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FERTILITY PREFERENCES AND BEHAVIORS AMONG YOUNGER COHORTS IN EGYPT: Recent Trends, Correlates, and Prospects for Change

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RESEARCH REPORT

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We hope the study results will contribute to policies and programs that would enable more young couples in Egypt make informed decisions about their family size and achieve their fertility goals.

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List of Acronyms

CAPMAS	Central Agency for Public Mobilization and Statistics
DMPA-SC	Subcutaneous Depot Medroxyprogesterone Acetate
EDHS	Egypt Demographic and Health Survey
EGP	Egyptian Pound
FGD	Focus group discussion
FP	Family planning
GDP	Gross domestic product
GOE	Government of Egypt
IRB	Institutional Review Board
IUD	Intrauterine device
JSI	John Snow Inc.
KII	Key informant interviews
LNG IUS	Levonorgestrel-releasing intrauterine system
MB	Muslim Brotherhood
MCIT	Ministry of Communications and Information Technology
MII	Method Information Index
MOHP	Ministry of Health and Population
NCCM	National Council for Childhood and Motherhood
NGO	Non-governmental organization
NPC	National Population Council
OB/GYN	Obstetrician-gynecologist
RH	Reproductive health
RR	Raeda Rifeya
SEFPP	Strengthening Egypt's Family Planning Program
SPSS	Statistical Package for Social Sciences
SYPE	Survey of Young People in Egypt
TFR	Total fertility rate
UNFPA	United Nations Population Fund
US$	United States dollar
USAID	The United States Agency for International Development
VAT	Value added tax

Executive Summary

BACKGROUND

Egypt experienced a reversal in fertility trends after a period of a steady fertility decline. The 2014 Egypt Demographic and Health Survey (EDHS) indicated that the total fertility rate (TFR) increased from 3.0 births per woman during the period 2005–2008 to 3.5 births per woman during 2011–2014. Moreover, the Survey of Young People in Egypt (SYPE) 2014 showed an increase in desired family size among unmarried young men and women compared to 2009. The increase in the TFR has significant implications for population growth, which translates to greater strain on families and the country's already limited resources. Although there is evidence that in 2018 TFR has gone down to 3.1, it is still important to understand the factors that may have prompted the increase in fertility between 2008 and 2014, identify population sub-groups more likely to have experienced changes in fertility preferences and behaviors, and examine prospects for future fertility decline.

OBJECTIVES

- Examine changes in fertility preferences and behaviors among various sub-groups of young people aged 15–34 between 2008/2009 and 2014.
- Identify key drivers of the increase in fertility among young people between 2008 and 2014 and understand factors that may have contributed to the above increase.
- Examine prospects for change by gaining an in-depth understanding of current fertility preferences and behaviors among young people aged 15–34 and identifying challenges and opportunities for the national family planning program to reverse the above trends.
- Provide recommendations for more targeted and sustainable interventions to address drivers of increased fertility among young people in Egypt.

METHODOLOGY

The study used quantitative and qualitative methods of inquiry. Secondary analysis of quantitative data was undertaken using nationally representative survey datasets: the 2008 and 2014 EDHS and the 2009 and 2014 SYPE. Trends and correlates were analyzed between 2008 and 2014 using the EDHS for ever-married women aged 15–34 in terms of: (a) fertility desires and preferences; (b) fertility behaviors including number of living children, unplanned fertility, and birth spacing; (c) drivers of increased fertility, namely family planning use, method mix, and contraceptive discontinuation; and (d) quality of family planning care received and exposure to family planning information.

Analysis of SYPE data involved examining changes in fertility desires and preferences among various sub-groups of unmarried youth aged 15–29 between 2009 and 2014.

The qualitative component of this study included (1) 42 focus group discussions (FGDs) with young married and unmarried women and men aged 18–34 in the governorates of Gharbia, Souhag, Cairo, and Port Said, to represent Urban Governorates, Upper Egypt, and Lower Egypt; and (2) 19 key informant interviews (KII) with senior officials at the Ministry of Health and Population (MOHP) and the National Population Council (NPC), senior obstetricians/gynecologists, former government ministers, representatives of international organizations, head of physicians and pharmacist syndicates, religious leaders, and media practitioners. The above FGDs examined young people's current fertility preferences, perceptions of family planning, and experiences in using voluntary family planning methods and services. KII inquired about current challenges and opportunities that Egypt's family planning program is facing, as well as socio-cultural, political, and programmatic factors that may have contributed to the reversal of fertility trends in Egypt between 2008 and 2014.

KEY FINDINGS

The study revealed an increase in the proportion of women aged 15–34 with three or more living children (from around 30 percent in 2008 to 33 percent in 2014). The increase between 2008 and 2014 in the proportion of women who had three or more living children was noted among various sub-groups of women, especially among those aged 20–24 and those with above secondary education.

Birth intervals continued to be relatively short, with more than half of non-first order births occurring within less than three years of a previous birth. Unplanned births (the percentage of births that were wanted later or not wanted at all) increased from around 11 percent in 2008 to 14 percent in 2014. In addition, the study revealed increased fertility desires among ever- and never-married young people between 2008/2009 and 2014. The percentage of ever-married women 15–34 who desired three or more children increased from around 47 percent in 2008 to 53 percent in 2014. Among never married young people, the increase in the desire for more children was more pronounced among young women than young men, young women who were in the highest wealth quintile (an increase of about 79 percent), those who live in Urban Governorates, and those with secondary education.

The three main drivers of increased fertility were decreased use of family planning among married women with two or more children, a shift toward short acting methods of contraception, and increased contraceptive discontinuation between 2008 and 2014. Use of modern family planning methods decreased slightly from 51.9 percent in 2008 to 51.3 percent in 2014 among married women aged 15–34. Also, the proportion of women with two or more children who were not using any family planning method increased from 28 percent in 2008 to around 33 percent in 2014. The increase in non-use among women with two or more children was more noticeable among those who live in urban Upper Egypt and those in the highest wealth quintile. Also, the study pointed to a shift away from the intrauterine device (IUD) to oral pills and injectables, as two-thirds of users aged 15–34 were using the IUD in 2008, compared to less than half in 2014. Family planning discontinuation rate during the first 12 months of use increased from 27 percent in 2008 to 32 percent in 2014. The largest increase in contraceptive discontinuation was among IUD users.

Declines in exposure to family planning messages and quality of care between 2008 and 2014 may have been responsible for the decreased use of voluntary family planning, the shift away from the IUD, increased contraceptive discontinuation, and increased fertility desires. Quality of FP counseling declined, especially in the private sector between 2008 and 2014. A noticeable decrease was noted in the proportion of current users who were told about other FP methods (68 percent in 2008 versus 62 percent in 2014), potential side effects of their chosen method (56 percent in 2008 versus 48 percent in 2014), or management of side effects (47 percent in 2008 versus 36 percent in 2014). The proportion who received all three pieces of information (the Method Information Index) decreased from 42 percent in 2008 to 32 percent in 2014. A considerable decline in exposure to FP messages through various channels was also noted, with the percentage of women who reported exposure to FP messages through television declining from 60 percent in 2008 to 40 percent in 2014.

Several socio-economic, political, and programmatic factors may have contributed to increased fertility and the desire for larger families. Political unrest following the 2011 and 2013 revolutions and the rise of Muslim Brotherhood to power resulted in decreased political commitment to family planning, change of MOHP priorities, and a shift away from the public discourse that condones and promotes family planning. Economic constraints associated with the above- mentioned unrest placed pressure on the private sector including pharmaceutical companies, hence there were method stock outs in private pharmacies. Phasing out of USAID from the national family planning program in 2008 resulted in reduced funding for training and supervision as well as discontinuation of media campaigns that had been successful in raising awareness of FP. Moreover, a changing media scene with increased viewership of private media channels along with a weakened private family planning sector, especially the NGO sector which previously catered to the needs of middle-class women

who live in urban areas, may have both contributed to descreased exposure to family planning messages and undermined quality of private family planning care.

As to current family planning perspectives among young people, the qualitative component of our study revealed a desire for larger family sizes compared to the previous two-child family norm among young men and women. Although economic constraints are driving many young couples to reduce the number of children they have, many of our participants indicated that they would only prefer two children if they had both a boy and a girl. Participants in rural Souhag expressed a desire for 3–4 children, provided that there are at least two sons. Young men and women were fairly knowledgeable of family planning methods, namely oral pills, injectables and IUD; however, their knowledge of other family planning methods such as subdermal implants, male condoms, fertility awareness-based methods, or emergency contraceptive pills was very limited.

Although attitudes about family planning use were generally positive, the majority of male and female participants did not want to begin using contraception until after the first child was born, and men in rural Souhag did not recommend contraceptive use before the second child was born. Misconceptions and concerns about side effects, including effects of contraceptives on future fertility, are widespread among participants in all four governorates. According to participants in this study, some health care providers share the same misconceptions and take part in their propagation. Participants' experiences with family planning method use were largely negative due to experience of side effects. Moreover, there were several reports of unplanned pregnancies as a result of incorrect and inconsistent use of methods. With regards to perceptions of quality of care, public family planning services are believed to provide lesser quality than private services because, according to participants, they are free of charge.

The study identified a number of challenges and opportunities for Egypt's national family planning program. Challenges include a shortage of trained physicians at primary health care facilities, rising costs of contraceptives, and stock outs of methods at private pharmacies. On the positive side, the family planning program is receiving unprecedented high-level political support along with increased governmental and international donor funding. There are also anticipated legal reforms which could allow NGOs to play a greater role in family planning service delivery, while increased use of social media by young people could offer less expensive venues for conveying correct information about family planning.

The Egyptian FP program needs to consider a comprehensive and sustainable approach to address the above fertility trends among various sub-groups of young women and men and to safeguard against future reversals in fertility decline or setbacks in quality of care. Couples should be enabled to make voluntary informed decisions about the number of children to have and assisted to act on those decisions. The approach should rely more on local resources to sustain progress when donor funding is phased out. It should capitalize on the current high political commitment to voluntary family planning in mobilizing governmental, non-governmental, and private resources and in creating public discourse that is supportive of family planning. In the meantime, principles of voluntarism and informed choice should be strictly followed to ensure that women (and men) are making free and fully informed decisions about the number and timing of having children. The proposed approach would involve the following components:

Awareness-raising about family planning for different sub-groups of young people including those who live in urban areas, in upper wealth quintiles, and with secondary or higher education. The Ministry of Health and Population should collaborate with various stakeholders to integrate information about fertility awareness, family planning, birth spacing, and gender equality into secondary school curricula, livelihood training programs, and worker health programs to reach out to a large audience of young people. Private TV channels could be encouraged to air spots about voluntary family planning, potentially through tax exemptions.

Moreover, the use of innovative and less expensive media channels (e.g., social media and digital health) for conveying the above messages to young people should be explored.

Improving quality of FP care. The Ministry of Health and Population and other stakeholders should scale up on-the-job training of service providers, rectify providers' misconceptions about FP methods, introduce more woman-controlled family planning methods (e.g., subcutaneous depot medroxyprogesterone acetate [DMPA-SC] and contraceptive vaginal ring) into the public sector, and explore mechanisms that encourage primary care providers to stay in the public sector. Universities should integrate family planning into medical and nursing school curricula to ensure the graduation of new cohorts of service providers who are competent in family planning service delivery and hence do not need intensive pre- or in-service training in FP.

Integrating FP into other health services. All encounters with the public or private health system should be capitalized on to educate women (and their husbands) about voluntary family planning (e.g., during antenatal, postpartum, postabortion, and infant and child care services). In addition, public and private hospitals should make FP methods available on the Ob/Gyn ward for women who choose to use FP immediately after giving birth or during postabortion care.

Enhancing the role of the private sector in FP service delivery. The Egyptian government should assist NGOs in generating funds to support the provision of subsidized FP services to women who live in urban areas who cannot afford the fees of private doctors. Private doctors (namely Ob/Gyn specialists and general practitioners) and pharmacists should be offered training in FP counseling and contraceptive technology. Pharmaceutical companies may play a role in offering such training as this could eventually lead to increased revenues for those companies through increased sales.

Fostering public-private partnerships. The private sector in Egypt should be encouraged to play a greater role in supporting the national family planning program and hence reducing reliance on international donor funding. Legislative bodies should revisit laws that hinder the growth of the private sector. Large corporations (e.g., banks, telecom, food and beverage companies) could sponsor provider training programs and media campaigns or donate equipment to MOHP facilities as part of their corporate social responsibility programs. Meanwhile, MOHP should build capacity of its staff to tap private sector resources.

Conducting research. A deeper understanding of couples' fertility preferences and behaviors is warranted to determine the extent to which couples are making informed decisions about the number of children they would like to have. Moreover, research organizations are encouraged to collaborate with the MOHP in conducting implementation science to assess the acceptability and use effectiveness of new contraceptive technologies (e.g., subcutaneous depot medroxyprogesterone acetate [DMPA-SC], contraceptive vaginal ring, and levonorgestrel-releasing intrauterine system [LNG IUS]) in the Egyptian context, and to explore new communication technologies (e.g., digital health) to educate young people about FP. Last but not least, quantitative surveys should be conducted periodically to measure changes in family planning knowledge and attidues over time and to monitor progress of the FP program.

Background

The 2014 Egypt Demographic and Health Survey (EDHS) showed a reversal in fertility trends after a period of a steady fertility decline. Total Fertility Rate (TFR) increased from 3.0 births per woman during the period 2005–2008 to 3.5 births per woman in 2011–2014, while use of family planning declined from 60.3 percent in 2008 to 58.5 percent in 2014.

The Survey of Young People in Egypt (SYPE) showed an increase in desired fertility among unmarried young men and women between 2009 and 2014 (Roushdy and Sieverding 2015). If the current annual population growth rate of 2.5% continues, Egypt's population will reach 120 million in 2030, thereby placing enormous pressures on families as well as the country's already limited resources (Ministry of Health and Population 2015).

Even though recent evidence suggests a decline of fertility to 3.1 in 2018 (Elsayed 2019), it is still important to understand the factors that may have prompted the increase in fertility between 2008 and 2014, identify population sub-groups more likely to have experienced changes in fertility preferences and behaviors, and examine prospects for future fertility decline. Younger cohorts, aged 15–34 years, are the focus of this study as they will determine the trajectory of future fertility rates in Egypt.[1] Findings from this study are intended to assist policymakers and program managers in designing evidence-based policies and programs to address key drivers of fertility increase and safeguard against future setbacks to the national family planning program.

[1]Several programs by the Ministry of Youth in Egypt (e.g., the cooperation agreement signed with the Participatory Development Programme in Urban Areas in January 2013) define youth as aged 18-35." Link: http://www.youthpolicy.org/factsheets/country/egypt/

Objectives

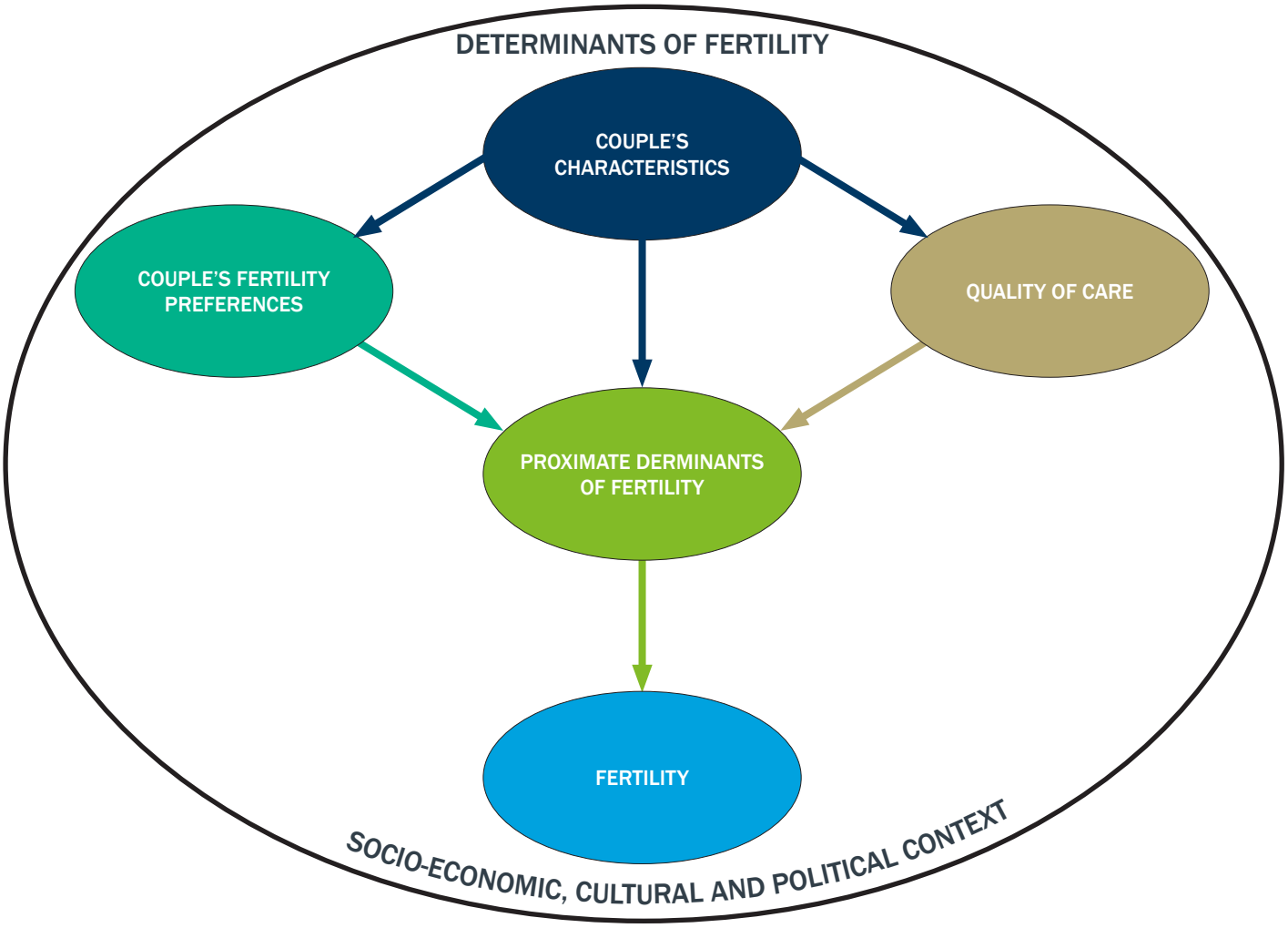
The study aimed to understand fertility trends among young people and to explore reasons for increases in total fertility rate and desired family size. Specific objectives of the study were to:

1. Examine changes in fertility preferences and behaviors among various sub-groups of young people aged 15–34 between 2008/2009 and 2014.
2. Identify key drivers of the documented increases in fertility among young people aged 15 to 34 between 2008/2009 and 2014 and understand factors that may have contributed to the above increase.
3. Examine prospects for change by gaining an in-depth understanding of current fertility preferences and behaviors among young people aged 15–34 and identifying challenges and opportunities facing the national family planning program.
4. Provide policy recommendations for more targeted and sustainable interventions to address drivers of increased fertility among various subgroups of young people in Egypt.

Conceptual Framework

The number of children that a woman bears during her lifetime and their timing is determined by a number of factors (Figure 1). Bongaarts and Potter (1983) identified four key factors which they referred to as proximate determinants of fertility, namely marriage (i.e., proportion of women who are married or in union), contraceptive use and effectiveness, duration of postpartum infecundability, and spontaneous intrauterine mortality. Early marriage prolongs the duration when a woman is likely to have children and hence is associated with increased fertility (Bongaarts 1978). Consistent and effective use of contraception reduces the likelihood of pregnancy and hence results in reduced fertility. Some methods (e.g., long acting methods such as intrauterine device (IUD) or subdermal implants) have higher use effectiveness than methods that are client dependent such as oral pills and condoms, which may not be used correctly or consistently by women or their husbands (Trussell & Guthrie 2007). Exclusive breastfeeding during the first six months postpartum prevents ovulation and hence reduces the likelihood of pregnancy. The effectiveness of breastfeeding as a contraceptive method is reduced in subsequent months as an infant receives supplementary feeding and the frequency of breastfeeding goes down (Howie & McNeilly 1982). The practice of induced abortion reduces fertility at both individual and national levels. In countries where abortion is legal (e.g., Tunisia and United Kingdom) fertility levels are considerably lower than neighboring countries with similar socio-economic conditions (e.g., Morocco and Northern Ireland) (Singh et al. 2018).

FIGURE 1: CONCEPTUAL FRAMEWORK



The above proximate determinants of fertility are influenced by more distal determinants such as fertility preferences, quality of services, and couple characteristics. A woman's fertility preferences determine in part when and for how long she will use contraception. However, in some contexts her use of contraception is determined by fertility preferences of other family members such as her husband and mother-in-law. Quality of services and care (e.g., access to affordable FP services, adequate counseling, expanding contraceptive choice) could influence fertility through addressing women's concerns about contraception and teaching women how to use their chosen method correctly, which in turn could reduce contraceptive discontinuation and unplanned pregnancies. Quality of care could also influence fertility indirectly by raising awareness of the merits of healthy timing and spacing of pregnancies among women and their families.

A couple's socio-economic characteristics (e.g., their wealth status, education, or residence) may also determine fertility through increased access to services, exposure to FP messages, adoption of smaller family norms, or any of the above proximate determinants of fertility such as delayed marriage (Bongaarts 1978). Finally, the broader socio-cultural and political context may provide the enabling environment for family planning use. In poor or more conservative settings where early marriage is the norm and son preference is prevalent, a woman may not use contraception until she has had the desired number of children, especially desired number of sons. Similarly, in settings where family planning use is not considered to be religiously sanctioned, couples may be reluctant to use family planning altogether or use specific methods (e.g., abortion and sterilization). On the other hand, high level political commitment to family planning may lead to increased mobilization of resources by various government ministries, increased funding for family planning programs, and development of policies that support girls' education and empowerment, as well as the creation of public discourse that is supportive of family planning and smaller families (FP 2020 2016).

This study examines select components of the proximate determinants' framework, namely fertility preferences, fertility behaviors, family planning use, quality of care received, exposure to family planning messages, and the socio-economic, cultural and political environment.

Methodology

The study conducted secondary data analysis of available quantitative data sets and undertook qualitative interviews to answer the research objectives. Secondary data analyses were conducted of the 2008 and 2014 EDHS and the 2009 and 2014 SYPE nationally representative data sets. The analysis was limited to ever married women aged 15–34 in the 2008 and 2014 EDHS and young unmarried women and men aged 15–29 in the SYPE.[2]

EDHS data were analyzed to explore trends and correlates of: (a) fertility behaviors including number of living children, desired and undesired fertility, and birth spacing' (b) family planning use, method mix, contraceptive discontinuation, unmet need and intentions to use in the future; (c) quality of family planning care received and exposure to family planning information; and (d) fertility desires and preferences. SYPE data were analyzed to understand changes in desired fertility among various sub-groups of unmarried youth.

The EDHS data were uploaded, and the analysis was done for the weighted data using SPSS, while a few analyses were done using STATcompiler (namely analyses related to discontinuation rates, unplanned births, and family planning counseling). The results presented in this report are not provided in the main EDHS reports as the current study is focused on ever married women aged 15–34.

Tables A.1 and A.2 in the Appendix show socio-demographic characteristics of EDHS (2008 and 2014) and SYPE (2009 and 2014) respondents included in the present analyses, respectively.

The above quantitative analysis was supplemented by collection of more recent qualitative data to further understand young people's current fertility preferences and perceptions of family planning as well as socio-cultural, economic, and political factors that may be contributing to Egypt's increased fertility between 2008 and 2014. The qualitative component included focus group discussions (FGDs) with young women and men and in-depth interviews with key stakeholders.

A total of 42 FGDs were conducted with married and unmarried women and men aged 18–34 in four governorates representing Urban Governorates, Lower Egypt, and Upper Egypt. Specifically, governorates included Cairo and Port Said from Urban Governorates, Gharbia in Lower Egypt, and Souhag in Upper Egypt. The above governorates represent various levels of contraceptive use as well as socio-economic indicators. Within the governorates of Gharbia and Souhag, FGDs were carried out in both urban and rural areas. In Cairo, FGDs were conducted among residents of one poor neighborhood and one middle class neighborhood to capture a wider range of responses. The distribution of FGDs over the four governorates is shown in Table A.3 in the Appendix while characteristics of FGD participants are shown in Table A.4.

In addition, 19 in-depth interviews were conducted with key informants in Cairo, Souhag, and Port Said. Key informants included senior officials at the Ministry of Health and Population (MOHP) and the National Population Council (NPC), senior obstetricians/gynecologists, former government ministers, representatives of international organizations, religious leaders, and media practitioners. The above qualitative data were collected in August/September 2017 and in November/December 2018. It is noteworthy that following completion of the quantitative analysis, additional qualitative data were collected to help interpret some results that came out of the quantitative analysis.

[2]Participants in SYPE 2009 were aged 10-29. Those participants were re-interviewed in 2014 and hence were aged 15–34 then. For purposes of comparability between 2009 and 2014 we are limiting the analysis to those aged 15–29.

The study protocol and data collection instruments were reviewed and approved by the Population Council's Institutional Review Board (IRB) (Approval date 15 March 2017). Informed consent of participants involved in FGDs and KIIs was obtained prior to their inclusion in the study. FGDs and KIIs were conducted in places that guaranteed auditory and visual privacy. No personal identifiers were used on transcripts of FGDs or KIIs.

Results

FERTILITY BEHAVIORS AND PREFERENCES 2008–2014: TRENDS AND CORRELATES

This chapter presents findings pertaining to fertility behaviors and preferences of married and unmarried young people. It examines changes in fertility behaviors (i.e., number of children, wanted and unwanted fertility, and timing of births) and preferences (desired number of children) of ever married women aged 15–34 between 2008 and 2014 and identifies sub-groups of young women who were more likely to experience change in their fertility behaviors or preferences. In addition, this chapter examines changes in fertility preferences among unmarried women and men aged 15–29 using data from SYPE 2009 and 2014 and identifies characteristics of unmarried men and women who desire a family with three or more children.[3]

Number of living children

Thirty percent of women aged 15–34 had three or more children at the time of the 2008 EDHS, compared to 33 percent in 2014. It is worth noting that the proportion of women aged 30–34 who had three or more children was slightly higher in 2014 EDHS (33%) than in 2014 EDHS (29%). The 2008 EDHS and 2014 EDHS findings for women aged 15–34 illustrated in Table A.5 show that the proportion of women who had three or more children increased in almost all sub- groups of women. However, the largest percent increase was noted among women with above secondary education, where an increase of 64 percent was recorded between 2008 and 2014, from 11.3 percent to 18.5 percent.

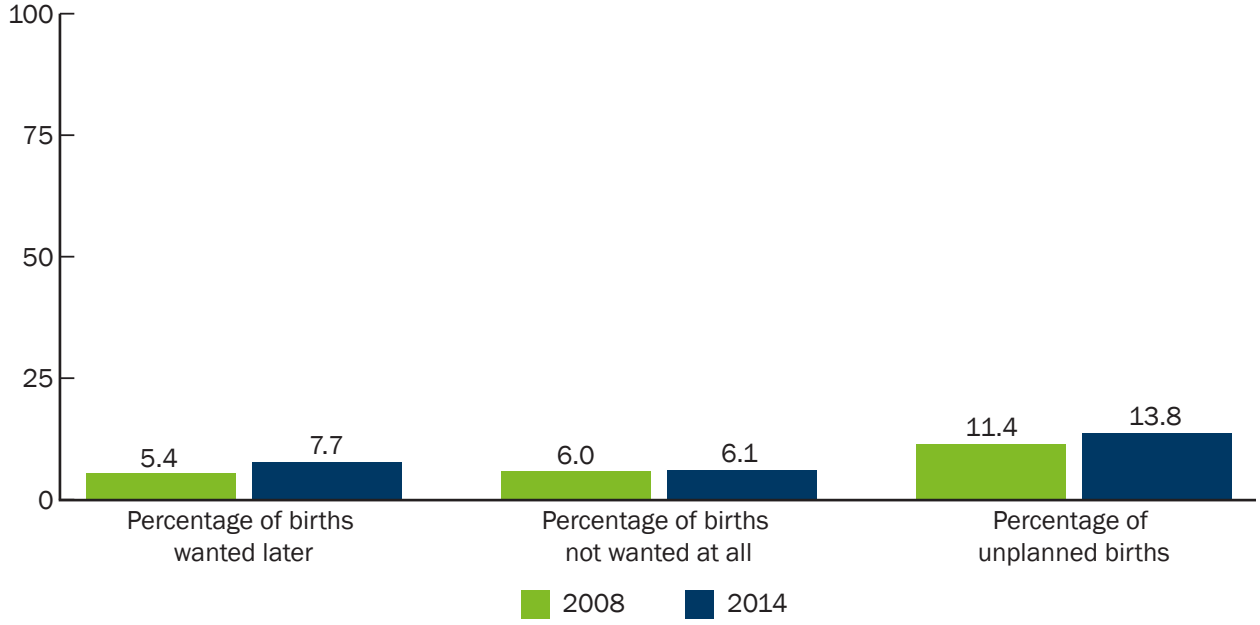
Unplanned fertility

The EDHS asked women whether their last birth, including current pregnancy, was wanted then or later or not at all.

Figure 2 shows that unplanned births, including those that were wanted later and those not wanted at all, increased from around 11 percent in 2008 to 14 percent in 2014. The increase occurred mainly for mistimed births, where 5 percent of births were reported in 2008 as wanted later compared to 8 percent in 2014.

[3]The comparison between 2009 and 2014 in this section is limited to young people aged 15–29.

FIGURE 2: PERCENT OF UNPLANNED BIRTHS IN THE FIVE YEARS PRIOR TO THE SURVEY AMONG WOMEN AGED 15–34, EGYPT 2008 (N=11,066) AND 2014 (N=16,314)



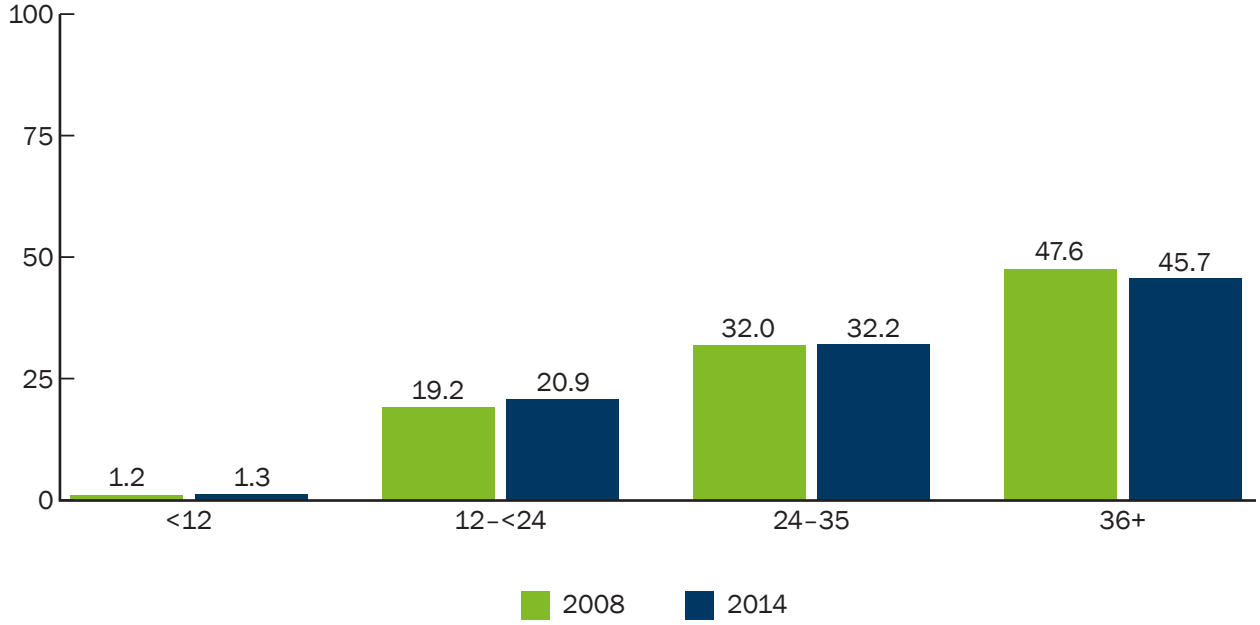
Source: EDHS 2008 and 2014

Birth spacing

Figure 3 shows that less than half of births that occurred during the five years before the 2008 and 2014 EDHS were at least 36 months (or three years) after a previous birth. This proportion decreased slightly from 48 percent in 2008 to 46 percent in 2014. The median number of months since a preceding birth dropped slightly from 35 months in 2008 to 34 months in 2014.

Table A.6 in the Appendix shows an increase in the proportion of women who had a birth less than three years from a previous birth between 2008 and 2014. This occurred among most subgroups of women, with the largest increase noted among women who live in urban Lower Egypt, from 43 percent to 53 percent.

FIGURE 3: PERCENTAGE DISTRIBUTION OF NON-FIRST BIRTHS IN THE FIVE YEARS PRECEDING THE SURVEY AMONG WOMEN AGE 15–34 BY BIRTH INTERVAL (IN MONTHS), EGYPT 2008 (N=5,484) AND 2014 (N=8,486)



Source: EDHS 2008 and 2014

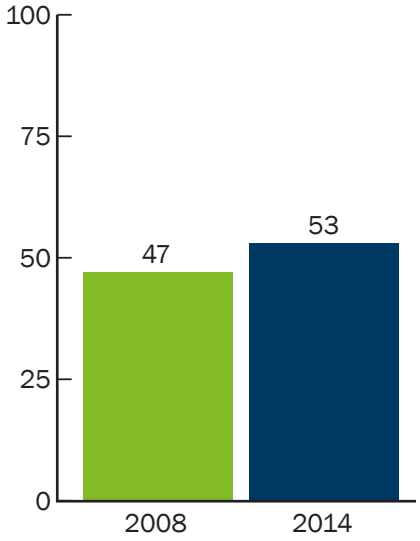
Ideal number of children

The 2008 and 2014 EDHS asked ever married women about their ideal number of children with the following questions: "If you could go back to the time before you married and could choose exactly the number of children to have in your whole life, how many would that be?" The 2009 and 2014 SYPE asked unmarried men and women aged 15–29: "What is the ideal number of children that you would like to have when you get married?"

Ever married women aged 15–34 reported on average that almost three children was their ideal number, with a slight increase between 2008 and 2014 (2.7 and 2.9 respectively). However, the percentage of ever married women aged 15–34 who reported an ideal number of three or more children increased from around 47 percent in 2008 to 53 percent in 2014 **(Figure 4)**.

In both 2008 and 2014, the proportion of ever married women aged 15–34 who reported three children or more as an ideal number of children increased with women's age. Though the proportion who reported an ideal number of children as three or more increased across all age groups between 2008 and 2014, the increase was greatest among women aged 20–24, where the increase was about 20 percent (Table A.7 in the Appendix).

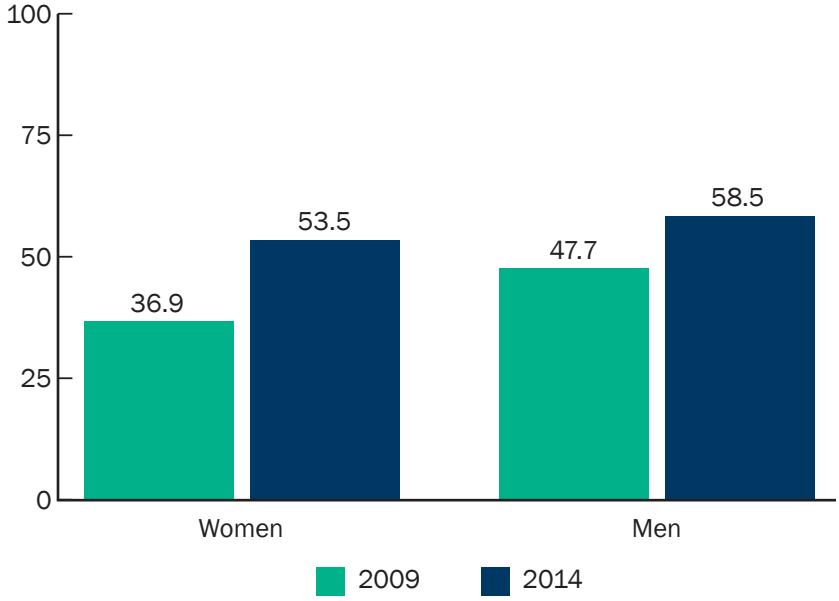
FIGURE 4: PERCENTAGE OF EVER MARRIED WOMEN WHO REPORTED 3+ CHILDREN AS AN IDEAL NUMBER OF CHILDREN IN 2008 (N=9,235) AND 2014 (N=12,699)



Source: EDHS 2008 and 2014

According to SYPE 2009 and 2014, the mean number of children desired increased for both unmarried women and men aged 15–29 between 2009 and 2014. For young men the mean increased from 2.7 children in 2009 to 3.0 children in 2014, while for young women the mean increased from 2.5 children in 2009 to 2.9 children in 2014. Similarly, more unmarried young men and women in 2014 compared to 2009 desired three or more children. It is noteworthy that the increase between 2009 and 2014 was more pronounced among young women (with an increase from 37 percent to 54 percent) than young men (an increase from 48 percent to 59 percent), although in both surveys rounds unmarried young men were more likely to desire a larger family size than unmarried women **(Figure 5)**.

FIGURE 5: PERCENTAGE OF UNMARRIED WOMEN AND MEN AGED 15–29 WHO DESIRE THREE OR MORE CHILDREN, EGYPT 2009 (N UNMARRIED WOMEN = 3,291, N UNMARRIED MEN = 4,147) AND 2014 (N UNMARRIED WOMEN = 2,361, N UNMARRIED MEN = 3,430)



Source: Survey of Young People in Egypt 2009 and 2014

Characteristics of unmarried women and men who desire three or more children

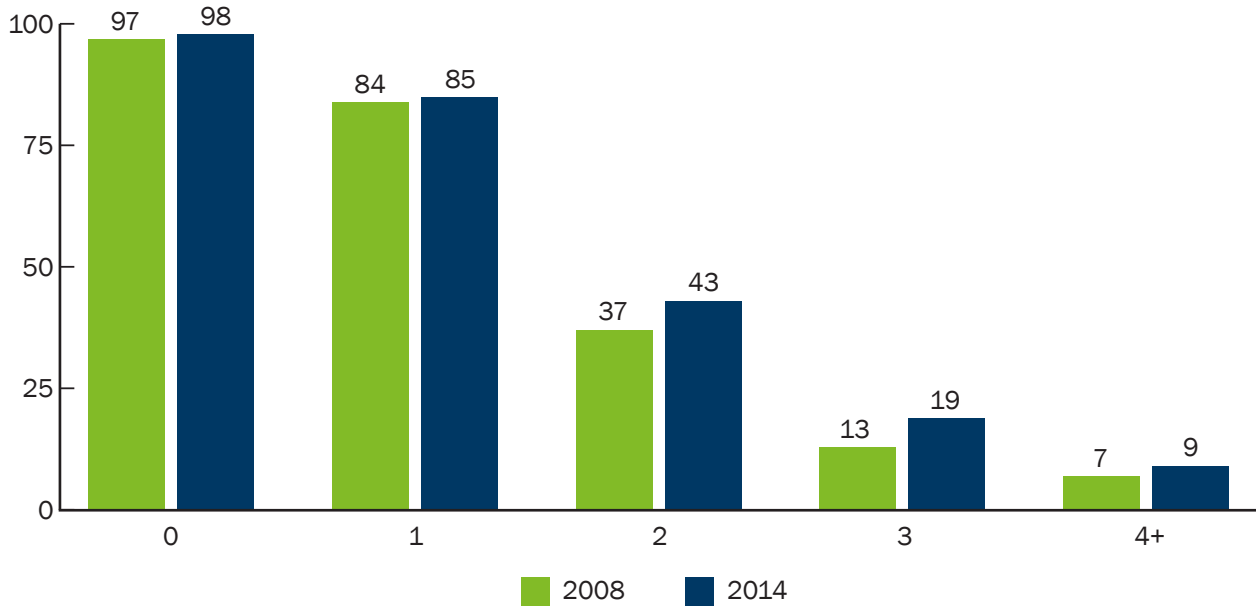
Tables A.8 and A.9 reveal that the desire for having three or more children increased between 2009 and 2014 by 45 percent among young unmarried women and 23 percent among young unmarried men. The increase occurred among all subgroups of young men and women, except those in frontier governorates. Among young unmarried women, the largest percent increase in the desire for three or more children was noted among women in the highest wealth quintile (79 percent), followed by women in urban governorates (58 percent), and women with secondary education (53 percent). Among young men the largest percent increase in the desire for three or more children was among those in rural areas (50 percent), those in Upper Egypt (45 percent), and those in the fourth wealth quintile (37 percent).

Desire for more children

The EDHS looks at women's desire for more children by asking currently married fecund women, regardless of the number of children they actually have, if they would like to have (a/another) child in the future or if they prefer not to have any (more) children. The question for pregnant women was, "After the child you are expecting would you like to have another child, or would you prefer not to have more children?"

Figure 6 shows an increase in the desire for more children among women aged 15–34 with two or more children over the two survey rounds. The percentage of women with two children who desired additional children increased from 37 percent in 2008 to 43 percent in 2014 (16 percent increase) while the percent of women with three children who desired more children increased from 13 percent in 2008 to 19 percent in 2014 (46 percent increase).

FIGURE 6: PERCENTAGE OF CURRENTLY MARRIED WOMEN AGED 15–34 WHO WANT MORE CHILDREN BY NUMBER OF LIVING CHILDREN†, EGYPT 2008 (N=8,948) AND 2014 (N=12,316)



Source: EDHS 2008 and 2014; Includes current pregnancy

As noted from the data illustrated in Table A.10, the proportion of currently married women with two or more children who want additional children increased from around 24 percent in 2008 to 29 percent in 2014, an increase of 24 percent. The increase in desire for more children between 2008 and 2014 among women with two or more living children was evident among all sub-groups of women considered in Table A.10, except women living in urban Lower Egypt.

The increase between 2008 and 2014 in the desire for additional children among women with two or more living children was most noticeable among women in the second wealth quintile (38 percent increase), women who live in urban governorates (35 percent increase), and women aged 30–34 (32 percent).

FACTORS THAT CONTRIBUTED TO INCREASED FERTILITY BETWEEN 2008 AND 2014

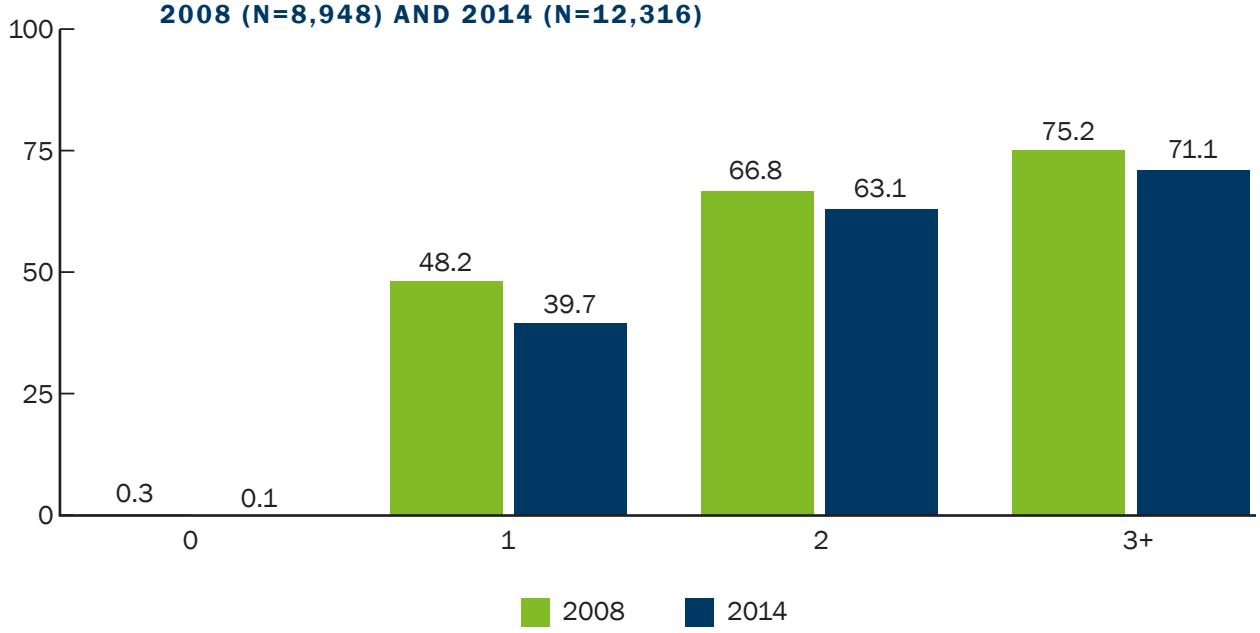
The three main drivers of the increased fertility levels between 2008 and 2014 among various subgroups of women aged 15–34 are: (1) decrease in use of contraception, (2) change in method mix, and (3) increase in method discontinuation. In addition, a reduction in quality of FP care along with a decrease in exposure to FP information have been documented during the above period and may have influenced contraceptive use, method mix, and discontinuation. Finally, broader socio-political and programmatic circumstances that took place during that period may have contributed indirectly to the above increase in fertility. Inferences that are made in this section are based on results of secondary analysis of EDHS 2008 and 2014, KIIs, and a desk review.

Decreased use of contraception

Contraceptive prevalence (current use of any contraceptive method) among married women aged 15–34 declined from 55 percent in 2008 to 52 percent in 2014. Use of modern methods decreased slightly from 52

percent in 2008 to 51 percent in 2014. Figure 7 shows that contraceptive prevalence decreased across all parties between 2008 and 2014; however, the most noticeable decline in FP use occurred among women with one living child where contraceptive prevalence dropped from around 48 percent in 2008 to 40 percent in 2014.

FIGURE 7: PERCENT OF CURRENTLY MARRIED WOMEN AGED 15–34 CURRENTLY USING ANY FAMILY PLANNING METHOD BY NUMBER OF LIVING CHILDREN, EGYPT 2008 (N=8,948) AND 2014 (N=12,316)



Source: EDHS 2008 and 2014

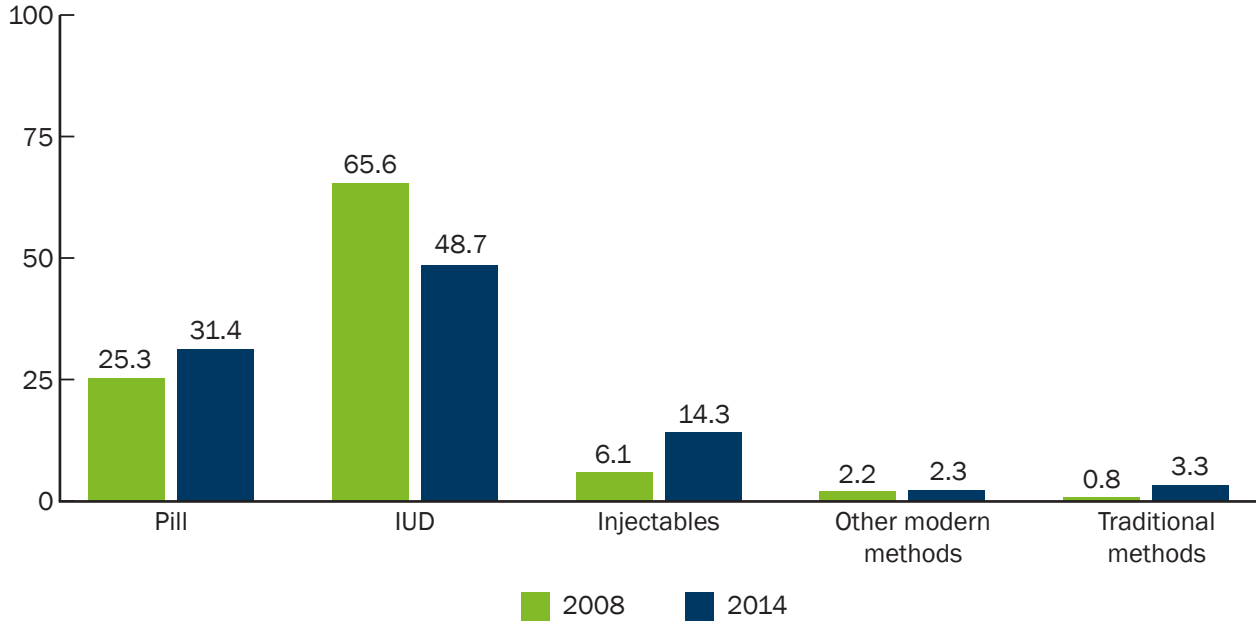
Moreover, the proportion of women with two or more children who were not using any contraceptive method increased from 28 percent in 2008 to around 33 percent in 2014. Table A.11 in the Appendix shows that the proportion of women who were not using family planning increased from 2008 to 2014 across all sub-groups of young women (except for women working for cash). However, the increase in non-use was more pronounced among women in the highest wealth quintile (37 percent) and women in urban Upper Egypt (32 percent).

Change in method mix

Figure 8 illustrates changes that have occurred between 2008 and 2014 in relation to method mix for the three most commonly used methods, other modern methods, and traditional methods among family planning users aged 15–34.[4] Although the IUD continues to be the most commonly used method, its use declined substantially from 66 percent of family planning users in 2008 to 49 percent in 2014. On the other hand, the proportion of pill users aged 15–34 increased by around 6 percentage points (from 25 percent in 2008 to 31 percent in 2014), and the proportion of injectable users more than doubled between 2008 and 2014 (from 6 percent to 14 percent, respectively). It is noteworthy that use of traditional methods increased from 0.8 percent in 2008 to 3.3 percent in 2014 while use of prolonged breastfeeding declined from 2 percent in 2008 to one percent in 2014.

[4]Other modern FP methods include subdermal implants, condom, female sterilization, and spermicides. Traditional methods include prolonged breastfeeding, withdrawal, and rhythm.

FIGURE 8: PERCENTAGE DISTRIBUTION OF FAMILY PLANNING USERS AGED 15–34 BY TYPE OF USED METHODS, EGYPT 2008 (N=4,945) AND 2014 (N=6,529)



Source: EDHS 2008 and 2014

The change in method mix has been attributed to a number of reasons. One study that involved MOHP officials and public providers in five governorates attributed the shift from the IUD to oral pills in public facilities to the following: client preferences for oral pills, lack of an incentive system for providers to discuss other options/insert an IUD, and insufficient providers training in IUD insertion (Said 2012). Our key informants added that shortage of female physicians at public facilities in rural Upper Egypt has also contributed to the decreased use of IUD and the shift towards oral pills and injectables. According to one official in Souhag, "If there is a female doctor, there is an IUD."

Increased contraceptive discontinuation

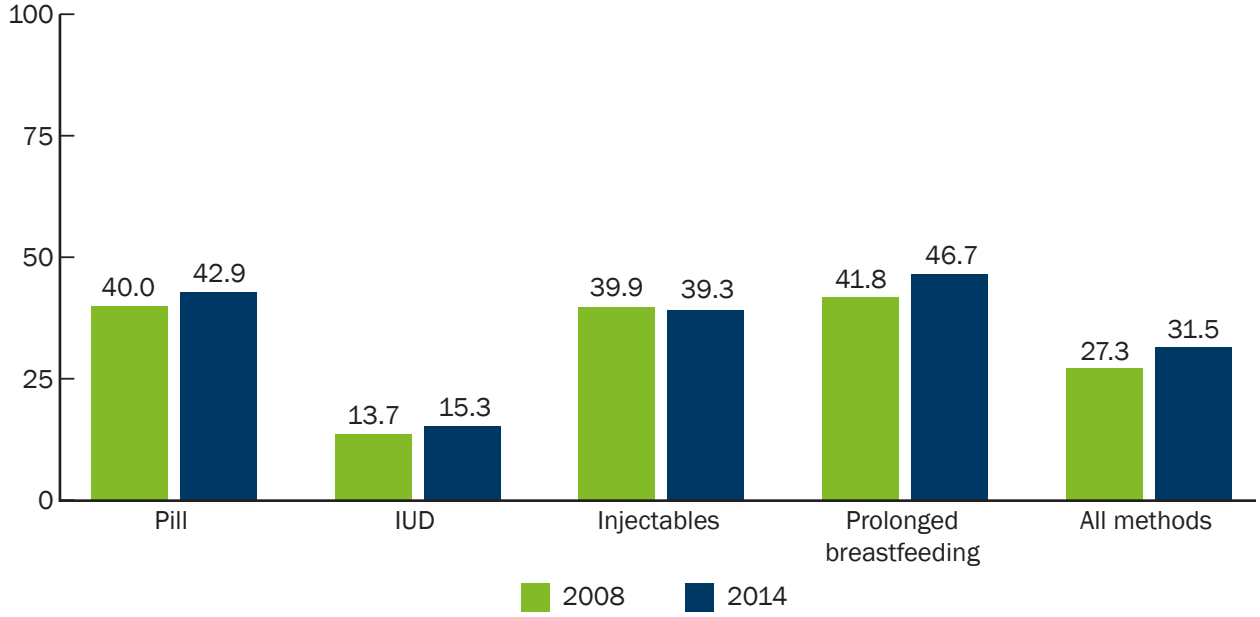
Contraceptive discontinuation is defined as starting contraceptive use and then stopping for any reason while still at risk of an unintended pregnancy. Discontinuation for reasons other than wanting to become pregnant can contribute to unwanted fertility.

The EDHS collected detailed information about all episodes of contraceptive use during the five years prior to the survey, contraceptive method used and date of use for each interval, and, if applicable, the date of stopping use and reason for discontinuation. Then the EDHS calculated the 12-month discontinuation rate. For more details about the calculation of the discontinuation rate see El-Zanaty and Way 2015, page 79.

Figure 9 shows that contraceptive discontinuation rate during the first year of use increased from around 27 percent among family planning users aged 15–34 in 2008 to approximately 32 percent in 2014. The percent increase in contraceptive discontinuation between 2008 and 2014 was highest among prolonged breastfeeding users (42 percent in 2008 to 47 percent in 2014) followed by oral pill users (40 percent in 2008 to 43 percent in 2014). It is noteworthy that the median duration of exclusive breastfeeding dropped from 2.7 months in 2008 to 1.8 months in 2014 (data not shown).

Side effects and health concerns were the most frequently cited reasons for stopping use. Discontinuation due to side effects/health concerns increased slightly between 2008 and 2014, from 10 percent to 11 percent

FIGURE 9: TWELVE-MONTH CONTRACEPTIVE DISCONTINUATION RATES AMONG WOMEN AGE 15–34 BY TYPE OF METHOD, EGYPT 2008 (N=2,633 EPISODES OF FP USE) AND 2014 (N=12,302 EPISODES OF FP USE)



Source: EDHS 2008 and 2014

respectively (Table A.12). However, discontinuation due to method failure (i.e., the user became pregnant while using the method) increased from 3.2 percent in 2008 to 4.6 percent in 2014. These findings suggest gaps in quality of care as will be discussed later in this chapter.

Increased discontinuation due to a desire for a more effective method is an encouraging finding, but the proportion of women who cited this as a reason for their contraceptive discontinuation were relatively small (1.3 percent in 2008 and 2.3 percent in 2014).

Undermined quality of care

Higher levels of discontinuation rates and unintended pregnancies could be a result of several factors, including inadequate counseling. Secondary analysis of EDHS 2008 and 2014 revealed that women who received FP methods in the five years preceding the survey were less likely to report receiving basic FP information (i.e., told about other methods, told about possible side effects of their chosen method and what to do if they experience those side effects) in 2014 compared to 2008. The percentage of respondents who were given all three of these counseling messages are considered to have received complete information on the Method Information Index (MII).

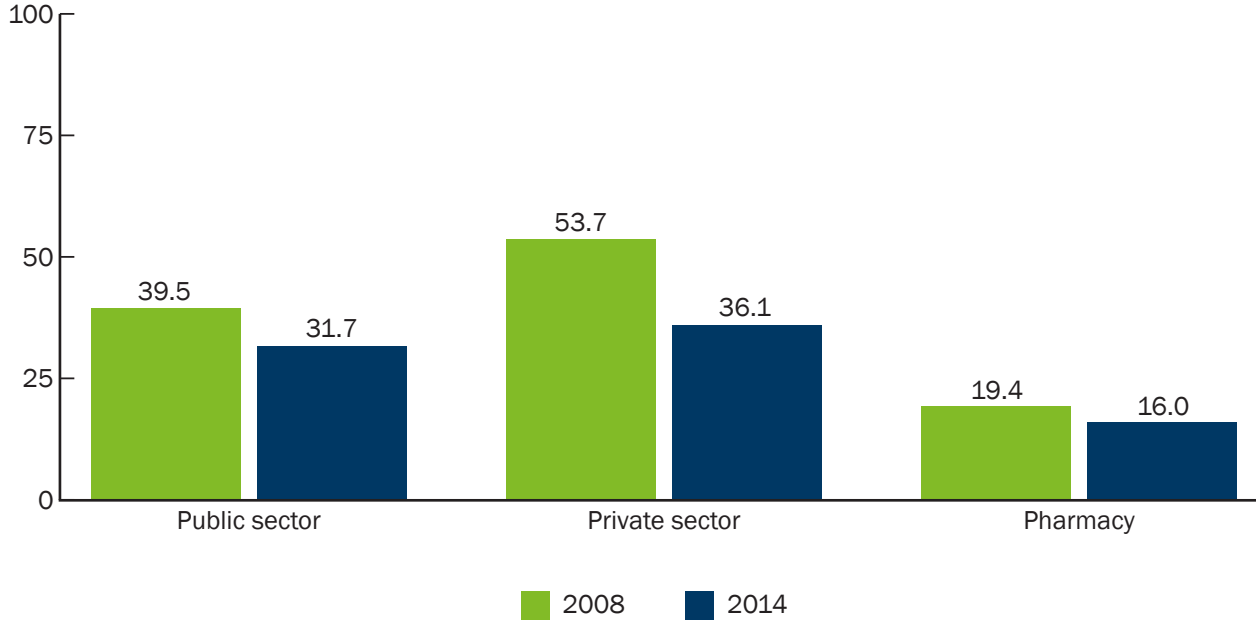
Table A.13 in the Appendix shows that the quality of family planning counseling declined considerably between 2008 and 2014. The proportion of women who reported they were told about other FP methods decreased from 68 percent to 62 percent. Those who reported they were told about potential side effects of the chosen methods decreased from 56 percent to 48 percent, while those who reported they were told what to do in case of side effects decreased from 47 percent in 2008 to 36 percent in 2014. The proportion who received complete information on the MII decreased from 42 percent in 2008 to 32 percent in 2014.

Table A.13 also shows that the decline between 2008 and 2014 in receipt of information on FP methods was more pronounced among IUD users compared to users of other modern methods. For instance, the

proportion of IUD users who reported receiving information about other family planning methods declined by around 8 percentage points (from around 70 percent to 62 percent respectively), the proportion who were informed about possible side effects of the IUD declined from 59 percent in 2008 to 51 percent in 2014, and the proportion who were advised about what to do if they experienced side effects decreased from 51 percent in 2008 to 39 percent in 2014. The proportion of IUD users who received complete information on the MII similarly decreased from 45 percent to 34 percent between 2008 and 2014.

It is noteworthy that quality of family planning counseling declined between 2008 and 2014 in both public and private sectors as well as pharmacies, but the decline was more pronounced in the private sector. Figure 10 shows that while over half (54 percent) of modern contraceptive users aged 15–34 who obtained their method from a private provider reported in 2008 having received complete information on the MII; just over one-third (36 percent) reported the same in 2014, a decrease of 18 percentage points. With regards to the public sector, receiving complete information on the MII declined by 8 percentage points (from 40 percent to 32 percent). The percentage who received complete information of the MII from pharmacists has declined by 3 percentage points (from 19 percent to 16 percent respectively) between 2008 and 2014. Possible reasons for the decline in quality of care between 2008 and 2014 are discussed later in this section.

FIGURE 10: PERCENTAGE OF CURRENT USERS AGED 15–34 WHO BEGAN THE CURRENT SEGMENT OF USE IN THE FIVE YEARS PRECEDING THE SURVEY WHO REPORTED RECEIVING COMPLETE INFORMATION ON THE METHOD INFORMATION INDEX (MII) BY SOURCE OF METHOD, EGYPT 2008 (N=4,041) AND 2014 (N=5,378)



Source: EDHS 2008 and 2014

Decrease in exposure to family planning messages

A remarkable decrease in exposure to family planning messages through different communication channels occurred between 2008 and 2014 (excluding messages received from health providers, health workers, or at health facilities).[5] Figure 11 shows that in 2008 nearly 30 percent of currently married women aged 15–34

[5]Women are asked if they heard or seen messages about FP in the last six months on broadcast media (radio/TV), through printed materials (newspapers, posters, billboards), community meetings or from religious leaders.

FIGURE 11: TRENDS IN EXPOSURE TO FP MESSAGES THROUGH VARIOUS MEDIA CHANNELS AMONG CURRENTLY MARRIED WOMEN, EGYPT 2008 (N=8,948) AND 2014 (N=12,316)

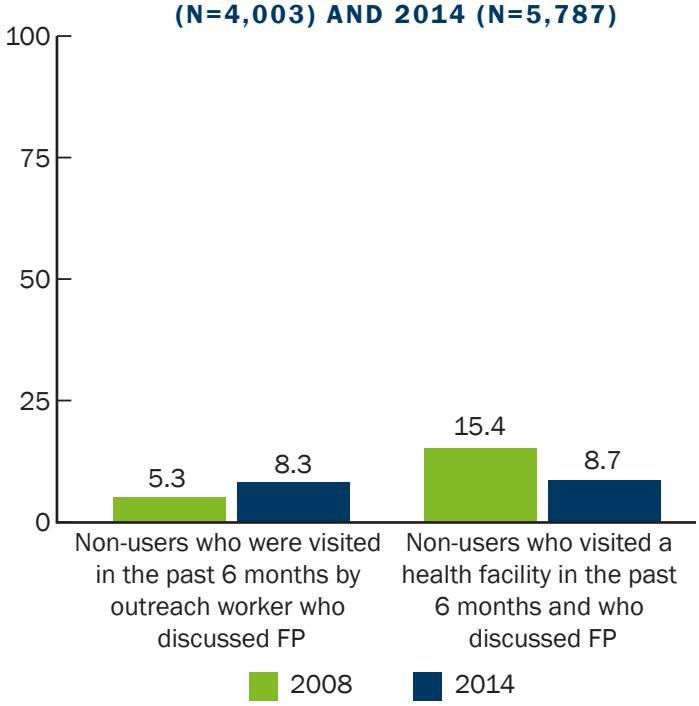
Source: EDHS 2008 and 2014

reported not receiving any information about FP in the six months prior to the survey. This proportion increased to 51 percent in 2014.

Likewise, the proportion of currently married women aged 15–34 who had seen a family planning message on television during the six months preceding the survey declined sharply from 60 percent in 2008 to 40 percent in 2014. The role of radio as a source of FP messages also declined as the percentage of women exposed to radio messages dropped from 20 percent in 2008 to almost 5 percent in 2014. Only 3 percent of currently married women aged 15–34 had read about family planning in a newspaper or a magazine in 2014, compared with 7 percent in 2008.

In both 2008 and 2014 FP non-users (n=4,003 and 5,787, respectively) were unlikely to be exposed to information about FP through outreach workers (Raeda Rifeya, RR) or health care providers during medical consultations. As shown in Figure 12 the proportion of non-users who visited a health facility (public or private) in the past six months and who discussed FP with the health care provider

FIGURE 12: PERCENTAGE OF NON-USERS AGE 15–34 WHO WERE VISITED BY A FP OUTREACH WORKER OR WHO DISCUSSED FP WITH A HEALTH CARE PROVIDER, EGYPT 2008 (N=4,003) AND 2014 (N=5,787)



Source: EDHS 2008 and 2014

declined from 15 percent in 2008 to almost 9 percent in 2014. However, the proportion of non-users aged 15–34 who reported receiving outreach visits for discussing family planning increased from 5 percent in 2008 to 8 percent in 2014.

Socio-economic, political, and program changes 2008 – 2014

This section examines contextual factors that may have indirectly influenced fertility behaviors between 2008 and 2014 through changing social norms, reductions in quality of care, and reducing exposure to family planning messages. According to our key informants, the two main contextual factors were political turmoil between 2011 and 2013 and phasing out of USAID from the national family planning program in 2008. Our desk review also identified other factors that may have played a role. Below is a more detailed description of each factor and how it may have contributed to increased fertility.

Political unrest

The political turmoil that followed the 25 January 2011 and 30 June 2013 revolutions and the rise of Muslim Brotherhood took its toll on the Egyptian FP program in a number of ways.

According to our key informants the rise of Muslim Brotherhood (MB) to power resulted in change of priorities at MOHP as MB were opposed to FP, hence government attention and funds were diverted to other programs such as maternal and child health. Second, more conservative and pro-natalist social norms emerged while the topic of family planning came to be associated with the Mubarak regime and became unpopular at the grassroots level. Moreover, the unstable security situation made many young doctors, especially women, refuse to be deployed to Upper Egypt while Raeda Rifeya reduced the number and geographic span of their home visits. A recent study by Ministry of Planning, Monitoring and Administrative Reform and UNFPA showed that highest birth rate since 2005 was documented in 2012, i.e., one year after the January 25th Revolution (Elsayed 2019).

> *"The period under the Muslim brotherhood was difficult. People were afraid to talk about family planning. Some NGOs (which provided FP services) had to change their name so it would not include reference to family planning....*
>
> —Retired MOHP official

> *"The Muslim brotherhood government did not pay any attention to the family planning program and communicated this meaning to the people.*
>
> —Official at the Population and Family Planning Sector at MOHP

Phasing out of USAID

USAID had been the largest donor to Egypt's family planning program since the late 1970s. However, in 2007, USAID phased out from supporting the national family planning program, and many of the training, supervision, and awareness-raising activities were scaled down or discontinued. Several key informants attributed fertility increase between 2008 and 2014 to discontinuation of TV spots and other media activities, which were largely funded by USAID. The decline in quality of family planning care may be also attributed to USAID phasing out as it previously supported training of public and pivate providers and the production of information, education, and communication materials such as flipcharts and fliers.

> *"In the past there was a cooperation protocol between the Ministry of Endowment and the National Council for Childhood and Motherhood (NCCM) by virtue of which family planning messages were delivered on Friday sermons. We were allowed to speak about family planning every Friday for five minutes. But this stopped due to lack of funding. NCCM used to finance the bonuses of participating imams and there*

were training sessions conducted to build the capacity of clergy and health providers in the Family Planning Institute in Alexandria. Funding for those activities was also stopped.

—Leader (Official at the Ministry of Endowment)

Economic instability

Egypt went through significant economic changes over the last 10 years with the Gross Domestic Product (GDP) growth rate going down from 7.2 percent in 2008 to 2.2 percent in 2012 (World Bank 2020). The turbulent security situation in the aftermath of the two revolutions and uncertainty about the country's economy resulted in plummeting tourism and foreign investments and deterioration of the business climate. Businesses, including pharmaceutical companies, were badly affected as a result of shortage of hard currency and importation of several brands of contraceptive methods stalled. Our key informants reported frequent stock outs of oral pills and injectables during that period.

Changing mass media scene

The media scene in Egypt witnessed a dramatic change between 2008 and 2014 with the rapid growth of private TV channels and decreased reliance on national TV for news and information. In 2014 Egypt had more than 30 privately owned TV channels, nearly 20 radio stations and a dozen privately owned newspapers. Those privately-owned media channels charge higher fees for airtime compared to government-owned media channels. Also, the increased number of those venues has resulted in audience fragmentation and difficulty in reaching out to a large audience through one or two channels. Thus, it was challenging for the Egyptian FP program to launch media campaigns promoting FP when foreign funding had been discontinued and costs of airtime had gone up.

"In the past we had a trained media officer in each newspaper who was responsible for family planning such as Bahira Moukhtar in El-Ahram, Rafaat Kamal in El-Akhabar, and others. Then, media campaigns were effective. We also had an Information, Education and Communication Center, which was doing advertisements and awareness related work. This center is no longer functioning.

—Media Expert

A weakened private family planning sector

The private sector as a provider of family planning services has been facing many challenges over the last 10 years; however, those challenges may have been exacerbated by withdrawal of USAID funding as well as the political and economic instability between 2011 and 2013. A study by the Population Council/Evidence Project showed a steady decline in the contribution of the private sector, especially the NGO sector, in family planning service delivery (Abdel-Tawab, Oraby, and Bellows 2016). A large number of NGOs that were providing services in the past have frozen their FP activities or have closed down altogether. Legal restrictions on receipt of funds from international organizations have made it difficult for many NGOs to survive. Other NGOs were not able to second health care providers from MOHP as the latter was already having a shortage of health care providers, especially female physicians. In addition, reduced donor funding has resulted in discontinuation of training programs for health care providers in the private sector and hence the provision of less than optimal quality of care. Pharmaceutical companies were affected by the above mentioned economic and political instability and family planning method stock outs were common.

YOUNG PEOPLE'S PERSPECTIVES ON FERTILITY AND FAMILY PLANNING

While the last two chapters focused on changes in fertility behaviors and attitudes between 2008 and 2014 and the drivers of those changes, this chapter examines the current situation and identifies prospects for change. First, we provide an in-depth understanding of young people's current fertility preferences, knowledge, and attitudes about family planning and their experiences with using family planning methods and services. Then we examine key challenges and opportunities that are currently facing Egypt's national FP program. Data for this chapter are derived from FGDs with married and unmarried women and men aged 18–35 in the four study governorates, in-depth interviews with key informants, and desk review of relevant documents.

Fertility preferences

When asked about their views on the ideal number of children, most participants in Cairo, Gharbeya, and Port Said would respond by saying, "Two children are enough, a boy and a girl." The rationale given for stopping at two children is that "living conditions have become too hard" and hence they can only afford supporting two children. A few married women in urban areas added that they physically cannot look after more than two children.

On the other hand, several participants indicated that if they had the financial means they would opt for three children. According to those participants the benefits of having three versus two children are creating stronger bonds among siblings, providing support for each other, and making the household livelier. One participant mentioned that having a second daughter would safeguard against the first one becoming too spoilt.

> *In the past life was easy and everything was cheap and thus people used to have 4, 5, or 6 children, but now we can at best afford to have two....*
>
> —29-year-old, married woman from Cairo

> *I was the only girl in my family and my brother was the only boy; each one of us felt lonely...so when there are three children a stronger bonding will be present among them....*
>
> —Unmarried female university graduate from urban Gharbeya

A clear distinction was seen between participants in the above three governorates and those in Souhag who mentioned three or four as the ideal number of children. The word "ezwa"—strength that is based on number—was more likely to be mentioned in Souhag as a reason for having more than three children. Several male participants in rural Souhag mentioned five children (three sons and two daughters) as the ideal number of children, while two mentioned 10 children. According to men in rural Souhag, a husband's financial ability was the main factor to be taken into consideration when deciding on the number of children to have. However, it is not clear what "financial ability" encompassed and the extent to which the health of mother, children, and eventually husband factored into the above preferred family size.

> *If a woman cannot get you the number of children that you want, you can always marry another one.*

Fertility preferences tend to be influenced by social pressure more than facts on the pros and cons of having a certain number of children. Social pressure to have more children was most obvious in Souhag, where some

married women said they had wanted to stop at three children but had to give in to requests from their families. According to one married woman in rural Souhag:

> *Four is good especially if you can raise them well and there is enough spacing between them and you do not treat any of them differently…in our village four is good…a woman has to respect her mother and father in law…you do not want to disobey anyone….*

Moreover, young men in urban Souhag indicated that a man who has few children could be labeled as "unmanly" because he cannot support a large family.

Preferred sex composition

Almost all participants who lived in urban areas wanted to have a boy and girl. However, when asked about the possibility of having two children of the same sex, several participants indicated that that they would try one more time to have a boy or a girl. Female participants in Souhag wanted to have at least one son while male participants wanted at least two sons. A married male participant, 29 years old, uneducated, from rural Souhag, believed the ideal number of children was 12 (10 boys and two girls).

Most participants described sons as providing support and strength to their parents and their siblings while girls are seen as a burden. The notion of *sanad* (physical support) came out more strongly in Souhag as a reason for having more sons. Sons also provide for their parents when they grow old and carry the family name. *"You can rely on your son not on your daughter,"* as one male participant from urban Souhag put it. One married male participant from rural Souhag explained the difference between having sons and daughters as follows:

> *Here in Upper Egypt we follow the proverb that says if you get a boy your backbone is propped but if you get a girl the wall falls on you…a girl costs you a fortune…in a few years she becomes marriageable and you are obliged to bear the costs of getting her married and protected….*
>
> 30–year-old married man, with a secondary school diploma, rural Souhag

Family planning knowledge and attitudes

All FGD participants recognized the concept of family planning. Yet women were more likely than men to recognize the health benefits of family planning for mothers and children while men were more likely to focus on the financial benefits of family planning. Several men argued that if a man is financially capable of supporting his children, then he could have as many as he wants.

Although most participants approved of the use of FP, there was confusion about its permissibility under Islam. Several participants indicated that family planning was permissible while birth control was not. When asked about the difference, some of them defined birth control as selecting the sex of the fetus, others defined it as sterilization or refraining from having children when both husband and wife are physically and financially capable.

> *There is nothing that says family planning is haram (against religion) but birth control is haram…if I take a break or rest for three years…if my son is in thanaweya amma (12th grade) and needs my attention and then I have children again, this is not haram…but if you are 23 and your circumstances are good and you do not want to get pregnant, this is haram….*
>
> —29-year-old, unmarried woman, with a master's degree, urban Souhag

As to when to start using family planning, the majority of participants indicated that they would not recommend use before the first child is born so that a woman would be "assured about her fertility." Several participants relayed stories about women who used contraception immediately after they got married but who could not get pregnant until several years later. Men said that children bring joy to the family and hence should come immediately after marriage. One young married man in urban Souhag added that a woman who loves her husband would not want to delay pregnancy after marriage.

> *I know a teacher who got married while she was a university student. She took the pill to postpone her pregnancy until after she finished her university education. After she finished, she tried to get pregnant, but she could not. The doctor told her that taking the pill was the reason. It is incorrect for a woman to use contraception before the first baby....*
>
> —Unmarried woman from Urban Gharbia

On the other hand, several participants in Souhag stated that they would rather postpone FP use until after the second child is born.

> *It is better to use the family planning method after the second child specially if the first child was a girl...it is always good as our tradition to have a sibling 'Yekhawy.'*
>
> —29-year-old married woman with no education, rural Souhag

It is worth mentioning that several unmarried female participants in Port Said stated that they would accept starting contraception before the first child in order to know their husbands better, establish themselves financially, or complete their education before having a child together.

Child spacing was acceptable to almost all participants. There was general agreement that women should breastfeed for two years and then try to get pregnant. A birth spacing interval of three years was believed to be good for the health of mother and child. Married women indicated that with a three-year birth interval a woman can give better care to each of her children. One woman from rural Souhag told her story as follows:

> *I got my children one after the other...they made my life miserable.... First I got a girl then nine months later I got pregnant with twins...they gave me a hard time...it is better to leave an interval of three years.*

However, married men in Souhag indicated a preference for shorter birth intervals (2–2.5 years). According to several of them, one has to get all his children when he and his wife are still young. A few married women in Port Said shared the same view saying that when there is a short birth interval between siblings, they could get along better with one another.

Regarding knowledge of specific family planning methods, the vast majority of married and unmarried female and male participants knew about the IUD, pill, and injectables. A few participants in all four governorates mentioned subdermal implants, male condoms, fertility awareness-based methods, and emergency contraceptive pills. However, a few unmarried female participants in a poor neighborhood of Cairo and the majority of unmarried male participants in rural Souhag could not name any contraceptive methods.

Despite fairly adequate knowledge, misconceptions and misinformation about modern methods were common among study participants. Several of them indicated that the IUD was not effective, as they knew of women who got pregnant while using it, and said the IUD pricks the husband's penis during intercourse and causes severe bleeding to women. Hormonal methods like oral pills, injectables, and subdermal implants were believed to

cause water retention, infertility, and cancer. On the other hand, there was widespread belief that breastfeeding alone could protect against pregnancy for up to two years. According to one unmarried male participant from Souhag:

> *There is no need for a woman to use contraception if she will breastfeed every child for two years…by the time she turns 40 she will have had four children which is good….*
>
> 20–year-old university student, Urban Souhag

> *A family planning method is not 100% successful in preventing pregnancy. Its success is around 70% regardless of whether you are using pills or IUD…it is not related to forgetting the pills, a lot of women had pregnancies while using family planning methods.*
>
> 27-year-old married man with university education, a poor neighborhood in Cairo

> *The capsules are put under the skin, and as long as they are under the skin, they cause cancer.*
>
> (24-year-old unmarried woman with university education, Port Said)

> *The three-month injectables retain water in the body and cause tension and irritability.*
>
> (28-year-old married woman with university education, Port Said)

Experiences using FP methods

Participants' experiences with family planning methods have been largely negative. Several participants reported experiencing side effects of contraceptive methods or method failure. Incorrect or inconsistent use of family planning methods was common among our FGD participants. Experience of method side-effects often led women to stop using a method before they switched to another one. Unplanned pregnancies happened during those periods of interrupted use. The below reports of FGD participants describe common scenarios for occurrence of side effects and unplanned pregnancies while using contraception.

> *I used the IUD and the pill. I used the IUD for 4 or 5 years, but it caused heavy bleeding and continuous backache. I changed the IUD to the pill, but I did not feel comfortable either. It caused my body to swell.*
>
> —31-year-old married woman with university education, urban Gharbia

> *I used the pills for three months then I went to Cairo to do an operation for my son but I forgot to take the pills with me…. In Cairo I had bleeding and when I got back home I continued to use the pills while having the bleeding…. I then went to see a doctor who said you need to change the pills and use an IUD…. After I started using the IUD I got bleeding for four months so I stopped using it and I had my last child….”*
>
> —30–year-old married woman, urban Souhag

Perceived quality of FP counseling and services

Young women's accounts during the FGDs suggest gaps in the counseling that they received from their health care providers (public or private). Several female participants who ever used family planning (current users and past users) reported receiving incomplete information from service providers. For example, when they requested a specific contraceptive method, the health provider did not offer information about other FP options nor did s/he inform them about side effects or what to do if they experienced them. Moreover, reports by study participants suggest that some providers even had misconceptions or biases against specific FP methods and hence discouraged clients from using them.

> *I went to take the injectables, they (in the health facility) told me we will not give you injectables, you are still young and injectables dry up the ovaries.*
>
> —34-year-old married woman with diploma degree, urban Gharbia

> *The doctor (private) told me that the three-month injectables are banned in Europe because they cause cancerous tumors.*
>
> —29-year-old married woman with university degree, middle class neighborhood in Cairo

> *I went to the health center and told the doctor I want to use an IUD. She explained the other methods such as the pills and condom. She advised me to use the IUD as it is safer, but she did not discuss any other benefits or side effects of each method.*
>
> —33-year-old married woman with university education, a poor neighborhood in Cairo

> *I wanted to remove my womb after my fourth child was born because I did not want to become pregnant again, but my doctor told me it was religiously forbidden and refused to do it for me. He also refused to tie my tubes...I do not want to get pregnant again.*
>
> —34-year-old married woman with no education, urban Souhag

Most participants preferred to receive FP at a private facility, thinking that providers who work in private facilities were better trained and would treat clients with more respect and give them more time. Moreover, a few participants believed that family planning methods that were offered in public facilities were less effective and caused more side-effects compared to those offered at private facilities.

OPPORTUNITIES AND CHALLENGES FOR EGYPT'S FAMILY PLANNING PROGRAM

The socio-economic, political, and donor environment has changed dramatically over the last six years, creating a more favorable environment for family planning. However, some of the challenges that were present during 2008 to 2014 continue to exist, while new ones have emerged. This section examines those challenges and opportunities based on accounts of our key informants and results of our desk review.

Increased political support for family planning

The Egyptian family planning program has received tremendous support from the political leadership and government since 2014. For the first time in Egypt's history, the new Constitution of Egypt explicitly commits the state to creating a balance between population growth and available resources. The National Strategy for Population and Development (2015–2030), which was launched by former Prime Minister Ibrahim Mehleb,

acknowledges families' rights to determine the number of children they want to have and to secure information and family planning services that would help them achieve the desired number (Ministry of Health and Population 2015). MoHP has also signed a commitment to FP2020 to "safeguard the health of its women and girls and mitigate the rate of its population growth by expanding its contraceptive programs and improving the quality of services to attract new users while expanding contraceptive method choice" (FP 2020 2016).

President Sisi is a strong advocate of family planning and has repeatedly urged the public and various government agencies to exert every effort to curb the population increase. In his address to young people at the fourth youth conference in 2017, he described Egypt's rapid population increase as one of the biggest challenges facing Egypt. The Egyptian parliament is supportive of family planning and of the establishment of the two-child family norm. However, some members of parliament have gone as far as recommending legislation to punish families that have more than three children by depriving them of government subsidies or not including them in social protection schemes (Egypt Independent 2017).

> *"The two biggest threats that Egypt is facing are terrorism and population growth and this challenge (population growth) decreases Egypt's chances of moving forward.*
>
> —President Abdel-Fattah Al Sisi, July 24, 2017, Fourth National Youth Conference

Increased funding for Egypt's family planning program

The Government of Egypt (GoE) has been successful in covering costs of contraceptive commodities for the public sector using local resources. The budget for contraceptive commodities has been increased from EGP 120 million in 2015 to 205 million in 2018, to offset the increase in the price of commodities following devaluation of the Egyptian pound in 2016. According to our key informants, MOHP has been successful in making contraceptive commodities available in public facilities following the phase out of USAID. According to one senior official at MOHP, current government funding is enough for procurement of FP commodities but not for additional activities such as awareness raising or introducing new FP methods into the program.

Moreover, several international donors are currently re-investing in family planning in Egypt. USAID has resumed its support of the Egyptian FP program through a five year project titled Strengthening Egypt's Family Planning Program (SEFPP), which is focused on building the capacity of MOHP and assisting MOHP in the introduction of new family planning methods based on research evidence.[6] Other international agencies like the European Union, UNFPA, and the World Bank are supporting the program through providing funds for procurement of contraceptives commodities, renovating clinics, training health care providers, and conducting awareness raising activities through community health workers and mass media (UNFPA 2019; World Bank 2018a).

Role of NGOs in FP service provision revisited

In August 2019 a new NGO law (Law 149 of 2019) was ratified by President Sisi to replace law #70 for 2017 which had been criticized for being too restrictive for NGOs. The new law presents a few improvements from Law 70 (Egypt Independent 2019). For example, it does not include individual prison sentences for violations of the law. Moreover, the UNFPA- supported project "Two are enough," which is implemented by the Ministry of Social Solidarity, relies heavily on local NGOs for awareness-raising about family planning as well as service

[6] SEFPP is implemented by John Snow Inc. (JSI) in collaboration with the Busara Center for Behavioral Economics, Center for Development Services, and the Population Council.

provision. The project operates in 10 governorates with the highest fertility rates and targets beneficiaries of Takaful and Karama program.[7]

Increased use of social media

The last 10 years have witnessed an enormous increase in the use of internet and social media along with decreased reliance on traditional media, especially among young people. In 2008, Egypt had 12.57 million internet users. This figure has increased to 49 million users in 2019, with youth spending an average of 26 hours per week online. The proportion of new internet users increased from 15 percent in 2011 to 38 percent in 2018 (Dennis, Martin, and Wood 2017; MCIT 2018). Moreover, Egypt has around 99.8 million mobile subscribers while the number of mobile internet users increased from 26 million in October 2015 to 34 million in October 2018 (Ministry of Communication and Information Technology 2016 and 2018).

The internet and social media offer tremendous opportunities for young people to learn about family planning and reproductive health from numerous sources; however, the accuracy of the presented information needs to be ascertained.

Increased prices of contraceptives in the private sector

Over the past six years the GoE has been undertaking major structural reforms to reduce budget deficit and to attract foreign investment. In November 2016 the Central Bank of Egypt floated the Egyptian pound against the US dollar, which resulted in a dramatic drop in the former's value (1 US $=18 Egyptian pounds in 2016 as opposed to 8 pounds in 2015). In the meantime, the GoE implemented a number of economic reform policies including removal of subsidies on fuel and implementing a value added tax (VAT) of 13 percent in 2016. The above measures may have helped boost the country's economic growth, as the GDP is reported to have gone up to 5.6 percent in 2019. However, they have resulted in a remarkable increase in prices of goods and services including contraceptives. For example, a pack of the oral contraceptive pill "Gynira" which was sold at private pharmacies for 30 EGP in 2014 now costs 45 EGP.

Shortage of trained health care providers

The main challenge that is facing Egypt's family planning program today, according to several of our key informants, is a shortage of trained physicians who are willing to work in primary care facilities, especially in rural Upper Egypt. Low salaries and lack of incentives drive many physicians to apply for residencies in hospitals where they could train for a specialty like Ob/Gyn, or general surgery and make more money when they open their private practice.

Although the number of Raedat Rifiyat is large (around 30,000) our key informants reported that many of them, especially older ones, are opting for administrative positions while younger ones are overstretched by other responsibilities such as raising awareness about avian flu and hepatitis C and other tasks. Finally, the three-year Reproductive Health and Family Planning Fellowship that is offered by MOHP for primary care physicians does not guarantee a better career path for its graduates and hence few physicians choose to join this program.

> *"Although raedat are responsible for mobilizing communities and raising awareness about a number of health issues, they are treated unfairly...if there are any monetary incentives they usually go to the doctor and the nurse but not the RR although I believe she should come first....*
>
> —Ministry of Health and Population official, Souhag

[7]The Takaful and Karama (solidarity and dignity) conditional and unconditional cash transfer program was launched in 2015. It is implemented by the Ministry of Social Solidarity with support from the World Bank. (World Bank 2018b)

Conclusion and Recommendations

Fertility preferences and behaviors have changed considerably among younger women aged 15–34 between 2008 and 2014, denoting a clear departure from the two-child family norm. More women in 2014 had three or more children, unplanned pregnancies, and shorter birth intervals. While those changes occurred among almost all subgroups of women, they were more pronounced among women who live in urban governorates, those with more years of schooling, and those who belong to upper wealth quintiles. Similar findings were reported by Radovich and colleagues (2018) who noted convergence of total fertility rate in 2013 between women with and without secondary education as well as increased fertility among urban women between 2012 and 2013.

The increased fertility between 2008 and 2014 has been driven by a decline in contraceptive use, increased method discontinuation within 12 months of initiation, and a change in method mix, with a shift away from the IUD to short acting methods such as oral pills and injectables.

The decrease in quality of family planning counseling between 2008 and 2014 may have contributed to decreased use and increased discontinuation and unplanned pregnancies. The fact that the decline in quality of FP counseling was more pronounced in the private than the public sector may explain the more noticeable increase in fertility desires, decreased contraceptive use, and shorter birth intervals among women who live in urban areas, those with secondary or higher education, and those who belong to higher wealth quintiles. Those subgroups of women are more likely to use the private sector. Decreased exposure to family planning messages through health care providers and various media channels may have contributed to increased fertility desires and decreased use of family planning. Political instability between 2011 and 2013 along with phasing out of USAID in 2008 are key reasons underlying the decline in quality of care and the desire for larger families.

Although the socio-economic, political, and funding environments have improved dramatically over the last five years, preference for more than two children continues to be common.

Economic constraints have made more couples in urban areas consider having only two children, provided that they include at least one son. Son preference is a major challenge, especially in rural Upper Egypt where couples are unlikely to stop childbearing until they have at least two sons.

Reports of participants in our qualitative study reveal substantial concerns and misconceptions about family planning methods among young men and women aged 15–34. Those concerns need to be addressed through proper counseling and awareness raising activities to ensure consistent and effective use of contraception.

Rising costs of contraceptive commodities at private pharmacies could lead some middle-class women to use FP methods inconsistently. Others may be driven to the public sector, which could divert limited government resources away from poor women who cannot afford to seek services elsewhere. The need for strengthening the role of the NGO sector to cater to the needs of middle- class women cannot be overemphasized.

On a more positive side, the family planning program is receiving unprecedented high-level political support along with increased government funding. Moreover, several international donors such as USAID, UNFPA, and the World Bank are supporting the program through funding procurement of additional supplies of FP methods, building capacity of service providers, supporting research to introduce new FP methods, and conducting awareness raising activities. While increased donor funding offers opportunities for the program to explore new activities and reach more subgroups of men and women, it is essential that the program develops sustainability plans to safeguard against interruption of activities when international donors phase out.

The Egyptian FP program needs to consider a comprehensive and sustainable approach to support couples to make voluntary informed decisions about the number, timing, and spacing of their children. The approach should rely more on local resources to sustain progress when donor funding is phased out. It should capitalize on the current high-level political commitment to voluntary family planning in mobilizing governmental, non-governmental, and private resources and in creating public discourse that is supportive of family planning. Principles of voluntarism and informed choice should be strictly followed to ensure that women (and men) are making free and fully informed decisions about the number and timing of their children. The proposed approach would involve the following components:

Awareness-raising about family planning for different sub-groups of young people including those who live in urban areas, in upper wealth quintiles, and those with secondary or higher education. The Ministry of Health and Population should collaborate with various stakeholders to integrate information about fertility awareness, family planning, birth spacing, and gender equality into secondary school curricula, livelihood training programs, and worker health programs to reach out to a large audience of young people. Private TV channels could be encouraged to air spots about voluntary family planning, potentially through tax exemptions. Moreover, the use of innovative and less expensive media channels (e.g., social media and digital health) for conveying the above messages to young people should be explored.

Improving quality of FP care. The Ministry of Health and Population and other stakeholders should scale-up on-the-job training of service providers, rectify providers' misconceptions about FP methods, introduce more woman-controlled family planning methods (e.g., subcutaneous depot medroxyprogesterone acetate [DMPA-SC] and contraceptive vaginal ring) into the public sector, and explore mechanisms that encourage primary care providers to stay in the public sector. Universities should integrate family planning into medical and nursing school curricula to ensure the graduation of new cohorts of service providers who are competent in family planning service delivery and do not need intensive pre- or in-service training in FP.

Integrating FP into other health services. All encounters with the public or private health system should be capitalized on to educate women (and their husbands) about voluntary family planning (e.g., during antenatal, postpartum, postabortion, and infant and childcare services). In addition, public and private hospitals should make FP methods available on the Ob/Gyn ward for women who choose to use FP immediately after giving birth or during postabortion care.

Enhancing the role of the private sector in FP service delivery. The Egyptian government should assist NGOs in generating funds to support the provision of subsidized FP services to women who live in urban areas who cannot afford the fees of private doctors. Private doctors (namely Ob/Gyn specialists and general practitioners) and pharmacists should be offered training in FP counseling and contraceptive technology. Pharmaceutical companies may play a role in offering such training as this could eventually lead to increased revenues for those companies through increased sales.

Fostering public-private partnerships. The private sector in Egypt should be encouraged to play a greater role in supporting the national family planning program, hence reducing reliance on international donor funding. Legislative bodies should revisit laws that hinder the growth of the private sector. Large corporations (e.g., banks, telecom, and food and beverage companies) could sponsor provider training programs and media campaigns or donate equipment to MOHP facilities as part of their corporate social responsibility programs. Meanwhile, MOHP should build capacity of its staff to tap private sector resources.

Conducting research. A deeper understanding of couples' fertility preferences and behaviors is warranted to determine the extent to which couples are making informed decisions about the number of children they would like to have. Moreover, research organizations should collaborate with the MOHP in conducting implementation science to assess the acceptability and use effectiveness of new contraceptive technologies (e.g., subcutaneous

depot medroxyprogesterone acetate [DMPA-SC], contraceptive vaginal ring, and levonorgestrel-releasing intrauterine system [LNG IUS]) in the Egyptian context, and to explore new communication technologies (e.g., digital health) to educate young people about FP. Last but not least, MOHP and NPC need to conduct periodic quantitative surveys to measure changes in family planning knowledge and attidues over time and to monitor progress of fertility decline.

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Appendices

TABLE A.1: BACKGROUND CHRACTERISTICS OF RESPONDENTS (15–34) EGYPT DHS, 2008 AND 2014

	EDHS ROUND			
	2008		2014	
BACKGROUND CHARACTERISTICS	%	COUNT	%	COUNT
Age in 5-year groups				
15–19	6.7	620	6.0	764
20–24	28.0	2584	24.1	3055
25–29	36.5	3367	37.4	4753
30–34	28.8	2663	32.5	4127
Total	100.0	9,234	100.0	12,699
Current marital status				
Married	96.9	8,948	97.0	12,316
Widowed	0.8	75	0.5	70
Divorced/separated	2.3	212	2.5	313
Total	100.0	9,234	100.0	12,699
Type of place of residence				
Urban	37.1	3,425	30.9	3,918
Rural	62.9	5,809	69.1	8,781
Total	100.0	9,234	100.0	12,699
Region				
Urban governorates	15.8	1,463	10.5	1,334
Urban Lower Egypt	10.1	935	9.4	1,197
Rural Lower Egypt	36.4	3,360	40.0	5,083
Urban Upper Egypt	10.2	940	10.4	1,322
Rural Upper Egypt	26.0	2,403	28.7	3,646
Frontier governorates[1]	1.4	133	0.9	117
Total	100.0	9,234	100.0	12,699
Educational attainment				
No education	23.5	2,172	16.3	2,076
Incomplete primary	6.3	586	4.8	610
Complete primary/some secondary	17.2	1,592	19.5	2,475
Complete secondary	40.0	3,692	43.6	5,539
Higher	12.9	1,192	15.7	1,999
Total	100.0	9,234	100.0	12,699
Work status				
Working for cash	10.0	921	10.2	1290
Not working for cash[2]	90.0	8313	89.8	11409
Total	100.0	9,234	100.0	12,699
Wealth index				
Poorest	18.1	1,674	16.2	2,059
Poorer	20.9	1,929	19.1	2,425
Middle	21.3	1,962	25.7	3,259
Richer	21.2	1,956	22.0	2,789
Richest	18.6	1,713	17.1	2,167
Total	100.0	9,234	100.0	12,699

[1]North and South Sinai were not included in the 2014 EDHS sample

[2]Includes working but not for cash and not working at all

TABLE A.2: DISTRIBUTION OF UNMARRIED YOUNG PEOPLE (15–29) BY MAIN BACKGROUND CHARACTERISTICS, SYPE 2009 AND 2014

CHARACTERISTICS	FEMALES				MALES			
	2009		2014		2009		2014	
	%	COUNT	%	COUNT	%	COUNT	%	COUNT
Age								
15–19	58.7	1,921	55.8	1,387	46.6	2,000	41	1,553
20–24	32.1	1,053	32.1	715	36.4	1,492	39.5	1,328
25–29	9.2	317	12.1	259	17	654	19.4	549
Total	100	3,291	100	2,361	100	4,146	100	3,430
Urban/rural residence								
Urban	46.1	1,586	45.6	1,113	42.4	1,961	39.7	1,446
Rural	53.9	1,705	54.4	1,248	57.6	2,185	60.3	1,984
Total	100	3,291	100	2,361	100	4,146	100	3,430
Place of residence								
Urban Governorates	23.9	808	21.5	514	22.9	1,076	19.2	696
Urban Lower Egypt	12.1	361	13.2	298	10.7	432	11.6	397
Rural Lower Egypt	27.4	829	26.1	604	31.4	1,189	30.9	1,052
Urban Upper Egypt	9.1	272	9.8	175	7.9	280	7.9	200
Rural Upper Egypt	25.9	786	27.5	545	25.5	859	28.6	788
Frontier Governorates	1.6	235	2.0	225	1.6	310	1.8	297
Total	100	3,291	100	2361	100	4,146	100	3,430
Work status								
Not working for cash	89.5	2,924	90.5	2,160	51.8	2,188	54.7	1,993
Working for cash	10.5	339	9.5	190	48.2	1,922	45.3	1,426
Total	100	3,263	100	2,350	100	4110	100	3,419
Educational attainment								
No education	8.2	286	6.2	149	3.1	134	4.6	150
Some primary	0.3	7	0.4	8	0.1	7	0.5	16
Primary complete/ Some secondary	43.9	1,441	20	486	42.4	1,802	19.1	655
Complete secondary	35.8	1,163	45.2	1,083	42.4	1,699	50.9	1,749
Above secondary	11.8	394	28.2	634	12.2	504	24.9	860
Total	100	3,291	100	2,360	100	4,146	100	3,430
Wealth quintiles								
Lowest	19	612	18	383	18.7	689	18.2	559
Second	18.5	593	20.5	461	20.1	772	20.1	647
Middle	21.1	687	18.5	465	23.2	916	17.7	660
Fourth	20.3	690	19.2	482	20.2	917	20.4	733
Richest	21	709	23.9	570	17.7	852	23.6	831
Total	100	3,291	100	2,361	100	4,146	100	3,430

TABLE A.3: DISTRIBUTION OF FGDS BY GOVERNORATE AND PARTICIPANTS' SEX AND MARITAL STATUS

GOVERNORATES/ AREAS	UNMARRIED		MARRIED		TOTAL	
	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN
Cairo	3	3	3	2	6	5
Port Said						
All urban	2	2	2	2	4	4
Gharbia						
Urban	2	1	2	2	4	3
Rural	1	1	1	1	2	2
Souhag						
Urban	2	2	2	2	4	4
Rural	1	1	1	1	2	2
Total	11	10	11	10	22	20

TABLE A.4: SELECT CHARACTERISTICS OF MALE AND FEMALE FGD PARTICIPANTS

RESPONDENTS' CHARACTERISTICS	UNMARRIED		MARRIED	
	WOMEN (N)	MEN (N)	WOMEN (N)	MEN (N)
Age				
<20	19	15	1	1
20–24	47	55	20	3
25-29	21	13	35	32
30–34	2	7	34	47
Family planning use				
Never used	NA	NA	16	38
Past user	NA	NA	23	9
Current user	NA	NA	51	36
Education				
Illiterate	1	2	7	8
Read and write	1	2	2	2
Primary/preparatory	4	7	16	8
Secondary	20	19	20	23
Two- year institute post-secondary	17	32	17	14
University or above	46	28	28	28
Work status				
Working for cash	27	30	20	66
Not working	62	60	70	17
Total	89	90	90	83

TABLE A.5: PERCENTAGE OF EVER-MARRIED WOMEN AGED 15–34 WHO HAD 3+ CHILDREN BY SELECTED BACKGROUND CHARACTERISTICS, EGYPT 2008 AND 2014

BACKGROUND CHARACTERISTICS	2008		2014		% OF CHANGE BETWEEN 2008 AND 2014
	PERCENTAGE HAVING 3+ LIVING CHILDREN	NUMBER OF EVER-MARRIED WOMEN	PERCENTAGE HAVING 3+ LIVING CHILDREN	NUMBER OF EVER-MARRIED WOMEN	
Age					
15–19	0.6	619	0.3	764	-50.0
20–24	6.2	2,584	7.3	3,055	17.7
25–29	30.6	3,367	30.6	4,753	0.0
30–34	58.8	2,664	59.7	4,127	1.5
Urban-rural residence					
Urban	24.9	3,425	27.7	3,918	11.2
Rural	32.9	5,810	34.8	8,781	5.8
Place of residence					
Urban Governorates	22.1	1,463	23.4	1,334	5.9
Lower Egypt	27.9	4,295	30.7	6,280	10.0
Urban	24.5	935	27.5	1,197	12.2
Rural	28.8	3,360	31.5	5,083	9.4
Upper Egypt	36.0	3,343	37.5	4,967	4.2
Urban	29.1	940	32.4	1,321	11.3
Rural	38.7	2,403	39.3	3,646	1.6
Frontier Governorates[1]	30.4	133	32.7	117	NA
Education attainment					
No education	42.2	2,173	49.9	2,076	18.2
Some primary	43.9	586	48.2	610	9.8
Primary complete/ Some secondary	35.4	1,593	32.0	2,475	-9.6
Secondary complete	24.1	3,691	29.8	5,539	23.7
Above secondary	11.3	1,193	18.5	1,999	63.7
Work status					
Working for cash	28.5	921	32.5	1,290	14.0
Not working for cash[2]	30.1	8,313	33.5	11,409	11.2
Wealth quintile					
Lowest	40.9	1,674	44.3	2,059	8.3
Second	34.1	1,929	39.0	2,424	14.4
Middle	28.9	1,963	32.5	3,259	12.5
Fourth	25.1	1,956	27.1	2,789	8.0
Highest	21.0	1713	21.5	2,167	2.4
Total	29.9	9,234	32.6	12,699	9.0

Source: EDHS 2008 and 2014

[1]North and South Sinai were not included in the 2014 EDHS sample; hence it is not applicable to estimate the percentage of change between 2008 and 2014.

[2]Includes working but not for cash and not working at all.

TABLE A.6: PERCENTAGE OF NON-FIRST BIRTHS IN THE FIVE YEARS PRECEDING THE SURVEY THAT TOOK PLACE WITHIN LESS THAN THREE YEARS AFTER A PRIOR BIRTH AMONG WOMEN AGED 15–34 BY SELECTED BACKGROUND CHARACTERISTICS

BACKGROUND CHARACTERISTICS	2008		2014		PERCENT CHANGE BETWEEN 2008 AND 2014
	PERCENT OF NON-FIRST BIRTH TOOK PLACE WITHIN <3 YEARS AFTER A PRIOR BIRTH	NUMBER OF NON-FIRST BIRTHS IN THE 5 YEARS PRECEDING THE SURVEY (N=5,484)	PERCENT OF NON-FIRST BIRTHS TOOK PLACE WITHIN <3 YEARS AFTER A PRIOR BIRTH	NUMBER OF NON-FIRST BIRTHS IN THE 5 YEARS PRECEDING THE SURVEY (N=8,486)	
Age					
15–24	73.5	1,060	78.4	1,457	6.7
25–29	53.9	2,548	57.5	3,863	6.7
30–34	38.5	1,876	39.4	3,167	2.3
Sex of preceding birth					
Male	49.2	2,805	52.7	4,372	7.1
Female	55.8	2,679	56.1	4,115	0.5
Survival of preceding birth					
Living	51.5	5,276	53.5	8,172	3.9
Dead	74.9	208	75.6	314	0.9
Birth order					
2	62.8	2,646	66.6	4,160	6.1
3	41.5	1,679	42.0	2,700	1.2
4+	44.5	1,159	43.5	1,627	-2.2
Urban-rural residence					
Urban	49.4	1,850	51.4	2,446	4.0
Rural	53.9	3,633	55.5	6,041	3.0
Place of residence					
Urban Governorates	51.2	752	49.5	774	-3.3
Lower Egypt	47.2	2,328	52.7	3,991	11.7
Urban	42.7	475	52.8	738	23.7
Rural	48.4	1,852	52.7	3,253	8.9
Upper Egypt	58.0	2,324	57.0	3,640	-1.7
Urban	52.4	572	51.5	893	-1.7
Rural	59.9	1,752	58.8	2,746	-1.8
Frontier Governorates[1]	50.9	81	62.0	82	NA
Education attainment					
No education	55.4	1,505	52.3	1,655	-5.6
Some primary	51.0	420	46.4	418	-9.0
Primary complete/ Some secondary	45.5	928	54.4	1,522	19.6
Secondary complete	51.9	2,130	54.5	3,742	5.0
Above secondary	59.4	501	59.5	1,150	0.2
Work status					
Working for cash[2]	51.1	554	49.8	867	-2.5
Not working for cash[2]	52.5	4,930	54.9	7,619	4.6
Wealth quintile					
Lowest	59.3	1,243	58.2	1,626	-1.9
Second	54.2	1,140	53.4	1,781	-1.5
Middle	49.1	1,194	54.2	2,209	10.4
Fourth	47.5	1,054	53.2	1,644	12.0
Highest	50.5	853	52.4	1,226	3.8
Total	52.4	5,484	54.3	8,486	3.6

Source: EDHS 2008 and 2014

[1]North and South Sinai were not included in the 2014 EDHS sample; hence it is not applicable to estimate the percentage of change between 2008 and 2014.

[2]Includes working but not for cash and not working at all

TABLE A.7: PERCENTAGE OF EVER-MARRIED WOMEN AGED 15–34 WHO REPORTED 3+ CHILDREN AS AN IDEAL NUMBER OF CHILDREN IN 2008 AND 2014 ACCORDING TO WOMEN'S AGE[1]

WOMEN'S AGE	2008		2014		PERCENTAGE OF CHANGE BETWEEN 2008 AND 2014
	PERCENTAGE	NUMBER OF EVER MARRIED WOMEN	PERCENTAGE	NUMBER OF EVER MARRIED WOMEN	
15–19	42.3	620	47.2	763	11.6
20–24	42.6	2,584	51.2	3,055	20.2
25–29	46.7	3,367	52.4	4,753	12.2
30–34	52.0	2,664	56.4	4,128	8.5
Total (15–34)	46.8	9,235	53.1	12,699	13.5

[1]"As God wills" and Non-numeric responses are not included in the proportion reporting 3+ children as an ideal number but are included in the denominator.

TABLE A.8: PERCENTAGE OF UNMARRIED[1] WOMEN AGED 15–29 WHO REPORTED 3+ CHILDREN AS AN IDEAL NUMBER OF CHILDREN BY SELECTED BACKGROUND CHARACTERISTICS, EGYPT 2009 AND 2014

BACKGROUND CHARACTERISTICS	2009		2014		% OF CHANGE BETWEEN 2009 AND 2014
	% DESIRING 3+ CHILDREN	NUMBER OF UNMARRIED WOMEN	% DESIRING 3+ CHILDREN	NUMBER OF CURRENTLY UNMARRIED WOMEN	
Age					
15–24	36.9	2,974	53.2	2,102	44.2
25–29	36.9	317	55.1	259	49.3
Urban-rural residence					
Urban	30.5	1,586	47.0	1,113	54.1
Rural	42.4	1,705	58.8	1,248	38.7
Place of residence					
Urban Governorates	25.0	808	39.4	515	57.6
Urban Lower Egypt	28.3	361	43.3	298	53.0
Rural Lower Egypt	33.6	829	46.6	604	38.7
Urban Upper Egypt	46.8	272	68.9	175	47.2
Rural Upper Egypt	51.2	786	70.3	547	37.3
Frontier Governorates	51.6	235	51.0	225	-1.2
Educational attainment					
Less than secondary	42.9	800	64.2	293	49.7
Secondary	35.1	2,097	53.6	1,433	52.7
Above secondary	35.2	394	48.4	634	37.5
Work status					
Works for cash2	33.6	337	43.6	190	29.8
Unpaid work/Not working	37.3	2,954	54.6	2,159	46.4
Wealth quintile					
Lowest	48.3	612	62.8	383	30.0
Second	40.2	593	60.9	461	51.5
Middle	39.1	687	51.2	465	30.9
Fourth	32.1	690	46.8	482	45.8
Highest	26.3	709	47.1	570	79.1
Total 15–29	36.9	3,291	53.4	2,362	44.7

Source: SYPE 2009 and 2014

[1]Engaged and contractually married are included.

[2]Working for cash includes waged employees and employers/self-employed.

TABLE A.9: PERCENTAGE OF UNMARRIED1 MEN AGED 15–29 WHO REPORTED 3+ CHILDREN AS AN IDEAL NUMBER OF CHILDREN BY SELECTED BACKGROUND CHARACTERISTICS, EGYPT 2009 AND 2014

BACKGROUND CHARACTERISTICS	2009		2014		% OF CHANGE BETWEEN 2009 AND 2014
	% DESIRING 3+ CHILDREN	NUMBER OF UNMARRIED MEN	% DESIRING 3+ CHILDREN	NUMBER OF CURRENTLY UNMARRIED MEN	
Age					
15–24	48.0	3,492	58.5	2,881	21.9
25–29	46.0	655	58.6	549	27.4
Urban-rural residence					
Urban	41.4	1,962	50.9	1,446	22.9
Rural	42.3	2,185	63.5	1,984	50.1
Place of residence					
Urban Governorates	36.4	1,076	45.1	696	23.9
Urban Lower Egypt	40.3	432	47.8	398	18.6
Rural Lower Egypt	44.5	1,189	51.6	1,052	16.0
Urban Upper Egypt	55.9	281	69.8	200	24.9
Rural Upper Egypt	61.3	859	76.2	791	24.3
Frontier Governorates	60.8	310	58.3	297	-4.1
Education attainment					
Less than secondary	48.5	773	62.6	413	29.1
Secondary	48.2	2,870	60.6	2,157	25.7
Above secondary	43.3	504	51.0	860	17.8
Work status					
Working for cash[2]	48.4	1,924	61.9	1,426	27.9
Unpaid working for family/ Not working	47.0	2,223	55.7	1,993	18.5
Wealth quintile					
Lowest	55.0	689	65.3	559	18.7
Second	50.3	772	64.4	647	28.0
Middle	50.4	917	56.7	660	12.5
Fourth	43.5	917	59.8	733	37.5
Highest	38.1	852	48.4	831	27.0
Total 15–29	47.7	4,147	58.5	3,430	22.6

Source: SYPE 2009 and 2014

[1]Engaged and contractually married are included.

[2]Working for cash includes waged employees and employers/self-employed.

TABLE A.10: PERCENTAGE OF CURRENTLY MARRIED WOMEN AGED 15–34 WHO HAVE 2+ CHILDREN AND WANT MORE CHILDREN BY SELECTED BACKGROUND CHARACTERISTICS, EGYPT 2008 AND 2014

BACKGROUND CHARACTERISTICS	2008		2014		% OF CHANGE BETWEEN 2008 AND 2014
	PERCENT WANTS MORE CHILDREN	NUMBER OF CURRENTLY MARRIED WOMEN HAVING 2+ CHILDREN	PERCENT WANTS MORE CHILDREN	NUMBER OF CURRENTLY MARRIED WOMEN HAVING 2+ CHILDREN	
Age					
15–24	41.9	896	51.7	1,216	23.4
25–29	25.9	2,290	32.4	3,348	25.1
30–34	14.0	2,218	18.5	3,536	32.1
Sex composition of living children					
Number of sons < number of girls	25.4	1,789	31.4	2,524	23.6
Number of sons = number of girls	27.3	1,650	34.0	2,441	24.5
Number of sons > number of girls	19.0	1,967	23.7	3,134	24.7
Urban-rural residence					
Urban	22.3	1,921	26.2	2,443	17.5
Rural	24.4	3,484	30.5	5,657	25.0
Place of residence					
Urban Governorates	19.5	810	26.4	801	35.4
Lower Egypt	20.1	2,519	23.4	4,083	16.4
Urban	24.7	538	21.5	756	-13.0
Rural	18.9	1,981	23.8	3,327	25.9
Upper Egypt	29.2	2,002	37.3	3,143	27.7
Urban	23.0	525	29.6	847	28.7
Rural	31.4	1,477	40.1	2,296	27.7
Frontier Governorates[1]	36.0	75	36.8	72	NA
Educational attainment					
No education	22.3	1,454	24.8	1,562	11.2
Some primary	18.9	417	24.6	411	30.2
Primary complete/Some secondary	24.4	951	30.1	1,430	23.4
Secondary complete	24.1	2,077	29.9	3,613	24.1
Above secondary	28.1	508	33.9	1,083	20.6
Work status					
Working for cash	23.3	565	26.3	863	12.9
Not working for cash[2]	23.7	4,840	29.6	7,236	24.9
Wealth quintile					
Lowest	25.9	1,076	31.4	1,419	21.2
Second	23.4	1,135	32.3	1,668	38.0
Middle	22.2	1,195	29.0	2,098	30.6
Fourth	24.1	1,085	27.0	1,649	12.0
Highest	22.5	916	26.0	1,266	15.6
Total	23.6	5,405	29.2	8,099	23.7

Source: EDHS 2008 and 2014 EDHS

TABLE A.11: PERCENTAGE OF CURRENTLY MARRIED WOMEN AGED 15–34 WHO HAVE TWO OR MORE CHILDREN AND WHO ARE NOT USING ANY CONTRACEPTIVE METHOD BY SELECTED BACKGROUND CHARACTERISTICS, EGYPT 2008 AND 2014

WOMEN'S BACKGROUND CHARACTERISTICS	2008		2014		PERCENT CHANGE BETWEEN 2008 AND 2014
	PERCENT NOT USING FP	NUMBER OF CURRENTLY MARRIED WOMEN HAVING 2+ CHILDREN	PERCENT NOT USING FP	NUMBER OF CURRENTLY MARRIED WOMEN HAVING 2+ CHILDREN	
Age					
15–24	34.9	896	38.3	1,216	9.7
25–29	27.9	2,290	33.8	3,348	21.1
30–34	25.3	2,218	29.4	3,536	16.2
Number of living children					
2	31.2	2,690	36.9	4,022	18.3
3	25.2	1,727	27.6	2,736	9.5
4+	24.1	988	29.9	1,341	24.1
Urban-rural residence					
Urban	22.3	1,921	27.9	2,443	25.1
Rural	31.1	3,484	34.6	5,657	11.3
Place of residence					
Urban Governorates	19.7	810	25.5	801	29.4
Lower Egypt	23.4	2,519	26.6	4,083	13.7
Urban	23.0	538	25.1	756	9.1
Rural	23.5	1,981	26.9	3,327	14.5
Upper Egypt	36.9	2,001	42.1	3,143	14.1
Urban	24.5	525	32.4	847	32.2
Rural	41.2	1,476	45.6	2,296	10.7
Frontier Governorates[1]	35.8	75	36.7	72	NA
Education attainment					
No education	34.1	1,453	38.0	1,562	11.4
Some primary	27.8	416	35.0	411	25.9
Primary complete/ Some secondary	28.0	951	33.1	1,430	18.2
Complete secondary	25.1	2,077	31.3	3,613	24.7
Above secondary	22.4	508	27.3	1,083	21.9
Work status					
Working for cash	23.0	565	22.6	863	-1.7
Not working for cash[2]	28.6	4,840	33.8	7,236	18.2
Wealth quintie					
Lowest	35.0	1,076	40.9	1,419	16.9
Second	31.1	1,135	37.6	1,668	20.9
Middle	26.2	1,194	30.6	2,098	16.8
Fourth	28.0	1,085	28.7	1,649	2.5
Highest	18.2	915	24.9	1,266	36.8
Total	28.0	5,405	32.6	8,099	16.4

Source: 2008 EDHS and 2014 EDHS

[1]North and South Sinai were not included in the 2014 EDHS sample; hence it is not applicable to estimate the percentage of change between 2008 and 2014.

[2]Includes working but not for cash and not working at all

TABLE A.12: CONTRACEPTIVE DISCONTINUATION AMONG WOMEN AGED 15–34 BY REASON FOR DISCONTINUATION, EGYPT 2008 AND 2014

REASON	2008 (N=2,633 EPISODES OF USE)	2014 (N=12,302 EPISODES OF USE)
Method failure	3.2	4.6
Desire to become pregnant	5.4	7.6
Other fertility related reasons[1]	2.9	4.6
Side effects/health concerns	10.0	10.9
Wanted more effective method	1.3	2.3
Other method related reasons[2]	2.5	1.0
Other reasons[3]	1.9	0.5
Any reason	27.3	31.5
Switched to another method	8.3	8.5

Source EDHS 2008 and 2014

[1]Includes infrequent sex/ husband away, difficult to get pregnant/ menopausal, and marital dissolution / separation.

[2]Includes lack of access/ distance, cost and inconvenient to use

[3]Includes fatalistic beliefs and husband's disapproval

TABLE A.13: PERCENTAGE OF CURRENT USERS AGED 15–34 WHO BEGAN THE CURRENT SEGMENT OF USE IN THE FIVE YEARS PRECEDING THE SURVEY WHO REPORTED THEY WERE ADVISED ABOUT VARIOUS ASPECTS OF THE METHOD AND RECEIVED THE METHOD INFORMATION INDEX ACCORDING TO THE TYPE OF PROVIDER AND METHOD, EGYPT 2008 AND 2014

INFORMATION PROVIDED	PUBLIC FACILITY		PRIVATE FACILITY[1]		PHARMACY		TOTAL	
	2008	2014	2008	2014	2008	2014	2008	2014
PILL[2]								
Told about other methods	72.5	66.9	77.7	67.4	46.3	42.9	65.7	61.1
Told about side effects	46.3	45.4	62.5	50.5	35.4	25.8	47.9	42.1
Told what to do about side effects	37.9	32.2	52.1	38.5	24.3	16.4	38.1	30.1
MII	33.8	30.7	50.0	35.6	19.1	15.1	34.2	28.3
Number of users	363	814	323	515	328	434	1,014	1763
IUD[2]								
Told about other methods	67.0	61.5	76.8	62.5	NA	NA	70.2	61.9
Told about side effects	54.5	48.5	68.4	54.9	NA	NA	59.0	51.0
Told what to do about side effects	45.7	36.3	60.6	43.6	NA	NA	50.5	39.2
MII	40.2	31.7	55.9	37.1	NA	NA	45.3	33.8
Number of users	1,626	1,648	786	1,031	NA	NA	2,413	2,680
INJECTABLES[2]								
Told about other methods	67.4	68.2	66.5	66.0	43.6	63.6	66.2	67.6
Told about side effects	57.4	57.5	50.8	55.0	36.6	38.9	55.8	55.9
Told what to do about side effects	46.6	38.3	47.6	42.4	31.3	23.0	46.0	37.5
MII	41.5	34.3	45.0	38.6	23.6	23.0	41.0	33.9
Number of users	458	666	46	81	24	61	528	808
TOTAL[2]								
Told about other methods	67.8	64.3	76.7	64.0	46.1	44.7	68.4	62.4
Told about side effects	53.7	49.4	66.2	52.9	35.1	27.1	55.7	48.4
Told what to do about side effects	44.7	35.4	57.5	41.2	24.5	17.1	46.6	35.5
MII	39.5	31.7	53.7	36.1	19.4	16.0	41.8	31.6
Number of users	2,485	3,176	1,181	1,694	374	508	4,041	5,378

Source: EDHS 2008 and 2014

[1]Private sector includes NGOs, private hospitals/clinics, private doctors/nurses, or mosque/church clinics

[2]Includes only current users who began segment of use in the 5 years preceding the survey

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