A Study of Comparison Between Community Based and Facility Based Estimates of Contraceptives Prevalence Rates in two Upper Egyptian Governorates

Thesis

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بسم الله الرحمن الرحيم
قَالُوا سُبْحَانَكَ لاَ عِلْمَ لَنَا إِلاَّ مَا
عَلَّمْتَنَا إِنَّكَ أَنتَ الْعَلِيمُ الْحَكِيمُ
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List of Abbreviations

CAPMAS	:	Central Agency for Public Mobilization and Statistics
CPR	:	Contraceptive Prevalence Rate
CYP	:	Couple Years Protection
EDHS	:	Egyptian Demographic and Health Survey
FP	:	Family Planning
HIS	:	Health Information System
ICPD	:	International Conference on Population and Development
IUD	:	Intra Uterine Device
MOHP	:	Ministry of Health and Population
MWRA	:	Married Women In Reproductive Age
NPC	:	National Population Council
PHCU	:	Primary Health Care Unit
QIP	:	Quality Improvement Program
RH	:	Reproductive Health
RHS	:	Reproductive Health Survey
RR	:	Raedat Refiat (outreach social change workers)
SPA	:	Service Provision Assessment
TFR	:	Total Fertility Rate
USAID	:	United States Agency for International Development (USAID)
WFS	:	The World Fertility Survey

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Comparison between community based and facility based estimates of contraceptives prevalence rates in two Upper Egyptian governorates

Protocol

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Introduction:

The family planning (FP) program progress has slowed during the past 15 years, and fertility rates have almost stabilized as of 1995, except for some limited improvement in rural Upper Egypt. However, according to Egyptian demographic health survey 2008, unmet needs for FP in rural Upper Egypt are still high (15.4%), reflecting problems related to accessibility and/or quality of care *(El-Zanaty &Way2009).*

Although between the years 2000 and 2008 substantial improvement in contraceptive use occurred in Upper Egypt governorates, the Contraceptive Prevalence Rates (CPR) there are still the lowest among Egypt governorates. Sohag, for instance, records the lowest CPR (36.6%) *(El-Zanaty &Way2009)*.

Actions are recommended to help couples meet their reproductive goals and support the principle of voluntary choice in family planning.(UN/ICPD,1994)

The socio-economic characteristics of women, notably educational levels, have been argued to explain differences in reproductive behavior and contraceptive choices. *(Anju et al,1995).* In this context, current tendency among MOHP/FP policy makers is to confront the critical situation in rural Upper Egypt through decentralization of the planning process to a village-level based on the principle that what works in one place may not suit elsewhere.

In order to guarantee the effectiveness of this new strategy, FP service providers have to assume the responsibility of

identification of local needs and planning at the individual community level by themselves.

The Ministry of Economic Development, in collaboration with the World Bank, issued its Poverty Assessment Report in Egypt in mid-2007. This report included a presentation of a 'Poverty Map' in Egypt. The most important outcome of the poverty map has been the identification of the 1000+ poorest villages in Egypt and the setting of the basis for targeting poor households to eliminate extreme poverty. Three governorates in Upper Egypt (Assiut, Menya and Suhag) account for about 82% of the total poor in the poorest 1000+ villages, and for 794 villages (Egypt Human Development Report 2010)

To provide a powerful tool for assessing success of the planning at the poor village level approach, the CPR will be used as an indicator to monitor the effectiveness of the intervention.

To estimate CPR at the village level, accurate data are needed. Unfortunately, the national surveys, like Demographic and Health Survey (DHS), do not provide data at the village level, and in exceptional cases data are available at governorate level.

Currently, MOHP FP clinics estimate the CPR by dividing Couple Years Protection (CYP) by the number of married women in reproductive age group (15-49).

CYP is calculated by multiplying the amount of each method distributed to clients by a conversion factor for each method, to yield an estimate of the duration of contraceptive protection

provided per unit of that method *(Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000).* The CYPs for each method are then summed over all methods to obtain a total CYP.

This estimation assumes that all contraceptive users in the target community have received service through the MOHP FP clinic only, the assumption which is not always valid.

The other method to estimate CPR for each village is a population door-to-door household survey, which can be conducted periodically to monitor and evaluate the performance of MOHP's clinics.

It might be useful to conduct a study to compare CPRs derived from both FP records and household surveys. Such a study is more likely to clarify the discrepancy between the two approaches (facility based estimate and population based calculation). The results of this study could provide a meaningful evidence to help policy makers shift from the traditional approach, to a more realistic and effective one based on actual surveys to estimate CPR.

Research question:

Does estimated CPR derived from FP records differ substantially from those derived from community-based surveys of the same community? What are the possible associated factors behind these differences, if any?

Research Objectives:

1. To determine the CPR using two different approaches (FP clinic based and population based survey).

2. To assess concordance between both CPR estimates

Subjects & methods:

The Ministry of Health & population has started in a population database for each family in the poorest 1000+ villages as a basis of micro plans preparation at the level of each village to increase the rates of use of family planning services.

An analytical cross sectional study will be implemented. A door to door survey is conducted as part of an ongoing MOHP program using outreach workers and a group of specialized supervisors, implemented by primary care team members under central supervision from the FP sector at the MOHP.

The vast majority of villages of Asuit and Sohag governorates will be used as a target population as they have a big number of the poorest villages. Also, they have lowest CPR (47.4% and 36% respectively) among all governorates; the national average is 60.3 percent (El-Zanaty &Way2009).

All those villages will be included in the study (comprehensive sample). All married women at reproductive age will be interviewed and screened for FP practice according to the contraceptive method used.

For each village, the raw data obtained from the population based surveys will be processed to calculate CPR for each target community, as well as an estimate for CPR from dispensing figures in each primary health care unit (providing FP services).

Concordance between both estimates will be assessed to find out the extent of association and factors affecting the strength

of association e.g. extent of provision of services by governmental sources, extent of overlap between areas covered by different providers (women obtaining the services from provider outside the village), provider mix, FP method mix, socio-economic level, educational level, and village size.

Tools:

The survey questionnaire was designed in a simple manner that can be used by the social change agents (Raedat Rifiat). They went around from house to house and personally obtain the information from the family members.

A simple form is used to gather information about the contraceptives dispensed, by each clinic broken down by each FP method, and the estimated MWRA from all family planning clinics in each governorate.

Data management and statistical analysis:

Using the SPSS software version 19, collected data will be entered, cleaned and checked for completeness and accuracy. Cross tabulations will be performed to find out the extent of associations, and significance test such as chi square test will be used to assess the significance of associations.

Ethical considerations:

1. An informed oral consent will be obtained from every subject enrolled in the study before completion of the questionnaire.

2. Confidentiality of the information recorded in the questionnaire will be maintained throughout the work.

References:

1. El-Zanaty, Fatma and Ann Way. 2009 Egypt Demographic and Health Survey 2008. Cairo, Egypt : Ministry of Health, El-Zanaty and Associates, and Macro International.

2. United Nations (UN), International Conference on Population and Development, Program of Action, New York: UN, 1994.

3. Anju Malhotra, Vanneman Reeve, and Kishor Sunita. (1995). "Fertility, dimensions of patriarchy, and development in India", Population and Development Review; 21: 281-305.

4. World Bank and Ministry of Economic Development *(* 2007*),* Arab Republic of Egypt: A Poverty Assessment Update, Report No 39885-EGT, World Bank, Washington DC.

5. The Egyptian Institute of National Planning.2010. The Egypt Human Development Report 2010, Youth in Egypt: Building our Future, Cairo

6. Wishik, S.M. and K. Chen. 1973. Couple. years of Protection: A Measure of Family Planning Program Output. New York, NY: Columbia University, International Institute for the Study of Human Reproduction.

7. Stover, J., J.T. Bertrand, and J. Shelton. 2000. Empirically-based Conversion Factors for Calculating CYP... Evaluation Review 24, 1: 3-46.

Introduction

In Cairo in 1994, nearly 180 governments signed the International Conference on Population and Development (ICPD) Programme of Action, agreeing to develop national strategies that would ensure all individuals and couples access to a full range of reproductive health services as soon as possible and no later than 2015 **(The POLICY Project, 2000).**

In 1999, at a meeting for ICPD+5 to review progress on implementation of the Cairo agenda, the United Nations urged governments to "strive to ensure that by 2015 all primary health care and family planning facilities are able to provide, directly or through referral, the widest achievable range of safe and effective family planning and contraceptive methods; essential obstetric care; prevention and management of reproductive tract infections, including sexually transmitted diseases, and barrier methods (such as female and male condoms and microbicides if available) to prevent infection" **(United Nations, 1999).**

The evidence is clear: Family planning improves health, reduces poverty, and empowers women. Yet, today, more than 200 million women in the developing world want to avoid pregnancy but are not using a modern method of contraception. They face many obstacles, including lack of access to information and health care services, opposition from their husbands and communities, misperceptions about side effects, and cost. If these obstacles could be overcome and the demand for family planning met, 54 million unintended pregnancies, more than 79,000 maternal deaths, and more than a million infant deaths could be averted each year. Families could save more and begin to break the grip of poverty. And communities could make greater investments in education, health care, and infrastructure. **(Population Council, 2012).**