



جمهورية مصر العربية
الجهز المركزي للتنمية العامة والإحصاء
مركز الأبحاث والدراسات السكانية

السكّان

بحوث ودراسات
(مجلة نصف سنوية)



أبحاث
&
دراسات



يناير (٢٠٠٩)

العدد ٧٧



Arab Republic of Egypt
Central Agency for Public Mobilization & Statistics
Population Studies & Research Center

POPULATION

Researches & Studies
(Semi Annually)



Researches
&
Studies



January (2009)

Issue 77

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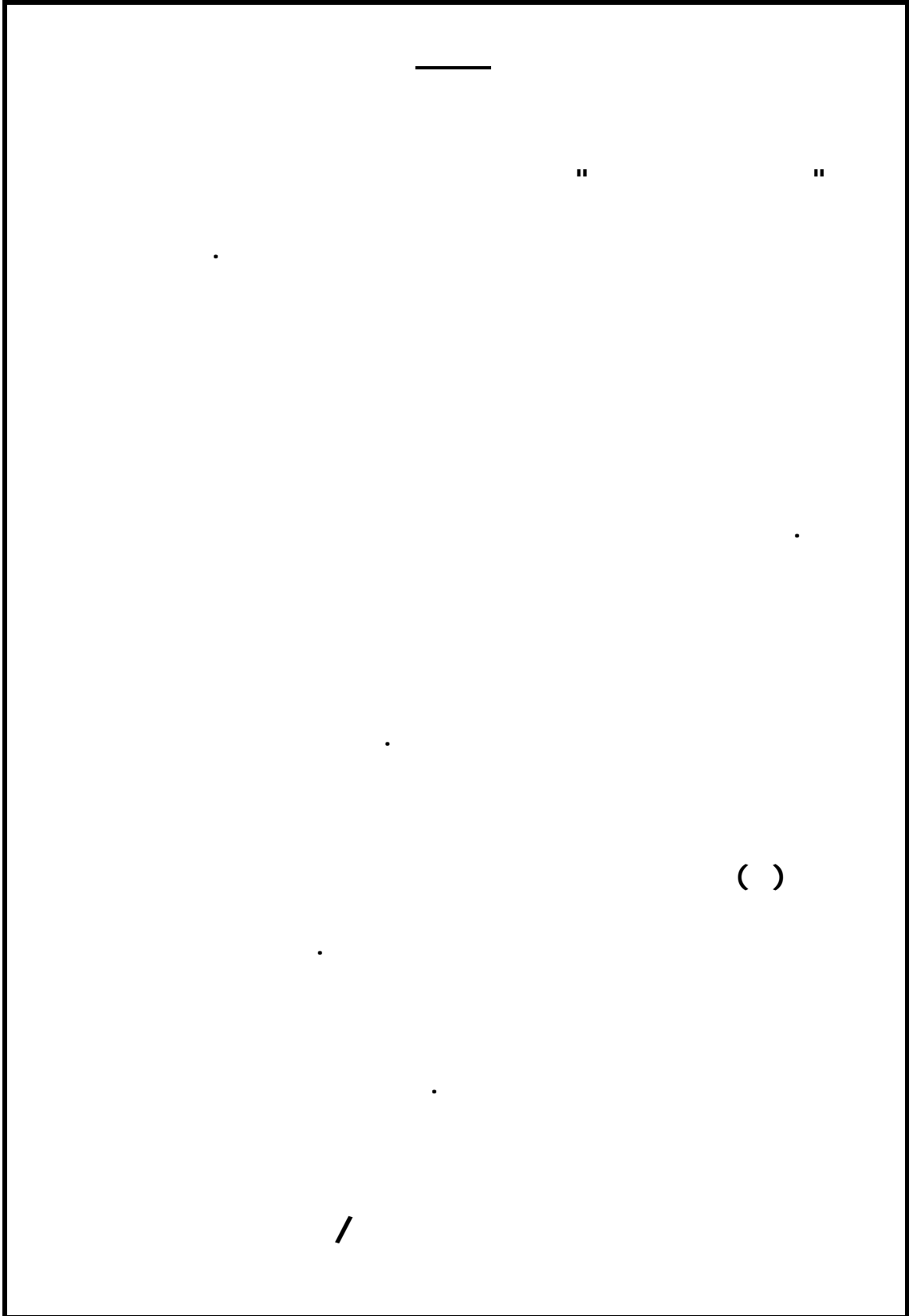
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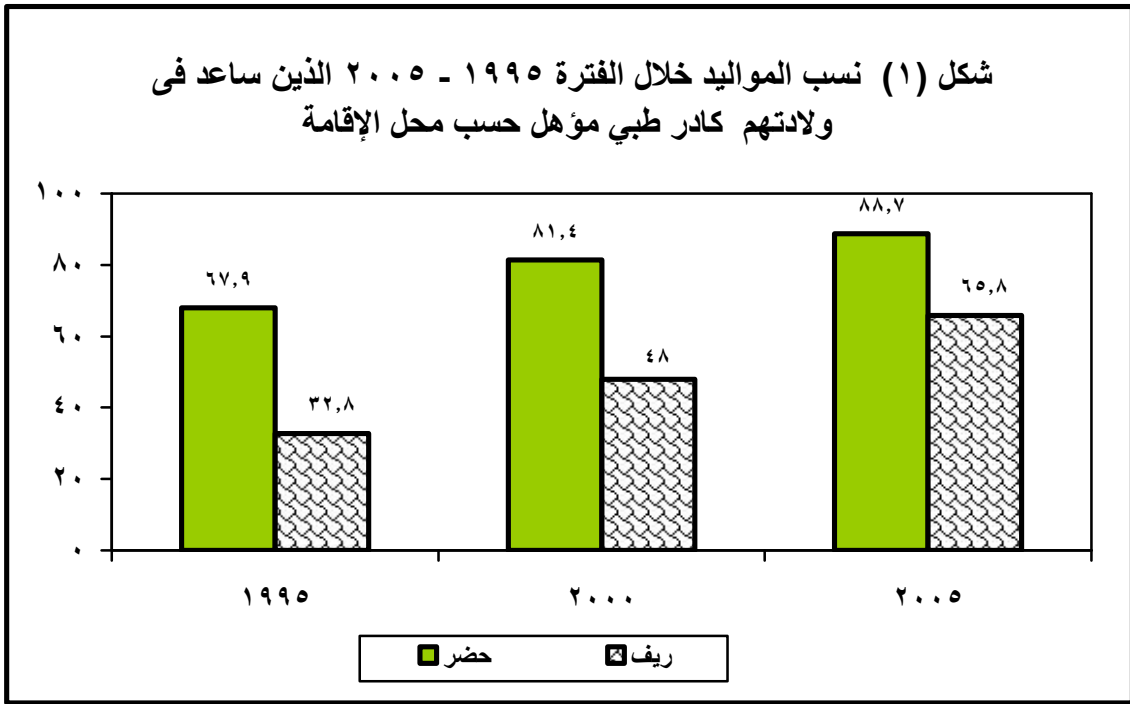
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Summary
Changes in Reproductive Health
Indicators in Egypt during
The period 1995 – 2005

Introduction:

After the International Conference on Population and Development (ICPD) in Cairo in 1994, a great deal of attention has been to reproductive health issues and many programs have been designed to improve health status in Egypt especially among women and children.

Therefore, the present study aims at examining the changes in some indicators of reproductive health in Egypt during the period 1995 – 2005 to assess the progress made towards improving reproductive health status.

I.Data and methodology:

The main source of the data used in this study is the results of Egypt Demographic Health Surveys of 1995, 2000 and 2005.

Both descriptive analysis and logistic regression technique were used to analyze the changes in reproductive health indicators and to identify their determinants during the period under consideration.

II. Results:

Analyzing levels, trends and differentials in reproductive health indicators during the period 1995 – 2005 shows that:

1. Current use of family planning methods increases over time. However the levels are higher among urban and more educated women.
2. IUD is the most commonly used method.
3. Levels of using maternal health care services increased over time from 39% in 1995 to about 70% in 2005. Such increase is clear in urban areas and among those who are working for cash.

4. Deliveries at health establishments and under the supervision of qualified persons have increased.
5. FGM has decreased although it is still high.
6. Logistic regression results support the results of descriptive analysis and indicate that women age, place of residence, education, education of husband and birth order is the main determinants of changing reproductive health indicators in Egypt.

III. Recommendations:

- 1- Although the results indicated considerable improvements over time, there is a need for more efforts for further improvements.
- 2- Socioeconomic status specially living conditions in particular in rural areas should be improved.
- 3- Women empowerment and improving their status should be promoted and improved.
- 4- Training opportunities for health services providers are needed especially in rural areas.
- 5- Advocacy program should be designed and implemented to decrease FGM especially in rural areas and among less educated and never worked women.

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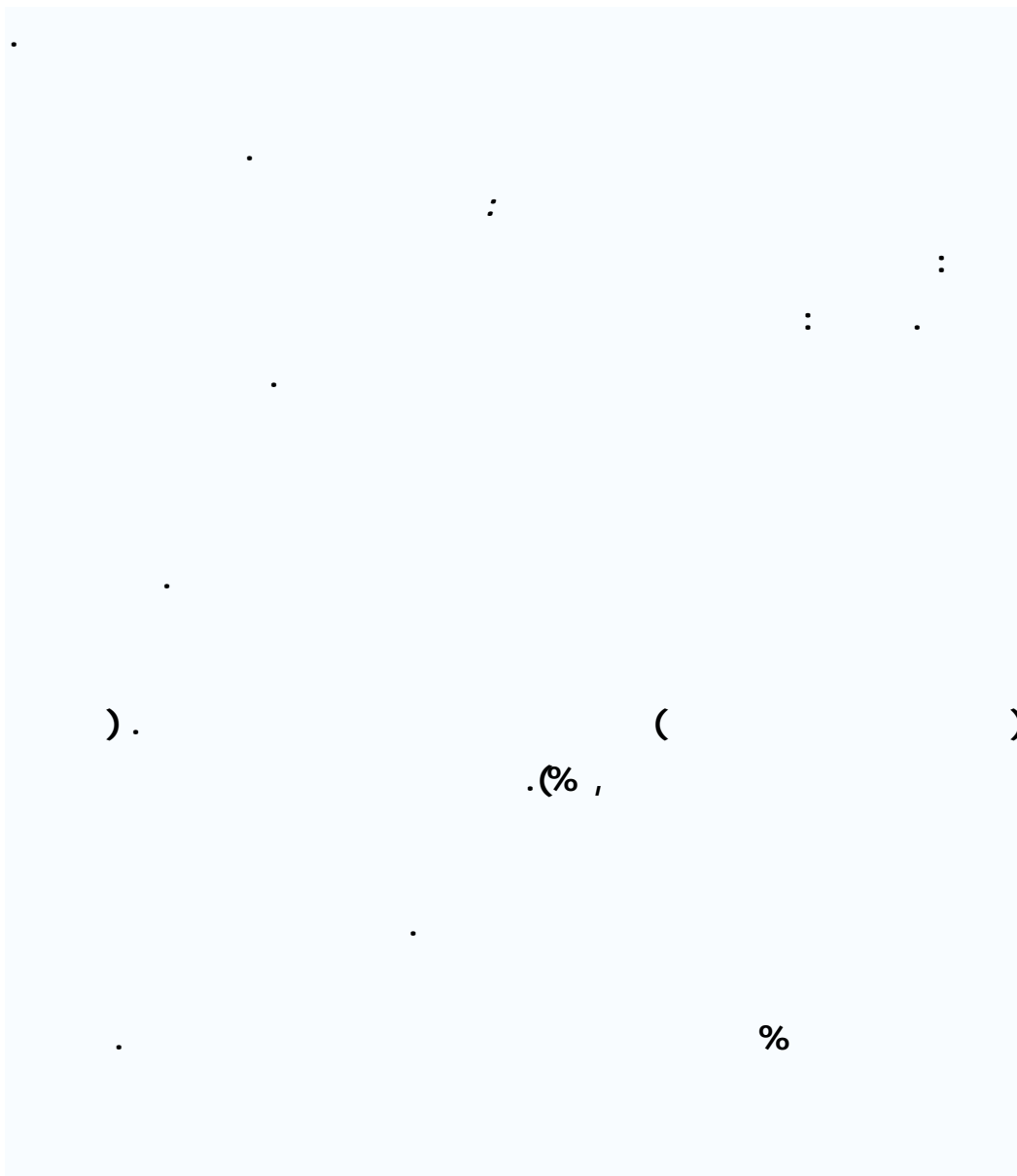
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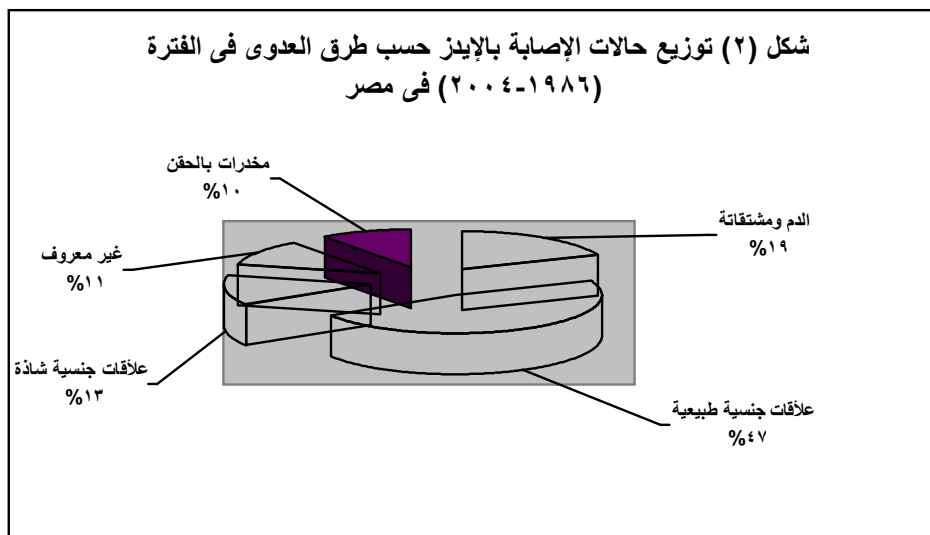
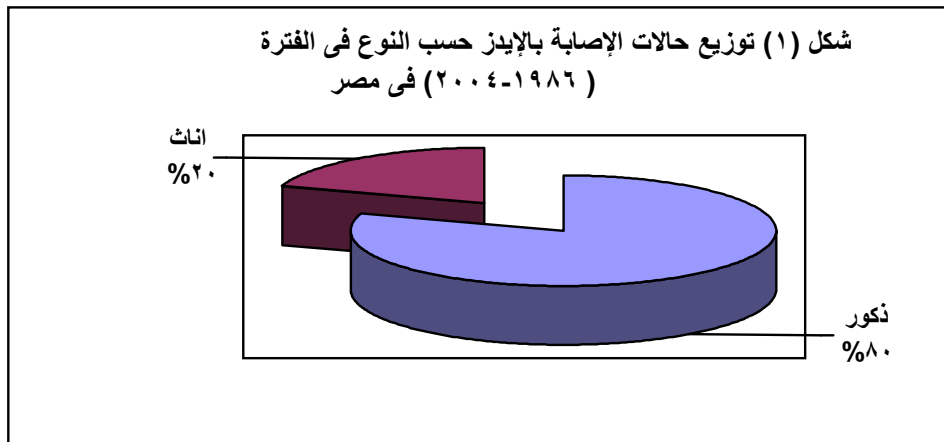
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Summary

HIV/AIDS Knowledge and Attitudes

- 1- Acquired immunodeficiency syndrome (AIDS) is one of the most serious public health and development challenges facing the world today. Although the rate of HIV infection is low in Egypt, there is a need to educate Egyptians about the disease. And assess the prevalence of knowledge of modes of HIV/AIDS transmission and prevention and attitudes towards persons living with AIDS.
- 2- Comprehensive knowledge of HIV/AIDS is defined as: knowing that both condom use and limiting sex partners to one uninfected partner are HIV prevention methods, being aware that a healthy-looking person can have HIV, and rejecting the common local misconceptions- that HIV/AIDS can be transmitted through mosquito bites and by sharing food
- 3- Although many women have a basic knowledge of AIDS, the proportions aware of ways in which the risk of infection can be reduced are generally low. Women are most likely to see limiting sex to one uninfected partner as a means of reducing the risk of transmission
- 4- To assess the extent to which women are aware of the ways in which AIDS can be transmitted from a mother to her child, and if the virus that causes AIDS can be transmitted during pregnancy, at delivery, or when breastfeeding. Around 70% women believe that the virus can be transmitted from mother to child during pregnancy and at the time of delivery while about half think that it can be transmitted by breastfeeding.
- 5- Knowledge of pregnancy and delivery as modes of transmission is higher among urban than rural women and increases sharply with both educational attainment and wealth quintile. These characteristics are also associated with a somewhat greater awareness of breastfeeding as mode of transmission

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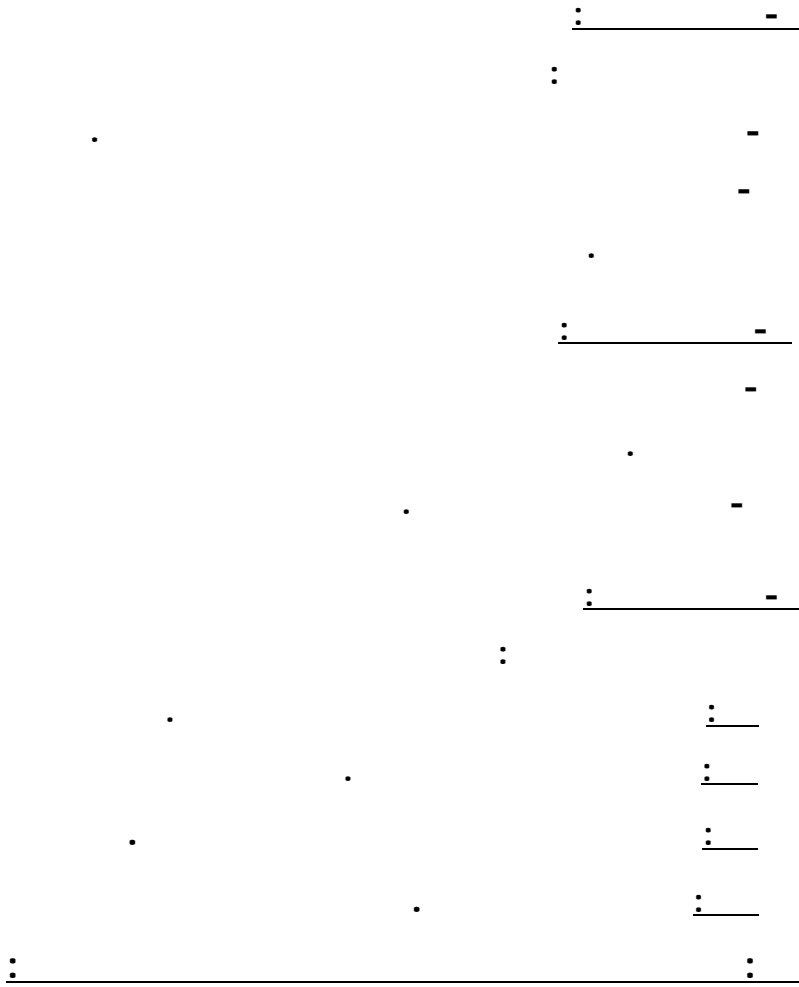
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Summary

Level and Trends for Infant Mortality in Egypt

This study has attempted to investigate levels and trends of infant mortality as well as major cause of death for its two components neonatal and post-neonatal and also reflect the social, economic and demographic conditions of population. The cause of death is considered in the analysis to show the main cause of death. In addition to various sources of data used to examine level and trends of infant mortality which included vital statistics and Demographic and health survey (DHs 2005).

The main Finding:

- 1- Infant mortality has fallen in the ten years period. They show a drop of 29 per 1000 in 1996 to 19 per 1000 in 2006.
- 2- The study showed that infant mortality levels are higher for boys than for girls in 2000,2003,2004,2006.
- 3- The main reason of Neonatal mortality due to pregnancy and delivery but respiratory infections was the main reasons of infant mortality.
- 4- There is no significant different between male and females by reasons of death.
- 5- The relationship between mortality and birth order exhibit the expected pattern of higher mortality for high order births.
- 6- The length of the previous birth interval is strongly associated with mortality levels mortality levels consistently higher at all ages among children born less than two years after a previous birth.
- 7- The effect of young maternal age at birth on mortality is evident children.
- 8- As expected mortality levels at all ages are inversely associated with the mother's educational level.

Some policy implications:

- 1- Expansion of the role of the awareness programs towards increasing the utilization of the health services.
- 2- Great efforts should be done to infant diseases, and increase the health service to decreased infant mortality.
- 3- Increasing the number of health units to increase service accessibility to reduce the infant mortality rate.
- 4- Improving the socioeconomic conditions and expanding the health care in all governorates and give more attention to Upper Egypt.

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Summary

Levels and Trends for Illiteracy of the Population and Numbers of the Labor Force

The importance of the study:

The problem of illiteracy has the right to deserve attention as a national effort to mobilize their bodies and organizations (governmental and civil) in order to address them and give them the highest priority in national plans with long-term policy to try to eradicate illiteracy and close to the originator agree with the world in a time of knowledge and global competition.

Summary of the Study:

This study aims to identify the level and Trends of illiteracy of the population and numbers of the labor force, this study showed the following:

- 1- The illiteracy rate dropped from 49.9% to 29.3% during the period 1986-2006 and despite this decline, the rate of illiteracy is still high in rural areas and among women.
- 2- Reduced illiteracy rates for young age compared to their older ages is a natural result of increased enrollment in basic education schools and other levels of education.
- 3- The Upper Governorate have the highest rate of illiteracy specially in Fayoum Governorate, where reached 66%, 57%, 41% for the years 1986, 1996, 2006 respectively, on the other hand, Suez Governorate had the highest illiteracy rate in urban Governorate which was 34.5% in 1986. the Figures show also Alexandria Governorate was 24.8% in 1996 and decreased to 19.3% in 2006. However the highest rate of illiteracy in the

border Governorate in Matrouh which was 58.4% in 1986, 46.4% in 1996, and 34.6% in 2006.

- 4- The illiteracy rate according to economic was high in the years 1986,1996,2006, in agriculture, fishing ,construction sector was 79% in year 1986 compared with 69% in year 1996 and decreased to 34% in 2006 in the constriction sector.
- 5- The highest rate of illiteracy according to occupation, among the fishery workers 79% in year 1986 and decreased to 71% in 1996 and fallen to 57% in 2006.
- 6- The illiteracy rate has not changed much for farmers, while the illiteracy rate down to workers in the rest of other occupation.
- 7- The percentage of illiterate females increase than males in labor force in some sector, such as service workers and shop and craft and relalid trade workers the rate was 40%, 50% for female compared to 20% , 32% for males respectively in 2006.

Women's Empowerment Indicators and family

Planning in Egypt

Introduction:

The United Nations Development Programme (UNDP) has recently adopted a Gender in development Goal, which includes a commitment to advocating and promoting the empowerment of women in political and economic decision-making at all levels from the household to national government and in local, national and international administrative structures. Concretely, it is suggested that empowerment will be promoted through increasing women's decision-making powers, the support of income generating activities and provision of skills and education to women.

The claims for women's empowerment to be the goal or ultimate objective of many development policies and programmers leads to a demand for indicators of empowerment, both to reveal the extend to which women are already empowered, and to evaluate if such policies and programmes have been effective towards their stated aims.

Despite the fact that more than half of world's population is women, in many societies, if not most, women are still considered less valuable than men. Their many contributions at home, the work place, and the community are overlooked and undervalued.

Women often derive status only from childbearing and child rearing; yet even in these roles they are given minimal support. All too often, women have little or no voice in decisions on the size and spacing of the family. This weaker position is directly connected with the perception of women position only as child-bearers and child-rearers, whatever else they may do.

There are a variety of ways in which indicators of empowerment can be developed. Each have some value, but none can be taken as complete measures, because the nature of empowerment as a multi-faceted concept means that it is not readily quantifiable. However, indicators of empowerment used fall into two categories: those which attempt to measure women's empowerment at a broad societal level in order to make comparisons, and those which are developed in order to measure the effects of specific projects or programmes.

Egyptian women are part and parcel of the fabric of the society, which believes in them, promotes their status, safeguards their rights in education, work and participation, and works on ensuring a positive presence for them in the political, economic and social domains.

There is little research on the precise nature of the relationship between different aspects of women's empowerment and demographic outcomes. This is in part due to the fact that, until recently, data on women's empowerment were not generally collected along with demographic data. Instead, most demographic research employed variables such as women's education and employment status to proxy empowerment levels. In this chapter, data from the 2000 EDHS are used to define three separate measures of women's empowerment: women's participation in household decision-making, freedom of movement and regular communication between spouses then build a composite index of women's empowerment, using factor analysis technique was applied.

I- Objectives of the study:

This study focuses mainly on examining the impact of women's empowerment indicator and family planning in Egypt. More specifically, the study will try to meet the following objectives:

1. Develop and customize alternative indicators to measure women's empowerment and assessing the current situation of Egyptian women.
2. Women's empowerment within the context of other socio-economic determinants of fertility and family planning in Egypt.
3. Examining the relationship between women's empowerment and family planning.

Theoretical Assumptions:

The study assumes that women's empowerment would influence their fertility level and positively affect their use of family planning.

In other words, empowered women would be keen to use family planning and have a smaller size family in order to promote their health (especially reproductive) and promote their contribution through the work force.

II- Data Sources & Limitation:

First of all, the 2005 EDHS collected information relevant to women's roles in the process of decision-making in their household, including specifically their involvement in decision about accessing health care for

themselves. The 2005EDHS surveyed a total of 19474 ever married women aged 15-49. However, the currently married women information was obtained only from 18187 women. This study is restricted to the sub sample of currently married women since the questions on household decision-making on which one of the indicators of women's empowerment is based, and on women's current contraceptive use status was asked only of currently married women.

This study firstly looks at several indicators and overall levels of women's empowerment status and then examines the association between those indicators and background characteristics, and socio-economic demographic factors in addition to marital relations. Finally, the relationship between the three indicators of women's and current use of contraception is explored, then measure the net effect of different component of women's empowerment on the current use of family planning achieving fertility level. A discussion of the correlates of these three indicators of women's empowerment is then presented. This aims to define both the factors which contribute to greater empowerment.

III- Measures of Empowerment:

This study considers three critical aspects of women's empowerment: control over decision making, freedom of movement and regular communication between spousal. Control over decision making is fundamental to the many roles that women play (daughters, wives, mothers, workers, etc) in various arenas in which they live their lives (the home, the work place, the community). As daughter, mother, wife, or worker, at home, at the work place, or in the community, a woman who has a greater say in

matters that affect her is more empowered than one who does not. Similarly, freedom of movement can be considered a fundamental measure of women's empowerment. Indeed, if women are to be in control of their own lives, their ability to enter different physical spaces as and when necessary is critical. Also communication between spousal provides an indicator of women's levels of comfort in their relationship with their husbands. Marriages in which husbands communicate with their wives are likely to be more egalitarian and afford women greater opportunities to share and exercise control. The 2005 EDHS looked not only at the issue of how women perceived health care decisions are made but also at the specific barriers to seeking care that may inhibit use of health care services, even for women who can make these decision-alone.

An examination of women's degree of control over decision-making, their freedom of movement and regular communication between spousal are of importance not only as measures of women's empowerment, but also because they are directly relevant to population and reproductive health programs.

1- Decision-Making Index:

In order to obtain insights into household decision-making process, currently married women were asked in the 2005 EDHS "who has the final say in your family on" each of six different types of decisions. From an empowerment perspective, it is important that women have decision-making power in as many areas that affect their lives as possible.

Therefore, in order to better capture the degree of control that EDHS respondents had over their lives, an index was constructed based on the number of the areas in which women reported that they participated in making decisions. The value of the index of decision-making for each woman is the total number of decisions in which the women, alone or jointly, had the final say.

On this index of decision-making, a woman is least empowered if she had an index value of 0 and most empowered if she has an index value of 6. As Table (1) show, on average, women participated in about 3.3 of the six decisions; 53 percent of women participate in three decision, and 17 percent participate in only one decision. The value of Cronbach^{*}- α for this index is 0.67 which indicates a relatively high level of cohesion among the item that make up this index.

Table (1) Percent Distribution of Currently Married Women by the Number of Decisions in which the Respondent participates, alone or with her Husband, Egypt 2005

Number of decision	Percent	Cumulative Percent	Number of women
0.00	6.1	6.1	1109
1.00	10.4	16.5	1891
2.00	16.3	32.8	2964
3.00	20.3	53.1	3693
4.00	18.2	71.3	3310
5.00	22.4	93.7	4074
6.00	6.3	100.0	1146
Total	100.0	100.0	18187
Mean number	3.3		

Source: calculated from EDHS, 2005

The Cronbach- α coefficient, which is traditionally used to measure the reliability of an index reflects how well the different items that make up the index cohere together. The higher Cronbach - α coefficient is for an index the better is the internal cohesion of the items of which the index is constructed.

2- Women's Roles in Making Decisions in households:

Table (2) describes the profile of decision-making within the family regarding six basic types of decisions (1-3) decisions about internal household issues (i.e., making large purchases, daily purchases and food to cook); (4) decisions about social activities (visits to friends and relatives); (5) decisions about women's access to health care; and (6) decisions about women's budget.

The results indicate that women clearly vary in the level of control that they have over various decisions. If a woman responded that she had a "say, either alone or jointly with husband, in decision making" her response was recoded as one, otherwise, it is recoded as zero. A composite variable was created from combining the six responses as follows:

$$I = \sum_{i=1}^n S_i, \text{ for } i = 1, \dots, n$$

Where I = the decision-making index

S_i = score on variable I equals 1 if women has a say in decision making or equals zero if not.

As shown in Table (2) woman have fairly influential roles in decision-making in minor household issues such as "food to cook" (65.8 percent have final say alone) or "daily purchases" (45.6 percent have final say alone). However, roles are reversed when it comes to decisions regarding "large purchases" for the household that presumably require a weighing of household priorities, financial commitments, what is available in the market, price, and experiences gained from contact with friends/ relatives about different products. Husbands or other household members have the final say

about large purchases in more than half of households, and only 5 percent of women say they are responsible for final decision about such purchases.

**Table (2) Index of Decision-Making
Percentage Distribution of Currently Married Women 15-49 by the Person having
the Final Say about Various Household Decisions, Egypt 2005**

Woman's decision making role	Food to cook each day	Making daily purchases	Making large purchases	Visits to friends/ relatives	Own health care	Who decides how to spend money
Woman herself has final say	65.8	45.6	5.2	12.3	32.7	6.5
Woman has final say jointly with: husband	14.8	19.9	33.5	57.9	24.8	8.0
With: Someone else	9.2	3.6	0.4	2.3	0.4	0.4
Other person has final say: husband	4.6	24.2	57.9	25.8	41.0	84.5
Someone else	5.6	6.7	3.0	1.7	1.1	0.6
Total percent	100	100	100	100	100	100
Total number of women	18187	18187	14382	18187	18187	18187

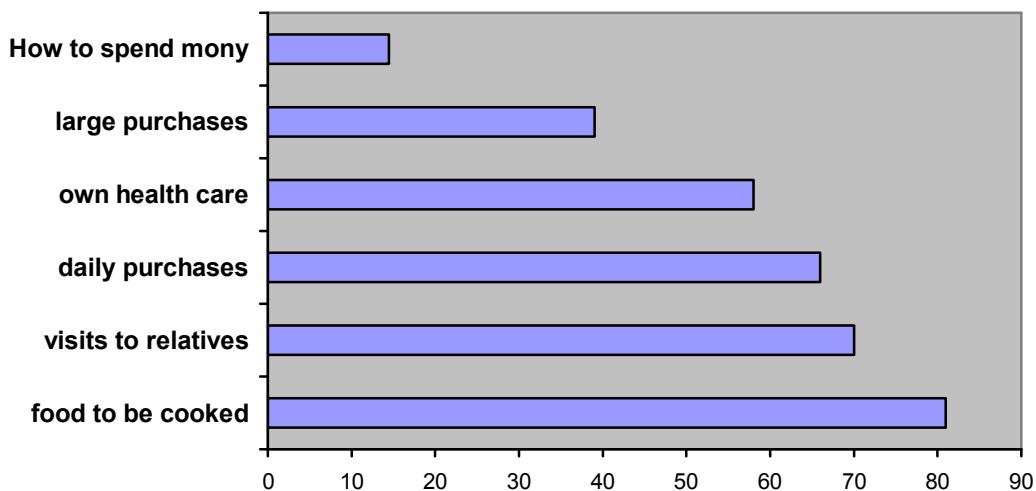
Source: EDHS, 2005

A woman's relatives and friends represent an external social environment where she may exchange life experiences with including information and opinions about health care options. In the majority of cases, the EDHS found that decisions about "friends/ relatives to visit" and when are usually an outcome of joint discussion between women and their husbands. For almost more than quarter of women, however, husbands have the final say about these social activities.

With regard to the issue of decisions about getting health care for themselves, the 2005 EDHS results suggest that women are more likely to say that they make these decisions themselves than they are to make decisions about major household purchases or social activities on their own. More than a third of the women have the final say alone over the decision to seek health care for them (32.7 percent), and around a quarter say that the decision is made jointly (24.8 percent). Nevertheless, a very substantial proportion-around forty percent of women –indicate that the husband or another household member ultimately make this type of decision.

With regard to the issue of decisions about who decides how to spend money, the results suggest that women has final say jointly with husband(8.0 percent) and around (7 percent) of the women have the final say alone. Although women did not see themselves as having the final say in many of the decisions, the range of women participating in the final decision (either alone or jointly with their husbands) varied from about 15-81 percent.

Figure (1) Percent of women who participate in household decision-making by type of decision Egypt 2005



3- Freedom of Movement Index

Women's freedom of movement can be considered a fundamental measure of women's empowerment. Indeed, if women are to be in control of their own lives, their ability to move about freely is critical.

To measure women's freedom of movement, respondents were asked six separate locations: (1) just outside the house (2-4) local health center, know where to go, getting permission to go, having to take transport, not wanting to go alone (5) homes of relatives and friends (6) when child is seriously ill, can you decide whether by yourself the child should be taken for medical treatment: are you allowed to go to..... on your own, only with children, only with another adult, or not at all? An index of the degree of women's freedom of movement was created by adding up the number of places that women were allowed to go alone or with children.

As Table (3) shows women were allowed to go alone or with their children to average of (4.2) places of the six considered; 47 percent of women were allowed going alone or with children to four places. The cumulation of women's responses into an index measuring freedom of movement had a fairly cronbach- α 0.56.

**Table (3) Freedom of Movement Index:
Percent Distribution of Currently Married Women by the Number of Places they
are Allowed to go alone or with Children, Egypt2005**

Number of places allowed to go alone or with children	Percent	Cumulative percent	Number of women
0	1.4	1.4	255
1	2.4	3.9	437
2	5.5	9.4	1000
3	13.9	23.2	2528
4	24.0	47.3	4382
5	46.5	93.8	8457
6	6.21	100.0	1128
Total	100		
Mean number		4.2	18187

Source: calculated from EDHS, 2005

4- Regular Spousal Communication Index

Regular communication between spouses is an indicator of the level of comfort spouses have within their marriage. Spouses who communicate with each other regularly are likely to respect each other's views and have a common understanding of family plans and goals. Six spousal communication items were included; whether couples had ever discussed family planning, whether they had discussed it in the past 6 months, whether women believed their spouse approved of family planning, whether they were aware of the number of children their spouse wanted family planning, who usually goes to the pharmacy to obtain current method.

The spousal communication items were treated individually and combined into an index, because factor analysis showed that they covered on one factor. The index was calculated as follows: for each item, a positive response was given a score of one, and a negative response was scored zero. A positive response was created by adding up the number of topics that spouses communicated with each other regularly. Reliability coefficients (cronbach's alpha) for the index were within acceptable limits 0.49.

It is evident from the results shown in the Table (4) to an average of; regular communication participated in about 3.7 averages of the six different topics. About 75 percent of women participate in four regular communications between spousal.

**Table (4) Regular Communication between Spousal Index
Percent Distributions of Currently Married Women by them Reported Regular
Communication with their Spouse on Specific Topics, Egypt 2005**

Items	percent	Cumulative percent	Number of women
0	1.9	1.9	346
1	3.2	5.1	582
2	9.3	14.3	1690
3	21.5	35.9	3910
4	38.9	74.7	7075
5	23.3	98.1	4238
6	1.9	100.0	346
Mean number	3.7		

Source: calculated from EDHS, 2005

IV- Correlates of women empowerment indicators:

Since many factors contribute to a woman's level of empowerment, Egyptian women are likely to vary greatly in their overall level of decision-making, freedom of movement and communication between spousal. In determining her level of empowerment a woman's own attributes such as her age, education, and employment status are important as well as the characteristics of the environment she lives in currently and the environment at which she grew up.

1-Women's Empowerment Indicators by Individual Background Characteristics:

The variation in indices of decision-making, freedom of movement and regular communication between spousal by the individual characteristics of the respondent is presented in Table (5). It shows that the mean level of the three empowerment indices increases steadily and significantly with education. On average, women with no education have a mean of 2.8 for the index of decision-making compared with 4.4 for women with higher education (4.0 compared with 4.7 for the index of freedom of movement, 3.3 compared with 4.2 for the index of regular communication between spousal). Similarly, empowerment varies significantly by whether women are employed for cash or not, and their level of media exposure.

The distribution of the mean values of the three empowerment indices by age and number of children suggests that women's empowerment increase linearly with age and with number of children; instead, it is women in the middle age groups (20-29) that appear to have both the highest freedom of movement and regular communication. Similarly, women with (3-4) children

appear to have the maximum empowerment and with no children or those with 5 or more have significantly lower levels of empowerment. Younger women have significantly lower mean values for three empowerment indices (decision-making, freedom of movement and regular communication).

Table (5) Women's Empowerment Indicators by Individual Background Characteristics
Mean values of the indices of decision- making, freedom of movement and regular communication among currently married women 15-49 by individual attributes of the women, Egypt 2005.

Woman's own attributes	Decision-making index Range(0-6)	Freedom of movement index Range(0-6)	Regular communication index Range(0-6)
<u>Education</u>			
No education	2.8 ^s	4.0 ^s	3.3 ^s
Incomplete primary	3.1 ^s	4.2 ^s	3.6 ^s
Complete primary/some secondary	3.1 ^s	4.3 ^s	3.9 ^s
Complete secondary	3.8 ^s	4.5 ^s	4.1 ^s
higher	4.4 ^{re}	4.7 ^{re}	4.2 ^{re}
<u>Current employment status</u>			
Working for cash	4.5 ^{re}	4.5 ^{re}	3.9 ^{re}
Not working for cash	3.0 ^s	4.1 ^s	3.7 ^s
<u>Media exposed to all three¹</u>			
Not exposed to all three	2.5 ^s	3.4 ^s	2.8 ^s
Exposed to any one	2.5 ^s	3.6 ^s	3.1 ^s
Exposed to any two	2.8 ^s	3.8 ^s	3.4 ^s
Exposed to any three	3.3 ^{re}	4.3 ^{re}	3.8 ^{re}
<u>Current age</u>			
15-19	2.4 ^s	3.4 ^s	3.7 ^s
20-29	3.1 ^s	4.4 ^s	3.9 ^s
30-39	3.4	4.3 ^s	3.8 ^s
40-49	3.4 ^{re}	4.3 ^{re}	3.3 ^{re}
<u>Number of living children</u>			
0	3.0	3.3 ^s	3.2 ^s
1-2	3.3 ^s	4.1 ^s	4.0 ^s
3-4	3.4 ^s	4.4 ^s	3.8 ^s
5 or more	3.0 ^{re}	4.1 ^{re}	3.3 ^{re}
Total	3.3	4.2	3.7

re=reference category against which the means of all other categories of the variable are compared to evaluate whether they are significantly different

s=significantly different from the mean of the reference category at a level of significance of at least 5%

¹ The three sources of media included are newspapers, radio and television.

Source: calculated from EDHS, 2005

2- Socio-economic and Cultural Context and Women's empowerment:

Women's empowerment is seen to be as much an attribute of their environments as it is an attribute of women themselves (Mason, K.,Smith,H. and Morgan,S. 1997). This is because the cultural context in part defines what is acceptable for women to say or do and what is not. In addition, the characteristics of the place of residence will as the socioeconomic status of the household define the actual opportunities available to women.

Table (6) presents the variation in the mean values of the women's empowerment indices by residence and the socioeconomic status of the households to which they belong. Both urban- rural residence and administrative subdivisions are used in defining the residential variables in that table. It shows that, the average values of the empowerment indices were higher among women living in urban areas than among rural women.

Also, women living in the urban governorates had the highest level on both the index of decision-making and freedom of movement. While, women living in Urban Lower Egypt had higher regular communication than any other areas.

Wealth index are used to measure the socioeconomic status of the respondent's household. The relationship, between the empowerment indices and wealth index shows that wealth index had no effect at all for the index of communication between spousal: women from wealthier households had significantly lower scores on the mean for decision-making index. Women in wealthier households had negative significant at wealth index on the three indexes.

Table (6) Women's Empowerment Indicators by Cultural and Socioeconomic Mean values of the indices of decision-making, freedom of movement and communication between spousal among currently married women 15- 49, by residence and household socioeconomic status indicators, Egypt 2005.

Residence and socioeconomic status indicators	Decision-making index range (0-6)	Freedom of movement index range (0 -6)	Regular communication range (0-6)
<u>Urban-rural residence</u>			
Urban	3.7 ^{re*}	4.5 ^{re}	3.9 ^{re}
rural	2.9 ^{s*}	4.0 ^s	3.5 ^s
<u>Place of residence</u>			
Urban Governorates	3.8 ^{re}	4.6 ^{re}	3.9 ^{re}
Lower Egypt Urban	3.8	4.4 ^s	4.1 ^s
Lower Egypt Rural	3.2 ^s	4.1 ^s	3.8 ^s
Upper Egypt Urban	3.4 ^s	4.4 ^s	3.8 ^s
Upper Egypt rural	2.6 ^s	3.9 ^s	3.2 ^s
Frontier Governorates	2.9 ^s	3.3 ^s	3.5 ^s
<u>Wealth index</u>			
1 st quintile	3.1 ^{re}	4.2 ^{re}	3.7 ^{re}
2 nd quintile	3.3 ^s	4.2	3.7
3 rd quintile	3.3 ^s	4.2 ^s	3.7
4 th quintile	3.3 ^s	4.2	3.7
5 th quintile	3.3 ^s	4.2 ^s	3.7
Total mean	3.3	4.2	3.7

Source: calculated from EDHS, 2005

* re=reference category s*= significantly

3- Women Empowerment indicators by marital and intra-spousal relations:

A woman's empowerment clearly depends on the characteristics of those who are in a position to enhance or curtail her empowerment. For a married woman, the person who is likely to have the greatest influence on her degree of empowerment is her spouse.

Intra-spousal communication provides an indicator of women's level of comfort in their relationship with their husbands. Marriages in which husbands communicate with their wives are likely to be more egalitarian and afford women greater opportunities to share and exercise control.

Table (7) presents the variation in the empowerment indices with various marital and intra-spousal relations. A later age at first marriage is a commonly used indicator of a higher status for women. This is largely because a higher age at first marriage gives women time to mature, develop life skills and finish their education before taking on the responsibilities associated with marriage. Table (7) presents the variation in the empowerment indices with various marital influences.

As Table (7) shows, the empowerment indices vary in the expected direction with both a woman's employment before marriage and her age at first marriage. On average, a women who earned cash before marriage participated in a greater number of decisions and was able to go alone to a greater number of places than women who had not worked in the modern cash economy prior to marriage.

There was a significant positive association between the age at which women first married and their scores on the three indicators of empowerment. Also as expected, the more educated the husband the higher were women's average scores on the three indices, decision-making, freedom of movement and regular communication between spousal.

It is notable that, although the association of the woman's own education with her empowerment level is stronger than that of her husband's education, the difference is small. For example, the mean decision-making score varied from 2.9 for women if their husband had no education, to 4.2 if he had higher education; correspondingly the mean value of this index varied from 2.8 if the women herself has no education to 4.4 if she had higher education. Marriage to a blood relative, while affording women some protection has nevertheless been found to be positively associated with significantly lower empowerment.

Women's freedom of movement did not vary by spousal age difference, but the likelihood of a woman's involvement in decision-making and communication between spousal varied significantly with this variable. The mean score on the decision-making index was 3.3 among women for the age difference was less than 2 years compared to 3.1 for women the age difference was 15 years or more. The mean score on the communication between spousal indexes was 3.7 among women for the age difference was less than 2 years compared to 3.3 for women the age difference was 15 years or more.

Women's empowerment level varied with intra-spousal differences in education but not in a consistent manner. Educated women who had attained the same level of schooling as their spouse had the highest mean score on the three indices followed by women who had more education than their husbands. However, women who had never attended school and whose husbands also had no education had the lowest mean score on the decision-making index and communication between spousal indexes. Thus equality of education when both husband and wife have at least some education is associated with the highest level of participation in decision-making by wives, while equality when both spouses have no education is associated with the lowest levels. The results are similar in the case of the freedom of movement index and regular communication index.

Table (7) Women's Empowerment Indicators by Marital and Intra-Spousal Relation Mean Values of the Decision-Making, Freedom of Movement, Regular Communication among Currently Married Women 15-49, by Selected Marital Characteristics, Egypt 2005

Item	Decision-making index range (0-6)	Freedom of movement index range (0-6)	Regular communication index range (0-6)
<u>Age at first marriage</u>			
<18	3.0 ^s	4.1 ^s	3.5 ^s
18-24	3.5 ^s	4.3 ^s	3.9
25+	3.9 ^{re*}	4.4 ^{re}	4.0 ^{re}
<u>Work for cash before marriage</u>			
Yes	4.1 ^{re}	4.5 ^{re}	4.0 ^{re}
No	3.1 ^s	4.1 ^s	3.6 ^s
<u>Husband's education</u>			
No education	2.9 ^s	4.0 ^s	3.3 ^s
Some primary	2.9 ^s	4.1 ^s	3.6 ^s
Completed primary/some secondary	3.1 ^s	4.2 ^s	3.7 ^s
Completed secondary	3.5 ^s	4.3 ^s	4.0 ^s
Higher	4.2 ^{re}	4.6 ^{re}	4.1 ^{re}
<u>Husband in blood relative</u>			
Yes	3.0 ^{re}	4.0 ^{re}	3.6 ^{re}
No	3.4 ^s	4.3 ^s	3.8 ^s
<u>Age difference between spouses</u>			
<2years	3.3 ^s	4.2 ^s	3.7 ^s
2-4years	3.3 ^s	4.3 ^s	3.8 ^s
5-9years	3.3 ^s	4.2 ^s	3.8 ^s
10-14years	3.2 ^s	4.2 ^s	3.7 ^s
15or more years	3.1 ^{re}	4.0 ^{re}	3.2 ^{re}
<u>Education difference between spouses</u>			
Husband less educated	3.2 ^s	4.2 ^s	3.6 ^s
Equal: both have no education	2.8 ^s	3.9 ^s	3.2 ^s
Equal: both have same level of education	3.6 ^{re}	4.4 ^{re}	4.0 ^{re}
Husband more educated	2.8 ^s	4.0 ^s	3.5 ^s

Source: calculated from EDHS, 2005

* re=reference category s*= significantly

Overall Women's Empowerment Levels:

The concept of empowerment is given different definitions and hence various ways are being proposed for its measurement with women's empowerment being the objective of many development policies and programmes, measures are needed to both reveal the extent to which women are already empowered, and to evaluate if such policies and programmes have been effective in reaching their aims. Each method has some value, but none can be taken as a complete measure.

Women's empowerment dimensions were examined in the previous section through the indices that were established to measure women's empowerment. However the complex nature of this process and the need to assess its impact of fertility and family planning requires the formulation of the overall summery index to categorize women according to their empowerment levels.

To this end, a composite index of women's empowerment, using factor analysis technique was applied. Based on the analysis carried out in the previous section it was possible to build such index for measuring women's empowerment. This was carried out using the three indexes which are:

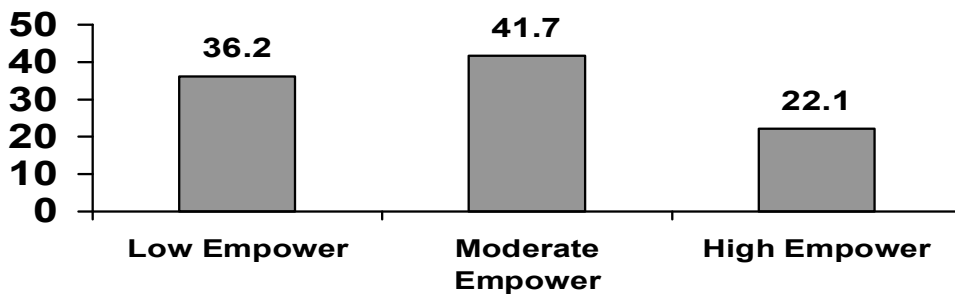
- Decision-making index which consists of six variables
- Freedom of movement index which consists of six variables
- Regular communication between spousal index which consists of six variables

Through factor analysis, the score for every woman in the sample was calculated and this represents her level of empowerment. The value of these variables, are transferred to a composite scale, which is divided into three levels. Those having more than 75% of score elements will be considered highly empowered, while those having 50%-75% of the score elements will be considered moderately empowered and less than 50% of the score elements lead to development of low empowered ones. Both moderate and high levels were considered as empowered group, while low empowerment level was considered as not empowered.

Indexing of the empowered women variable lead to three levels as the following:

Levels	No. of women	percent
Low Empowerment	6584	36.2
Moderate Empowerment	7584	41.7
High Empowerment	4019	22.1
Total	18187	100.0

Figure (2) Levels of Women's Empowerment



The resulting categories of the overall composite empowerment index were cross-tabulated with different background variable. It indicate low level of empowerment among Egyptian women, since 36.2% of women surveyed have low level of empowerment, 41.7% have moderate level, and only 22.2 % enjoy high level of empowerment.

Women's Empowerment Indicators and Use of Family Planning:

The first step to understand the dynamics of women's empowerment and its relationship with contraceptive use is to cross-tabulate women's empowerment indicators by their practice status as shown in Table (8).

It presents women's empowerment as measured by the decision-making, freedom of movement and communication between spousal indices and contraceptive use of Egyptian women's situation with regard to fertility regulation. The table clearly shows that current user's women have a significantly higher mean score on the empowerment indices than women who are not regulating their fertility through family planning.

**Table (8) Women's Empowerment Indicators by Contraception Use
Mean Values of the Decision-Making, Freedom of Movement and Communication
between Spousal Indices for Currently Married Women 15-49, by Contraceptive Use,**

Item	Decision –making index(range:0-6)	Freedom of movement index(range:0-6)	Regular communication index (range:0-6)	Number of women
<u>Currently using contraception</u> using	3.4 ^{rc}	4.4 ^{rc}	4.1 ^{rc}	10779
Not using	3.1 ^s	4.0 ^s	3.3 ^s	7408
Total	3.3	4.2	3.7	18187
rc= reference category for the variable. s= significantly different from the mean of the reference category at a level of significance of at least 5%				

Source: calculated from EDHS, 2005

Women's Empowerment Indicators and Contraceptive Use: A Multivariate Analysis:

The initial bivariate examinations of the relationship between women's empowerment and individual, contextual variables including women's age, employment, socioeconomic status, region, area, number of children, etc. Many of these variables have also been shown to affect women's use of contraception in Egypt. Thus, although the results in Table (9) suggest that women's empowerment is likely to be an important determinant of women's use of contraception, no definite conclusions can be drawn until the relationships is evaluated within a multivariate framework that controls for the variables that affect both empowerment and contraceptive use. In order to identify the factors that have the most direct and strongest association with women's empowerment, it is necessary to examine the relationships within a multivariate analysis.

The results of the multivariate regression are presented for the effect of the three empowerment variables on contraceptive use (dependent variable). However, in order to fully establish the relationship between women's empowerment variables, it is necessary to control for demographic and socio-economic variables that are associated with both the explanatory variables (decision-making, freedom of movement and communication between spousal) and the dependent variable (contraceptive use).

For dependent variable, five logistic regressions were run that controlled for women's age, education, index of media exposure, and number of living children, women's current employment status, region and area of residence, husband's education and wealth index. In the first model, only the controls were entered. In the second, third and fourth models, each of the three empowerment indices were added. In the final model, the effect of three empowerment indicators, entered simultaneously was evaluated. The results in Table (9) suggest that, after taking account of all relevant controls, a higher score on both of the empowerment indices are associated with higher odds of using contraception.

Table (9) Multivariate Regression analysis: Current Use of Contraception					
Odds ration derived from logistic regressions for current use of contraception by currently married women on women's empowerment indicators controlling for individual characteristics and socio-economic and cultural background, Egypt 2005					
EXPLANATORY VARIABLES	DEPENDENT VARIABLE				
	Current use of contraception				
	0: Not using ; 1: using				
<u>Women's Empowerment indicators</u>	Model 1	Model 2	Model 3	Model 4	Model 5
Index of decision-making		1.125**			0.979*
Index of freedom of movement			1.176***		1.128***
Index of communication				1.841***	1.821***
<u>Individual characteristics</u>					
Age	0.721***	0.717***	0.711***	0.821***	0.811***
<u>Education</u>					
No education	Re	Re	Re	Re	Re
Some primary	1.242***	1.236***	1.214***	1.140***	1.120**
Completed primary/some secondary	1.421***	1.412***	1.355***	1.208***	1.166***
Completed secondary	1.638***	1.610***	1.520***	1.304***	1.237***
Higher	1.727***	1.691***	1.575***	1.315***	1.233**
Index of media exposure	1.120***	1.116***	1.081***	-----	-----
Number of living children	2.556***	2.553***	2.491***	2.531***	2.487***
<u>Current employment status</u>					
Not working for cash	Re	Re	Re	Re	Re
Working for cash	1.364***	1.330***	1.337***	1.370***	1.352***
<u>Socioeconomic and cultural context</u>					
Place of residence					
Urban Governorates	Re	Re	Re	Re	Re
Lower Egypt	1.238***	1.238***	1.257***	1.085**	1.101**
Upper Egypt	0.527**	0.532**	0.542*	0.553**	0.565*
Frontier Governorates	0.424*	0.43	0.492*	0.420	0.468
<u>Urban-Rural residence</u>					
Rural	Re	Re	Re	Re	Re
Urban	1.446***	1.434***	1.397***	1.258***	1.229***
<u>Husband's education</u>					
No education	Re	Re	Re	Re	Re
Some primary	1.330***	1.332***	1.326***	1.231***	1.229***
Completed primary/ some secondary	1.279***	1.279***	1.273***	1.179***	1.174***
Completed secondary	1.316***	1.315***	1.311***	1.180**	1.177**
higher	1.553***	1.548***	1.544***	1.388***	1.381***

re= reference category for the variable.
***p<0.01; ** p<0.05; *P<0.10
Source: calculated from EDHS, 2005

In Model 5 an increase of one point on the index of decision-making increased the odds of using contraception by 12 percent, an increase of one point on the index of freedom of movement index increased the odds of using contraception by 17 percent and a one point increase in the score on

the communication between spousal index increased the odds of using contraception by 84 percent.

The results of Table (9) also indicate that, irrespective of controls for empowerment, there are several variables that are consistently related to women's current use of contraception. For example, the odds of using contraception were greater among women with more children, with higher education, with an educated husband. The odds of using were also greater if the woman was from Lower Egypt or the urban governorates, lived in an urban area. In addition, the older the woman was, the lower the odds of a woman using contraception. Further, women's current employment for cash appeared to consistently increase their odds of using contraception. It is notable that contraceptive use appeared to be unaffected by exposure to the media in model 4 &5.

Summary and Recommendations

Summary:

This study had two main objectives- to measure women's empowerment indicators, build index for measuring women's empowerment, to identify the correlates of women's empowerment and to examine the relationship of women's empowerment indicators and background characteristics, socio-economic demographic factors in addition to marital relation.

Specifically, three different aspects of women's empowerment were examined: women's participation in household decisions-making, their level of freedom of movement and communication between spousal. Indices that summed over the total number of decisions in which women participated alone or jointly, the number of places they were allowed to go alone or with children and number of topics which spouses communicate with each other regularly about family plans and goals were defined.

A typical woman was found to participate in 3.3 decision of the six considered, and was allowed to go out to 4.2 places of the 6 considered, and was communicated to spousal 3.7 topic of the 6 considered. It is the finding of the importance of the intra-spousal communication variables.

Women's empowerment dimensions were examined through the indices that were established to measure women's empowerment. However the complex nature of this process and the need to assess its impact of fertility and family planning requires the formulation of the overall summary index to categorize women according to their empowerment levels

The results showed that most important component was women's empowerment. The higher was the level of empowerment the higher the level of contraceptive use.

Women's education has a positive effect on contraceptive use and is significantly associated. Some what surprisingly, the multivariate analysis did not show a consistent positive relationship women's education at the higher level and use of family planning, but when treated the variable of women's education as continuous variable, it has shown a positive association with contraceptive use.

Husband's education has a positive effect on contraceptive use and is highly significant. The women whose husband education is completed secondary and higher are more likely to use family planning.

Current use has a positive and significant effect on the number of children ever born. This result can be explained by the fact that a large number of women initiate contraceptive use after reaching their desired number of children, i.e. for termination rather than spacing. Accordingly, it is expected that higher levels of contraceptive use would be observed for women with higher level of CEB.

Finally, women's decision making roles, freedom of movement and communication between spousal were greater for older women, the more children she had, if she was currently employed for cash, if she lived in an urban area.

The examination of the relationship between women's empowerment and contraceptive use was found to be positive and indicated that high-level of empowerment, as measured by the three indices, would indicate higher-level of contraceptive use.

The results indicate that use of contraception is significantly associated with all key socio-economic variables. The examination of the relationship between women's empowerment and current use of family planning showed that the rate of current use of family planning among empowered women was higher than those among the not empowered ones .

Recommendations:

Based on the preceding discussion, several recommendations can be introduced for women empowerment and betterment of their characteristics in order to participate in a much more effective way with men for achieving economic and social growth and progress. Thus recommendations revolve around the following issues:

- Given that, women education was found to be strong predictor through out this study. The Government policies have to promote more efforts to enforce compulsory education to implement large-scale adult education in order to eradicate illiteracy on a national basis. This will not only help to reduce the gap between the knowledge and practice of contraception but also the demographic and socio-economic development goals can easily be achieved.
- Further efforts to increase women status in Egypt and to activate their role in all aspects of life, should be carried out at three levels:

1. Upgrade women characteristics through: eradicate illiteracy, raise their educational level, and increase their participation in economic activities and delaying the marriage age.
 2. Attempt to change the negative attitudes and traditions against the importance of female partnership in all aspects of life.
 3. Enlightenment women with their rights and their effective role in society.
 4. Conduct meetings to increase awareness of FP, side effects of contraceptive and advantages of a small family.
- Awareness programs about family planning should target men and inform them about the economic and other advantages of few children in family, if they controlled their fertility.
 - Promote programmes to enable women and men to reconcile work and family responsibilities and to encourage men to share equally with women household and child-care responsibilities.
 - Women empowerment programs which focus on women education and economic development should include awareness of women right to participate and promoting women in the political life and taking part in all political parties.
 - Empowering women by elevating them from their status was the final solution to strengthen women's course to be side- by side with men as their companions in all spheres of life.

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