

# Adolescent Childbearing in South and East Shores of the Mediterranean Basin

Sutay Yavuz<sup>1</sup>, PhD

## 1. INTRODUCTION

Over the last three decades, South and East shores of the Mediterranean basin has undergone significant social, economic and political changes that have a profound impact on individuals' lives. Changes in the countries of this region appear in areas such as overall societal change towards urbanization, raising income level, raising women's educational levels, the improvement of health conditions and globalization with its new social and cultural dimensions.

The process of modernization has been a common societal change in the South and East Mediterranean countries. Fertility transition patterns, on the other hand, differ in more than one respect. For instance, the onset of fertility transition in these countries started at different times; it followed different paths at different paces. Three emblematic countries of these regions represent different transition patterns: Morocco, Egypt and Turkey. Although these countries currently display different magnitudes of fertility decline, the last decades have been critical in terms of convergence towards modern family regulation. Some recent studies have shown that the propensity to establish smaller family size spreads different segments of society in the all three countries (D'Addato et. al. 2008).

Although recent general fertility trends have been well documented through analysis of demographic sample surveys in these countries (Courbage, 1999; Eltigani, 2000 and 2003; D'Addato, 2006; Vignoli, 2006; Yavuz; 2006), adolescent reproductive behavior have not been examined extensively.

Social norms in all three countries strongly prescribe marriage and to have at least one child. The first birth has a significant role in the future life of each individuals; transition into motherhood has broad implications for women's changing roles and statuses. When these transitions occur in adolescent ages, they have far-reaching individual and social consequences. For these reasons changes in adolescent reproductive behavior are major concern in the process of overall modernization and fertility transition of these countries.

The present study aims to gain further insights into the specificities of the recent fertility decline in Morocco, Egypt and Turkey by looking through trends and determinants of adolescent childbearing behavior.

The analysis aim to gain insight into following question how and to what extent first birth progression among adolescents are conditioned by their individual and household level characteristics?

---

<sup>1</sup> Ankara University, Faculty of Health Sciences, Department of Social Work

## 2. BACKGROUND

### 2.1. The fertility transition in Morocco, Egypt and Turkey

This section will briefly describe general historical fertility development in the three countries.

### 2.2. Changes in the social conditions and fertility of the adolescent population

I will show in this section how life conditions of young people have changed in the three countries since 1980s. Specifically I intend to collect macro data (statistics) on economic activity, education and marriage trends; namely I will try to produce below table. Also, Using DHS country final reports, I will give descriptive information on proximate variables which have effect on adolescent fertility; like prevalence of marriage, contraceptive use and abortion among adolescents.

**Table . Changes in the social conditions of young people (or if available women) (12-24) 1980s onwards in Morocco, Egypt and Turkey**

	Morocco			Egypt			Turkey		
	1980	1990	2000	1980	1990	2000	1980	1990	2000
% of Economically active									
% of Economically inactive									
Housewife									
Student									
Other									
% of Married									
% of Literate									
% of at least one school graduate (20-24)									
% of living at urban areas									

### 2.3. Effects of adolescent's characteristics on progression to first time motherhood

This section will review individual and household level factors which are known to affect general and in particular adolescent fertility in these countries.

### 3. DATA, METHODOLOGY AND VARIABLES

#### 3.1. Data

The study will be based on retrospective survey data: Morocco Demographic and Health Survey (MDHS) 2003/04, Egypt Demographic and Health Survey (EDHS) 2005, and Turkey Demographic and Health Survey (TDHS) 2003.

The comparable information across countries is collected through Demographic and Health Surveys by means of similar questionnaires and survey procedures followed in each country. These surveys provide information on background characteristics of women interviewed and include a wide range of questions on their reproductive histories.

Below Table presents some basic information on the reporting quality of ever-married respondents

**Table Percentage of reproductive events for which respondents reported complete month and year, by country**

	Respondent's Date of		Birth Date of First Children
	Birth	Marriage	Birth date
Morocco			
Egypt			
Turkey			

#### 3.2. Methodology and Variables

The empirical part of analysis will be based on proportional-hazard (or intensity regression) models that belong to a group of event-history models, which is very useful to study several social processes (Blossfeld et. al., 2002). We will estimate the hazard of timing of first birth in adolescent ages (before age 20) after controlling the effects of various characteristics of adolescents.

Even though DHS included a wide range of retrospective questions on birth histories and contraceptive usage of women, most background characteristics were not collected with individual life histories. That is, many useful attributes of women were obtained only for their situation at the time of the survey. Thus, I will set up two data sets.

The data set will be used to explore determinants of adolescent childbearing in each country. Because I will focus effect of individual and household level characteristics on adolescent childbearing this data includes only female respondents aged 15-24 years, in (first) marital union and usual residents in the interviewed households at the time of the survey. I assume that the obtained individual and household level characteristics at the beginning of marriage and by the time of survey are not radically different for these young respondents.

**Basic information about the data set up**

<b>Start event</b>	<b>Censoring</b>	<b>Terminal event</b>
Date of first marriage	No first birth	Survey date or Date she turns to age 20 or First birth

Note: Data set includes married women aged 15-24 in their first marital union, usual residents (not visitor) and who had married before age 20

The below tables presents comparative individual and household level characteristics (independent variables) of young women in the three countries investigated

**Independent variables for examining young women's (15-24) characteristics on progression to first birth during adolescent era (15-19)**

	Variable	Categories	Availability and Formation		
			Morocco	Egypt	Turkey
<b>Individual characteristics of woman</b>					
1	Educational attainment	0 "No education/ Primary incomplete" 1 "Primary complete/Secondary incomplete" <b>2 "Secondary complete/Higher"</b>	0 "No education" 1 "Incomplete primary" 2 "Complete primary" 3 "Incomplete secondary" 4 "Complete secondary" 5 "Higher" <b>Recode:</b> 0 : 0,1 1 : 2,3 and 2 : 4,5	0 "No education" 1 "Incomplete primary" 2 "Complete primary" 3 "Incomplete secondary" 4 "Complete secondary" 5 "Higher" <b>Recode:</b> 0 : 0,1 1 : 2,3 and 2 : 4,5	0 "No education" 1 "Incomplete primary" 2 "Complete primary" 3 "Incomplete secondary" 4 "Complete secondary" 5 "Higher" <b>Recode:</b> 0 : 0,1 1 : 2,3 and 2 : 4,5
2	Childhood place of residence	1 "Urban" 2 "Rural"	0 "Rabat, Casablanca" 1 "City" 2 "Town" 3 "Countryside" 4 "Abroad" <b>Recode:</b> Urban : 0, 1, 2 and 4 Rural: 3	Not Available	1 "Province Center" 2 "District Center" 3 "Subdistrict or village" 4 "Abroad" <b>Recode:</b> Urban : 1, 2 and 4 Rural: 3
<b>Individual characteristics of husband</b>					
3	Educational attainment	0 "No education/ Primary incomplete" 1 "Primary complete/Secondary incomplete" <b>2 "Secondary complete/Higher"</b>	0 "No education" 1 "Incomplete primary" 2 "Complete primary" 3 "Incomplete secondary" 4 "Complete secondary" 5 "Higher" <b>Recode:</b> 0 : 0,1 1 : 2,3 and 2 : 4,5	0 "No education" 1 "Incomplete primary" 2 "Complete primary" 3 "Incomplete secondary" 4 "Complete secondary" 5 "Higher" <b>Recode:</b> 0 : 0,1 1 : 2,3 and 2 : 4,5	0 "No education" 1 "Incomplete primary" 2 "Complete primary" 3 "Incomplete secondary" 4 "Complete secondary" 5 "Higher" <b>Recode:</b> 0 : 0,1 1 : 2,3 and 2 : 4,5
<b>Characteristics of marriage</b>					
4	Age at marriage	14 " below 15 years " 15 "15 years " 16 "16 years " 17 "17 years " <b>18 "18 years "</b> 19 "19 years "	Available in data	Available in data	Available in data

	Variable	Categories	Availability		
			Morocco	Egypt	Turkey
5	Consanguinity	<b>0 "Not related"</b> 1 "Related"	1 "Cousin father's side" 2 "Cousin mother's side" 3 "Other parent" 4 "No tie" <b>Recode:</b> Not related: 4 Related: 1,2,3	0 "No relation" 1 "First cousin father side" 2 " First cousin mother side " 3 " Second cousin father side " 4 " Second cousin mother side " 5 " Other relative father's side" 6 " Other relative mother's side " 7 " Relative by marriage" <b>Recode:</b> Not related: 0 Related: 1,2,3,4,5,6,7	Related to husband 0 "No" 1 "Yes"
6	Age difference between spouse	<b>1 "0 to 4 years"</b> 2 "5 to 9 years" 3 "10 years or more"	Available in data (Husband's age)	Available in data (Husband's age)	Available in data (Husband's age)
<b>Status of woman</b>					
7	Woman justifies wife beating	<b>0 "No"</b> 1 "Yes"	"Wife beating justified if she goes out without telling him" neglects the children" argues with him" refuses to have sex with him" burns the food" <b>Recode:</b> No: if all of above "no" Yes: if any of above "yes"	"Wife beating justified if she goes out without telling him" neglects the children" argues with him" refuses to have sex with him" burns the food" <b>Recode:</b> No: if all of above "no" Yes: if any of above "yes"	"Wife beating justified if she Waste money" neglects the children" argues with him" refuses to intercourse" burns the food" <b>Recode:</b> No: if all of above "no" Yes: if any of above "yes"

	Variable	Categories	Availability		
			Morocco	Egypt	Turkey
<b>Characteristics of household</b>					
8	Wealth index	1 "Poorest" 2 "Poorer" 3 "Middle" 4 "Richer" 5 " <b>Richest</b> "	Available in data	Available in data	Available in data
9	Head of household	0 " <b>Woman or husband</b> " 1 "Others"	1 "Head" 2 "Wife" 3 "Daughter" 4 "Daughter-in-law" 5 "Grand-daughter" 6 "Mother" 7 "Mother-in-law" 8 "Sister" 9 "Co-spouse" 10 "Other relative" 11 "Adopted/foster child" 12 "Not related" 98 "DK" <b>Recode:</b> Woman or husband: 1,2 Others: 3 to 98	1 "Head" 2 "Wife" 3 "Daughter" 4 "Daughter-in-law" 5 "Grand-daughter" 6 "Mother" 7 "Mother-in-law" 8 "Sister" 9 "Co-spouse" 10 "Other relative" 11 "Adopted/foster child" 12 "Not related" 98 "DK" <b>Recode:</b> Woman or husband: 1,2 Others: 3 to 98	1 "Head" 2 "Wife" 3 "Daughter" 4 "Daughter-in-law" 5 "Grand-daughter" 6 "Mother" 7 "Mother-in-law" 8 "Sister" 9 "Co-spouse" 10 "Other relative" 11 "Adopted/foster child" 12 "Not related" 98 "DK" <b>Recode:</b> Woman or husband: 1,2 Others: 3 to 98

#### 4. RESULTS

Table . Relative risks (and p-values) of first-birth intensities in adolescent period of currently married women 15-24, standardized by individual and household level characteristics of women

	Morocco		Egypt		Turkey	
	Relative Risk	P-value	Relative Risk	P-value	Relative Risk	P-value
<b>Educational Attainment of Woman</b>						
No education/ Primary incomplete						
Primary complete/Secondary incomplete						
<b>Secondary complete/Higher</b>	<b>1.00</b>		<b>1.00</b>		<b>1.00</b>	
<b>Childhood Place of Residence</b>						
<b>Urban</b>	<b>1.00</b>		<b>1.00</b>		<b>1.00</b>	
Rural						
<b>Educational Attainment of Husband</b>						
No education/ Primary incomplete						
Primary complete/Secondary incomplete						
<b>Secondary complete/Higher</b>	<b>1.00</b>		<b>1.00</b>		<b>1.00</b>	
<b>Age at Marriage</b>						
Below 15 years						
15 years						
16 years						
17 years						
<b>18 years</b>	<b>1.00</b>		<b>1.00</b>		<b>1.00</b>	
19 years						
<b>Consanguinity</b>						
<b>Not related</b>	<b>1.00</b>		<b>1.00</b>		<b>1.00</b>	
Related						
<b>Age difference between spouse</b>						
<b>0 to 4 years</b>	<b>1.00</b>		<b>1.00</b>		<b>1.00</b>	
5 to 9 years						
10 years or more						
<b>Woman justifies wife beating</b>						
<b>No</b>	<b>1.00</b>		<b>1.00</b>		<b>1.00</b>	
Yes						
<b>Wealth Index</b>						
Poorest						
Poorer						
Middle						
Richer						
<b>Richest</b>	<b>1.00</b>		<b>1.00</b>		<b>1.00</b>	
<b>Head of household</b>						
<b>Woman or her husband</b>	<b>1.00</b>		<b>1.00</b>		<b>1.00</b>	
Other person						
<b>Log pseudolikelihood</b>						
<b>Wald chi2(df)</b>						

## 5. DISCUSSION

In this section I will discuss analysis findings. The study in conclusion intends to provide policy recommendations on adolescent fertility in Morocco, Egypt and Turkey in particular and in the others countries South and East Mediterranean region in general.

### References

Blossfeld, H.P., Rohwer, G. (2002). *Techniques of Event History Modeling: New Approaches to Causal Analysis* (second edition). London: Lawrence Erlbaum Associates.

Courbage Y. (1999). *New Demographic Scenarios in the Mediterranean Region*. Chaier 142, Ined/Puf.

D'Addato A.V., Vignoli, D. and Yavuz (2008) "Towards Smaller Family Size in Egypt, Morocco and Turkey: Overall Change Over Time or Socio-economic Compositional Effect?", *Population Review* 47:1 (21-40) ([http://www.populationreview.com/Articles\\_47\\_1.html](http://www.populationreview.com/Articles_47_1.html))

D'Addato A.V. (2006). "Progression to third birth in Morocco in the context of fertility transition." *Demographic Research* 15(19): 517-536.

[<http://www.demographic-research.org/volumes/vol15/19/15-19.pdf>].

Eltigani E.E. (2000). "Changes in family-building patterns in Egypt and Morocco: a comparative analysis." *International Family Planning Perspectives* 26(2): 73-78.

Eltigani E.E. (2003). "Stalled Fertility Decline in Egypt, Why?" *Population and Environment* 25(1): 41-59.

Smits, J. & A. Gündüz-Hosgör. 2006. Effects of family background characteristics on educational participation in Turkey. *International Journal of Educational Development*, 26, 545-560

Vignoli D. (2006). "Fertility change in Egypt: from second to third birth." *Demographic Research* 15(18): 499-516

Yavuz S. (2006). "Completing the fertility transition: Third birth developments by language groups in Turkey." *Demographic Research* 15(15): 435-460.

(<http://www.demographic-research.org/volumes/vol15/15/15-15.pdf>).