomes in urban Nigeria. Matern Child Health J 2014;18:307–15.
 9 - Woldemicael G.Women's autonomy and reproductive preferences in Eritrea. J Biosoc Sci 2009;41:161.

^{10 -} Ahmed S, Creanga AA, Gillespie DG et al. Economic status, education and empowerment: Implications for maternal health service utilization in developing countries. Shea BJ (ed.). PLoS ONE 2010;5:e11190.

^{11 -} Stephenson R, Bartel D, Rubardt M. Constructs of power and equity and their association with contraceptive use among men and women in rural Ethiopia and Kenya. Glob Public Health 2012;7:618–34.

^{12 -} Campbell JC. Health consequences of intimate partner violence. The Lancet 2002;359:1331-6.

^{13 -} Gazmararian JA, Peterson R, Sptiz AM, Goodwin MM, Saltzman LE, Marks JS. Violence and reproductive health: Current knowledge and future directions. MCH Journal 2000; 4 (2): 79-84.

^{14 -} International. 2013. Jordan Population and Family Health Survey 2012. Calverton, Maryland, USA: Department of Statistics/Jordan and ICF International. Available at: http://dhsprogram.com/publications/publication-FR282-DHS-Final-Reports.cfm#sthash.N0fbWeDp.pdf

Group Model Building

System dynamics is a computational modeling technique used to describe and understand complex systems, with a particular emphasis on identifying feedback within a system.¹⁵ Community based system dynamics (CBSD), a subfield within system dynamics, uses group model building (GMB) to bring together various groups to define a problem, identify feedback mechanisms causing the problem, and to address and model ways to solve the problem. In short, it asks and can answer:What is the problem? From where did the problem originate? What the underlying causes of the problem? And how might the problem be addressed?

Unlike other qualitative or quantitative methods which frequently employ "helicopter-style" data generation, CBSD emphasizes education and capacity building to engage and mobilize communities for change. Informal mapping, such as causal loop diagramming (CLD), allows for the ability to understand and chart "mental models" of a problem – or how different people think a system operates. For example, women and men are likely to think about the use of modern contraceptive methods in different ways, just as married women may think about it differently from unmarried women.

As these models are visually depicted through the CLD, it allows participants and stakeholders test assumptions about the relationships between variables and to consider ways to act upon these relationships. In CLDs, arrows represent hypothesized causal relationships between variables. These causal relationships can be based on opinion or on rigorous research. Plus and minus signs indicate direction of influence.

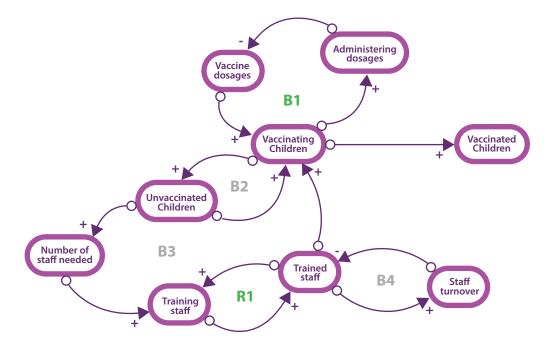


Figure 1: An example of a Causal Loop Diagram (adapted from Hovmand, 2014).

A plus sign indicates that increasing the cause variable increases the effect variable, if all other variables are held constant. By the same logic, decreasing the cause variable decreases the effect variable. In (Figure 1), for example, increasing vaccine dosages increases vaccinating children, while decreasing dosages would lead to decreased vaccination. In contrast, a minus sign indicates an inverse relationship between variables as the cause variable increases, the effect variable decreases. Thus, vaccinating children decreases the number of unvaccinated children. The reverse also holds true: decreasing vaccinating children will increase the number of unvaccinated children.

Feedback loops are labeled as balancing loops ("B" prefixes) and reinforcing loops ("R" prefixes). In (Figure 1), B1 describes the balancing feedback loop where increasing the rate of vaccinating children increases administering doses which in turn decreases available dosages, thus limiting the rate of vaccinating children. Similarly, R1 describes a reinforcing loop, where training staff increases the number of trained staff, who can then in turn train even more staff.

Finally, an important aspect of GMB is that it operates as an effective teaching tool when ownership of a model is passed off to a community.¹⁵ What may not be perceived as a problem before the community is involved in the GMB process may come to be recognized as something that needs to be changed within the community after the process.As a participatory method, GMB offers the ability to provide participants with a language and tool to define problems within their community and to identify solutions.



In December, 2016, facilitators conducted a workshop with 12 stakeholder participants from: the JCAP SBCC, AP, and M&E teams; USAID; the Government of Jordan; and JCAP Grantees. The facilitation team from Iris Group included the Project Lead, Dr. Jessica Levy, as well as Dr. Mary Kincaid and Tahani Shahrouri from JCAP project. This one-day workshop lasted 8 hours and covered the activities listed below.

In May, 2017, three community group workshops were conducted over a 10-day period. Each workshop was conducted with approximately 10 participants who were recruited to participate via word of mouth. The populations that were targeted included: 1) MVRAs; 2) UVRAs; and 3) married and unmarried males. Additionally, the participants could be described as: contraceptive users and non-users; Jordanian and Syrian; educated through high school and university; and employed and non-employed. For these workshops, the facilitation team from Iris Group included Dr. Jessica Levy, as lead, and Jacob Eaton as co-facilitator. From JCAP, Tahani Shahrouri served as observer and interpreter and Ghada Sweity served as the note taker.

Through a series of activities, participants within the stakeholder and community workshops participated in naming the "variables (they felt) affect the use of modern contraception in Jordan". Additionally, they explained how each variable interacted and connected with the other, resulting in draft conceptual models (described in Analysis and Findings below). It is important to note that these models only reflect the assumptions and experiences of the participants in the working groups and are, therefore, not inherently "true" or universal. Their utility lies in making visible different perspectives for how the system of MC use in Jordan works in order to both come to a consensus on actionable steps and to better target campaigns to reach subsets of the population.

The five main activities for each workshop were as follows:

Activity 1: Introduction to GMB and modern FP methods

• Facilitators set the context for the problem of interest and presented information orienting the participants to key ideas of system dynamics, highlighting the role of feedback within systems. Modern contraceptive methods were also reviewed.

Activity 2:Variable Elicitation and Dots

- A prompt was given:"What variables affect the use of modern contraceptive practices in Jordan?"
- Participants were asked to brainstorm variables related to prompt.
- After individually brainstorming variables, the facilitators went around the room, asking the participants to choose which of their variables they felt were most important.
- Facilitators grouped the variables by common theme.
- Participants were given five colored dots and were asked to vote on the most important variables that impact FP usage.

Activity 3: Connection Circles (A circle connecting important variables re: FP and gender)

- Participants were split into small groups (3 to 4 people) and were asked to create a connection circle to begin seeing important connections between variables.
- The groups shared their circles to identify common connections.

Activity 4: Initiation and Elaboration of a Causal Loop Diagram

- "Seed variables" were taken from the highest vote getters from the Dot exercise and written on the board.
- The full group was given the prompt again, "What variables affect the use of modern contraceptive practices in Jordan?", and were asked to propose links that explain the pathways between variables that influence use of modern contraception.
- Facilitators drew connections on the board as they were given.

Activity 5: Reflection and Review

• Participants and facilitators debriefed the workshop, asking: what went well; what were the main stories that emerged; and what are opportunities for future work?

Analysis and Findings

Once the model for each group was created, members from Iris Group used the software program, Vensim, to create a digital representation of the model. From there, Iris Group members clarified pathways, checked variable polarities, and – where appropriate – added further connections.

Three steps were taken to analyze the findings:

- First, we identified the feedback loops within each model.
- Second, we highlighted the "broader themes" that surfaced within each target group. These themes were observational and based on two overarching factors:
 - Major points of discussion during each session.
 - \checkmark Which variables would have highest leverage for intervention.
- Third, we identified common themes across target groups.

MODELING CONVENTIONS

Direction of arrows represents the direction of causality. A plus sign indicates a positive polarity, meaning that an increase in one variable leads to an increase in the other. Thus, as experiencing side effects increases, fear of MC side effects also increases. Conversely, as experiencing side effects decreases, so does the fear of MC side effects. A negative polarity indicates an inverse relationship; an increase in one variable leads to a decrease in the other. For example, as MC use increases, number of children in the household decreases. Similarly, as MC use decreases, the number of children in the household increases. "Shadow variables" are denoted in gray. These are variables which are located elsewhere in the model but are repeated to make the model easier to read and to ensure that arrows do not cross.

The following section presents an overview of each target group model, with a description of the main feedback loops, broad themes, and possible leverage points for programming and policy.



Stakeholder Overview

The CLD created with the stakeholders (Figure 2) contains eight overarching variable categories which impact MC use: women's control over resources; exposure to different viewpoints; self-efficacy; women's labor force participation; financial pressure; men encouraging women to work; leisure time (or time poverty); and traditional birth control use. Overall, 9 feedback loops were identified, of which 5 were balancing and 4 were reinforcing.

Broadly speaking, the stakeholder model illustrates overarching themes and pathways that focus on the Jordanian population as a whole, rather than more individual level variables. One of the main themes which emerged is the role that women's participation in the labor force plays in MC use. Women who are employed developed exposure to different viewpoints, greater critical thinking skills, and higher self-efficacy, which translate into increased decision-making power and the ability to envision a woman's role outside of traditional household and child-raising duties. Stemming from this theme is the woman's ability to control resources- both in the form of money and time. With control over these resources she has the power to make decisions for herself and can obtain contraception when and if she desires to do so.

In addition to demand-related pathways, the stakeholder model also highlights important obstacles related to the supply-side. They discuss the importance of service provider bias, referrals, method options and commodity availability as potential obstacles or facilitators of contraception use. These variables are directly related to a woman's ability/power to make decisions that are best for her body and her family.

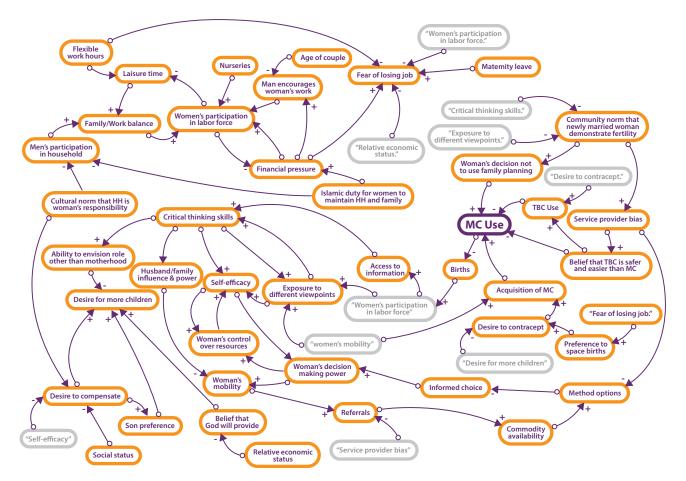


Figure 2: Stakeholder Full Model



One reinforcing loop (Figure 3) suggests that changing demographics in the labor force will continue to promote use of MC. In this loop, as women enter the labor force, they have increased access to information and more exposure to different viewpoints. These variables lead to increased critical thinking skills. As a result, women are more likely to envision roles outside of motherhood and, in turn, are more likely to use MC. Because of the sustained use of MC and fewer births, women will continue working, and ultimately a norm develops in which more women will choose careers over larger families.

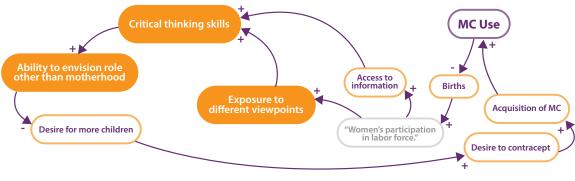
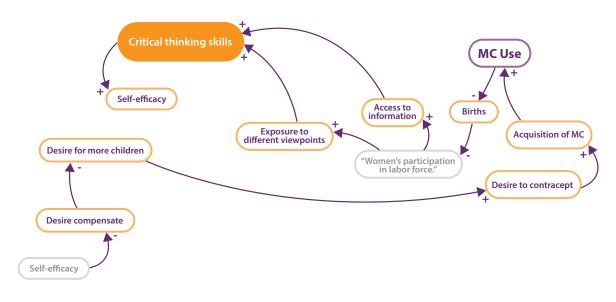


Figure 3: Career reinforcing loop

A similar loop (Figure 4) indicates the role that self-efficacy plays in resisting external pressure for more children, here captured as a "desire to compensate." (Note: for the purposes of this model, we have interpreted "desire to compensate" as "desire to meet social expectations"). As in the previous loop, women's participation in the labor force increases access to information and critical thinking skills. As a woman develops critical thinking skills, similar to the idea of Thaqafah captured in subsequent models, her self-efficacy increases, which decreases her desire to compensate and ultimately decreases her desire for more children.



The stakeholder model also included two reinforcing loops related to women's empowerment. As seen in (Figure 5), self-efficacy increases a woman's control over resources, which further increases her self-efficacy. As a woman is exposed to other viewpoints, she develops greater critical thinking skills, which further encourages her to seek other viewpoints. Because critical thinking skills also connect to self-efficacy, these loops suggest that a woman's critical thinking skills is a key leverage point in future programming.

Two balancing loops created in the stakeholder model illustrate how some may not see women's labor force participation as a permanent fixture in Jordanian life. (Figure 6) demonstrates how as financial pressure increases, women's labor force participation increases; because this eases financial pressure, however, their labor force participation may not continue (potentially suggesting that women's labor force participation is only valued in so far as it brings resources into the home). Moreover, as financial pressure is eased, men are less likely to encourage women to work.

A similar balancing loop (Figure 7) illustrates the tradeoff that women make between participating in the labor force and having enough leisure time and family-work life balance. Here, as family/work balance increases, women are more likely to work; however, this decreases leisure time, which may put a strain on family/work balance, and the likelihood of women continuing to work.

Broader Themes and Leverage Points

Participation in the labor force:

Within the stakeholder model, participation in the labor force plays a deciding role in numerous variables leading to MC use. Participation in the labor force increases exposure to different viewpoints and access to information, which increases critical thinking skills and leads women to be able to re-envision their role in society (i.e. to play a part in civic life outside of the home). Additionally, a woman's participation in the labor force seems to be closely associated with whether or not she has flexible work hours, which allows her to juggle what is expected of her at home and what gives her a reasonable family-work life balance. This pathway seems to be further moderated by the husband's participation in the household, as well as the encouragement he gives his wife to work. Overall, employment is a variable in the system that has cascading effects, not just

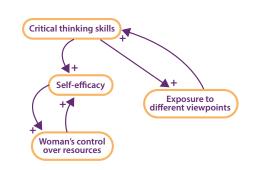


Figure 5: Women's empowerment reinforcing loops

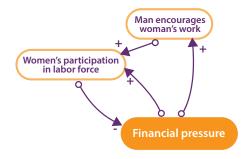
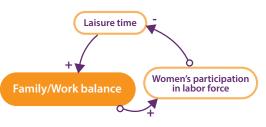


Figure 6: Workforce balancing loops





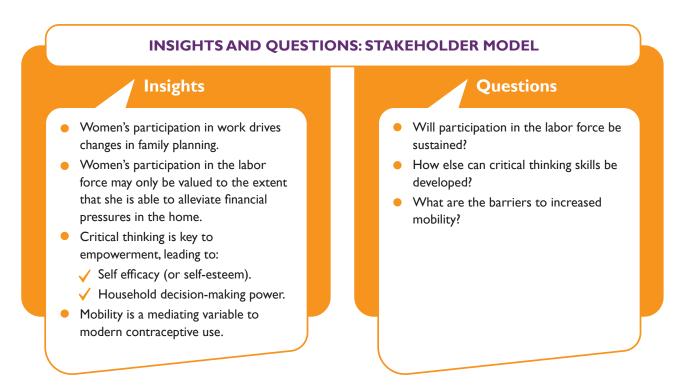
on women at the individual level but on the societal norms that have previously encouraged women to meet certain expectations within the household, as well as to have larger families. Therefore, variables along this pathway, such as flexible work hours and men's participation in the household, can be important leverage points for creating policy and/or targeting awareness campaigns among men.

Critical Thinking Skills:

Rather than focus on education as a variable in and of itself, the stakeholders decided that what was perhaps more important was the quality of a woman's education, which came in the form of teaching critical thinking skills. The ability to think critically allows a woman to envision roles for herself beyond motherhood, shields her from the pressure and influence posed by her husband, family and the community, and gives her more self-efficacy. Notably, critical thinking skills also decrease the influence of the community norm that newly married women must demonstrate fertility early in marriage. Importantly, this pattern was corroborated in the models built with married and unmarried women, where the variable they described as Thaqafah also played a mediating factor in response to community pressure.

Mobility:

Women's mobility features prominently in the stakeholder model, increasing her ability to receive referrals and to access MC, as well as exposing her to different viewpoints. This variable is closely related to women's employment – if a woman is working outside of the home, she will require more independent access to transportation. However, it also highlights a key role that women's mobility might play in MC use independent of employment. As women are given an increased role in the public sphere, they are likely to be more exposed to different viewpoints. Moreover, it highlights an area of further analysis with respect to the pathways that lead to referrals and acquisition of MC. What are the barriers that women face to obtaining referrals or accessing contraceptives, and how might these be lessened?



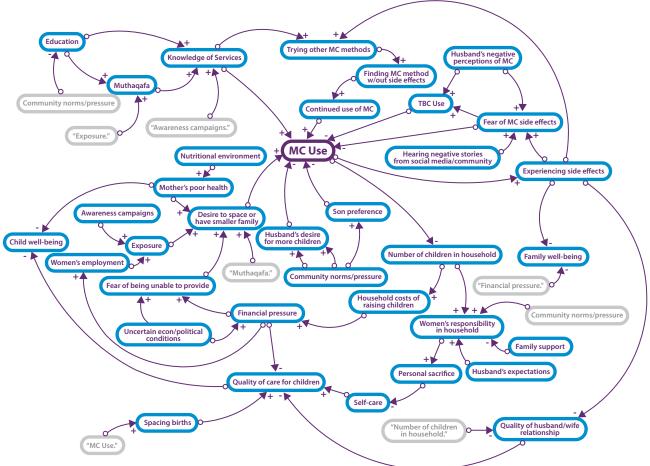
Married Women of Reproductive Age Model

MWRA Model Overview

The CLD created with married women (Figure 8) contains five overarching variable categories which impact MC use: women's responsibility in the household; education and knowledge of MC; health impacts of MC; household resources; and quality of care of children. Overall, 13 feedback loops were identified, of which 11 were balancing and 2 were reinforcing.

As uptake of MC methods has held close to constant over the past decade, a structure which contains mostly balancing loops is expected. These balancing loops reveal a key insight into how married women think about the broader social system that determines contraceptive use: a desire for or pressure to have more children is assumed to be constant. For example, the MWRA model indicates that if external forces such as financial pressure – which lead to a desire to space births or have a smaller family – are lifted, MC use subsequently declines.

As a tool for policy and programming, the model offers a window into the pathways that influence MC use and may provide insights into how best to target leverage points, such as women's responsibility in the household, perceptions of side effects stemming from MC use, and a desire to provide high quality care to children.



Feedback Loops in MWRA Model

Figure 8: Married Women of Reproductive Age Full Model

Among the women, three main variables stood out in the balancing feedback loops that limit sustained uptake of MC methods: 1) financial pressure in the household; 2) a desire to maintain a high quality of care for their children; and 3) a fear of side effects from MC use.

Multiple balancing loops were formed around the financial costs of rearing children in modern Jordan. (Figure 9) illustrates the basic form of this loop: as the number of children in the household increases, the size of the family increases, leading to an increase in financial pressures, which may lead families to desire to space children or have a

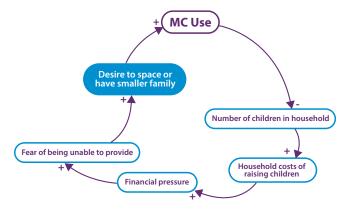


Figure 9: Financial pressure balancing loop

smaller family altogether. However, because of the assumption that barring external circumstances, families will want to continue to have more children, this operates as a balancing loop: after a period of spacing through MC use, families feel less financial pressure and ultimately decide to discontinue MC use.

It is important to note that this structure may not fully capture the way that women make decisions around FP. It may be that women did not feel comfortable expressing more personal thoughts around family planning during the GMB session. Notably, the model contains no variables which explain achieving a desired family size, and inclusion of this variable in future work may reveal variables and nuances not expressed here.

Financial pressure also leads to MC use through two other pathways (Figure 10): 1) As financial pressure increases, women are more likely to be employed, and employment leads to what women described as "exposure" and a greater acceptability of and desire to have a smaller family or to space their children. 2) More explicitly, women described how greater exposure to broader customs and lifestyles increases a woman's thaqafa, or open-mindedness, which leads to knowledge of MC services and greater use. Once again, however, these are balancing loops that indicate that once financial pressure eases, families will choose to have more children, independent of a woman's exposure or level of thaqafa. Although this may not accurately represent how an individual household thinks about family planning (the decline in fertility rate over the past decade in Jordan indicates that desired family size has decreased), it does suggest that women see and feel a constant pressure for a larger family size.

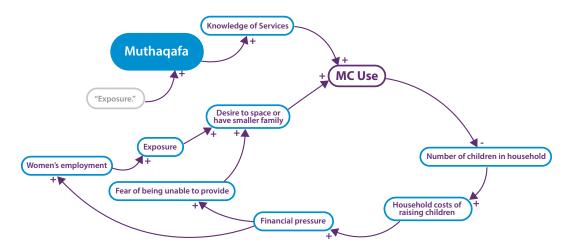


Figure 10: Employment and level of thaqafa balancing Loops

Women also expressed concerns about the side effects of modern contraceptive methods (Figure 11). For example, participants reported that one of the barriers to sustained MC use is experiencing side effects, which leads to fear of those side effects, and results in either decreased MC use or the use of traditional birth control methods.



Figure 11: Side effects balancing loop

However, experiencing side effects might also lead a woman to try other modern MC methods until she finds a method that is right for her, which results in continued use of MC (Figure 12).

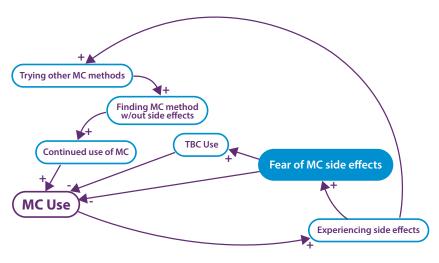


Figure 12: "Right method" reinforcing loop

Broader Themes and Leverage Points

Desire to provide quality of care of children:

In the model, quality of care of children is directly impacted by four variables: financial pressure, spacing of births, self-care, and the quality of a wife's relationship with her husband. Throughout dialogue with each other and with the facilitation team, a desire to provide a quality of care for their children came up repeatedly. Women felt, for example, that because community pressure and norms placed child-rearing responsibility most directly on the female, having more children would lead to increased responsibility and ultimately a lower quality of care for their children.

Fear of not being able to provide:

Closely related to a desire for high quality of care was the fear of not being able to provide, which led directly into a desire to space or limit births and ultimately to adopt MC methods. Women discussed how they had seen, heard, or experienced how the burden from raising large families might decrease child well-being. They also emphasized how constant financial pressure in combination with political and economic uncertainty in Jordan increased the fear of not being able to provide.

Experiencing side effects:

During one of the opening activities, in which the women in the session were asked to rank variables that predicted or deterred the use of MC use by level of importance, a majority of women selected "side effects". Some spoke of direct experience with negative side effects. Others described how their fear stemmed from either the negative stories they hear from within their social networks or from their husband's negative perceptions of MC.

Focus on the self:

One final theme, although secondary, was the focus that women put on themselves, and how they envisioned MC use might impact their burdens at home, their health, and their own happiness. As noted above, women were concerned about side effects of MC use, but they also expressed the notion that having a smaller family size would decrease the level of sacrifice that they make to provide care for home and family, ultimately leading to a higher level of self-care and overall happiness for themselves.

INSIGHTS AND QUESTIONS: MWRA MODEL Insights Questions MWRAs demonstrate a strong desire How can MWRAs better balance their

- time and finances? Are their institutional and policy level changes that can be made to facilitate this process?
 - What steps can be taken to support the idea of women working outside the home, even when there is not the financial pressure to do so.
 - What influences finding the right contraceptive method and how can we further mitigate fear of side effects?

 They also fear being unable to "provide" for their children and family.

to provide quality care to their children.

- Working outside the home can alleviate financial pressure and expose women to broader customs and lifestyles, which may increase knowledge and desire to use MC; however, once the financial pressure subsides, the desire to work may not persist.
- Fear of side effects influences whether MVVRAs initiate and/or continue modern contraceptive methods.

16

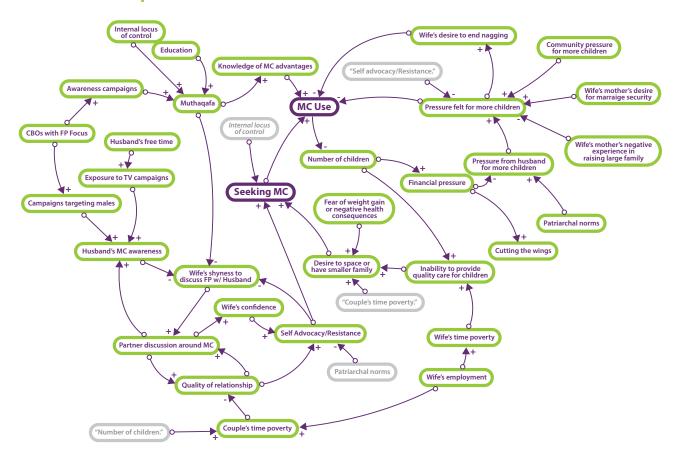
Unmarried Women of Reproductive Age Model

UWRA Overview

The CLD created with unmarried women contains four broad categories of variables connecting to MC use: pressure to have more children; a woman's relationship with her husband and couple communication; knowledge and education; and individual-level variables like self-advocacy and empowerment. Overall, ten loops were identified relating to MC use, all of which are balancing. In addition, the structure contains three reinforcing loops around partner discussion of MC.

One distinction between the MWRA model and the UWRA model is the addition of a "Seeking MC" variable. During the modeling process, unmarried women described how the desire to space births or to have a smaller family was not necessarily sufficient to using MC. Where in the MWRA model, that variable led directly to MC use, unmarried women spoke of a need for self-advocacy and resistance to external pressure, either from the husband, family, or the broader community.

This more individual focus in the UWRA model is distinct from the other two. It may be that because unmarried women do not yet have husbands or dependents, their mental model of the MC and FP system is much more personal. This is a revealing insight which points to opportunities for policy and programming uniquely targeted to the concerns of younger/unmarried women.



Feedback Loops in UWRA Model

Figure 13: UWRA Full Model

Similar their married counterparts, to unmarried women stressed the importance of wanting to provide a high quality of care for their children. In the first balancing loop (Figure 14), as the number of children increases, the ability to provide quality of care decreases, which leads to a desire to space or have a smaller family and ultimately to seek and use MC. Once again, however, this is modeled as a balancing loop, which implies that after a period of MC use, the ability to provide quality care increases, and MC use will stop.

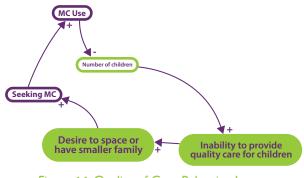


Figure 14: Quality of Care Balancing Loop

In computer simulations of system dynamic models, some variables are known as "stocks," which can represent a quantity, e.g. "desired family size." Because the conventions of a CLD do not allow for variables to act as stocks, which can show how a number changes over time, it may be that this structure does not accurately capture how women think about family planning. More specifically, the model is not able to express an ideal family size or how variables in the system change when and if that size is reached.

Like married women, unmarried women also described how financial pressure effects decision making around MC use (Figure 15). However, in this model, the financial pressure is tied specifically to the pressure exerted by the husband and the broader community for more children, possibly suggesting that financial decisions in the household are controlled by the husband.

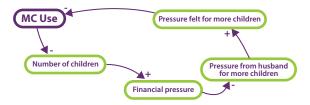


Figure 15: Financial Pressure Balancing Loop

This pressure for more children was a main theme throughout the modeling session, as indicated by the many variables affecting it. In addition to pressure from a woman's husband, her in-laws, and the broader community, pressure for more children came from the woman's mother, who might want her daughter to have more children to ensure higher relationship security. This practice was described as "cutting the wings," and was said to belong to the older generation.

Unlike married women, who already had established families, unmarried women emphasized a desire to end the "nagging" from their family and from the community (Figure 16). The inclusion of this variable illustrates how unmarried women are aware of the constant form the pressure to have more children takes, despite not yet having their own family. It also implies a particular pressure related to the timing of the first birth. Although not captured in the model, women also expressed in conversation how community preference for male children might further increase the pressure they feel to have more children, particularly if their first child or children are female.

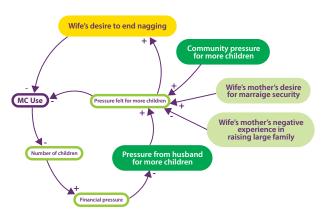


Figure 16: Factors impacting pressure for more children

Another major difference between the MWRA and UWRA model was the extent to which the unmarried women described how individual traits impact decisions around MC. Women saw feeling shy to discuss FP with their husband as one barrier to MC discussion. This variable was modified by a husband's awareness of MC methods, which made discussing FP easier. They also emphasized the importance of partner discussion around MC and how this operates in a reinforcing loop with the quality of relationship. Importantly, partner discussion increased confidence (Figure 17).

There were many factors that unmarried women felt could decrease this shyness, chief of which was the idea of Muthaqafa, or being educated, exposed to other spheres and open-minded. Muthagafa increased also knowledge of the advantages of using MC methods. One other variable we highlight here is "internal locus of control," or a woman's belief that she can influence events and their outcomes, rather than blaming external forces. Although similar to self-advocacy and resistance, an internal locus of control captures an important nuance of unmarried women's discussion around personal autonomy. Being able to resist external pressures through self-advocacy is impacted by multiple variables; patriarchal norms in particular, though changing, negatively impact the self-advocacy variable. However, without an internal locus of control, a woman might not feel she has any ability to push back against external circumstances. A woman with a high internal locus of control will be more likely to pursue a course of action which changes her ability to self-advocate (Figure 18).

Although the model structure contained no reinforcing feedback loops connected to MC use, several emerged within relationship quality and partner communication. Women spoke of how the quality of the relationship with their husbands

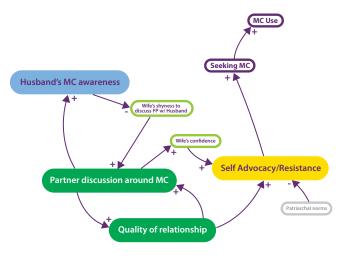
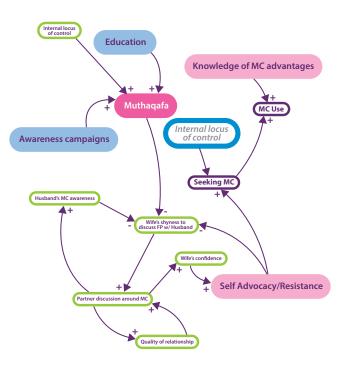


Figure 17: Interpersonal Factors and Self-Advocacy





would improve discussion around MC, and how discussion around MC could in turn improve quality of the relationship - through increased partner understanding and ultimately through more satisfactory family planning for both partners. More discussion around MC increased a woman's confidence and self-advocacy, decreasing her shyness, ultimately resulting in even greater discussion. Finally, as a woman speaks with her husband about MC, his awareness increases, which decreases her shyness and initiates further

discussion (Figure 19). As illustrated in the full model, increased self-advocacy and resistance, in addition to confidence, lead women to seek and ultimately acquire MC.

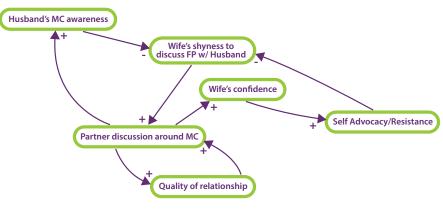


Figure 19: Quality of relationship and partner discussion

Broader Themes and Leverage Points

Internal locus of control and self-advocacy and resistance:

In previous qualitative research, Jordanian and Syrian couples unanimously agreed that family planning is an important topic with relevance to both parties. JCAP's KAP survey, which targeted MWRAs, found that 74% of the participants mentioned that they discussed family planning with husbands.¹⁹ This model provides insight into some of the pathways that affect that discussion, and how it might be increased. Unmarried women described wanting to feel they had the ability to resist external pressure and to advocate for themselves; quality of relationship and a husband's MC awareness were key factors influencing these variables. Importantly, many of these variables work in reinforcing feedback loops, indicating key leverage points in policy and programming.

Pressure felt for more children and a desire to end nagging:

Unmarried women were very aware of the pressure that can be exerted upon women from various factors to have a large family, despite not yet engaging in family planning themselves. Women spoke of how wherever they went, particularly before having their first child, they expected to face questions from family and community members. This resulted in a strong desire to simply "end the nagging." Self-advocacy and resistance decreased this pressure.

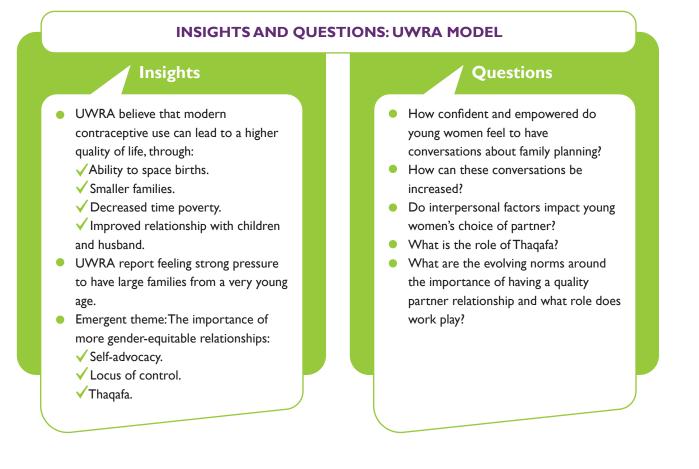
Time poverty:

The final broad theme that emerged in the modeling session was the idea of the wife's time poverty. Unmarried women, now beginning to think seriously about marriage, were very internally focused. Like their married counterparts, they expressed a desire to provide a high quality of care, but in discussing a desire to space births or to have a smaller family, their interests were personal - they expected to want more time for themselves.

^{19 -} JCAP, USAID. 2015. Knowledge, Attitudes, and Practices toward Family Planning and Reproductive Health among Married Women of Reproductive Age in Selected Districts in Jordan: Report 2015. Available at: http://www.tawasol-jo.org/en/publications-resources.

Partner relationship:

Although the quality of relationship was touched on in the MWRA model, the UWRA model is notable for its focus on partner relationship. Younger women discussed the importance of partner relationship to a much greater extent than their married counterparts, which may reflect changing cultural norms about the role of a woman in the household and/or a shift in focus towards children among MWRAs who have given birth. As indicated by the reinforcing feedback loops around partner discussion and the quality of a relationship, UWRAs sought relationships with a more equal relationship, and were particularly focused on how the quality of a relationship might influence their autonomy in family planning.



Men's Model

Men's Model Overview

The CLD created with married and unmarried men contains three broad categories of variables: influences on the husband's desire to have more children; quality of care of children and husband-wife relationship; and broader political and social factors which might impact MC use in the future. Two reinforcing loops connected quality of husband and wife relationship. Two balancing loops described hypothetical examples in which a government policy around population stemming from strains on natural resources would increase MC use and decrease that strain, and similarly how an increase in population decreases economic stability, resulting in a government policy and greater MC use.

The men's model contains several new diagramming conventions. First, the connection between a husband's desire to have more children and a husband's desire to use MC is dashed to indicate that this is not a connection that men frequently made during the GMB session. Men were focused on the factors that might affect their desire to have children, but when pressed to connect this desire (or lack of desire) to MC use, they were unaware or unable to clearly delineate pathways. The connection from a husband's desire to have more children to his desire to use MC is thus denoted with a dashed line. Second, the goal in creating a CLD is to visually represent the system influencing MC use as it currently exists. Men, however, were eager to discuss broader hypothetical factors, which are captured in the model in green. They are included in the model to better illustrate the more abstract way that men think about family planning and contraception, and may be an important finding for future MC messaging that targets men. Given unequal gender roles in the household, men may be more receptive to messaging and programming that illustrates the ways that MC use impacts cultural, political, and economic domains, as this "angle" seems to be of great importance to them.

One final aspect which deserves attention are the demographic characteristics of the men's group; close to half of the men participating were Syrian refugees living in Jordan. Although the Syrian men were eager to participate in the initial activity of variable elicitation, they were less active in the creation of the CLD. Their perspective of FP and MC was markedly different from Jordanian men; they expressed a hesitation to grow a family given the uncertainty of returning to Syria - where presumably their extended families and social networks are located - in the near future. Because their perspectives are perhaps not well-captured in the final CLD, further exploring their perspectives on FP and MC use should be considered in program and policy design. Deeper research is needed to better understand differences between the refugee population and Jordanian citizens.



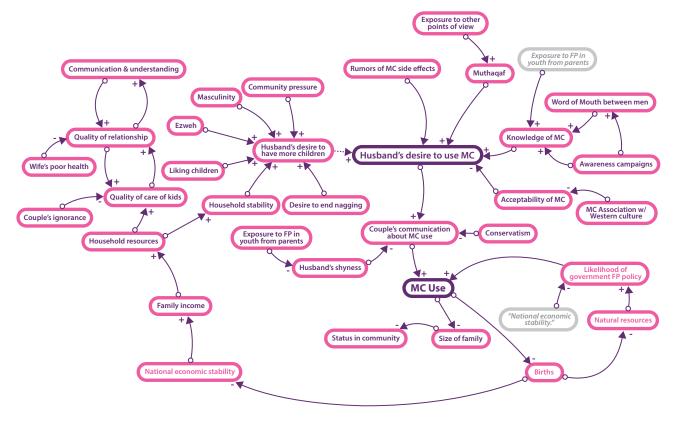


Figure 20: Men's Full Model

The men's model contains two balancing loops of MC use. Both are hypothetical examples, in which an increasing population size leads to economic instability or to a depletion of natural resources, raising the likelihood of a government mandated population policy. Through this policy, MC use increases, ultimately decreasing births, relieving the strain on resources, and, presumably, curtailing FP policy (Figure 21). During the GMB session, the men brought up China as an example where this has occurred.

Although this does not provide direct insight into the current system of MC use, it does indicate the way in which men think about MC from an abstract perspective. Only after specific questions from the facilitation team did men focus more on individual-level variables as they see them operating in the present day.

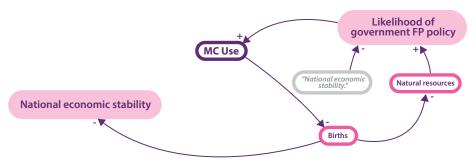


Figure 21: Governmental Policy Balancing Loop

A third balancing loop describes more realistically how the current economic climate in Jordan impacts MC use. As the population grows through births and economic stability decreases, family income and household resources are reduced. This decreases household stability, which decreases both husband and wife's desire to have more children. As the husband's desire to use MC increases as a result, the couple communicates more about MC use, ultimately leading to increased uptake (Figure 22).

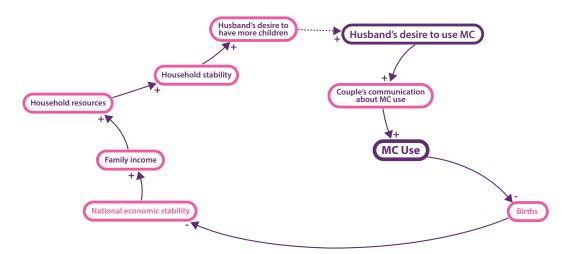


Figure 22:Economic Stability Balancing Loop

Finally, men identified two reinforcing loops around quality of husband-wife relationship. Communication and understanding between the couple increases the quality of the relationship, which in turn leads to more communication and understanding. Likewise, the quality of the relationship increases quality of care for children, and as children are well-provided for, the quality of the relationship further increases (Figure 23). However, unlike UWRA, men did not make the connection between these loops and MC use.



Figure 23: Quality of relationship reinforcing loops

Broader Themes and Leverage Points

Husband's desire to have more children:

Men identified numerous factors across a range of levels, from individual to social to religious, influencing their desire to have more children. Like women in both groups, they reported feeling community pressure to have more children, as well as a desire to end the nagging from family and community members (Figure 24). But they also described factors unique to the men's model: how a belief that the number of children a man has is tied to his masculinity and proof of sexual capability, the belief that God will provide for children, captured here as "Ezweh," and even simple factors such as liking children. It should also be noted that no variables decrease a desire to have children, although as household stability decreases, its influence on desire for more children would subsequently decrease.

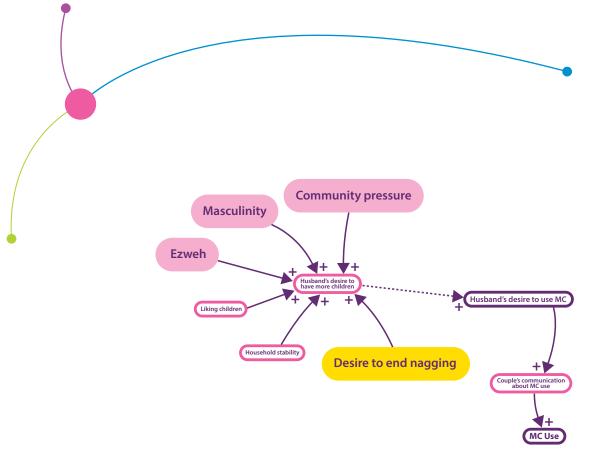


Figure 24: Factors influencing husband's desire to have more children

Factors impacting MC use:

When encouraged to speak specifically about MC use, and not just desired family size, men brought up similar variables as their female counterparts, such as the man's level of Thaqafah, knowledge of MC, and reservations around discussing MC. However, men were also the first to highlight a few larger social factors: the acceptability of MC, they felt, was lowered because of its association with Western culture, and the fact that conservative values might prohibit communication around MC use (Figure 25).

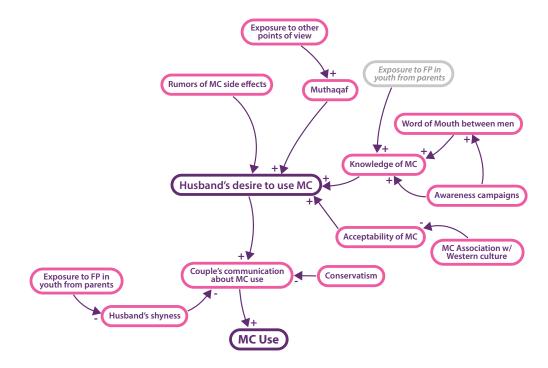
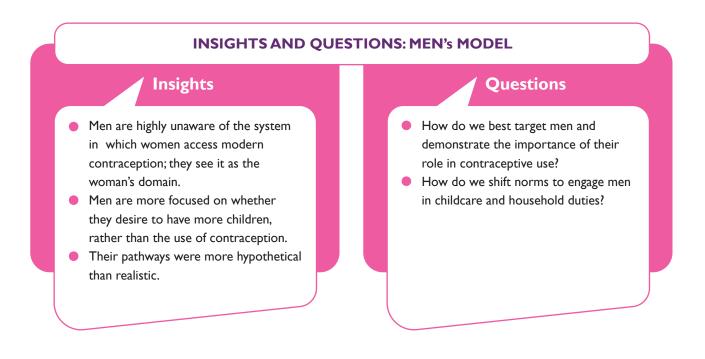


Figure 25:Variables influencing MC use

Ultimately, the model suggests a need for addressing two pathways unique to men, which should inform JCAP programing in targeting this important group.

1. Target the link between family planning and MC use. Although ultimately it is the woman who accesses MC, the previous models indicate the importance around discussion and communication. Men need to be aware of MC services, the benefits of using MC, and the role they play in their wife's access.

2. Consider larger factors in policy and programming. Concepts of masculinity, childbearing as proof of sexual capability, religious norms, and the associations with Western culture were variables discussed only by men, suggesting a need for more tailored campaigns for men.





It is important to remember that the loops proposed in these models are inherently complex and are moderated by numerous factors. In fact, the models themselves are based on the assumptions and experiences of the participants in the working groups and could be modified depending on how the populations are stratified by variables like age, geographic location, education, and nationality. Furthermore, these models were edited and modified based on our own recollection and assumptions of the pathways discussed in each target group session.

Though these models are based on limited data and cannot be presumed to be universally true, we would like to highlight two overarching strengths of the activities that were conducted in each workshop, as well as the information that was collected. First, many of the pathways and broader themes that were identified through the four workshops have been evidenced in the literature. For example, in their very own Gender Norms Study, JCAP (2016) found that the economic situation in Jordan and Syria seems to have started to override long established traditions of large family size; and that women and men are struggling with the need to find a healthy work-life balance, while also meeting the demands of family and community to have children. These demands have had an impact on the role that women and men play within the household and outside of it. ²⁰

In the gender literature outside of Jordan, research has shown more general findings about the pathways between GEFE and MC outcomes. For example, Das (2014) and Grabe (2010) show a clear link in their work between a woman's control over resources and her level of self-efficacy; and in their analysis of the data within select African countries, Do and Kurimoto (2012) conclude that a woman's self-efficacy (as measured via an empowerment scale) is significantly linked to her economic decision-making power and ultimate contraceptive use, as well as her ability to negotiate fertility preferences and sexual activity with her partner.^{5,16-17} Also, in their evaluation of a family planning initiative in Kenya, Wegs et al. (2016) suggest that increased exposure to different viewpoints enables more equitable communication between partners, improved decision-making power and, ultimately, increased use of contraception.¹⁸

The second strength related to group model building is that it is a helpful tool in making more explicit the ways in which the women and men living in Jordan conceptualize how things work. That is, it demonstrates their "mental models" of a system. For example, in a simple diagram describing how gender inequality influences MC use, "women's empowerment" might be described as a main factor affecting uptake of contraception. However, "women's empowerment" is a complex concept, and many people living in Jordan likely define it or understand it in different ways. During GMB, women and men are given the space to describe the concept organically, using more concrete and measurable terms. By breaking it down, we can see how the various factors related to "empowerment" act dynamically in the system and identify key "leverage points", where small changes can lead to large effects.

That said, our analysis of the leverage points for each model is based on the role they play within the larger system, as well as notes and observations from the group model building process. We've highlighted themes that were of particular concern to the target groups with whom we built the models and which have the potential to exert strong effects on the system as a whole. For example, MWRA highlighted the modern nutritional environment in Jordan as adversely impacting women's health, which subsequently affects a woman's desired family size. Although this is a valuable insight, the nutritional environment is both difficult to change (exogenous) and only distally related to factors affecting family planning; therefore, we did not discuss it in our report as a potential leverage point.

16 - Das JK. Empowering farm women through income and livelihood generation. International Journal of Bio-resources and Stress Management

^{15 -} Hovmand PS. Group Model Building and Community-Based System Dynamics Process. In: Community Based System Dynamics.; 2014:17-31. doi:10.1007/978-1-4614-8763-0.

^{2014; 5(1) 74-77.} Doi 10.5958/j.0976-4038.5.1.013

^{17 -} Grabe S. Promoting gender equality: the role of ideology, power, and control in the link between land ownership and violence in Nicaragua.

Analyses of Social Issues and Public Policy 2010; 10(1) 146-170. Doi 10.1111/j.1530-2415.2010.01221.x 18 - Wegs C, Creanga AA, Galavotti C, & Wamalwa E. Community Dialogue to shift social norms and enable family planning: an evaluation of the family planning results initiative in Kenya. PLoS ONE 2016 11(4) Doi: 10.1371/journal.pone.0153907.

^{20 -} JCAP, USAD. 2016. Exploring Gender Norms and Family Planning in Jordan: A Qualitative Study, Final Report. Available at: http://www.tawasol-jo.org/en/publications-resources

Comparisons Between Stakeholder and Community Models

In general, the majority of the stakeholder model maps neatly onto the community models, particularly those conducted with women. However, there were some overarching differences. First, the stakeholder model was generated with the input from JCAP team members, as well as participants from USAID, the Government of Jordan, and JCAP Grantees. As such, one of the main differences between this model and the three built with community members is the level of analysis.

As described above, one of the main themes which emerged in the stakeholder model is the role that women's participation in the labor force plays in MC use. The models created with the MWRAs, UWRAs and men did not focus as heavily on this theme. Instead, they highlighted other ways that a woman increases her critical thinking skills, or level of Thaqafah, with exposure to various forms of media and education playing a key role. This difference could be a result of a number of factors. For example, as compared to the women in the stakeholder workshop, there were not as many women who were employed among the MWRAs and UWRAs; therefore, it could be that they simply did not prioritize the connection between labor force participation and contraception (i.e. it did not come to mind as readily as other more familiar variables). On the other hand, labor force participation is a variable of immediate concern for the government, and it makes sense that it would be a priority focus for the participants in the stakeholder workshop.

Stakeholders were also more attuned than their community counterparts to the barriers of actual acquisition of MC (i.e. the supply-side), such as service provider bias, actual referrals, and available method options. The MWRA and UWRA groups were relatively aware of the different MC options; however, the men's model suggests little knowledge in this area.

Perhaps most revealing is the dominance of reinforcing loops in the stakeholder model versus the balancing loops in the community models. The main reason for this discrepancy is that the stakeholder model did not make explicit connections between financial pressure and a desire for more children: where the stakeholder's model suggests that women will continue participation in the labor force, the models conducted with the MWRAs and UWRAs suggest that a woman's employment is a more temporary phenomenon. This is not an entirely unexpected result, given that many of the stakeholders have high-level careers and are well-educated women. Additionally, the community models focused much more on the individual pressure from multiple sources that women feel to have a large family, which was not as fully captured in the stakeholder model.

Finally, more individual level variables, such as the experience of MC side effects, and how the quality of husband/wife relationship impacts MC adoption, are not as thoroughly explored in the stakeholder model as they were in the community models. These insights provide direction for future campaigns targeting individual level barriers to MC use.

Comparisons within the Community Models

As expected, the three models constructed during the GMB sessions share many similarities. Each model is dominated by balancing loops over reinforcing loops. A balancing loop in this context denotes a limiting factor for the uptake and continued use of MC methods, reflecting the common consensus that the Jordanian social and cultural environment highly values large families. It also corroborates the stagnation in family

planning usage seen since the 1990s, as a system dominated by balancing loops tends to stay in equilibrium. For example, when motivations to use MC methods – such as financial pressure and time poverty stemming from caring for a large family – are eased, the desire to continue having children is assumed to continue, and use of MC decreases. The balancing loops in the MWRA model and UWRA model in particular look very much the same.

The following specific themes and pathways were shared between the three models:

- 1. Financial pressures of raising children lead to a desire to space births or to have a smaller family.
- 2. The time poverty stemming from caring for a large family leads to a desire to space births or to have a smaller family.
- 3. Community and family pressure to have more children, what was sometimes described as "nagging," competes with a desire to space births or to maintain a smaller family size.*
- 4. Partner discussion is an important pathway to MC seeking, and this is influenced by the quality of the husband wife relationship. With more children, all groups felt that the quality of the husband-wife relationship suffered, making it difficult to make equitable, healthy decisions for the family.

Similar to the findings from JCAP's gender norms study (2016)²⁰, all models illustrate that Jordan may be on the verge of a paradigm shift with respect to desired family size and family planning in general. Although not perfectly captured in the overall structure, the presence of a generation gap was felt/observed during the modeling sessions. This is partly captured in the discussion around the person level of Thaqafah, which is common throughout the models. Presumably, as Jordan continues to become more economically stable, and younger generations gain access to a more global culture through media and other forms of exposure, older, more traditional norms may be eroded. Already, younger participants were keen to discuss family and community pressure to have a larger family, and how they see themselves resisting that pressure. Additionally, if there was a tacit theme underlying the sessions, its message was that many people now desire smaller families, but are unsure how to express and act on that desire against social and cultural momentum. However, the link between desired family size and MC use is not a direct one. Thus, the differences between models, and particularly the variables that lead to MC use, are equally as salient as their similarities.

Of note, there were two glaring differences between the models created by the women versus the one done by the men. First, married and unmarried women's mental models for MC use were far more nuanced than the men's. This might be because women are the ones to seek and use MC methods, and their understanding of the various factors that go into that decision is more individually driven and reflective of the pressures and desires they feel around giving birth; whereas, though the men saw the benefits in spacing births and limiting family size, they did not link the use of contraception to either outcome. That is, they were more focused on the "end goal" rather than the means to attaining that goal, implying somewhat implicitly that avoiding an unintended pregnancy (i.e. using contraception) is ultimately the woman's responsibility/problem. Any programs or policies focused on spacing births or limiting family size, therefore, need to make the link to contraception explicit.

^{*} Though it was not discussed in detail, "son-preference" did come up during the variable solicitation activity as a factor influencing the desire for more children and whether or not women use contraception. However, it was not made clear whether having a son and/or at what family size the nagging is stopped.

Second, unlike the women who were more concerned with outcomes at the household level, men were more inclined to bring up consequences at the population level. For example, they linked larger family size to economic instability at the national level and depletion of country/environmental resources. They even went so far as to link family size with potential/hypothetical government mandated population policies. This focus could imply that men are ready to accept such policies.

Conversely, the lack of focus and/or awareness of population issues among the women may mean that they – more than men – need to be targeted when raising awareness and making the link between family planning and its impact on population health and development.

Recommendations and Next Steps

Develope interventions engaging men and women in gender/FP discussions:

- Couples counseling sessions.
- Couples FP education sessions.
- Group Model Building tool for couples FP discussions.

Mainstream gender FP into social and behavior change communication (SBCC) programs targeting young adults, such as how FP improves quality of relationships and personal satisfaction in family life.

Through media, school curriculum and community clubs, promote the combined message that both men AND women have value within and outside the home, and that modern FP use allows all genders to reach their full potential.

Promote greater education around MC, particularly among men and young adults of both genders, being sure to incorporate critical thinking / Thaqafah issues.

In consideration of our findings, we suggest the following next steps:

- 1. Organize a week-long training session in CBSD for JCAP team members and partners. Areas to cover will include:
 - History and philosophy of CBSD.
 - Scripts and activities central to CBSD.
 - Development of a Facilitation Manual.
 - Rehearsal of a GMB session.
 - Model creation, using the software Vensim, as well as interpretation, and analysis.
 - Reporting of findings.
 - Application of GMB Skills & Knowledge.
- 2. Organize a brainstorming session with JCAP team to figure out ways to better incorporate critical thinking/Thaqafah issues in family planning education. Also, find ways to better measure changes in a person's level of Thaqafah through the exposure to external spheres, as it relates to family planning decisions, attitudes, and behaviors.
- Continue to focus efforts on including men/boys in family planning education (CBSD activities will work well for this within SBCC activities, for example) and outreach activities, explicitly making the link between contraception and family size/timing.
- 4. Create advocacy tools (i.e. brochures, flashcards, social media) explaining some of the pathways that were discovered through our sessions. The goal of the tools will be to both educate the stakeholders, IPs, and the public on how gender plays a role in MC use, as well as to facilitate dialogue around these important issues with overseen solutions and to inform programming interventions.

References

- Taukobong H, Kincaid M, Levy J, Bloom S, Platt J, Darmstadt G. 2016. Does addressing gender inequalities and empowering women and girls improve health and development programme outcomes? Health Policy and Planning. 2016; doi: 10.1093/heapol/czw074.
- 2. Dharmalingam A, Philip Morgan S. Women's work, autonomy, and birth control: Evidence from two South Indian villages. Popul Stud 1996;50:187–201.
- 3. Visaria L, Jejeebhoy S, Merrick T. From family planning to reproductive health: Challenges facing India. Int Fam Plan Perspect 1999;25:S44.
- 4. Corroon M, Speizer IS, Fotso J-C et al. The role of gender empowerment on reproductive health outcomes in urban Nigeria. Matern Child Health J 2014;18:307–15.
- 5. Do M, Kurimoto N. Women's empowerment and choice of contraceptive methods in selected African countries. Int Perspect Sex Reprod Health 2012;38:023–33.
- 6. Jejeebhoy SJ.Women's status and fertility: Successive cross-sectional evidence from Tamil Nadu, India, 1970-80. Stud Fam Plann 1991;22:217.
- 7. Schuler SR, Hashemi SM. Credit programs, women's empowerment, and contraceptive use in rural Bangladesh. Stud Fam Plann 1994;25:65;
- 8. Vlassoff C. Progress and stagnation: Changes in fertility and women's position in an Indian village. Popul Stud 1992;46:195–212.
- 9. Woldemicael G.Women's autonomy and reproductive preferences in Eritrea. J Biosoc Sci 2009;41:161.
- 10. Ahmed S, Creanga AA, Gillespie DG et al. Economic status, education and empowerment: Implications for maternal health service utilization in developing countries. Shea BJ (ed.). PLoS ONE 2010;5:e11190.
- 11. Stephenson R, Bartel D, Rubardt M. Constructs of power and equity and their association with contraceptive use among men and women in rural Ethiopia and Kenya. Glob Public Health 2012;7:618–34.
- 12. Campbell JC. Health consequences of intimate partner violence. The Lancet 2002;359:1331–6.
- 13. Gazmararian JA, Peterson R, Sptiz AM, Goodwin MM, Saltzman LE, Marks JS. Violence and reproductive health: Current knowledge and future directions. MCH Journal 2000; 4 (2): 79-84.
- International. 2013. Jordan Population and Family Health Survey 2012. Calverton, Maryland, USA: Department of Statistics/Jordan and ICF International. Available at: http://dhsprogram.com/publications/publication-FR282-DHS-Final-Reports.cfm#sthash.N0fbWeDp.pdf.
- 15. Hovmand PS. Group Model Building and Community-Based System Dynamics Process. In: Community Based System Dynamics. ; 2014:17-31. doi:10.1007/978-1-4614-8763-0.
- 16. Das JK. Empowering farm women through income and livelihood generation. International Journal of Bio-resources and Stress Management 2014; 5(1) 74-77. Doi 10.5958/j.0976-4038.5.1.013.
- 17. Grabe S. Promoting gender equality: the role of ideology, power, and control in the link between land ownership and violence in Nicaragua. Analyses of Social Issues and Public Policy 2010; 10(1) 146-170. Doi 10.1111/j.1530-2415.2010.01221.x.
- Wegs C, Creanga AA, Galavotti C, & Wamalwa E. Community Dialogue to shift social norms and enable family planning: an evaluation of the family planning results initiative in Kenya. PLoS ONE 2016 11(4) Doi: 10.1371/journal.pone.0153907.
- 19. JCAP, USAID. 2015. Knowledge, Attitudes, and Practices toward Family Planning and Reproductive Health among Married Women of Reproductive Age in Selected Districts in Jordan: Report 2015. Available at: http://www.tawasol-jo.org/en/publications-resources.
- 20. JCAP, USAD. 2016. Exploring Gender Norms and Family Planning in Jordan: A Qualitative Study, Final Report. Available at: http://www.tawasol-jo.org/en/publications-resources.

