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2004

## **Too Young to Be a Mother: A Description of the Lives of Married Adolescent Girls in Egypt**

Omaima El-Gibaly

Susan M. Lee

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# TOO YOUNG TO BE A MOTHER

A DESCRIPTION OF THE LIVES  
OF MARRIED ADOLESCENT  
GIRLS IN EGYPT



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SUSAN M. LEE-RIFE

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# **'TOO YOUNG TO BE A MOTHER'**

**A DESCRIPTION OF THE LIVES OF MARRIED ADOLESCENT GIRLS IN EGYPT**

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## **PREFACE**

Improving the status and health of women is high on the agenda of the Ministry of Health and Population, working with many other health and social sectors in Egypt. Investing in the lives of women who marry in their teens has long term benefits for these girls as well as their children. Valid information is needed, however, in order to address the special needs of these girls.

It gives me great pleasure to introduce this monograph to policy and program developers working in the area of 'healthy development of adolescent girls.' Adolescent health is currently one of the major concerns of the Ministry of Health and Population. One of our key strategies is the delay of early marriage, as well as addressing the reproductive and other health needs of married girls. To that end, the Ministry was a partner in the field work collaboration with the Population Council survey team, providing primary health care physicians for data collection throughout the country for the 'Adolescent and Social Change' Survey (ASCE) in 1997.

This monograph is an in-depth analysis of the ASCE survey data. It portrays the context in which married girls are living, describes their characteristics, marriages and reproductive practices, and is making them visible for the first time. We hope that public organizations, NGOs and other institutions will jointly contribute to improving the situation of these girls.

I would like to thank the Population Council for this effort and look forward to further collaboration as we design interventions for married adolescents.

Dr. Yehia El Hadidi, Head of Population Sector and Family Planning  
Ministry of Health and Population  
Cairo, January 2004

## **ACKNOWLEDGMENTS**

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Finally, we feel indebted to all the young married girls who were part of our case studies and whose comments and life experience enriched this publication and made it so lively.

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# 1. INTRODUCTION

Adolescence encompasses the critical developmental tasks and life decisions that bridge childhood and adulthood -- including when to leave school, whether and where to work, taking increased responsibility for self and family and choosing a spouse. As Mensch et al. (1998:1) note: “[w]hat happens between the ages of 10 and 19, whether for good or ill, shapes how girls and boys live out their lives as women and men - not only in the reproductive arena, but in the social and economic realm as well.” They argue that girls’ social and economic disadvantages are the driving forces behind early marriage and childbearing in the developing world.

When a girl marries before the age of 20, she is required to take on adult roles for which she may not be prepared. The demands and costs of early marriage and childbearing are considerable, and may “interrupt and truncate” her continued personal development (Bruce and Mensch 1999).

Traditionally in rural Egypt, adolescent girls were married by their families during adolescence. Marriage or engagement often took place at or soon after the onset of menarche and other signs of physical maturity. This tradition equated physical readiness to become pregnant with readiness for marriage. It also ensured a girl’s virginity upon marriage and thus protected the family honor. As a girl usually resided with her husband’s family after marriage, continued investment in and expenditure on girls was not in a family’s economic interests. Moreover, the roles of wife and mother were considered to be the sole or highest purpose in women’s lives. Puberty signaled the readiness of a girl to enact these roles. Marriage for boys during adolescence, however, was never common and is rare at present.

In recent years, a number of social, cultural and economic factors have changed the patterns of marriage and childbearing in Egypt. Increased opportunities for girls’ education and employment, as well as the high costs associated with marriage and supporting a family have raised the average marriage age for women. Despite this rapid change, Egypt still has one of the lowest median marriage ages for women among the Arab countries (Singh and Samara 1996), 19.7 for women aged 20–49 according to the Egyptian Demographic and Health Survey (EDHS) (El-Zanaty et al. 1996).

Although adolescent marriage is becoming less frequent, it is still widespread in some parts of Egypt. These marriages may fail to meet the legal age standards and often are contracted by others without the consent or consultation of each individual. Egypt has adopted a rights-based approach to protecting children, reflected in the Child Law of 1996. Understanding the dynamics and consequences of adolescent marriage will help to better target program and policy interventions to reduce the prevalence of early marriage and to ameliorate the life conditions of those who do marry during adolescence.

## **2. OBJECTIVES**

Until recently, little was known about adolescents in developing countries like Egypt. With only a few exceptions, research on adolescents has focused on industrialized, predominantly Western countries. Notable exceptions have included the Harvard Adolescence Project and the resulting ethnographic case studies, and Schlegel and Barry's Adolescent Socialization Project. A number of smaller, localized studies on specific topics have been conducted in Egypt, (see for example Makhoulf and Amin 1995; El-Zanaty and Mohamed 1996), but the findings permit few conclusions about the 'typical' experiences of Egyptian adolescents. At the same time, international research on adolescence has focused on non-marital sexual activity, and has ignored married adolescents as a group even though they are the most likely adolescents to be sexually active in conservative societies like Egypt (Mensch et al. 1998:91).

However, some data has been collected on married adolescents. For example, married adolescent girls ages 15-19 are included in Demographic and Health Surveys in Egypt and elsewhere, but the data collected on these girls is part of the 'married women of reproductive age' category, and is rarely disaggregated. In addition, the primary focus of the EDHS surveys has been limited to aspects of reproductive health, with little attention paid to the broader social context. For example, we have little information on the broader context in which married adolescents make the transition to marriage; how they negotiate their relationships with their husbands and (often co-resident) in-laws; what they know about sexual relations, childbearing, and infant care or how they obtain this information; or what information they may require for successful transitions into married life. This monograph is an attempt to supplement these gaps in knowledge. More specifically the objectives are to:

- Describe the situation of married adolescent girls and put their lives in context, in order to make them real to policymakers and program designers;
- Identify specific areas for pilot or full-scale interventions and important considerations in intervention design;
- Identify areas for policy action and provide supporting evidence.

## **3. SOURCES OF DATA**

The analysis presented in this monograph is primarily based on two sources of data: the Adolescence and Social Change in Egypt (ASCE) survey and the 1995 EDHS. The choice of EDHS 1995 data in our comparisons was for two reasons; first, it is nearest in time to ASCE 1997 and second, some questions on outcomes of pregnancy were more detailed in 1995 EDHS than in the 2000 round. Occasionally, data from previous DHS surveys in

Egypt ('88, '92, 2000) are also included to indicate changes over time and identify the scope of a particular issue.

**Adolescence and Social Change in Egypt:** The ASCE data results from a nationally representative survey of adolescents in Egypt conducted in 1997 on more than 9,000 adolescents.

Data was collected on health, education, work roles and daily activities. A subsample of adolescents was asked about their nutrition, reproductive health knowledge and attitudes, household gender dynamics, and expectations regarding future responsibilities and roles within marriage. In addition, they provided urine, stool, and blood samples. [See Appendix for more information about the survey methodology.]

Married adolescent girls were a particular focus of the ASCE survey; an attempt was made to interview every ever-married adolescent girl identified in the household screening process.<sup>1</sup> The survey identified 353 ever-married adolescent girls, of whom 317 were successfully interviewed.

Married girls answered additional questions on gender dynamics in their households, pregnancy, antenatal care, childbirth and breastfeeding. In some of the following analysis, we used the ASCE sample of never-married girls aged 16–19 as a comparison group to illustrate the uniqueness of the married sample. This group was selected because most questions on reproductive health and gender roles in the ASCE survey were asked only of never-married girls above age 16, though they were asked of all ever-married girls regardless of age. In addition, a small number of married adolescents had in-depth interviews, and quotes from those transcripts are used for illustrative purpose in this report.

**Egyptian Demographic and Health Survey:** The EDHS survey, conducted in 1995, collected data from ever-married women aged 15 to 49 (El-Zanaty et al. 1996). We used the EDHS data in our analysis in three different ways. First, since the EDHS contains a history of pregnancy outcomes for women up to 60 months prior to interview, we selected a subsample of women in the EDHS who were married within 60 months of the survey interview and compared the reproductive health profiles of those aged 15-19 with those aged 20-24 who had married at age 20 or older.

Second, we selected women within the first 10 years of marriage and compared reported neonatal and infant death among those who had given birth to their first child during their teenage years with those who had their first birth in their 20s.

Third, a number of ASCE survey questions were made identical to questions asked in the EDHS, allowing us to make comparisons between the experiences of married adolescents and those of women in the 20–24 and 25–29 cohorts who did not marry during adolescence.

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<sup>1</sup> The term married girls refers to ever - married girls throughout the document.

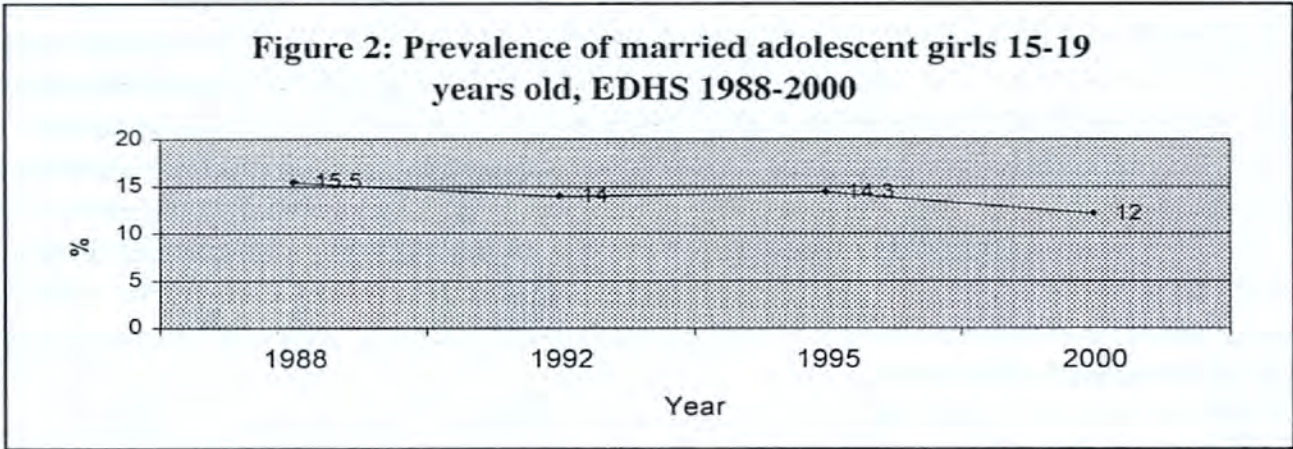
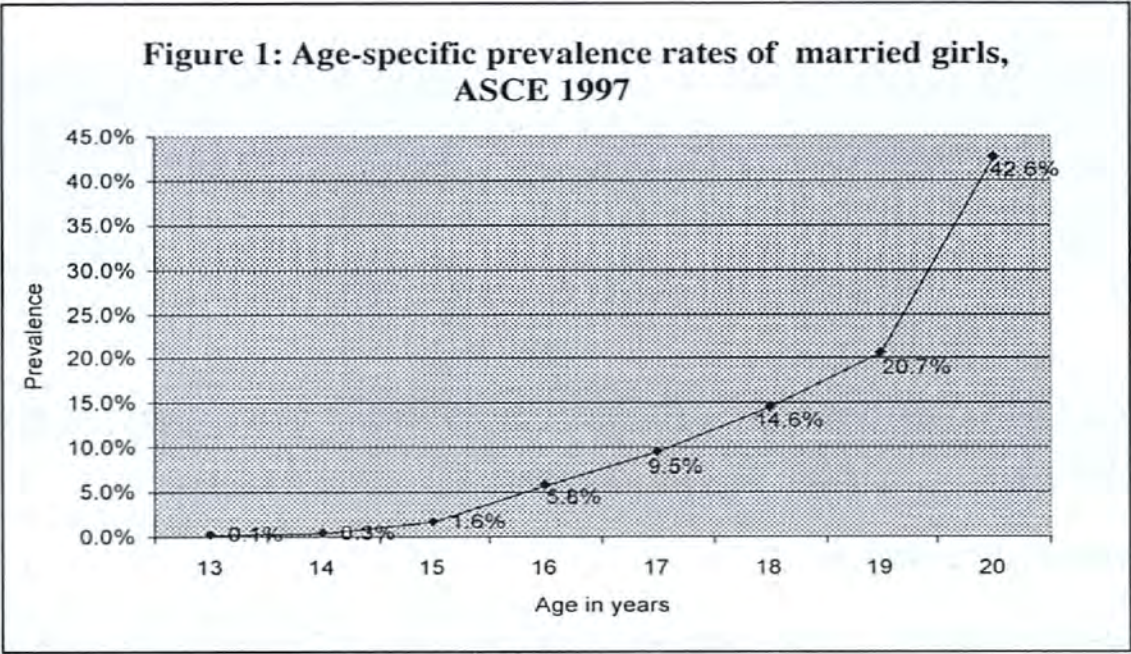


Figure 2 shows the prevalence of married girls ages 15-19 in the EDHS surveys<sup>4</sup> from 1988-2000 (Sayed Hussein A et. al 1988, El-Zanaty et. al. 1992, El-Zanaty et. al. 1995, El-Zanaty & Way A.A. 2001). The most recent estimate in 2000 is 12 percent. Despite the obvious decline over the 12-year period, this level is still high enough to be of public health concern.

<sup>4</sup> In the DHS surveys, marital status is asked only of women ages 15 years or older. Thus, the DHS would not capture girls married at younger ages unless they report that they are at least 15 years old.

## 6.2 Underage Marriage

Strict rules are in place in Egypt to ensure that individuals do not marry before the minimum legal ages set by the law. A *ma'zoun*, a religiously trained registrar who follows the policies of the Ministry of Justice, is responsible for concluding marriage contracts for Muslims in Egypt. Part of his responsibility is to ensure that both parties have reached the legal minimum ages for marriage. In order to do this, the *ma'zoun* depends primarily on the birth certificate or another official document that states an individual's date of birth. When such documents do not exist, an approximation of age can be certified by a doctor from one of a number of official entities, including Ministry of Health and Population health centers.

Despite these precautions, underage marriages continue to be registered. A review of records in one district office in Upper Egypt revealed an unusually high percentage of girls marrying at age 16 years and one month. Moreover, employees were willing to discuss the various ways that families circumvent the age restrictions. Those interviewed were not aware of any cases of legal action taken to prosecute offenders (El-Gibaly O.M. 1997, personal communication).

Only 2 percent of married adolescent girls in the ASCE data report that they are currently below age 16, the legal age of marriage for females in Egypt. However, 28 percent of the total married sample interviewed report having been married before the age of 16. One would expect these numbers to be roughly equal, as it is unlikely that the rate of early marriage has decreased quickly enough to produce such a drastic difference. This discrepancy suggests that girls are less willing to admit their real age if they are still below the legal age of marriage because of potential legal ramifications. Thus it is difficult to determine precisely how many underage married girls were identified by the survey. However, it is clear from the ASCE data that underage marriage is still common.

As the age-specific prevalence of marriage indicates, marriage between ages 13 and 15 is not widespread, though because of the potential skewing discussed above, these rates are probably underestimated.

## 6.3 Age At Marriage: Ideal Versus Actual

Within the limits noted above with regard to age reporting, the median age at engagement of this sample is reported to be 15 years (mean=15.1), and the median reported age of marriage for the sample is 16 (mean=16.2). In other words, half of the sample reported being married at age 16 or younger. The median age of husbands at marriage is 25 (mean=24.5). This varies by region and type of residence, with a difference of 2 years between husbands in Upper Egypt and those in urban governorates (data not shown).

**Table 1: Mean of reported real age and ideal age at marriage among married girls**

	For wives	
	Real age	Ideal age
All married girls	16.2	18.8
No schooling	15.9	18.2
Primary/preparatory	16.4	19.1
Preparatory/secondary	15.7	19.6
Secondary/intermediate	17.3	19.9
Socioeconomic status		
Low	16.2	18.9
Middle	16.2	18.6
High	16.1	18.9
Rural	16.2	18.7
Urban	16.3	19.3
Urban govts.	16.8	19.3
Lower Egypt	16.3	19.3
Upper Egypt	16.0	18.4

Table 1 compares the actual reported ages of marriage for married adolescent girls, with married girls' reported ideal age of marriage for females. Perhaps not surprisingly, married girls' mean ideal age of marriage for females varies by their own age at marriage; that is, the older their age at marriage, the higher their ideal marriage age for females. Significantly, girls' reported age at marriage is between two and four years lower than their ideal age of marriage for females, and this holds true across all background variables. In other words, all girls feel that they "married too young."

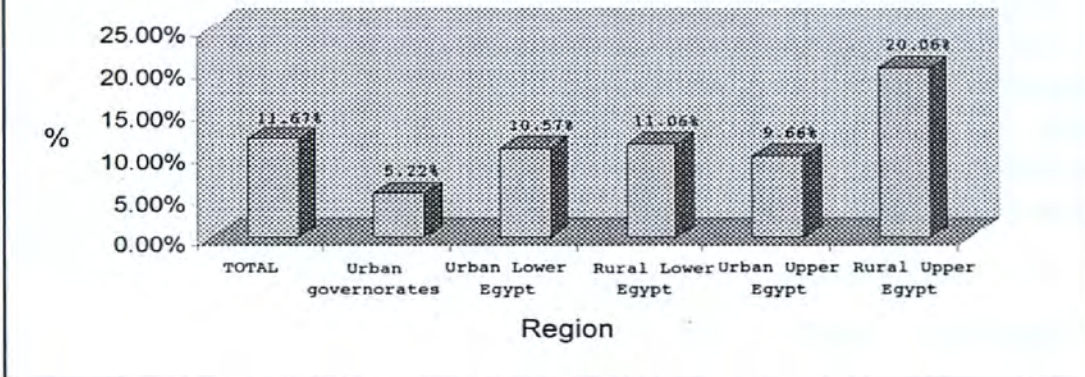
*"...the best age for a girl to marry is 20, whether she is educated or not." If she is uneducated, "...her folks could marry her off, but when she is less than 20 she could have complications, and may not be able to carry on the responsibility of her home"* (Saeed, Maha's husband)

#### 6.4 Census Data

Considering the problems of underreporting and reporting accuracy described above, a precise estimate of the number of married adolescent girls is not possible. Nevertheless, using the available prevalence rates, we can still calculate an approximate number of married girls currently living in Egypt. Applying the EDHS prevalence estimate (12 percent) to 1996 census data, we estimate that there were approximately 400,000 married girls ages 15-19 in 1996.



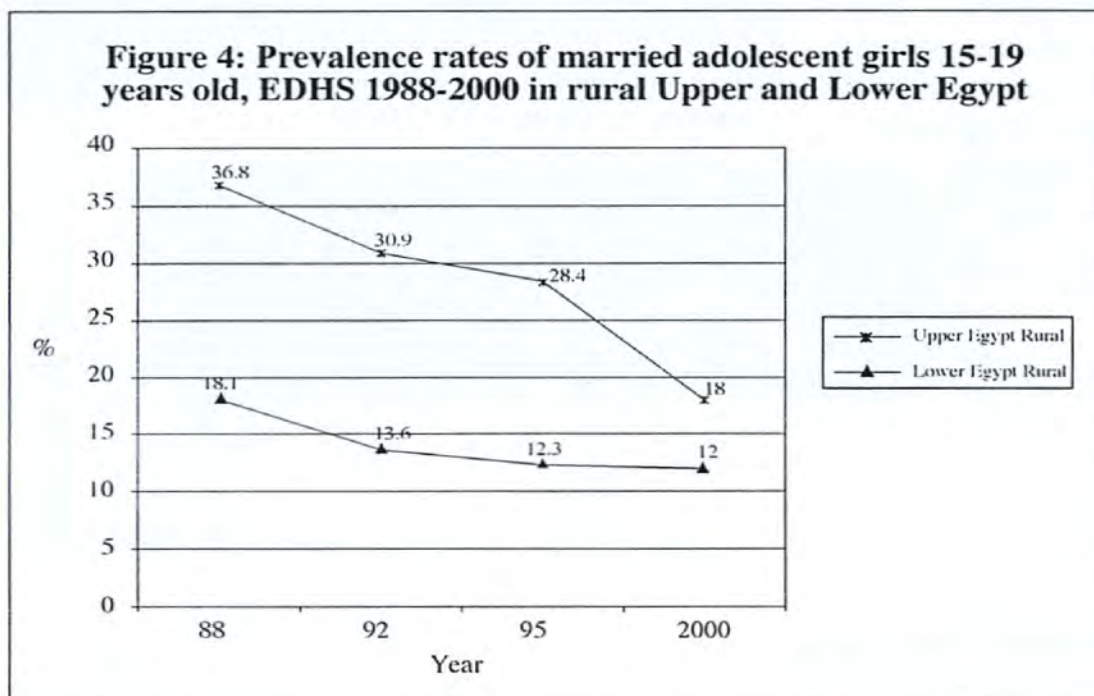
**Figure 3: Region-specific prevalence of married adolescent girls, ASCE 1997**



## 6.5 Region-Specific Prevalence

Regional variation in early marriage is significant with the prevalence of married adolescent girls, ranging from only 5 percent in urban governorates (Cairo and Alexandria) to 12 percent in rural Lower Egypt and 20 percent in rural Upper Egypt. Marriage rates intensify in late adolescence and by age 20, more than 42 percent of Egyptian girls are already married. The region-specific prevalence rates shown in Figure 3 provide evidence of the marked regional differences in adolescent marriage patterns. The rural areas of Upper and Lower Egypt are the main pockets of early marriage among adolescent girls.

The 1988-2000 EHDS surveys provide evidence of change in the prevalence of married adolescents in the different regions. In rural and urban Upper Egypt, the observed prevalence rates in 2000 were 50 percent lower than those in 1988 survey. However, rural Upper and Lower Egypt still have the highest prevalence rates of married adolescents, and due to population growth, large absolute numbers of married adolescents (Figure 4). Thus program expenditures localized in these regions would be more efficient than national-level efforts to address adolescent marriage.



## 7. DESCRIPTION OF MARRIED GIRLS

### 7.1 Education

The pathways of causation among school attendance, school dropout, and early marriage are complex, and impossible to determine from cross-sectional data. As Mensch et al. note, “It may be that school dropout resulting from poor academic performance (or any other reason) makes girls more available for marriage and childbearing, or that parents’ and daughters’ expectations of early marriage and childbearing reduce girls’ commitment to school” (Mensch et al. 1998:74). Alternatively, girls who stay in school longer may be doing so because an appropriate suitor has not been secured. Additionally, prospective research would help to disentangle these issues.

Moreover, important consideration must be given to whether the experiences in school of the girls who married during adolescence were any different from the experiences of their never-married peers. Research from Kenya demonstrates that the school environment can have a great impact on girls’ school performance and continuation (Mensch and Lloyd, 1998). Unfortunately, the ASCE data does not provide any information on girls’ experiences in school.

The education system has a profound impact on the lives, character, values and personalities of young people. Schools are critical institutions, not only because of their role in expanding knowledge and cognitive skills, but also because of their less tangible

roles in socializing adolescents. The education system is an important channel through which young people are inculcated with values and exposed to new concepts, and plays a pivotal role in shaping values and attitudes towards issues such as gender roles, patriotism, democracy and social solidarity (Shafey 1998; Wassef 1996; Furnham and Stacey 1991). Schlegel (1995:29) also notes that school shifts the orientation of a young person from adults to peers. It puts adolescents in a peer context for most of the day, reducing the amount of time they spend with adults and “increasing the salience of their involvement with age-mates.” Since it is widely accepted that peer relationships are important vehicles for socialization, those who never attend or who drop out of school will miss this opportunity for personal development.

Education is thought to have other impacts related to marriage and reproduction. Education is positively associated both with contraceptive knowledge and with greater decision-making power in contraceptive choice (Jejeebhoy 1995). Other research suggests that a woman’s decision-making power in the household increases with her level of education (Drennan 1998; Gage 1995; Kulu 1990; Larsen and Hollos 1996). According to the EDHS, Egyptian women’s autonomy and control are negatively associated with differences in education that favor the husband (El-Zanaty et al. 1996:187). Moreover, the literature shows remarkably strong and consistent associations between women’s years of formal schooling and delayed age at marriage and reduced fertility. However, the mechanisms through which education asserts its influence are not clear. Some researchers argue that these effects are the result of the increased autonomy that girls acquire in their schooling experience. Others are skeptical of this effect, noting that a child who misses out on the schooling experience will face an enduring gulf of opportunities and will miss out on a key component of the socialization process in modern life.

In Egypt, eight years of basic education are compulsory, according to Law 139 (Shafey 1998: 21). While children are required to be enrolled at age 6, evidence from the ASCE survey suggests that only 41 percent of Egyptian children are enrolled by that age. This delay in initial enrollment, coupled with the high level of grade repetition, increases the age of completion of basic, compulsory education (El-Tawila et al. 1999: 62). Consequently, girls who drop out in mid-adolescence may not have completed their basic education.

### **7.1.1 Educational Attainment**

Married girls are seriously disadvantaged in their educational attainment vis à vis unmarried girls. More than one-third of the married sample never attended school and the vast majority of those who did attend went only as far as preparatory school (not necessarily completing it). Fully 52 percent of the married sample aged 16-19 have either never attended school or only attended some primary school, compared with just 19 percent of never-married females aged 16-19. The disparity remains between the two groups at all levels of educational attainment. This disparity can be partly explained both by the fact that married girls are probably a selective group in Egypt, over-representing less well-educated households, and that girls are required to drop out of school upon

marrying, thus pre-empting the continuation of their education.

Table 2 shows the comparison between the two groups. Forty-four percent of unmarried girls aged 16–19 have attained a secondary or higher level of education, compared to only 17 percent of the married sample in the same age group. As 92 percent of married girls who have completed secondary or above education have a secondary school diploma, it appears that the end of vocational secondary school may be a transition point into marriage.

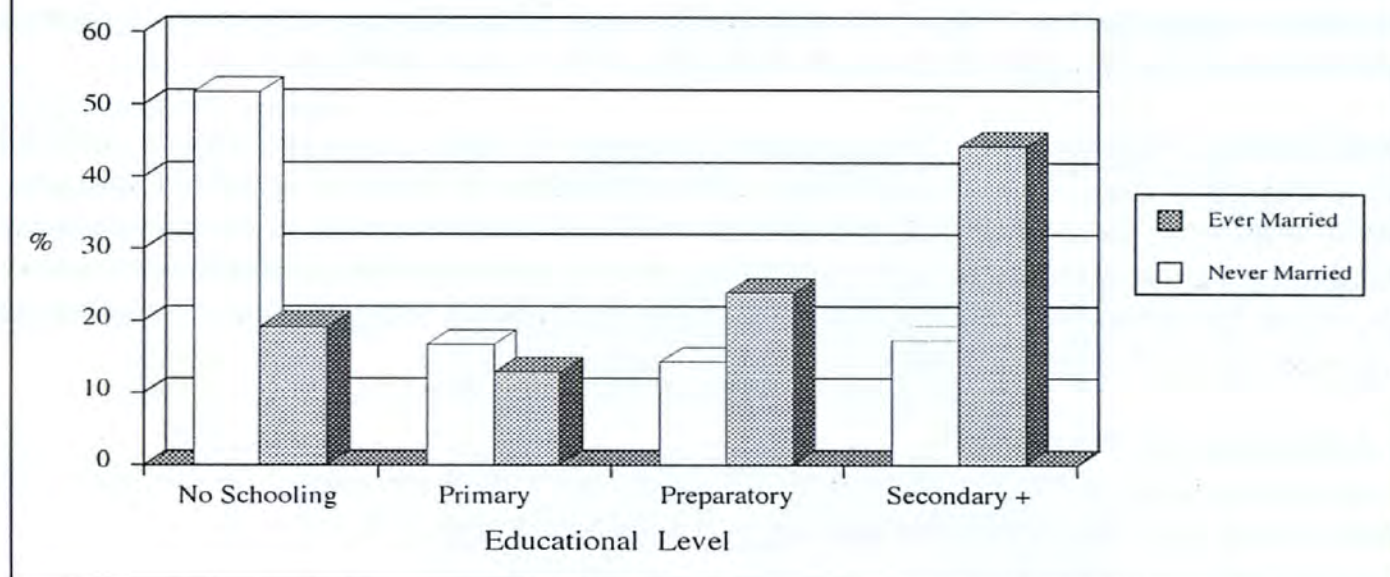
We are unable to comment on associations between educational attainment and other background factors, which may determine the surrounding levels of social and familial support for girls' education, because we have limited information on girls' families of origin. However, given the large numbers of girls who cite financial constraints of their families as the reason for her drop out or for never attending school (see below), we can be fairly certain that many married adolescents came from economically disadvantaged households.

We know from analysis of the larger ASCE data set that adolescents in the lowest socioeconomic category are 4.6 times more likely not to attend school and 2.5 times more likely to repeat a year or have a re-exam than those in the highest category (El-Tawila et al. 1999).

**Table 2: Percent comparison of the highest education level attained by married (N=335) and never-married (N=2573) adolescent girls aged 16-19**

	Married girls aged 16-19		Never-married girls aged 16-19	
	Total	Cumulative	Total	Cumulative
No schooling/any primary	51.6	51.6	19.1	19.1
Complete primary/any preparatory	16.7	68.3	12.9	32.0
Complete preparatory/any secondary	14.3	82.6	23.8	55.8
Complete secondary or above	17.3	100.0	44.2	100.0

**Figure 5: Educational attainment of married and never married girls 16-19 years old, ASCE 1997**



### 7.1.2 Reasons for Never Attending School

Table 3 shows the primary reasons that uneducated married girls give for why they believe their parents never sent them to school. More than half report that they never attended school because their families placed low value on girls' education. Financial difficulty was the second most common reason (31 percent) followed by the need for the girl's household help (17 percent).

**Table 3: Reasons for never attending school among married girls (percent) (N=117)**

Reason	Type of residence		Region of residence		
	Urban	Rural	Urban govts.	Lower Egypt	Upper Egypt
• Girl's education is not important to her family	38.5	52.9	0.0	22.6	63.1
• Family cannot afford education expenses	46.2	28.8	100.0	41.9	25.0
• She was needed to help with housework	7.7	18.3	0.0	9.7	20.2

The three main reasons for never attending school are aspects of the same economic-related phenomenon: Families make rational allocations of resources based on the perceived value and costs of those investments. The need for a girl's household labor, coupled with her lower likelihood of being financially responsible for a household (that is, the lower likelihood of a financial benefit from her education), make the cost of her

education very high for a family with few resources at its disposal. These findings support other findings from the ASCE data demonstrating the sensitivity of girls' school enrollment and retention levels to contextual factors and macro-level events, such as the implementation of structural adjustment policies (El-Tawila et al. 1999). The addition of cost-recovery measures, such as school fees, in the absence of other economic improvements, can put girls' education out of reach for some families.

These findings suggest that a well-targeted program to assist poor families with school fees could go a long way to improving the enrollment of girls in school. Changing a culture that does not value girls' education will certainly be more difficult. However, reducing economic barriers to girls' education among poor families, coupled with reforms to increase the economic returns to education for both boys and girls, may help families to accept that there is a pragmatic value in educating girls.

### 7.1.3 Reasons for Dropout

*"I was very good at school and got really good grades in preparatory [school], but in our village a girl does not continue in school after that"* (Nagwa, 17).

Results from ASCE show that of the smaller proportion of girls who reported ever attending school, more than three-quarters of married girls reported reasons other than marriage as the reason they dropped out of school. Less than one-quarter named marriage as the primary reason, though it was the most frequent reason reported (Table 5). Nearly 18 percent of the girls cited their own poor performance in school as their reason for dropping out, while another 15 percent reported that they did not feel that education was important for them, and 13 percent report that their families could not afford the expenses of their education. The high numbers of girls reporting poor performance is consistent with reasons given by never-married girls and by adolescent boys in Egypt (El-Tawila et al. 1999).

**Figure 6: Main reasons for school drop out among married girls who attended school (n=151)**

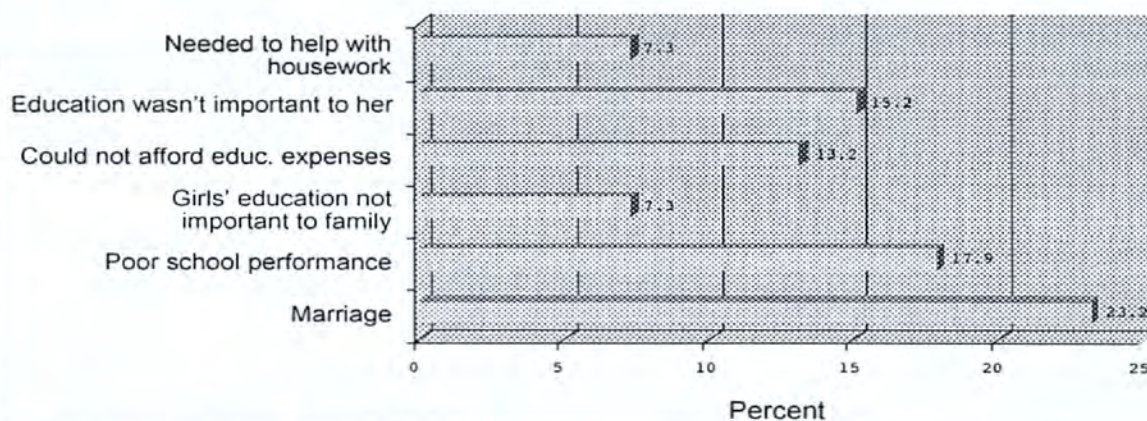
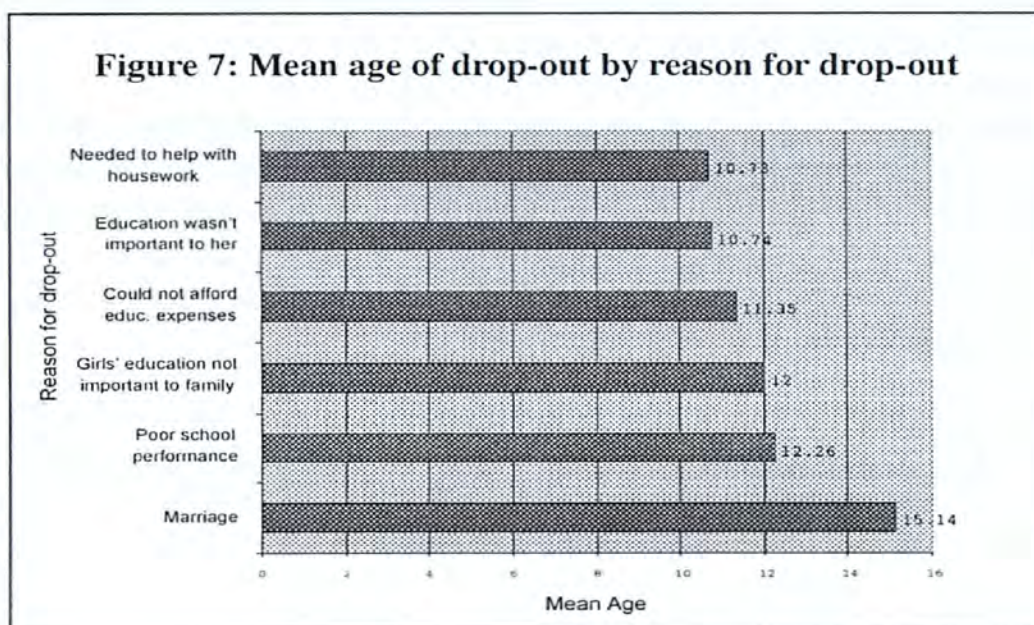


Figure 7 demonstrates that girls who reported dropping out because of marriage were significantly older on average at dropout than those reporting other reasons for dropout. On one level this is not surprising, as a girl who drops out at age 9 is not likely to be doing so in order to get married. Three-quarters of all girls are dropping out for other reasons and then getting married, perhaps because they had less to fill their time or because of family pressures. Those who drop out to get married are actually getting more education than the other dropouts.



*“If a girl is in school and a man proposes to her, should she quit school and marry him?”*

*“In my opinion, she should continue her education. When my husband proposed to me, I was at preparatory school. I agreed to marry him because I was going to drop out anyway. Girls in our town don’t continue to secondary education because they would have to go to Manfalout. But I wanted to finish my education” (Noha).*

### 7.1.4 Literacy Classes

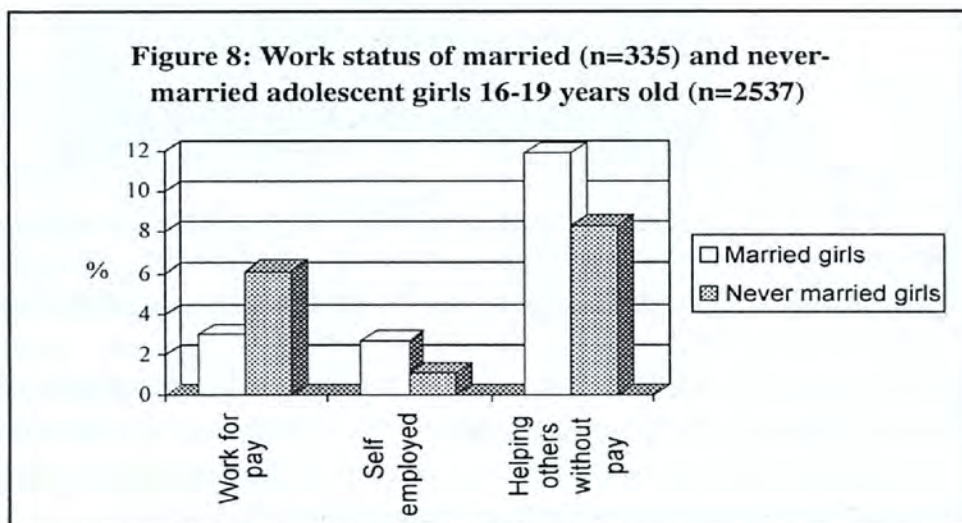
Approximately 15 percent of married girls who never attended school have attended literacy classes. At the time of the survey, however, not a single girl reported that she was currently attending literacy classes. Moreover, 40 percent of those who have attended classes attended for less than one month. This suggests that the classes were not convenient or well-suited to their needs, or that they faced pressures from their families or others to discontinue participation.

### 7.2 Work

According to Mensch et. al (1998:33), in Egypt as well as other Muslim countries in Asia and North Africa, over one quarter of married 15-19-year-old girls are classified as not

working, not in school, having no children and not being pregnant; approximately one-quarter of married 15-19-year-old girls are classified as not working and having children or being pregnant. Over 75 percent of married girls in these countries don't work. In ASCE, work for 16-19 year-old girls, whether married or not, is also not very common. Almost 14 percent of never-married 16-19-year-old girls are involved in some form of economic activity, including work for pay, self-employment or work without pay. Eighteen percent of married girls are also engaged in some form of economic activity, but they are more likely to work without pay than they are to work for pay or be self-employed (Figure 8).

The lack of data on the 'time use' for married girls doesn't allow our interpretations of their work status to be complete. A fact that should be taken into consideration is that over 70 percent of married girls live in extended households with their husbands' family. This time use data could have answered the questions on their share in the domestic work in the new households, whether it allows them time for themselves or if they are exploited in their new settings.



## 8. CHARACTERISTICS OF ADOLESCENT MARRIAGE RELATIONSHIPS

In order to understand the environment in which married girls live, the ASCE survey investigated the gender roles and power dynamics within relationships after marriage. What sorts of relationships do married adolescents establish with their husbands? What factors influence the type of relationship?

### 8.1 Final Decision Regarding Marriage Partner

Researchers have demonstrated that a girl's ability to select her marriage partner may have a positive impact on the level of autonomy and influence she is able to exert in her relationship with her husband (Drennan 1998. See also Gage 1995; Kulu 1990; Larsen and



Hollos 1996). Other researchers have noted that as a girl gets older, her family becomes less involved in the selection of her spouse and she is more likely to select the partner herself (Nawar et al. 1995; EDHS 1996:188). Regardless of the causal pathways, the autonomy that a girl exercises in selecting her spouse is an indication of the level of influence she is able to exert within the marriage she forms.

Twenty-two percent of married girls in the ASCE sample say that they made the final decision on who they would marry, while 62 percent report that their fathers made the final decision. This varies significantly by current socioeconomic status, with many more girls in the highest stratum reporting they made the final decision compared to those in the lowest stratum. While it is not certain that their current socioeconomic status reflects that of their family of origin, this relationship is an important finding. The locus of decision making did not vary by whether or not the girl married a relative.

Girls probably do play some role in the decision-making process. However, marriage in Egypt usually involves negotiations between the bride's father and the groom or his father and possibly other relatives. These negotiations focus on economic arrangements and may ignore compatibility of the couple. Given these dynamics, it is probable that the families of adolescent girls made the final decisions regarding marriage, though not without input from the young woman and/or her mother.

*[regarding who to marry:] "...but women have no say in these matters". (Soumaya) As long as her family approved of Gomaa (the man she ended up marrying), she was not free to say no (Soumaya).*

*"...the best age for girls to marry is 20, whether they are educated or not, but an educated girl will decide for herself whether she gets married or not while she still goes to school." (Saeed, Maha's husband).*

## **8.2 Age Difference Between Wives and Husbands**

The difference in age between wives and husbands has an impact on the nature of the relationship a woman forms with her husband. Researchers have found that large differences in age may reduce a woman's ability to negotiate with her spouse about matters, such as sexual relations, contraception and childbearing, as well as other aspects of domestic life (Mensch et al. 1998:49; El-Zanaty et al. 1996:187; Drennan 1998; Balk 1997; DeSilva 1994; Gage 1995). Moreover, a large age difference increases the likelihood of a woman being widowed while her children are still young. Given that Egyptian widows are frequently discouraged from remarrying, the women and their children are more likely to be in economically disadvantaged households.

It is not merely chronological age that makes age difference important; rather, it is differences in life experiences. An Egyptian man is typically not settled in a job or able to support a family until he is well into his 20s. Because men are expected to provide for their families, they move about in the world and have opportunities to gain experience, skills, and confidence that girls and women do not have. In addition, tradition dictates that a younger girl makes a more appropriate and less demanding wife because she has been protected from the world and does not have a lot of experience or knowledge of society beyond her village or household. This gulf of experience and confidence is likely to create a power differential within such relationships in favor of the husbands.

The girls in the ASCE sample are on average 8.3 years younger than their husbands, with a median of 8 years. Spousal age differences range from no age difference to a difference of 34 years. While our findings reveal that 70 percent of the girls married men who are 10 years older or less, 30 percent married men 11 or more years older, and 7 percent married men 15 or more years older. Age difference did not vary with the adolescent's level of education, age at marriage, region or type of residence.

The 1995 EDHS findings allow us to compare our findings on age differences in adolescent marriage with those of older women. The EDHS results for married girls below age 18 are very similar. Among young married women between ages 18 and 24, the mean age difference between spouses was only 6.8 years, and for those aged 25–29 it was only 4.7 years. This inverse relationship between age at marriage and spousal age difference is maintained even when controlling for the education of the woman. “Thus women who marry in their 20s have spouses who are closer in age than equally educated women who marry earlier” (Mensch et al. 1998:67-8). Girls marrying during adolescence are more likely than women marrying at older ages to face the reduced autonomy thought to result from a large spousal age difference.

### **8.3 Consanguineous Marriage**

There is a long-standing tradition of marriage between family members (consanguineous marriage) in Egypt, with cousin marriages historically considered ideal. Nearly 60 percent of the married girls married men related to them. Of those girls, 35 percent married a paternal relative and another 10 percent reported that they married a relative of both parents. These results are higher than those for older married women in the EDHS, which found that among women aged 20–24, 44 percent married a relative and 37 percent of those aged 25–29 did so.

What impact does this have on the marriage? On one hand, it may reduce the potential sources of conflict, because both families are likely to be similar in their traditions and rules of comportment, making adjustments easier. Moreover, members of both families may be anxious to maintain smooth relations, and make compromises to ensure this. On the other hand, if conflicts do arise, a girl may have a limited voice because elders would get involved and make decisions in the name of maintaining family harmony, especially if other characteristics thought to contribute to power differences between spouses (age

differences, for example) are also present. Indeed, as Saeed, a case study participant, commented, “Personally, I think that marrying outside the family works better. There are too many vested interests between families, and if a problem arises that affects these interests, the marriage is jeopardized and may end up in divorce.”

Moreover, for marriages among a single extended family, there may be less of a transfer of wealth, with smaller amounts of money and fewer gifts to the bride required. Given that the assets that a girl brings to a marriage are thought to be a source of power for her (El-Kholy and Al-Ali 1999:26), this reduced transfer of wealth could impact her level of power and ability to negotiate with her husband.

Indeed, findings from the EDHS (El-Zanaty et al. 1996: 194) indicate that women who are not married to a relative “...are somewhat more likely to participate in all decisions, especially with regard to visits (with family and friends) and the budget.” However, the differences are not large.

## **8.4 Gender Roles in the Households**

What type of relationships do these married girls have with their husbands? How are household tasks divided among members of the household and to what extent is decision making shared between them? Married girls were asked who is responsible for a variety of tasks within the household, such as cleaning and earning the primary income, and who makes decisions on a variety of household issues, including contraceptive use and the household budget.

### **8.4.1 Task Sharing Between Spouses**

There is a pattern of traditional division of labor in the households of married girls. Almost no one reports that roles are shared between husband and wife for tasks such as earning the primary income (“breadwinner”), cleaning the house and buying provisions. Only slightly more than 1 percent of the married girls report that they share the role of breadwinner with their husband, and no married girls report sharing the housekeeping duties with their husbands. The only significant variations in responsibility were explained by household size; not surprisingly, these roles are different if the couple lives within an extended household. As the number of individuals residing in a household increases, the likelihood that either the husband or wife has sole responsibility for a given task decreases.

### **8.4.2 Decision-making in the Household**

Household decision-making appears to be less gender-segregated than tasks, with large proportions of married girls reporting shared decision making in important household issues.

As Table 6 shows, the proportions of married girls reporting shared decision-making in a variety of household issues vary considerably by region of residence. For example, in the urban governorates, 76 percent of respondents report that decisions regarding the

household budget are shared between wife and husband, whereas only 48 percent in both Lower and Upper Egypt report sharing in that decision. Husbands are unlikely to allow their wives to share in the decision on whether they are permitted to take up paid employment outside the home. This could be explained by the strongly held view that the husband is the sole breadwinner in a family (described above) or a perception that work would prevent the woman from tending to her responsibilities in the household.

**Table 4: Percent of married girls reporting shared decision-making with their husbands, by selected background variables**

	Household budget	Wife's employment
All married girls	50.2	30.3
No schooling	47.5	27.3
Primary/preparatory	54.2	28.8
Preparatory/secondary	46.5	26.1
Secondary/intermediate	57.9	45.7
Urban govts.	76.2	27.3
Lower Egypt	47.6	40.7

The EDHS data allow us to compare these marriage dynamics with older married women. There is significant variation in decisions regarding the household budget. Among the EDHS sample, 43 percent of women aged 20–29 report sharing in household budget decisions. [Twenty-eight percent of adolescent girls (ages 15-19) in the EDHS reported sharing in household budget decisions.]

*“A wife must accept her husband’s opinion; otherwise everything is finished between them”* (Ahmed, 25, Latifa’s husband).

*“I always ask her opinion in anything I want to buy for her or for the house. I am convinced that two opinions are better than one. Consultation is very important”* (Mohsen, Mona’s husband).

*“I think the wife’s role is consultative only...”* (Saeed, Maha’s husband)

### 8.4.3 Other Gender Dynamics

Married girls were asked to agree or disagree with several additional statements in order to assess the gender dynamics in their marital relationships, including: “A woman must take her husband’s permission for everything,” “If a husband’s and wife’s opinions differ, the husband’s decision is final,” and “The husband decides how to spend any remaining money after household expenses are met.”

**Table 5: Percent of married girls reporting yes on questions regarding other gender dynamics between married girls and their husbands**

	Always need husbands' permission	If views differ, husbands' decision is final	Husband decides how to spend extra money
All married girls	95.2	82.2	68.1
No schooling	97.0	86.6	74.7
Primary/preparatory	98.1	86.3	72.0
Preparatory/secondary	95.7	83.0	66.7
Secondary/intermediate	84.5	63.0	42.2
Socioeconomic status			
Low	96.0	86.6	68.7
Middle	97.8	78.9	67.4
High	92.8	81.1	68.0
Urban govts.	95.5	100.0	59.1
Lower Egypt	96.9	72.0	63.7
Upper Egypt	93.8	87.7	72.7

Table 5 makes it clear how significant a young woman's education is in changing the reported dynamics between her and her husband. For example, 87 percent of girls with little or no education say that if their views differ from their husbands' views, their husbands' decisions are final, compared with only 63 percent among those with a secondary or intermediate level of education. A similar pattern is found among the responses to the other two questions.

*If a man's and a woman's opinions differ, does she have to give in to his opinion?*

*"Yes she must. Our neighbors had the same problem. He told her 'if you do not do what I say, you will go to your family's house, I don't need you here'" (Saeed, Maha's husband).*

## 8.5 Mobility

*"In our village, when a girl reaches age 14, she is not allowed to go out" (Nagwa, 17).*

### 8.5.1 Permission to Go Out

Respondents were also asked their understanding of the statement: “A wife must take her husband’s permission to go out.” Nearly 76 percent of married girls say this statement means that a husband can refuse to give his permission for his wife to go out, whereas 24 percent indicate that it means that a wife should tell her husband where she is going when she leaves the house. This varies across region of residence, with 77 percent of married girls in urban governorates saying that this means the husband can refuse permission to go out, while 66 percent and 83 percent of married girls in Lower and Upper Egypt, respectively, define permission to go out in the same manner. Interestingly this dynamic did not vary significantly by the level of adolescent education.

*Heba would like to give her daughter more freedom (not to restrict her movement or impose on her ideas and thoughts). “But what can I do or say, if her cousin or one of her uncles says the girl should stay home. There’s nothing I can do.” (Heba)*

*“Yes, she must ask permission. This is a sign of respect between the married couple. Also the husband must know where the wife is going” (Saeed, Maha’s husband).*

*“During the day, women must be accompanied. The husband or the father must also give permission; the first and last word is the man’s” (Mohsen, Mona’s husband).*

*[Does a woman have to be accompanied to the doctor?]*

*“She must be accompanied by someone, even if the visit is to the next health unit. These are our customs and traditions and they are good and proper” (Mohsen, Mona’s husband).*

*A woman “must be accompanied, both before and after marriage, because the doctor might be a man” (Saeed, Mona’s husband).*

*“When we restrict girls’ movement, it is because we want to protect them” (Harbi, Mona’s husband).*

*Soumaya said that she had not seen her family in six months, but nevertheless, her husband did not want to let her go to visit her mother, who was ill (Soumaya).*

*“A good girl should not leave home after sunset” (Heba).*

*“I asked Heba why they don’t go to Manfalout to shop. She said that it was forbidden for them [she and her young sister in law].”*

## 9. LIVING ARRANGEMENTS

The period immediately after marriage is a crucial time for establishing the dynamics of a relationship between the new husband and wife. Behavior patterns established during this time will serve as precedents for future behavior. Newly married couples in Egypt have usually not had much opportunity to get to know each other before marriage, so they have many adjustments to make in their new lives together. While many factors influence relationship dynamics, their living arrangements can play a large role.

Traditionally, and still quite commonly in rural areas, a husband brings his wife to his family home. The EDHS finds that more than half of all ever-married women in Egypt moved in with their in-laws immediately after marriage (El-Zanaty et al. 1996:190). Thus a new bride moves in to an already established household, in which she must negotiate relationships not just with her husband but with his entire family while she is inexperienced at maintaining her own household. If the new bride is also young and has been sheltered from contact with non-family members and 'the outside world,' she may lack confidence in building these relationships and asserting her rights. These factors are coupled with traditions that restrict a girl from seeing her family for some time after marriage and limit her mobility, thus limiting her access to external sources of support. Given all of these factors, it is reasonable to assume that a new adolescent bride living with her in-laws would be in a situation of limited power, with few advocates or supporters to help her adjust to these abrupt changes in her life. Alternatively, however, a girl might find allies in her mother- or sisters-in-law, who can help her to negotiate her new relationship with her husband.

Moreover, a girl may face considerable pressure for an immediate pregnancy when living with her in-laws, and she may have less autonomy to delay pregnancy should she want to, because she often must seek permission from her in-laws, the gatekeepers of money and access to medical care, and because her activities are under close supervision. It is also reasonable to assume that she would have less ability to negotiate the dynamics of her new relationship with her husband because of the additional reinforcement of his own household members and family norms. Anecdotally (and corroborated by research from South Asia, where adolescent marriage is common), we also know that household responsibilities formerly borne by other female members of the household are often transferred to the new bride, who is expected to bear these responsibilities without complaint.

Participants in case studies corroborate some of these dynamics. For example, Heba described a "good wife" as one who:

"...does not pick fights with her mother-in-law. She has to be calm and serene and must obey all of the other household members, the old and the young....She has to...look after her house well so that her mother-in-law does not talk about her behind her back to other women and neighbors...she should never go against the wishes of her mother-in-law."

Heba also noted that, "...when a girl is newly married, she does not visit her family's home for a year or two."

Some case study participants clearly perceived their mothers-in-law as the gatekeepers, not only for the married girls but for their husbands as well. For example, when Soumaya's husband wanted her to see a doctor because she was having trouble with her pregnancy, "he did not dare suggest" this to his mother; rather they had to wait until his mother suggested it. Malak noted that her mother-in-law has the final word in decisions at home, that her husband has no say in anything at all, and that he does exactly what his mother asks him to do. Indeed, as Heba notes, "we...must always wait for my mother-in-law to tell us what to do."

Many factors are associated with where a couple lives after marriage. Among them is type of location of residence, a woman's age at marriage, her education level, and whether or not she has married a relative. According to the EDHS, a woman who is married at or before age 18 is more than twice as likely to live with her husband's family after marriage; the same holds true for a woman who is not educated compared with one with a secondary education. Moreover, women who have married a relative or live in rural areas are more likely to live with their in-laws immediately after marriage (El-Zanaty et al. 1996:191).

Seventy three percent of the sample report that they lived with the husband's family after marriage, with less than one-quarter reporting that they lived alone as a couple after marriage (Table 8). Wife's education level is related to her likelihood of nuclear living arrangements. However, living patterns are similar across socio-economic strata, contrary to most expectations.

**Table 6: Living arrangements of married girls following marriage**

	Private residence	Her family	His family
All married girls	22.2	4.7	73.1
No schooling	13.6	3.6	82.8
Primary/preparatory	26.4	9.4	64.2
Preparatory/secondary	29.8	2.1	68.1
Secondary/intermediate	40.4	6.4	53.2
Socioeconomic status			
Low	21.2	6.1	72.7
Middle	21.7	2.2	76.1
High	23.2	5.6	71.2
Urban	47.0	0.0	53.0
Rural	15.6	6.0	78.4
Urban govts.	68.2	0.0	31.8
Lower Egypt	25.0	4.5	70.5
Upper Egypt	13.6	5.6	80.9



Notably, 68 percent of married girls in the urban governorates report living in their own private homes (nuclear households) after marriage. Compared to married girls in other regions of the country, this is a high rate of nuclear household formation. However, it is lower than the overall prevalence of nuclear households in the urban governorates among the general population.

The EDHS collected information on location of residence at the start of marriage and the age at marriage among married women between ages 15 and 49. A clear pattern emerges from these data: The older a woman is at marriage, the more likely she is to have lived in a private residence at the start of her marriage. For example, 68 percent of those who were less than 18 years old when they married, lived with their husband's family, compared to 50 percent of those who married between the ages of 18 and 24, and 28 percent of those married between ages 25 and 29. These EDHS data represent the experiences of all married women surveyed regardless of their present age; however, given the increasing prevalence of nuclear households in Egypt, this discrepancy by age would probably be even greater if the data were limited to women married during the previous decade. Thus it is clear that a woman married during adolescence is quite likely to begin her married life negotiating her new roles with both her husband and his extended family.

## **10. OTHER HOUSEHOLD CHARACTERISTICS**

### **10.1 Socioeconomic Status**

A household consumption index was created from the data collected in the ASCE survey to measure socioeconomic status<sup>5</sup>. The items contained in the index relate to the current living situations of the married girls. Since most are living in the extended households of their husbands or in nuclear households, this data does not necessarily reflect the socioeconomic status of their families of origin. The data may be further skewed by the large intergenerational transfer of assets that takes place when a couple gets married in Egypt. Nevertheless, the data provide information on the present living conditions of ever-married adolescent girls.

The married girls are almost evenly distributed among the three socioeconomic strata; 33 percent are presently in the lowest category, 31 are in the middle category, and 36 percent are in the highest.

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<sup>5</sup> The consumption index includes: 1) conditions of the housing unit; 2) ownership of durable goods; 3) ownership of assets and vehicles; 4) mean monthly expenditure per household member; and 5) mean monthly expenditure on the education of each adolescent. Each of the first three components is weighted on the basis of relative frequencies in each household. The latter two are standardized among all households. The final index sums the five standardized sub-components and then divides it into three equal categories.

## 10.2 Infrastructure

Certain environmental risk factors may have a negative impact on adolescent health, such as lack of access to safe water and sanitation facilities, or adequate areas for food preparation and storage, which facilitates contamination. It was beyond the scope of this study to determine the safety of the water supply and sanitation services in adolescents' homes. As proxy measures, we examined the extent to which the households of married adolescents are connected to public water supply and sanitation services.

Thirty-two percent of married girls live in households without a kitchen or room for cooking. Thirty-six percent of married girls live in households that do not have piped water taps. Only 13 percent of married girls surveyed live in houses without a toilet in the residence. Of those who do have a toilet in the house, 44 percent live in households with pit latrines (using a deep hole to contain sewage), more than one-third have toilets connected to the public sewage system, and 20 percent have toilets connected to septic tanks.

## 11. HEALTH

Given the evidence that under nutrition and stunting are prevalent among adolescents - boys and girls - in developing countries, and that globally, 60 of every 1,000 adolescent girls give birth each year, which makes a total of 17 million babies (WHO, 2002), the general health and nutrition of married girls is of particular importance as they are at risk of becoming pregnant with poor nutritional status and low nutrient stores. This section will shed some light on the nutritional problems and the health seeking behavior of married girls. Hopefully, it will guide health planners to improve the nutritional status of married girls.

### 11.1 Stunting and Anemia

The consequences of adolescent under-nutrition for reproductive health have not been thoroughly investigated. However, stunting, an indicator of previous poor nutrition, is known to be associated with obstructed labor because of a disproportionate relationship between the size of an infant's head and a woman's pelvis. This is a likely problem for younger adolescent girls whose pelvises have not reached adult size (WHO and UNICEF 1995 in Mensch et al. 1998:42). According to Moerman (1992 in Kurz 1997), the growth of a woman's pelvic bones continues for several years after growth in height is complete, 4–7 years after menarche according to U.S. data. In Egypt, where the median age of menarche is 13.7 years (El-Tawila et al. 1999), this would suggest that the pelvises of girls from 17 to 21 may still be growing.

The **average height** of married adolescent girls in the ASCE sample was 159.5 cm. Nine percent of the married girls were 150 cm or less, but none was less than 145 cm, the cutoff height level established by the World Health Organization (WHO) as an indicator of "high risk pregnancy" in antenatal screening.

The prevalence of **stunting**, defined as height-for-age values more than two standard deviations below those of the reference population, was not different between married and single girls 16 years old and above; 8 percent of each group is stunted. We cannot comment on thinness, obesity or 'risk of obesity,' because the sample was too small once we removed those who were pregnant and those who gave birth within three months prior to the survey.

In the 1995 EDHS, the mean height of married girls aged 15–19 was 158.0 cm and their mean body mass index (BMI) was 24.0, with slightly more than 2 percent suffering from thinness (BMI<18.5). Although the proportion suffering from thinness was small, this age group had a larger proportion of thinness than the other age groups surveyed (El-Zanaty et al. 1995).

**Anemia** is a morbidity with repercussions on reproductive health, increasing the risk of miscarriage, stillbirth, premature birth, low birth weight, prenatal mortality and maternal mortality (Kurz and Johnson-Welch 1994). For example, researchers in India found that maternal mortality is five times higher in anemic women (iron-deficiency anemia) than in non-anemic women (Ghosh 1995, in Greene 1997). In addition to the accumulated disadvantages from childhood, married girls face the demands of childbearing and breast feeding. Moreover, qualitative case studies suggest that household labor demands do not necessarily decrease during pregnancy, even into the late stages.

Overall figures from the ASCE data indicate that 46 percent of single adolescent girls ages 10–19, and 42 percent ages 16–19, are anemic. Married girls do not differ markedly from single girls 16-19 in their anemia prevalence, 44 and 42 percent respectively. However, when married girls become pregnant, their anemia prevalence rises markedly. Among the 78 randomly selected married girls who provided blood samples for the clinical examination (see Appendix for methodology), 44 percent of non-pregnant married girls were anemic compared to 72 percent of pregnant girls. We consider this a finding of major concern.

While maternal and child health programs make an effort to address anemia with vitamin supplements and other procedures, girls usually do not approach medical providers until they are already pregnant. While nearly 70 percent of girls in the ASCE sample reported that they sought antenatal care and 86 percent of those who did sought it during the first trimester, they are already pregnant, and some consequences may have already resulted. (The window of opportunity available, for example, to reduce the risk of neural tube defects through the ingestion of folic acid is believed to be closed by the end of the second month of pregnancy, often before a girl knows she is pregnant) (American Academy of Pediatrics 1999).

## 11.2 Parasitic Infections

Parasitic infections continue to be among the most common and persistent public health problems worldwide, particularly in developing countries. Poor standards of hygiene, lack

of sanitation services, the shortage of safe water, and inadequate health education facilitate the spread of parasites. Available evidence indicates that several of the enteric parasitic infections contribute to different forms of malnutrition—particularly stunting, anemia, and vitamin A deficiency. These problems result in decreased productivity, poor educational achievement and difficulties in childbearing. Despite the morbidity of parasitic infections, their public health impact has been consistently underestimated because of low levels of resulting mortality.

The ASCE survey provides results of stool and urine analysis on a randomly selected group of 79 married girls. Out of this group, 70 provided stool samples (approximately 89 percent of the sample) and 78 (99 percent) provided urine samples. Slightly more than half of the married girls were infected with one or two parasites. This did not differ by type of residence (urban/rural) or by educational status (whether they attended school in the past or never attended school), nor was there any difference between unmarried girls of this age group and married girls in the level of infection. This suggests a high level of environmental pollution. The most common type of parasites among the sample was *E. histolytica* and *Giardia lamblia*. Less than 3 percent were affected by urinary bilharziasis or *S. hematobium*.

### **11.3 Health Seeking Behavior**

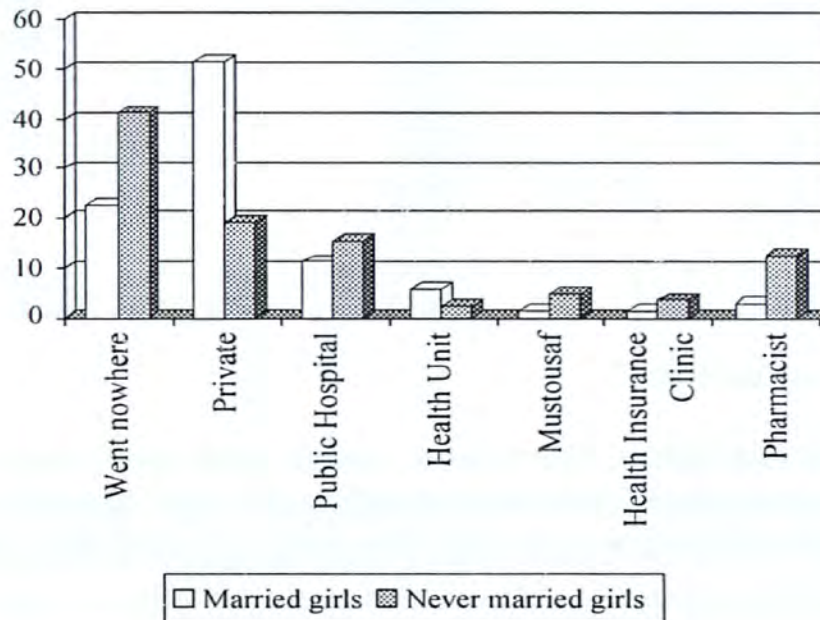
As noted above, married adolescents are a selective group and quite different from unmarried girls of the same age group on a number of levels. Based on these differences alone, we would expect to find differences in their health seeking behaviors as well. However, married girls have one further important difference from unmarried girls: the new surrounding context of husbands and their families, influencing their behavior. This section profiles the health seeking behavior of married adolescents and their never-married counterparts.

The health seeking behavior of an adolescent starts with exposure to an event of illness. Generally speaking, Egyptian adolescents are not very healthy, with poor nutritional status, high levels of anemia and parasitic infections, as well as some evidence of retarded sexual maturation (El-Tawila et al. 1999). In addition, they carry a heavy burden of illness; 39 percent of married girls and 37 percent of never-married girls ages 16–19 reported an illness less than one month<sup>6</sup> before the survey. The differences between the groups are minimal, but their response to a recent illness is quite different. Figure 9 shows the main providers each group sought for treatment of a recent illness.

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<sup>6</sup> To minimize recall bias, only girls who reported an illness less than one month before the day of the interview were included.

**Figure 9: Health seeking behavior of married (n=71) and never married (n=444) 16-19 year old girls who reported an illness less than one month ago**



Most married and never-married girls sought care at a private clinic. Considering other private sources of care, such as a pharmacist and a *mustausaf* (which is an NGO clinic), it becomes clear how much the private sector dominates the health care market. Seventeen percent of married girls would go to a public hospital/clinic or a health unit. Notably, one-fifth of married girls and two-fifths of the never-married girls did not seek treatment for their recent illness.

In terms of their own **subjective wellbeing**, married girls are significantly more likely to rate themselves “in bad health” than are never-married girls of the same age group (16-19 years old), 16 percent versus 9 percent respectively. Although about 30 percent of the married girls were currently pregnant, there was no association between pregnancy status and subjective wellbeing.

**Who is the first person an adolescent girl would tell about her illness?**

The typical behavior of never-married adolescent girls is similar to a child; the first person they would tell of their illness is their mothers (69 percent), while considerably fewer would tell their fathers. On the other hand, married adolescents mainly report their illnesses to their husbands (64 percent) or mother in-law (12 percent). It is likely that the response or advice of the involved person will influence their health seeking behavior and how girls manage their complaints (Table 7).

**Table 7: Who is the first person married and never-married girls 16-19 years old tell about their illness?**

Whom to tell when ill?	Married girls 16-19 years old Percent	Never married girls 16-19 years old Percent
Mother	7.6	68.5
Either parent	3.6	18.7
Father	0.5	3.5
Husband	64.0	
Mother-in-law	12.2	
Others	3.0	3.2
Don't tell anybody	9.1	6.1

### Actual use versus usual use:

In addition to questions about where girls sought care for a recent illness (presented above), they were also asked where they usually seek care when they feel ill. The latter question reveals information about the provider preferences for both groups of adolescent girls.

Seventy-seven percent of married girls reported that they usually seek care at a private clinic or hospital, 33 percent reported using a government clinic or hospital, another 11 percent report going to the rural health unit (a governmental service outlet), and 6 percent report going to an NGO clinic. Other types of health care providers were seldom reported; 2 percent usually sought care from a *sheikh* and less than 1 percent reported seeking care from such sources, as maternal and child health care clinics, pharmacists, *dayas*, or through their husbands' health insurance.

Among never-married girls, we find a similar pattern. Sixty-five percent reporting that they usually use the private sector; 34 percent report using a government clinic or hospital; 12 percent usually seek care at a rural health unit; and 8 percent usually go to an NGO clinic. Furthermore, many never-married girls are still in school and thus have access to the school health insurance system; thus, 3 percent of single girls report using the school doctor and 9 percent report using health insurance (Table 8).

**Table 8: Usual health provider married (n=196) and never married 16-19-year old adolescent girls (n=1475) would seek**

	<b>Married girls 16-19 years old Percent</b>	<b>Never-married girls 16-19 years old Percent</b>
Private Hospital or clinic	76.5	65.3
Government hospital/clinic	32.7	34.2
School doctor	0.0	3.2
Health unit	11.3	11.7
Mustausaf in mosque-church-NGO	6.2	7.9
Health insurance	0.5	8.6
Pharmacist	0.5	1.9
Herbalist	1.5	0.4
Husband's or father's health insurance through work	0.5	1.6
MCH	0.5	0.1
Go nowhere	0.0	0.0

These findings have important implications on the choice of outlet through which interventions are directed towards married adolescent girls. Policymakers and researchers should explore ways to incorporate the private sector in interventions directed toward adolescents' health.

## **12. REPRODUCTIVE HEALTH**

### **12.1 Female Circumcision**

The practice of female circumcision is widespread in Egypt. It is a deeply-rooted tradition shared with countries of the Nile valley and other parts of Africa. Female circumcision typically takes place before or just as a girl reaches puberty. Research in Egypt suggests that the practice persists because of a belief that circumcision will moderate female sexuality, assure a girl's marriageability, and that it is sanctioned by religion. Previous research among ever-married women found almost universal prevalence of circumcision with about 88 percent of mothers saying that they intend to circumcise their daughters (El-Zanaty et al. 1996).

### **12.2 Prevalence**

The 1995, EDHS levels of circumcision among married women are confirmed by the ASCE data on married adolescents, which show that 98 percent of that subsample have been circumcised.

*"I wish they would stop it [female circumcision]. Everything that involves girls is painful... circumcision, marriage, delivery... but still circumcision is important. Women here say girls must be circumcised so men won't say they are growing their organs! Like growing ones' nails..."* (Samah).

### **12.3 Impact of Menarche and Puberty on the Lives of Girls**

All married girls in the ASCE sample except one, reported that they had reached menarche prior to marriage. The mean age of menarche of the 16–19 year old single girls and the married girls didn't differ significantly, 13.29 and 13.38 respectively. In other words they are not maturing earlier than their peers. But there was a significant correlation between age at marriage and age at menarche ( $p=0.004$ ), so families do, to some extent, consider maturity and menarche in their decision about “readiness” for marriage.

Girls report a difference in the way their families treat them when puberty changes begin. Seventy-five percent report a change in the style of dress and 51 percent perceive differences in the household duties that they are requested to share in. With the onset of puberty changes, more than half are no longer allowed to go out alone whether to visit relatives (57 percent), go to the market (50 percent), or visit friends (63 percent). There were statistically significant differences among the single girls 16–19 in these aspects except in the way the girls dress themselves when puberty ensues. Fewer of the married girls reported that their style of clothing changed than the single girls. This is not surprising, given that married adolescents are more likely to come from rural areas, where girls typically dress modestly regardless of their age.

### **12.4 Reproductive Health Knowledge and Attitudes**

Traditionally in Egypt, adolescents are shielded from information about sexuality and reproduction until the time of their marriage and even then may not be offered complete information. Even information about physical maturation is often not discussed within the family, on the assumption that silence protects a child's innocence and discourages inappropriate behavior.

Evidence from studies of reproductive health among adult women, as well as from anecdotal evidence, suggests that these norms of silence and shame are carried through to adulthood. Khattab (1992) found a considerable/nontrivial number of women with reproductive health morbidities who have not sought medical care or discussed them with their partners for fear of raising suspicion of infidelity. The culture of silence renders many women and men unaware of what is normal; unable to assess physical symptoms that might present themselves; unpracticed and reluctant to seek help from others; reluctant to discuss related issues with their partners; and later unable to convey information to their own children.

“There is a dearth of information about the sexual and reproductive knowledge of soon-to-be-married partners, the transition to marriage, and the experience of young married couples and their negotiations regarding the intervals between marriage and sexual intercourse and between marriage and first birth” (Mensch et al. 1998:46).



*[What is the best age for a woman to have children?] “Starting at 17. If the woman is 14 when she gets married, pregnancy and delivery become very difficult” (Mohamed, Samah’s fiance).*

#### **12.4.1 Meaning of Family Planning**

The presence of a widespread family planning campaign in Egypt manifests itself paradoxically in a relatively high level of recognition of contraceptive methods among adolescents but an incomplete and often inaccurate understanding of reproductive physiology. Given the lack of other public discourse about family planning, the power of such a campaign to shape the public’s understanding of the family planning concept is great. Such an understanding is important because of its implications for individual contraceptive use. If individuals perceive family planning as something external, having more to do with meeting a government objective rather than with their own life goals, they may be less motivated to use contraception. If on the other hand, one perceives family planning as relevant to one’s own daily life, the appeal of contraceptive use is likely to increase.

Adolescents were asked the open-ended question: “What does family planning mean to you?” Responses were coded into broad understandings that were either autonomous, choice related or governmental, demographic.

Most married adolescent girls (72 percent) understand family planning as a government objective or demographic goal. Almost 4 percent of married girls report they have never heard of family planning and even more (7 percent) have heard of it but do not know what it means. A total of 16 percent of the group with the lowest education have never heard of or do not know what family planning means (Table 9).

**Table 9: Meaning of family planning among married girls (in percent)**

	Autonomy or choice	Demographic goal	Never heard of FP	Don't know
All Married Girls	17.4	71.5	3.8	7.0
None/Incomplete Primary	13.7	70.2	6.5	8.9
Completed Primary/Any Preparatory	14.8	76.1	1.1	8.0
Intermediate/Above	31.7	68.3	0.0	0.0
Socioeconomic Status				
-Low	15.5	70.0	5.5	8.2
-Middle	18.0	72.5	3.4	6.2
-High	26.1	73.9	0.0	0.0
Urban	18.2	77.3	0.0	3.0
Rural	17.2	70.0	4.8	8.0
Urban Governorates	9.1	86.4	0.0	4.5
Lower Egypt	15.2	77.3	1.5	6.1
Upper Egypt	20.4	64.8	6.2	8.0

*"I have heard about family planning. It means that the woman would not have children one after the other, like a rabbit"* (Mohamed, Samah's fiance).

#### 12.4.2 Knowledge of Fertile Cycle

Most people assume that married adolescents are more knowledgeable about reproductive matters than their unmarried peers (Mensch et al. 1998:46). Presumably the barriers to discussion are reduced once the possibility for premarital sexual activity has disappeared with marriage and reproduction has become not only appropriate but a focus of a married girl's life. However, the data show that this is not the case.

Understanding the female fertility cycle has been taken as a proxy for girls' knowledge about their reproductive processes. Married girls were asked when in the monthly cycle a woman is fertile and could conceive, with several possible response choices given. Answers were coded as correct if the girl gave the response "near the midpoint between menstrual periods," incorrect if she gave any other answer, and "don't know" if she indicated not knowing the answer.

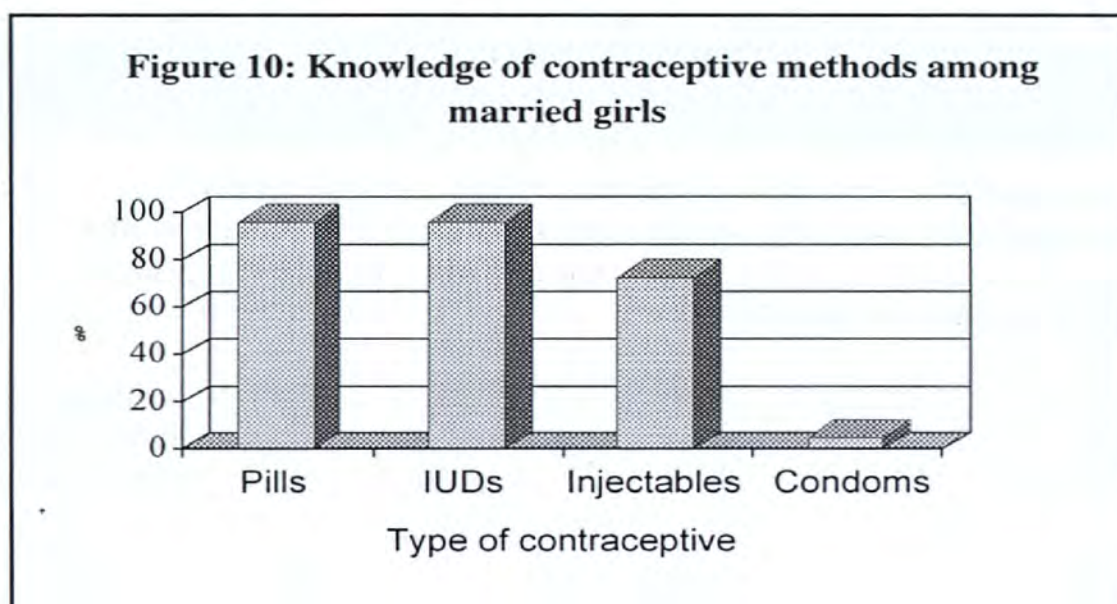
Marriage has not improved the likelihood that girls will know when in the monthly cycle they can become pregnant, as their knowledge levels are similar to their unmarried peers.

Less than 18 percent of married girls responded correctly when asked when in the cycle a woman is fertile. Only 15 percent of never-married girls ages 16-19 in the ASCE sample responded correctly. This means that 82 percent of married girls have incorrect or no knowledge about a basic aspect of their reproductive lives.

### 12.4.3 Knowledge of Contraceptive Methods and Sexually Transmitted Infections (STIs)

As noted above, Egypt has had a very visible family planning campaign underway since before this cohort of girls was born. Consequently, married girls have a considerable amount of knowledge about contraceptive methods, particularly of oral contraceptives and the intrauterine device (IUD). This widespread knowledge demonstrates the success of the family planning campaign in reaching the population, even this disadvantaged group. Ninety-six percent of the married girls had heard of the pill and of IUDs, and 73 percent had heard of injectibles. One finding of concern, however, is the low level of condom knowledge among the sample; less than 5 percent have heard of condoms.

*“I am now engaged, but I know nothing about marriage or marital relations because it is not proper for a girl to ask about these things. But this is wrong. A girl should know everything before her wedding” (Nagwa, 16).*



The national efforts to publicize HIV and AIDS have not been as successful among married girls as they have been among unmarried adolescents (El Tawila et al. 1999). However, HIV/AIDS is still the most commonly known sexually transmitted infection (STI) among married girls; slightly less than 40 percent of married girls know of the disease [compared to 66 percent among never-married girls ages 16-19]. Further analysis points to an even more concerning finding; less than 3 percent of married girls know about both condoms and about HIV/AIDS. It is noteworthy to mention that we haven't collected data on the girls' knowledge of condoms as a protection against HIV/AIDS.

Other STIs are virtually unknown among married girls; indeed HIV/AIDS is often the only STI that is known. Nearly 60 percent of married girls do not know of any STI at all. Five percent know of reproductive tract infections (RTIs)<sup>7</sup> but less than 1 percent have knowledge of either syphilis or gonorrhea.

The limited and superficial knowledge of reproductive health issues among married adolescents is troublesome. While they have considerable knowledge about contraceptive methods, they have limited understanding of basic reproductive physiology, an increased knowledge of which would help them to understand the use of a 'safe period' to prevent conception or to understand how contraceptives might work. They know about HIV/AIDS, but because the prevalence of HIV/AIDS is still low in Egypt, they are less likely to contract it compared to other STIs. In fact, research in two villages in the Giza governorate outside of Cairo (N. Younis et al. 1994) has found nontrivial prevalence levels of a variety of reproductive morbidities among married women. The presence of such conditions in the general population underscores the importance of understanding reproductive health issues. Married girls' lack of knowledge, and indeed the 'Culture of Silence' surrounding these issues renders many of them unaware of what is normal and unable to assess physical symptoms that might present themselves. Coupled with the shame and stigma of admitting to reproductive health problems and married girls' limited autonomy, their lack of knowledge leaves them unable to protect themselves and vulnerable to additional complications.

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<sup>7</sup> Adolescents didn't report on specific disease names of reproductive tract infections; 'inflammations of the reproductive tract' was the expression used by girls.

#### 12.4.4 Family Size Goals and Decision Making

Approximately 57 percent of married girls report having discussed the ideal family size with their husbands. The girl's level of education had a large impact on whether or not she discussed family size goals with her husband. Only 47 percent of those with little or no education had discussed it with their husbands, compared to 72 percent of those with a secondary or above intermediate education. Most of the couples (78 percent) are in agreement regarding the number of children they would like to have, though this also varies by education.

Table 10 shows the variations of family planning goals among married girls. Overall, married girls believe that the ideal number of children for a family is three children. Similar ideal numbers were found among all married women in the EDHS sample.

One of the most striking findings of this data is the strong impact of the young woman's education on her views of her proper decision-making role in planning her family. When asked whether they agreed with the statement: "If a husband wants children, a wife must comply even if she does not want children," 76 percent of those with the least amount of education agreed compared with 42 percent of those who have reached the secondary or intermediate level. Moreover, 53 percent of those with little or no education agreed with the statement: "If a woman does not have a son, she must keep trying even if she is satisfied with the number of children she has," whereas only 16 percent of those with the most education agreed with this statement.

**Table 10: Married girls' ideal number of children and role in family planning decisions, by selected background variables**

Variable	Ideal number of children	Wife to comply if husband wants children %	Wife to keep trying until she has a boy %
All married girls	2.9	68.2	40.8
No schooling	3.0	76.1	53.3
Primary/preparatory	2.8	71.7	34.0
Preparatory/secondary	2.8	61.4	27.7
Secondary/intermediate	2.5	41.9	15.9
Socioeconomic status			
Low	2.9	69.1	45.9
Middle	2.8	67.1	43.8
High	2.9	68.4	34.7
Urban	2.7	57.1	27.7
Rural	2.9	71.2	44.3
Urban govts.	2.6	72.7	22.7
Lower Egypt	2.6	59.5	28.3
Upper Egypt	3.1	73.9	53.1

As Table 11 shows, the proportions of respondents reporting shared decision making on two household issues - having another baby and the use of contraception - vary considerably by region of residence. For example, in the urban governorates, 90 percent of respondents reported that the use of contraception is a shared decision between wife and husband, whereas only 57 percent in Upper Egypt reported sharing in that decision.

**Table 11: Percent of married girls reporting shared decision making with their husbands, by selected background variables**

	Use of contraception	Having another baby
All married girls	66.8	71.3
No schooling	66.2	72.3
Primary/preparatory	66.7	75.0
Preparatory/secondary	62.5	51.4
Secondary/intermediate	74.3	83.3
Urban govts.	89.5	73.7
Lower Egypt	76.6	83.2
Upper Egypt	57.1	60.3

*“If the husband approves of their [contraceptive] use, then it is fine. If he does not, then the woman should not take the initiative. The man’s opinion should rule here”* (Mohsen, Mona’s husband).

The EDHS data allow us to compare these marriage dynamics with older married women. While there is little variation by age in sharing the decision to have another baby, there is significant variation by age in decisions regarding the use of contraception. Among the EDHS sample, 83 percent of women aged 20–29 report that the decision to use contraception was a joint one. Similarly, among girls 15–19 in the EDHS, 66 percent reported sharing in decisions regarding contraception.

### 13. REPRODUCTIVE ACTIVITIES

Previous research has implicated young age as a factor in high-risk pregnancies and poor birth outcomes (see for example Greene 1997). A review done for the World Health Organization (1989) demonstrated that girls under age 20 had higher maternal mortality rates than adult women 20-24. A complete review of the literature has been done elsewhere (see Kurz 1997) and is beyond the scope of this monograph.

However, the previous research has been unsuccessful in disentangling the causal pathways, and has produced inconsistent results on whether age itself is a determinant of poor health consequences, or if other factors, such as primiparity, low socioeconomic status, inadequate prenatal care and/or continuing growth of the adolescent, pose the risks. For example, Koenig et al. (1988 cited in Kurz 1997) found that age was not a significant factor once parity was considered, suggesting that it is the first birth that is the most risky, not maternal age. However, as Kurz (1997: 6) notes:

“Whether age is associational or causal should not affect programming because young age is implicated in the poor health consequences. The incidence of poor health consequences of childbearing could be reduced if births were postponed into the mother’s adult years. Given the risks, it is critical to understand the dynamics of pregnancy and birth among married adolescent girls.”

Three strategies can be employed for a society to ensure that its children are born in healthy circumstances: (1) delay the age at first marriage; (2) delay the first birth; and (3) increase the length of time between the first birth and subsequent pregnancies.

If marriage has already taken place, as it has for these girls, only two of these strategies remain. However, Egyptian culture places significant pressure on newly married couples to have a first birth as soon as possible in order to establish their fertility. Some researchers suggest that this pressure indicates how integral childbearing is to females’ “respectability and economic security” (Mensch et al. 1998:62). Egyptian men are pressured as well, ideally impregnating their wives on their wedding night, with implications for asserting their masculinity and virility.

The dynamics of childbearing among this sample demonstrates that this pressure remains strong. Among those married girls who have ever been pregnant, the average length of time between marriage and first pregnancy is 4.2 months, and the median is 2 months. The median age of first pregnancy is 17.6 years. This is somewhat older than the mean age at first birth for all girls ages 15-19 in the 1995 EDHS who have had at least one birth, which was 16.8 (Abdel Aal and Moustafa 1997:55).

In the following sections we analyze the reproductive health profile of two groups of women in the 1995 EDHS sample: 15-19-year-old girls and women ages 20–24 who did not marry in their teens. The EDHS includes a full pregnancy history only for the 60 months prior to the survey interview; thus, we also limited the sample to those who had been married within 60 months of the interview, so we could have a full pregnancy history. We will refer to it as the EDHS subsample. [See methodology section for further detail.] We will also compare the EDHS sample with the ASCE sample when appropriate. Table 13 shows a comparison of the two EDHS groups on a number of background variables. Women who married in their 20s are quite different from married girls ages 15–19; they were more likely to reside in urban areas, have attained a higher level of education, and to have married men with higher levels of education (Table 12).

**Table 12: 1995 EDHS subsample groups by background variables**

Variable	15–19-year-old married girls married within 60 months of interview Percent	20-24 year old women married in their 20s and within 60 months of interview Percent
<b>Region of Residence</b>		
Urban Governorates	11.7	23.9
Urban Lower Egypt	5.1	9.8
Rural Lower Egypt	26.1	37.3
Urban Upper Egypt	11.0	12.4
Rural Upper Egypt	45.3	15.7
Frontier Governorates	0.8	1.0
<b>Type of Residence</b>		
Urban	28.1	46.7
Rural	71.9	53.3
<b>Highest Educational Level</b>		
No Education	42.8	18.8
Primary	21.9	9.5
Secondary	34.8	62.1
Higher	0.5	9.6
<b>Literacy</b>		
Reads easily	37.5	73.2
Reads with difficulty	13.9	5.7
Cannot read	48.6	21.1
<b>Husband's Educational Level</b>		
No Education	21.5	9.3
Primary	28.0	17.8
Secondary	46.9	53.4
Higher	3.6	19.4

### 13.1 Contraceptive Prevalence

As mentioned earlier, the Egyptian culture places significant pressure on newly married couples to have a first birth as soon as possible to establish their fertility. Further evidence of the cultural norm at work exists in the low levels of contraceptive use among the ASCE sample. Fewer than 16 percent of girls who are not currently pregnant are using contraceptives, and every single one of the contraceptive users has experienced at least one birth (range: 1–3 children). In other words, contraception is not used by married girls until after they have had their first birth.

Rates of married adolescent use of contraception in both the EDHS and ASCE surveys were much lower than the contraceptive use among 20–24-year-old women; 32 percent of this group reported using a modern contraceptive in the EDHS.



There was no difference between adolescents and older women (ages 20–24) in the tendency not to use contraceptives before the first birth; only 0.5 percent and 1.3 percent respectively used a contraceptive method for the first time before they had any children. However, once the first birth has occurred, women ages 20–24 were more likely to use a contraceptive method than married adolescents; 27 percent of those 20–24, compared with only 20 percent of married adolescents, used contraceptives after their first birth. The majority of either group—78 percent of girls and 68 percent of women - have never used contraceptives (Table 13).

**Table 13: Number of children at first contraceptive use by age group, EDHS subsample**

Number of children when starting contraceptive use	Married girls 15–19	Married women 20–24	Total Percent
	(n=647) Percent	(n=612) Percent	
0	0.5	1.3	0.9
1	19.8	27.3	23.4
2	1.4	2.9	2.1
Never Used	78.4	68.5	73.6

Egyptian researchers note that the desire for more children was found to be the main reason for not intending to use contraception in the future among women under 30. (Abdel Aal and Moustafa (1997) in Abdel Aal and Moustafa, n.d.) Other important reasons for non-use or not intending to use were partners' opposition to family planning, health concerns and fear of side effects.

These low levels of use may also be evidence of provider resistance, tacit or explicit. Ibrahim (1995), for example, documented substantial resistance to the government's family planning agenda among service providers in Egypt. There is growing anecdotal evidence that providers sometimes refuse to prescribe contraceptives, other than condoms, to young, married females until they establish their fertility. Women who use contraceptives to postpone a first birth face substantial, explicit pressure from both family members and service providers to get pregnant.

Low contraceptive use among adolescents may also reflect girls' lack of decision-making power "to use the contraceptive services that are available to her" (Mensch et al. 1998:63). Finally, it may indicate the need for information about the use of contraception for spacing births as well as for limiting them, and more information about the dangers of short birth intervals to both mother and child.

### 13.2 Current Physiological Condition

Generally speaking, there were few differences in the physiological status between the ASCE sample and the EDHS subsample of the same age group or between the ASCE sample and the women ages 20–24. Among girls in the ASCE sample, 31 percent were

currently pregnant, 31 percent were currently breast feeding, one percent were both pregnant and breast feeding and 37 percent were neither pregnant nor breast feeding currently (Table 14),

In the EDHS subsample, 25 percent of the 15–19-year-old girls were currently pregnant, 35 percent were currently breast feeding, 1 percent were pregnant and breast feeding, and 39 percent were neither pregnant nor breast feeding.

Compared to the 20–24-year-old women: 29 percent were currently pregnant, 35 percent were currently breast feeding, 1.5 percent were pregnant and breast feeding and 35 percent were neither pregnant nor breast feeding.

**Table 14: Current physiological condition of ever-married girls and women, ASCE and the 1995 EDHS subsample**

	15–19-year-old girls, ASCE (N=305)	15–19-year-old girls, 1995 EDHS (N= 647)	20–24-year-old women, 1995 EDHS (N=612)
• Pregnant	30.5	24.9	29.1
• Breast feeding	30.8	35.3	34.9
• Pregnant and breast feeding	1.3	1.1	1.5
• Neither pregnant nor breast feeding	37.4	38.6	34.5

### 13.3 Pregnancies and Their Outcomes

As noted above, there is a controversy in the literature over whether young maternal age is associated with or causes poor pregnancy outcome. Using life table analysis, the median age at first pregnancy in the ASCE sample is 17.6 years. Table 16 shows the pregnancy history among the three comparison groups described above.

The mean number of previous pregnancies among girls in the ASCE sample is 0.67 and the mean number of live births among this group is 0.56. The difference between these two figures indicates the pregnancy losses or ‘pregnancy wastage’ experienced by these girls. In this analysis, pregnancy wastage could be either miscarriage/abortion or stillbirth.

In the EDHS subsample, the mean number of pregnancies among the 15–19-year-old girls and 20–24-year-old women was 0.68 and 0.73 respectively. The mean number of live births was 0.57 and 0.60. There is a slight difference in the pregnancy wastage between married girls and young adult women; surprisingly, the younger girls had lower levels of pregnancy wastage than the older women.

On the other hand, the mean number of living children for the adolescents was 0.54 and for the 20–24 year old women it was 0.59. Thus, the reproductive profile within 5 years of marriage is more or less similar for both comparison groups (Table 15).

**Table 15: Mean number of pregnancies, live births, and living children among ASCE married girls, EDHS married girls, and EDHS married women**

Means	15–19-year-old girls, ASCE (N=317)	15–19-year-old girls, 1995 EDHS (N=647)	20–24-year-old women, 1995 EDHS (N=612)
	Previous Pregnancies	0.67	0.68
Live births	0.56	0.57	0.60
Living children	0.51	0.54	0.59
Wastage*	0.11	0.11	0.13

A more refined analysis would consider the outcome of the first pregnancy, which carries the greatest risk for young girls. Table 16 shows that married girls are not at increased risk of poorer pregnancy outcomes than young adult women. However, there are some limitations to this analysis. First, although we have information on whether the baby was born alive or not, we do not have information on how healthy the baby was at birth. For example, we do not have any data on the birth weight of the baby, an important factor that will affect infant survival. Low birth weight could result either from preterm birth or intrauterine growth retardation. So, survival of the live births (particularly neonatal deaths) is an important indicator of difference between both groups. The second limitation is that stillbirth is a relatively rare pregnancy outcome that may need larger sample sizes to demonstrate whether a difference exists between married girls and young adult women.

**Table 16: Outcome of first pregnancy of adolescents and 20–24 year old women EDHS within five years of marriage**

	First Pregnancy			
	15–19-year-old married girls (N=350)		20–24-year-old women married in their 20s (N=353)	
	Percent	Frequency	Percent	Frequency
Live birth	86.0	301	82.4	290
Stillbirth	1.7	6	1.4	5
Miscarriage/abortion	12.3	43	16.4	58

\* Pregnancy wastage was calculated by subtracting the mean number of live births from the mean number of previous pregnancies.

### 13.3.1 Infant Survival and Age at First Birth

Due to the problems noted in the previous section, we compared the mean number of neonatal deaths infant deaths and living children for two groups of women in the 1995 EDHS: those whose age was less than 20 at the birth of their first child and those whose age was 20 or older at the birth of their first child, within 10 years of marriage (Table 17). Expanding the range to within 10 years of marriage allowed us to increase sample size while still limiting the possibility of including women aged 40/49 years in the comparison groups. In terms of infant survival in the neonatal period or in the first year of life, these very young mothers' babies are at increased risk of death than those who start motherhood later in their 20s. In addition, very young mothers often end up with a larger number of living children than women who begin childbearing later in life, even within the same duration of marriage. These findings imply that they become pregnant more often and use contraceptives to a lesser extent than women who become mothers at ages above 20 years.

**Table 17: Mean number of neonatal deaths, infant deaths and number of living children by age at first birth within 10 years of marriage EDHS 1995**

Age at birth of the first child	Neonatal deaths	Infant deaths	Number of living children
Less than 20 years (n=1906)			
Mean	0.0973	0.2024	2.11
SD	0.3496	0.4908	1.036
20 years or older (n=3075)			
Mean	0.0594	0.1008	1.92
SD	0.2762	0.3646	0.909

### 13.4 Antenatal Care

Proper antenatal care could reduce the pregnancy-related health risks to mother and child. The early detection and subsequent management of health risks can improve pregnancy outcomes significantly. One positive finding from the ASCE sample is that nearly 70 percent of currently pregnant girls have sought antenatal care and the majority of those who sought antenatal care made these visits during the first trimester of pregnancy (Table 18). Forty-four percent sought this care because they wanted a safe pregnancy and 43 percent sought care because they had some health complaint. The mean number of antenatal care visits was 2.6 and the median was 2 (Table 19).

The EDHS subsample allows us to examine behavior of girls and women for their last birth, as opposed to those in the ASCE sample who are 'currently pregnant.' Women ages 20-24 sought antenatal care at a higher rate than girls did (60 percent of women compared

to 45 percent of adolescents) and sought that care earlier in their pregnancy. Most of the girls and women who sought antenatal care did so early in pregnancy, much less in the second and rarely in the third trimester. It is clear that maternal and child health programs should focus on motivating the younger girls to increase antenatal care coverage and raise their awareness of the value of antenatal care.

**Table 18: Timing of first antenatal visit among currently pregnant girls ASCE, EDHS subsample**

	ASCE (N=70)	EDHS 15-19 (N=322)	EDHS 20-24 (N=313)
		<b>Percent</b>	
1st trimester	85.7	69.2	80.2
2nd trimester	12.9	23.3	16.6
3rd trimester	1.4	7.5	3.2

**Table 19: Main reason for first antenatal visit among currently pregnant girls ASCE (N=70)**

	Percent
Safe pregnancy	44.3
Health complaints (fever, fatigue, vomiting; stomachache)	42.8
Others	12.9

*“I have not gone for a medical check-up while pregnant at all. I went in the last pregnancy, but this time I went three days before delivery when I started bleeding” (Latifa, 19).*

Unfortunately, the antenatal care provided does not appear to be of very high quality. Table 20 shows the proportion of girls in the ASCE sample who reported that various procedures were performed during their antenatal care visit. Considering that first pregnancies are at high risk of pregnancy-induced hypertension and that girls are more likely to be primiparous than women are, it is disturbing that less than half of the girls had their blood pressure measured.

**Table 20: Procedures performed during antenatal care visit among currently pregnant girls (N=70)**

Type of procedure performed	Percent
Abdominal examination	60.0
Weigh patient	8.6
Urine sample taken	21.4
Blood pressure measured	47.1
Blood sample taken	8.6
Gynecological examination done	41.4
Something else	15.7

*“If we don’t have money I go to the public hospital, but if we can afford it, I go to the private doctor. He examines better and treats you nicely. In the hospital you wait for your turn; then they don’t examine you but just ask you questions and prescribe medicine which I do not buy because I am not convinced” (Latifa, 19).*

### 13.5 Delivery Experiences

Girls were asked to report on where they delivered their most recent pregnancy and who assisted them at delivery. The ASCE survey found that 66 percent of married girls give birth at home (table not shown). *Dayas* (traditional birth attendants) and physicians were most frequently reported as the birth attendants assisting with delivery regardless of location of delivery (49 percent and 44 percent, respectively). However, nearly half of all adolescent pregnancies reported by the ASCE sample are still being delivered by traditional birth attendants. Interestingly though, doctors are also found to be assisting with home deliveries; Table 21 shows that 17 percent of home deliveries were assisted by a doctor.

Place of delivery	Mother-in-law		Midwife unit Percent	Doctor Percent	No one Percent	Total Percent
	Daya Percent	Percent				
Home (n=93)	73.1	4.3	4.3	17.2	1.1	100.0
Hospital or clinic (n=47)			2.1	97.9		100.0
Total (n=140)	48.6	2.9	3.6	44.3	0.7	100.0

The EDHS subsample shows similar patterns: Married girls were more likely to have a home delivery than young adult women and less likely to have a doctor assisting at the time of delivery compared to women 20-24 years old. Sixty-two percent of the girls delivered their last birth at home compared to 51 percent of 20–24 year-old women. The most common caregiver of the adolescent at delivery was a doctor (47 percent), followed by traditional birth attendant (42 percent), and nurse or midwife came next. For the older age group 57 percent were assisted by doctors, 38 percent by nurse/midwives and the traditional birth attendant came third (table not shown).

*“As for pregnancy, in Upper Egypt it is a natural and normal thing. Women can carry heavy things, they can run around in the street and ride in cars... they do everything; all house chores until the hour of delivery.... It is normal if a woman gets pregnant and also normal if she miscarries” (Saeed, Maha’s husband).*

### 13.6 Breastfeeding

The early initiation of breastfeeding after delivery and its continuation for up to two years has many benefits for both the mother and the infant. Benefits include widely known immunological benefits to the infant reducing likelihood of infections and allergies, its positive effect on cognitive development and its low cost and ease, in particular for poor populations (American Academy of Pediatrics 1997). Breastfeeding can also play an important role in child spacing, as exclusive breastfeeding can suppress the production of estrogen and prevent ovulation (Perez et al. 1992).

We examined the breastfeeding practices among the 119 married girls in the ASCE sample who reported having given birth and who were able to recall the birth date of the child. Among this group, 97 percent reported birth dates within a period of two years. To minimize recall bias, the following analysis is restricted to this group. Table 23 shows the pattern of breast feeding initiation for all girls who reported breast feeding currently or in the past; the greatest proportion of girls began breastfeeding within one hour of delivery, but a disturbing one-third began more than one day after the delivery.

Girls breastfeed their children for long periods; using life table analysis, the median duration of breast feeding was 18.6 months (table not shown). The delay in initiating breast feeding should be a focus of concern for those involved in maternal and child health programs; such programs should also focus on providing support and encouragement of all positive attitudes and behaviors regarding breastfeeding.

**Table 22: Current breastfeeding status among girls with births within two years (N=116)**

Current status	Percent
Currently breastfeeding	83.6
Not currently breastfeeding	16.4
Total	100.00

**Table 23: Initiation of breastfeeding among girls with a history of delivery within two years (N=116)\***

Breastfeeding initiation	Percent
Within one hour of delivery	45.7
More than an hour but less than one day post-delivery	14.8
More than one day post-delivery	34.5

\* Six cases never initiated breastfeeding or experienced stillbirth

With the very low contraceptive prevalence among adolescents, their breastfeeding practices could provide a natural contraceptive through hormone suppression. In the ASCE sample, the period of lactational amenorrhea following the birth of the last child was as follows: 29 percent one month, 22 percent two months, and for 10 percent, the duration extended 3–5 months, 12 percent 6–24 months, and 28 percent were currently in lactational amenorrhea. Notably, more than half of the girls have regular menstruation within only two months of birth and may be at risk of a very close spacing between births. This is one of the areas in which interventions are needed to teach girls how to succeed in exclusive breastfeeding to help them to regain their stores and help the first baby to benefit from longer periods of breast feeding.

For a different perspective on this issue, we examined the proportion of those currently in postpartum amenorrhea among the three comparison groups, including all of those who were currently pregnant and those who had never given birth as ‘not currently in postpartum amenorrhea.’

The results show that in the EDHS subsample, a greater percentage of girls’ ages 15–19 were currently in postpartum amenorrhea compared to the 20–24 year old women, but the difference was not statistically significant. The ASCE sample shows a lower percentage of girls currently in postpartum amenorrhea.

**Table 24: Current status of postpartum amenorrhea**

Percent currently in postpartum amenorrhea after last birth	15–19-year-old girls, ASCE (N=308)	15–19-year-old girls, EDHS (N=647)	20–24-year-old women, EDHS (N=612)
Yes	12.0	17.2	13.9
No	88.0	82.8	86.1

It is clear that there is no difference between the married girls and older married women in the periods of postpartum amenorrhea, and unless either group uses contraceptives postpartum, the majority would be at the risk of becoming pregnant (Table 24).

## 14. CONCLUSIONS AND RECOMMENDATIONS

Although adolescent marriage is becoming less frequent in Egypt, it is still common enough to be of serious concern, especially because pregnancy usually occurs almost immediately after marriage. Given the high level of neonatal and infant deaths among this group of girls and the poor management of their reproductive health, public officials and communities must not simply wait for the problem to disappear on its own. Expanding work opportunities for unmarried out of school girls could help to delay marriage, as well



as providing them with more resources and productive opportunities. Girls who are in the final year of secondary technical schools constitute a group of girls ready to get married during adolescence. Health education messages targeting these girls need to be introduced through these schools. In addition, communities and public officials should place more emphasis on the enforcement of the legal minimum marriage age restriction already in place. Egypt may consider raising the legal marriage age for girls, as have a number of other developing countries.

For those girls who are married before age 20, more effort should be placed on raising awareness on the negative health implications of early childbearing, particularly among parents, doctors and community opinion leaders. Moreover, the widespread practice of discouraging young couples from using contraceptives should be addressed, through education on the benefits of delaying a first birth and of birth spacing.

Failing that, emphasis should be placed on the importance of monitoring pregnancy and providing supportive services on 'parenthood' to the very young mother at local maternal and child health units. Programs addressing the poor nutritional status of adolescent mothers and reducing the very high levels of anemia need to be implemented through maternal and child health centers. In addition, more research is needed to identify ways in which the private sector could be incorporated into programs targeting married girls.

Married girls could be reached very early in marriage through identifying the newlyweds from the marriage register and linking each couple to the nearest primary health care unit. The Ministry of Health and Population (MOHP) and the Ministry of Justice could work together to create this linkage and train ma'zouns to provide a monthly or weekly list of newlywed couples to the MOHP directorates. A reproductive health service package tailored to the needs of these couples would help to reduce the many health risks they face. Educating ma'zouns about the health consequences and dangers of early childbearing may be another approach to encourage resistance to underage marriage.

## **Future research**

A number of methodological issues concerning research on adolescent marriage have become clear through the writing of this monograph.

First, studies with a longitudinal design would help to improve our understanding of the longer-term consequences of adolescent marriage and motherhood. Such a research design would help to control for the confounding factors that are both a cause and a consequence of early childbearing and provide more information on all of the possible pregnancy outcomes to both mother and child.

Second, future studies of married adolescents should include information on their families of origin as well as their current households. This will enable us to learn more about the

characteristics of these households in which girls are at risk to marry too early.

Third, studies of the ways that married girls utilize their time are needed to develop models of education and life skills programs that would suit them better than the current literacy classes.

Fourth, as the survey did not collect detailed information on girls' experiences in literacy classes, studies providing such information are needed. Such classes could serve as important tools to help ameliorate the numerous deficits these girls face as a result of their deprivation of formal education. They could also serve as important fora for the transmission of health information. Moreover, they could ameliorate the impact that their deprivation has on their children, as literacy would increase their ability, and perhaps their confidence, to help their children with homework.

In formal schools, relevant questions for future research should include qualitative questions on the class atmosphere, teachers, curriculum content, scheduling, and the attitudes of family and community members toward their attendance. It would also be important to solicit girls' suggestions for improving the classes, as well as improving true accessibility of additional education to married girls.

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## APPENDIX<sup>9</sup>

### ASCE Survey Methodology

#### Sampling Design

The survey sample is a nationally representative, multistage, stratified, probability, cluster sample of adolescents. In the first stage, 101 primary sampling units (PSUs) were selected proportional to population size using the updated census frame compiles by the Central Agency for Public Mobilization and Statistics. Only the five frontier governorates were excluded from the study, as only about 1.5 percent of the total population of Egypt lives in these five governorates. In urban areas, PSUs are the smallest administrative units for which the census results are published. These are called shiakhas. In rural areas, PSUs are villages with hamlets and satellites that are administratively linked to them.

The PSUs were stratified by 21 governorates and by urban/rural type of residence within each governorate. Based upon population estimates in 1996, selected PSUs were divided on maps into partitions. Each partition has a population of approximately 5,000 persons in rural PSUs and 10,000 persons in urban PSUs to allow for the higher heterogeneity in urban areas. One partition was randomly selected from each of the 101 PSUs. A quick count process of housing units in the selected partition was carried on. The selected partition was then divided in smaller well-defined segments, each having approximately an equal number of housing units. In the second stage, two segments were randomly selected from each of the 101 PSUs. The size of the segments varied among the different PSUs as to yield at the end a self weighted sample of households. All households residing within the well-defined boundaries of the selected segments were screened using a household rooster sheet. A total of 13,271 households were successfully screened at this phase of the survey.

Eligible households were then defined as households with at least one member in the age range 10-19 years. The number of eligible households amounts to 7,256 (eligibility rate 0.547). Using a Kish grid, one adolescent (by gender) was randomly selected from each eligible household. This resulted in one boy and one girl being selected from households that contained at least one adolescent of each gender. A total of 9,128 adolescents were successfully interviewed (4,354 boys and 4,774 girls). The number of pairs of siblings successfully interviewed was 2,423. All randomly selected adolescents were eligible for an individual interview using a core instrument. The sample of adolescents is not self weighted.

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<sup>9</sup> For more details on the survey or laboratory investigations: 'Transitions to Adulthood A National Survey of Egyptian Adolescents' El-Tawila S et. al. Population Council Regional Office for West Asia and North Africa. Second Edition January 2000.

## **Subsamples**

All randomly selected adolescents currently enrolled in school between the 5th grade and the 9th grade and those who dropped out between these two grades were eligible for achievement tests in Arabic and mathematics. A total of 3,713 eligible adolescents completed the Arabic test and 3,792 completed the mathematics test. A total of 3,682 adolescents completed both tests.

A quarter of the total randomly selected sample of adolescents was systematically sampled: half the sample (by gender) in 50 PSUs. Subjects in this subsample were eligible for a second interview focusing mainly on health issues. The total size of the subsample is 2,323 successfully interviewed (1,070 boys and 1,253 girls). The adolescents selected in this subsample were also eligible for a complete health examination and urine, stool and blood testing. The subsample, like the original sample of adolescents is not self-weighted.

Since there was an interest among the principal investigators in the phenomenon of adolescent marriage among females, the individual core instrument as well as the health instrument were both administered to all ever married adolescents identified in the eligible households. This process was applied regardless of whether or not the adolescent was randomly selected. The total number of ever-married adolescents successfully interviewed was 317. Only ever married adolescents who were randomly selected are included in the individual file and health file. Data on ever-married female adolescents are managed separately (for further elaboration on the sample, refer to ASCE sample).

On the other hand, in two-parent basic family units only one parent was randomly selected for the responsible adult interview (with a probability 0.5) while in single parent basic family units, the parent who is a member of the sampled household was interviewed. This strategy was followed to ensure a fair representation of the attitudes of mothers/female caretakers and father/male caretakers in regard to multiplicity of issues related to their children in the age group 10-19. A total of 6,213 responsible adult were interviewed (3,274 males and 2,939 females).

This design resulted in a nationally representative sample of adolescents and responsible adults for which all reports remain generalized and can be disaggregated by region of residence (urban governorates/Lower Egypt/Upper Egypt), type of residence (urban/rural), and by gender.

## **Study Instruments and Methodology**

In order to fulfill the objectives of the study, several instruments and methodologies were utilized. Face-to-face interviews using a number of structured questionnaires were conducted. Tools for proper assessment of the general health status of adolescents incorporated laboratory testing of urine and stool specimen and accurate measurement of height and weight. A 24-hour recall of nutritional intake and instant readings of the level



of hemoglobin in blood were also collected. A complete clinical examination to detect health problems and to record different indicators of biological maturation was also successfully implemented, utilizing specially trained physicians of the Ministry of Health and Population.

## **Structured Questionnaires**

Four distinct structured questionnaires were developed: The roster, the core individual adolescent questionnaire, the health questionnaire, and the questionnaire administered to the responsible adults. The following section briefly summarizes the content of each survey instrument.

### **The Roster**

The roster collected the basic demographic information from all 13,271 sampled households on all usual members of the household, such as age, sex, marital status, educational attainment, literacy among the group who never attended school, and work status.

### **The Individual Adolescent Core Questionnaire in Five Parts**

*Section I:* This section looked at education and collected information on exact birth date, school ever-attendance, highest stage reached if ever attended, current enrollment status, age when dropped out and reasons for dropping out of school if the event has occurred, school entry age, reasons for never attendance and attitude toward literacy classes among ever-attendants. For those in pre-university education at the time of the survey and for the group who ever attended preparatory schools, a battery of questions on different aspects of the school experience was administered. Attitudes toward school, travel to school, school physical conditions and facilities, interaction with teachers and among students, and so indicators of the quality of education were also addressed.

*Section II:* In order to look at economic roles, the survey included questions concerning ever-participation in the labor market, current involvement, type of current employment, working hours per day and work days per week. Special questions were asked of adolescents working for pay in regard to work conditions, work hazards, satisfaction with current job, level of earnings and management of earnings. Reasons for and age at starting work were asked of all who ever worked.

*Section III:* The Health Status section focused on health service seeking behavior, medications, exercise and smoking behaviors. For girls, questions about menstruation and its management were addressed.

*Section IV:* Social relations and personal traits were covered here with quotations that focused on adolescent communication and exchange of support with family members and

peers. Questions addressing important aspects of an individual's psychological profile in this transitional phase of life also were included. These are not psychological tests but rather exploratory tools to investigate some positive traits such as self-worth and leadership, as well as prevalence of negative emotions (loneliness, anxiety, fear and guilt). In addition, venues to express anger and the extent of satisfaction with life, future expectations and role models are examined (WHO, 1996).

*Section V:* In order to assess time use, this section collected information on activities done during the previous 24 hours, such as studying, work, help in household chores, exposure to media, and activities during leisure time.

## **The Health Status and Health-related Attitude Questionnaire**

*Section I:* To collect information on health service seeking behavior questions focused on the frequency of laboratory testing of urine, stool and blood in the 12 months preceding the interview. General information on the type of service provider, reason for utilization, and level of satisfaction during a recent illness was also collected.

*Section II:* Health related practices were assessed by collecting information on regular intake of vitamins and iron tablets as well as personal and peer experience in regard to tobacco and drug use.

*Section III:* This section looked at dietary habits, focusing on the number of meals per day; snacks between meals; eating outside the home; consumption of tea and coffee, vegetables, fruits, bread, salt, and other specific food groups.

*Section VI:* To look at reproductive health and gender roles, we gathered data on the appropriate age at marriage for boys and girls and justification for it, the prevalence of circumcision and the related social context, knowledge and perception of maturational changes, sources of information on these changes for girls and management of menstruation.

Adolescents 16-19 years old were asked an additional battery of knowledge and attitudinal questions on reproductive health issues, including sexually transmitted infections (STIs) and family planning, gender roles in the house, sharing tasks and decision-making, divorce, and the marriage contract. Some of the questions regarding circumcision, gender roles and decision-making were extracted from the 1995 Demographic and Health Survey modules that were administered to ever-married women in the reproductive age.

*Section V:* In this section on marriage, all 16-19 years old adolescents were asked about the qualities they would seek in their future spouse, the ideal age difference between spouses, and the difference in educational attainment between spouses. Ever-married female adolescents were asked about their age at marriage, ideal number of children, communication between spouses, and a complete account of pregnancy outcomes.

## **The Responsible Adult Questionnaire**

*Section I:* This section on household living conditions, focused on ownership status and size of the house, house utilities (connection to public water and sewage systems), ownership of durable goods and assets, occupation of the responsible adult and the head of the household if not the responsible adult.

*Section II:* Attitudes toward education were assessed by gathering information on the value of education for boys and girls, education aspiration for boys and girls, reasons for never-attendance or drop out among children of responsible adults, expenditure on education, expenditures on food, and overall monthly expenditures of the household.

*Section III:* This section on health covered reports of illnesses and disabilities among adolescents, health service seeking behavior, attitudes towards the health insurance system for school children, and smoking behavior among responsible adult.

*Section IV:* Attitudes toward marriage and gender roles were assessed by collecting data concerning puberty and physical maturation, appropriate age at marriage, attitudes toward female employment and marriage arrangements, and views about contemporary marriage compared to marriage in their generation.

## **ASCE Laboratory investigations**

### **Method of measuring hemoglobin level**

Capillary blood was obtained by pricking the fingertip with a sterile lancet. A drop of blood was collected into a disposable microcuvette and the level of hemoglobin was determined using the HemoCue photometer (HemoCue AB, Angelholm, Sweden). The HemoCue instrument allows the detection of anemia by estimating the hemoglobin level in a sample of blood. It provides accurate results that are comparable to the cyanmethemoglobin method. No processing of the blood specimen is needed, and the results can be read directly without calculation in less than 45 seconds. Moreover, the instrument is portable, which makes it possible to use in the field and quite practical for use in surveys. The only disadvantage of this method is its use of expensive, disposable cuvettes.

Anemia was considered present if the hemoglobin value was below 12g/deciliter (dl) for adolescent girls and boys aged less than 14 and below 13g/dl for adolescent boys above 14 years of age as proposed by the WHO (World Health Organization 1968). Blood specimens were obtained from 1,980 adolescents.

For married girls, the hemoglobin cutoff level for defining anemia was 12g/dl for non-pregnant girls and 11g/dl for pregnant girls.

### **Parasitologic study**

Each adolescent was provided with two labeled plastic pots and asked to provide a stool sample and a urine sample. Only 1,808 and 1,920 of the studied group were able to comply with this request for stool and urine specimens, respectively.

### **Stool examination**

Fecal samples weighing approximately 300 g were taken by a specially designed spoon and inserted into containers pre-filled with 4 ml of Merthiolate-formaline (MF) solution. Samples were thoroughly mixed in the MF solution and then transported to the laboratory of the High Institute of Public Health. Immediately before examination, Logo's iodine was added to each collected tube. Mixed direct smears (Dunn 1968) with material drawn from the midpoint of the specimen after thorough remixing were made and examined. All samples were then concentrated with Merthiolate, iodine, formaldehyde-ether centrifugation method (Allen & Ridely 1970). Specimens were sieved and placed in 15 ml conical graduated centrifuge tubes with 3 ml of diethyl ether, then vigorously shaken and centrifuged. Sediment smears were examined microscopically for parasites.

## Urine Examination

Ten ml of thoroughly mixed urine was placed in a plastic bottle containing 10 ml of 0.002 percent carbal fuchsin preservative to bring the total volume to 20 ml. Preserved urine was transported to the laboratory of the High Institute for Public Health. Urine was centrifuged at 2000 rpm. For 15 minutes, and sediment was placed on two slides, covered with a cover glass, and examined microscopically (Richard, Hassan, Cline and El Alamy 1984).

Results of tests on urine and stool samples were provided to the responsible adult of each participating adolescent in the form of a written report. Results of the hemoglobin test, if clinically significant, were reported to the adolescent's responsible adult immediately.

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