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Profile of Maternity Care Use in Egypt

Hassan H.M. Zaky

Professor
Department of Statistics
Faculty of Economics and Political Science
Cairo University

Research Professor
Social Research Center
American University in Cairo
hzaky@aucegypt.edu

Abstract

This study focusses on the use of maternity care services in Egypt, namely antenatal care, delivary care, and postnatal care. Trends are explored. Women who less utilize the services are identified. Provider choice perspective and determinants are also investigated. Data on the use of maternity care services in this study is drawn from information collected in the 2000 Egypt Demographic and Health Survey and 2003 Egypt Interim Demographic and Health survey for the births occurring during the five years preceeding each of the two surveys. The study confirms the fact that there are marked differences to which Egyptian women use maternity care services and rely on public or private providers for reproductive care depending on the type of services they are seeking. A typical woman who is expected not to be using maternity care services has more children (4 or more), lives in rural areas specifically in rural Upper Egypt, is less educated i.e. with no or with some primary education, or is relatively poor. The majority of antenatal care services are provided at private sector facilities, public sector facilities are the source for almost all tetanus toxoid injections, while the provision of delivery services is more evenly divided between public and private facilities.

1. Introduction

Maternal mortality rates are still high in Egypt. Estimates range between 60-80 deaths per 100,000 live births during the early 2000s. Formal maternity services (antenatal care, routine delivary and postnatal care, and the management of pregnancy-related complications) are currently being underutilized in Egypt. Rates of use are varying among different risk groups. Those living in rural areas are underserved. 41 percent of births during the five-year period preceding 2003 Egypt Interim Demographic and Health Survey (El-Zanaty et al., 2004) are occurring outside of a health facility (either in the woman's own home or in another home). Only 69 percent of births are assisted by a medical provider. Egyptian women receive antenatal care from a medical provider for more than half of the births that ocurred during the five-year period preceding the survey. Regarding postnatal care, mothers rarely report receiving care when the birth occurred in a noninstitutional setting.

This study focusses on the use of maternity care services in Egypt, namely antenatal care, delivary care, and postnatal care. Trends will be explored. Women who less utilize the services are identified. Provider choice perspective will as well be investigated. In looking at provider choice, a common dichotomy is between public and private providers. The objective of this study is to obtain a more detailed insight into the profile of the use of maternity care in Egypt. Highlighting the patterns of provider choice will be of benefit to program managers and policy makers to improve the low coverage and identify key risk groups. Research related to the use and choice of reproductive health behaviour in Egypt mainly focusses on family planning services (Khalifa, 1995; Zaky, 2003), thus leaving an integral component of reproductive health care services, which is maternity care services, univestigated. Although the need for such investigation is essential, research relating to the choice of reproductive health provider in Egypt is limited. Literature addressing aspects of the issue in other developing countries includes Brown (1989), Kemprecos and Boutros

(1993), Mayhew et al. (2000), Mitchell et al (1999), Obermeyer (1993), Okafor and Rizzuto (1994), Shiffman (2000).

This study will add to the understanding of use of maternity care in Egypt by addressing in detail the following topics:

- Current patterns of use of maternity care services,
- Trends of maternity care use indicators,
- Current patterns of reliance on public and private providers for maternity care services, and
- Consistency in provider choice for delivary care.

2. Data

Data on the use of maternity care services in this study is drawn from information collected in the 2000 Egypt Demographic and Health Survey (EDHS) and 2003 Egypt Interim Demographic and Health survey (EIDHS) for the births occurring during the five years preceeding each of the two surveys. In the 2000 EDHS, information for births was collected on the sources from which the mother received the following services: antenatal care, a tetanus toxoid injection(s), or delivery care. With regard to antenatal or tetanus toxoid services, multiple sources were coded in those cases where the mother had gone to more than one type of provider. For deliveries, the source information refers to the place of delivery.[1] For purposes of the analysis of maternity care services, source data is grouped by sector (public or private).

3. Current patterns of use of Maternity care services

Table 1 shows antenatal and delivery care statistics by various background

[1] A small proportion of respondents received assistance from a medical provider for home deliveries. Because no information is available on the type of provider (i.e., public or private), these respondents are not included in the analysis.

characteristics such as age at birth, birth order, residence, region, education, work status, and wealth index of mothers. The table records various information for 6,314 births in Egypt over a five year period preceding the EIDHS 2003.

Table (1): Antenatal and Delivery Care by Background Characteristics

Among births in the five-year period before the survey, percentage whose mothers received regular antenatal care (four or more visits), one or more tetanus toxoid injections and whose mothers delivered in a health facility according to selected background characteristics, Egypt 2003.

Background characteristics	Regular Antenatal Care	One or more TT injections	% delivered in health facility	Number of Births
Age at birth				
Less than 20	52.1	84.7	57.2	735
20-34	56.9	79.6	59.3	4,905
35-49	50.3	59.2	59.2	674
Birth order				
1	68.9	84.3	71.7	1,858
2-3	56.3	79.6	59.7	2,816
4-5	45.5	71.8	46.8	1,038
6+	28.9	62.2	37.9	602
Residence				
Urban	73.5	71.1	78.0	2,362
Rural	44.9	82.1	47.7	3.952
Region				
Urban governorates	75.4	66.2	82.5	911
Lower Egypt	61.1	83.6	65.7	2,688
Urban	76.4	75.0	81.0	751
Rural	55.2	86.9	59.8	1,937
Upper Egypt	43.5	76.5	44.5	2,715
Urban	68.0	73.5	69.1	700
Rural	35.0	77.5	36.0	2,015
Education				
No education	34.4	76.8	38.5	2,142
Some primary	45.8	79.2	52.5	638
Primary completed	56.3	82.2	59.5	1,023
Secondary completed	75.9	77.1	78.0	2,511
Work status				
Working for cash	71.3	71.9	74.3	755
Not working for cash	53.5	78.8	57.0	5,599
Wealth index				
Lowest quintile	29.2	75.8	33.8	1,366
Second quintile	44.4	82.9	45.0	1,279
Middle quintile	56.0	83.4	61.2	1,323
Fourth quintile	70.7	81.9	74.5	1,319
Highest quintile	84.9	62.9	87.3	1,029
Total	55.6	78.0	59.0	6,314

Source: EIDHS, 2003

The largest factor in influencing regular antenatal care is shown to be related to wealth, with a descrepency of 55.7 percent between the lowest quintile and the highest quintile, however all other characteristics show comparable descrepencies including education and work status, as well as birth order and rural urban divide. The age of the mother at birth is shown to have very little to do with the receiving regular anetal care or not.

In the area of TT injections, the age of the mother at birth, however, represents the highest descrepency of all the other demographics, with older mothers recieving 59.2 percent and the youngest cross-section (less than 20), recieving 84.7 percent. Perhaps somewhat surprizing is the relatively low number of mothers from the highest income bracket who recieved one or more injections.

Regarding delivery in a health facility, the higher the birth order, as well as the lower the education and income brackets, the less likely percentage wise for the mother to have delivered in a health facility. For instance, a birth of a baby to a mother in rural Upper Egypt, with no education, or in the lowest quintile of the wealth index, shows less than a 40 percent chance of delivery in a health facility.

Table 2 on postnatal care considers the same characteristics for the same data as was presented in table 1 on antenatal and delivery care. This table gives the data in terms of number of births, postnatal checkup within two days of delivery, and any postnatal care recieved at all. As would be expected, similar trends emerge as were discussed in table 1. Namely, wealth and education have a positive relationship to postnatal care, and as birth order rises, the percentage of care declines. The age of the mother

seems to have less of an infulence on wether or not care was recieved by a medical provider.

Table (2): Postnatal care for mothers by background characteristics

Percentage of births in the five-year period before the survey for the mother had the first checkup within two days of delivery and for the mother who had any postnatal care checkup from a medical provider, Egypt 2003

Background characteristics	Postnatal checkup within two days of delivery	Any postnatal care	Number of Births
Age at birth			
Less than 20	24.4	39.4	735
20-34	29.6	43.2	4,905
35-49	30.6	42.1	674
Birth order			
1	35.2	52.0	1,858
2-3	28.8	42.0	2,816
4-5	25.6	36.7	1,038
6+	17.7	27.0	602
Residence			
Urban	38.3	53.9	2,362
Rural	23.6	35.9	3.952
Region			
Urban governorates	42.3	59.4	911
Lower Egypt	32.2	47.2	2,688
Urban	38.2	53.5	751
Rural	29.8	44.8	1,937
Upper Egypt	21.6	32.5	2,715
Urban	33.1	47.2	700
Rural	17.7	27.4	2,015
Education			
No education	20.4	30.9	2,142
Some primary	28.5	39.1	638
Primary completed	28.8	40.8	1,023
Secondary completed	36.8	54.3	2,511
Work status			
Working for cash	36.3	53.0	755
Not working for cash	28.1	41.2	5,599
Wealth index			
Lowest quintile	14.7	25.2	1,366
Second quintile	24.2	34.6	1,279
Middle quintile	30.3	44.3	1,323
Fourth quintile	32.2	48.1	1,319
Highest quintile	49.0	66.7	1,029
Total	29.1	42.7	6,314

Source: EIDHS, 2003

In addition, similar general trends can be observed in both statistics presented on the table: postnatal care within two days and any post natal care at all. Overall, percentages are relatively low, with only a small sector of the wealthy or the urban population registering figures above the 50 percent mark, and only 42.7 percent of those surveyed recieving any postnatal care at all. Strikingly low is the 14.7 percent of the lowest quintile who recieve a postnatal chackup within two days of delivery.

4. Trends in maternal health indicators

The data in table 3 shows healthcare statistics for births occurring in Egypt for select years between 1988 and 2000. The three health statistics given: Regular Antenatal Care, TT Vaccinations, and Medically-assisted deliveries, are organized by Residence (rural/urban) and Region (Urban Governorates, Lower Egypt and Upper Egypt, the later two of which are further subdivided into rural and urban sub-groupings).

Table (3): Trends in maternal health indicators 1988-2003

For births in the five years preceding the survey, the percentage whose mothers had regular antenatal care, the percentage whose mothers had at least one tetanus toxoid injection, and the percentage whose mothers were assisted at delivery by a trained medical provider, by residence and region, Egypt 1988-2003.

Area	Regular Antenatal Care			TT Vaccinations					Medically-assisted deliveries				
	1995	2000	2003	1988	1992	1995	2000	2003	1988	1992	1995	2000	2003
Residence													
Urban	50.0	53.9	73.5	12.6	56.9	66.7	70.1	71.1	57.0	62.5	67.9	81.4	86.7
Rural	14.9	25.9	44.9	10.6	57.5	71.2	73.9	82.1	19.1	27.5	32.8	48.0	59.0
Region													
Urban Governorates	55.1	56.0	75.4	8.8	52.0	64.2	62.4	66.2	64.9	68.3	69.2	83.7	90.2
Lower Egypt	27.9	38.9	61.1	13.1	64.0	75.6	79.1	83.6	31.1	39.7	51.4	65.1	76.5
Urban	52.0	56.2	76.4	14.8	67.8	70.2	75.3	75.0	54.4	62.9	75.1	84.7	91.0
Rural	20.2	32.8	55.2	12.5	62.7	77.4	80.4	86.9	23.3	32.5	43.9	58.1	70.9
Upper Egypt	17.9	27.2	43.5	11.1	53.3	66.3	70.0	76.5	23.9	29.7	32.2	47.8	55.3
Urban	40.6	49.8	68.0	17.3	55.3	67.8	75.4	73.5	46.9	51.8	59.6	74.7	77.4
Rural	10.1	19.2	35.0	8.6	52.8	65.9	68.1	77.5	14.4	23.0	22.9	38.2	47.6
Total	28.3	36.7	55.6	11.4	57.8	69.5	72.4	78.0	34.6	40.7	46.3	60.9	69.4

Table 3 shows a rise in both urban and rural areas of the rate of regular antenatal care (defined by four or more visits) received by those surveyed. A rise of 23.5 percent for women living in urban areas is shown, and a rise of 30 percent is shown for women living in rural areas. This significant increase mainly occurred during the period 2000-2003. At a total of 73.5 percent, the rate of urban regular antenatal care slightly more than 160 percent the percentage of regular rural antenatal care which is shown to be 44.9 percent. This trend suggests that although rural antenatal care rose between the given years, the percentage of women receiving regular care still lagged considerably behind the urban percentage. When the same data for regular antenatal care is shown in terms of region, the table shows that all regions experienced significant increases esecially during the period 2000-2003.

In the area of TT vaccinations, nearly all regional groupings show a rise in the percentage of births whose mothers received at least one tetanus toxoid injection, and the overall rise from 1988 is a staggering 67 percent, from 11.4 (in 1988), to 78.0 (in 2003). As far as the distribution of TT vaccination percentages over the different regions, the numbers range from 66.2 percent in the urban governorates, to 86.9 percent in the rural areas of Lower Egypt. This rate of TT vaccination follows a general pattern where the percentage of mothers recieving at least one tetanus toxoid injection is greater in the rural areas than the urban areas by 3.8 percent in 2000, but rising to 11 percent in 2003.

On the final statistic on the table, namely, medically-assisted deliveries, where in the final year presented on the table, 2003, the rate of medically assisted deliveries

ranged from a low of 47.6 percent in Rural Upper Egypt to a high of 90.2 percent in the Urban Governorates. This range is the largest represented on the table, however the overall rate of medically assisted deliveries is on a steady rise from 34.6 percent in 1988 to 69.4 percent in 2003.

5. Patterns of Reliance on Public and Private Sources for Maternity Care Services

The 2000 EDHS collected information on the providers from which women received three types of maternity care services, namely antenatal care, tetanus toxoid immunization, and delivery care. These data help to expand the understanding of the choices women make in obtaining reproductive health services. Using these data, this section attempts to answer three questions:

- How are clients for maternity care services distributed by source?
- How does the source distribution among maternity care clients vary according to key background characteristics?
- Do clients appear to be consistent over time in the choice of provider for maternity care services?

5.1 Source by Type of Maternity Care Service

Table 4 shows the percentage of births during the five-year period before the survey for which mothers received various types of maternity care by the source of care according to the type of care received. The results clearly show that the type of source is strongly related to the type of care sought. Thus, while mothers of three in every four births seek antenatal care at private clinics, mothers of more than nine in

every ten births get their tetanus toxoid vaccinations at public sources. In turn, delivery care is split almost evenly between public and private sources.

Table 4: Source of maternity care
Percentage of births during the five-year period before the survey for which the mothers received various types of maternity care by the source for the care according to the type of care received, Egypt 2000

Type of source	Antenatal care	Tetanus toxoid	Medically assisted delivery
Public	23.1	93.0	46.1
Private clinical	72.8	6.1	53.9
Public and private	4.1	0.9	NA
Total percent	100.0	100.0	100.0
Number of births	5,999	8,263	5,475

Source: EDHS, 2000

5.2 Differentials in Maternity Care Sources by Background Characteristics

Tables 5 and 6 present differentials in the distributions of births according to the type of sources from which antenatal care, tetanus toxoid, and delivery care were received by selected background characteristics. Looking first at the information regarding the source of antenatal care shown in Table 5, there is virtually no variation in the patterns of reliance on public or private sources by the age of the mother at birth and urban-rural residence. The likelihood of obtaining antenatal care from public rather than private sources is somewhat greater in the Urban Governorates and the Fronties Governorates than in other areas. Differentials by education are not great except for the secondary or higher level. Private clinical providers are cited as providing antenatal care somewhat more often for births to women who work for cash than other births. Huband's employment in professional/technical/managerial is strongly related to the likelihood of obtaining antenatal care from private providers. Looking

at the wealth index, antenatal care from private providers is much more common among births to women in households in the highest wealth category than births to women in households at other levels of the scale.

Table 5: Source of antenatal care by background characteristics

Percent distribution of births in which the mother received any antenatal care by the type(s) of sources form which the care was received according to selected background characteristics, Egypt 2000.

	Source of Antenatal care				
Characteristics	**Public**	**Private clinical**	**Other**	**Total**	**Number**
Age					
15-24	28.1	74.0	0.0	102.1	1633
25-39	24.8	76.8	0.1	101.7	4095
40-49	25.1	76.6	0.1	101.7	271
Type of place of residence					
Urban	26.1	76.0	0.1	102.2	3077
Rural	25.3	76.1	0.0	101.3	2922
Region					
Urban Governorates	31.0	71.8	0.1	102.9	1342
Lower Egypt	22.5	79.0	0.0	101.5	2502
Urban	19.9	81.8	0.0	101.7	876
Rural	23.9	77.4	0.0	101.3	1625
Upper Egypt	25.8	75.6	0.1	101.5	2075
Urban	24.4	77.0	0.4	101.7	797
Rural	26.7	74.7	0.0	101.4	1278
Frontier Governorates	34.5	66.1	0.2	100.8	80
Education					
No Education	34.8	66.7	0.0	101.4	1543
Primary Incomplete	32.6	70.0	0.0	102.5	591
Primary complete, some secondary	28.7	72.7	0.0	101.3	925
Secondary Complete, higher	18.6	83.2	0.2	102.0	2940
Wealth Index Quintiles					
1	34.2	67.2	0.0	101.5	625
2	34.6	67.3	0.0	101.8	800
3	29.9	71.6	0.0	101.5	1089
4	27.4	74.2	0.0	101.7	1265
5	17.0	84.8	0.2	102.1	2220
Working for cash					
Currently working for cash	21.7	79.2	0.5	101.4	943
Not working for cash	26.4	75.4	0.0	101.9	5056
Partner's Occupation					
Prof./ Tech./ Manag.	17.0	84.6	0.2	101.8	1887
Other/ Not working	29.7	72.1	0.0	101.8	4113

Number of living children					
0-3	24.9	76.9	0.1	101.8	4675
4+	28.4	73.1	0.1	101.6	1324
Total	25.7	76.0	0.1	101.8	5999

Table 6: Source of assistance at delivary by background characteristics
Percent distribution of births in which the mother received assistance at the delivery from medical personnel by the type(s) of sources form which the care was received according to selected background characteristics, Egypt 2000.

	Assistance at delivary				
Characteristics	**Public**	**Private clinical**	**Other**	**Total**	**Number**
Age					
15-24	51.3	48.7	0.0	100.0	1455
25-39	43.8	56.2	0.1	100.0	3726
40-49	49.5	50.5	0.0	100.0	293
Type of place of residence					
Urban	47.8	52.1	0.1	100.0	3056
Rural	43.9	56.1	0.0	100.0	2419
Region					
Urban Governorates	52.4	47.4	0.2	100.0	1386
Lower Egypt	35.5	64.5	0.0	100.0	2411
Urban	34.6	65.4	0.0	100.0	892
Rural	36.0	64.0	0.0	100.0	1519
Upper Egypt	55.8	44.2	0.0	100.0	1605
Urban	54.1	45.9	0.0	100.0	724
Rural	57.1	42.9	0.0	100.0	881
Frontier Governorates	62.7	37.3	0.0	100.0	72
Education					
No Education	56.9	43.1	0.0	100.0	1336
Primary Incomplete	55.1	44.9	0.0	100.0	506
Primary complete, some secondary	55.1	44.9	0.0	100.0	877
Secondary Complete, higher	36.3	63.6	0.1	100.0	2756
Wealth Index Quintiles					
1	55.7	44.3	0.0	100.0	549
2	54.5	45.5	0.0	100.0	667
3	50.7	49.3	0.0	100.0	918
4	50.6	49.4	0.0	100.0	1142
5	36.8	63.0	0.1	100.0	2198
Working for cash					
Currently working for cash	40.5	59.2	0.3	100.0	949
Not working for cash	47.2	52.8	0.0	100.0	4525
Partner's Occupation					
Prof./ Tech./ Manag.	31.6	68.2	0.2	100.0	1721
Other/ Not working	52.7	47.3	0.0	100.0	3753
Number of living children					
0-3	45.6	54.3	0.1	100.0	4302

4+	47.7	52.3	0.0	100.0	1173
Total	46.1	53.9	0.1	100.0	5475

Source: EDHS, 2000

Public outlets generally are the source for tetanus toxoid in the case of the majority of births regardless of the mother's socio-demographic characteristics (Table not shown). However, there is clearly a somewhat greater tendency for private outlets to provide tetanus toxoid in the case of births to women at the upper end of the socio-economic scale (i.e., urban, having a secondary or higher educational level and in households at the highest level of the wealth index).

The differentials in delivery care providers generally parallel those observed for antenatal care (Table 6). There are especially marked variations by education, husband's occupation and the wealth index. For example, 63 percent of births in households who score 5 at the wealth index were delivered at private clinics, compared to less than 50 percent of the births in any other wealth index quintile.

5.3 Consistency in Choice of Public and Private Providers for Delivery Care

The EDHS collected information on the health provider for all deliveries resulting in a live birth during the five-year period before the survey. The information on the delivery care provider can be used to explore the question of whether women had more than one medically assisted delivery during the five-year period prior to the survey received this care from the same type of provider or whether they made different choices for different births.

Table 7 presents the percent distribution of women having two or more births during the five-year period before the survey in which child was delivered at a health facility according to consistency of the provider of care at dilevery. The results clearly show that the consistency in type of provider is relatively high. Only one in every five women deliverd at different facility types. Among consistent women, the majority consistently delivered at private facilities.

Table 7: Consistency of Sources for delivary care
Percent distribution of women having two or more births during the five-year period before the survey in which child was delivered at a facility according to the consistency of the provider of care at delivery, Egypt 2000.

Characteristics	Total
Type of source	
Always same type of facility	78.8
Public only	36.3
Private only	42.5
Delivered at different facility types	21.2
Total	100.0
Number	2935
Unweighted number of women	2985

Source: EDHS, 2000

6. Determinants of Choice of Reproductive Health Care Providers

In this section, multivariate techniques are used to further examine the determinants of the type of provider on which Egyptian women rely for both antenatal and delivery care services. The basic model used for exploring this question is a standard utility maximizing model which assumes that provider choice is a function of the age of individual client, her educational status, work status, husband's occupation, number of living children, future desire for children, place of residence, and household wealth. Results are presented separately for the choice of provider for antenatal care, and delivery services.

Table 8 shows the odds ratios of the binomial logit model analysis of the determinants of the type of antenatal care provider. Education, especially attainment of the secondary level or higher, are important in determining the type of provider from which women receive antenatal care services. As the woman gets older, she also is more likely to seek antenatal

Table 8:Odds ratios of binomial logit models for choice of antenatal and delivary care providers

Explanatory Variables	**Dependent Variable** Type of antenatal care provider (Private=0; Public=1)	**Dependent Variable** Type of delivery care provider (Private=0; Public=1)
Age		
15-24	Rc	Rc
25-39	0.924	0.849
40-49	0.710*	0.805
Number of living children		
0-3 children	Rc	Rc
4 or more children	0.968	0.856**
Region		
Urban Governorates	Rc	Rc
Urban Lower Egypt	0.802***	0.695***
Rural Lower Egypt	0.518***	0.361***
Urban Upper Egypt	0.711***	1.094
Rural Upper Egypt	0.508***	0.848
Frontier Governorates	1.468**	1.495***
Education		
No education	Rc	Rc
Primary complete	0.844	0.973
Primary complete/some secondary	0.457***	0.589
Secondary/higher	0.195***	0.260***
Women's work status		
Not working for cash	Rc	Rc
Working for cash	1.459***	1.271***
Husband's occupation		
Other/ Not working	Rc	Rc
Professional/technical/managerial	0.685***	0.565***
Household wealth index score		
1	Rc	Rc
2-4	1.122	1.000
5	0.900	0.868
Constant	0.176	2.721
N(number of last births)	4343	5466
Df	15	15

-2 Initial Log Likelihood		
-2 Log Likelihood	4478.546	6947.359
Rc = reference category for the variable. ***p<0.01; **p<0.05; *p<0.10		

care at private sources. Similarly, wives who are married to husbands working in managerial/technical/professional jobs are more inclined to private sources than other women. Surprisingly, Upper and Lower Egypt residents tend to go more to private sources when compared to Urban Governorates. Working women are more likely to seek services from public sector providers. Wealth has no significant impact on type of provider from which care is received.

Regarding the results for the type of provider for delivery care shown also in Table 8, births to younger women may be expected to be delivered in private facilities significantly more often births among older women. The number of births a woman has increases the odds she will deliver at a private provider. Births to women with at least secondary education or to women married to husbands working in managerial/technical/professional have a higher chance to be delivered at private providers than other births. Births in rural Lower Egypt have greater odds of being delivered at private facility while births in the Frontier Governorates have higher odds of being delivered in public facilities. Again, employed women are more likely seek services at public than other women.

7. Concluding Remarks

National strategies and programs supporting reproductive health in general and effective maternity care services in particular are considered to be essential and vital for improving the health status of mothers and for reducing fertility levels. This will eventually assist in reaching the the replacement level by the 2017, which the the target of Egypt's population strategy, in achieving the Millenuim Development Goals (MDGs) related to maternal health. The study has indicated that in spite of the improvement in maternity care use still there is a room for more improvements in different areas.

A number of conclusions can be drawn from this examination of the use of maternity care services and providers choice. The study confirms the fact that there are marked differences to which Egyptian women use maternity care services and rely on public or private providers for reproductive care depending on the type of services they are seeking. A typical woman who is expected not to be using maternity care services has more children (4 or more), lives in rural areas specifically in rural Upper Egypt, is less educated i.e. with no or with some primary education, or is relatively poor. The majority of antenatal care services are provided at private sector facilities, public sector facilities are the source for almost all tetanus toxoid injections, while the provision of delivery services is more evenly divided between public and private facilities.

It may be necessary, in fact, to understand why women are still not fully using the maternity care services. Additional qualitative studies are needed to answer this question. It is important to understand women's perceptions of a larger group of RH concepts, including health and morbidity, treatment options, the body, sexuality and even women's perceptions of the self. Such understanding, when properly used, will help providers to communicate better with women. It is also essential to emphasize the component of RH in the health sector reform program. Carefully designed and integrating RH services within this program will help improve the quality of current RH services presented at the primary health care units and accordingly increase the utilization of maternity care services as well help Egypt achieve its MDGs.

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