

A Review of the Ishraq Program's
Quasi-Experimental Impact Evaluation

MPP Professional Paper

In Partial Fulfillment of the Master of Public Policy Degree Requirements
The Hubert H. Humphrey Institute of Public Affairs
The University of Minnesota

Kristine M. Ringler
May 19th, 2009

Professor Ragui Assaad
Signature of Paper Supervisor,
Certifying successful completion of oral presentation

Date of oral presentation

Professor Ragui Assaad
Signature of Paper Supervisor,
Certifying successful completion of professional paper

Date

Assistant Professor Greta Friedemann-Sanchez
Signature of Second Committee Member,
Certifying successful completion of professional paper

Date

Abstract

The Ishraq Program for adolescent girls assesses outcomes that aim to increase their agency within an environment that does not fully recognize them. Does creating a safe space intervention program provide rural adolescent Egyptian girls with empowerment to make informed decisions about life issues? Girls in rural Upper Egypt face risks of poverty, illiteracy, early marriage, high fertility, genital cutting, poor health and domestic violence. When adolescent girls lack general awareness of their well being, they fail to have decision-making skills that could alleviate future poverty cycles. Being left out of formal education or a public space to socialize isolates girls. Social norms in rural Upper Egypt create this isolation among girls who are no longer involved in education and therefore have become invisible within their communities and their households. Coordinators of the Ishraq program –an effort in rural Upper Egypt designed to empower adolescent girls--are aware of the importance of evaluative research and have designed their program to include research and impact analysis components. The following review assesses the impact evaluation that was conducted for the pilot phase of the Ishraq program in rural Upper Egypt. Through background information and review of the program's intervention and design, that this analysis critiques the Ishraq Program Full Report (2007), unless otherwise noted (Brady et al 2007). It is worth mentioning that since the pilot phase, Ishraq has begun its expansion phase. However, the results from this next phase are not yet available. The review makes several recommendations to be considered for the on-going Ishraq Program.

Introduction

Multi-dimensional development programs have recognized the need to move from service-based initiatives to comprehensive collaborative efforts. Quantifying the costs and benefits of international development programs is important when justifying funding needs. It may not always be possible to receive government backing, as development policies may take time to institute given the institutional capacities of developing country bureaucracies. Intervention programs can provide development strategies to change poor societal norms that perpetuate a life of low-educational attainment and poverty across generations. Evaluative research built into social intervention programs enables development policymakers to assess the impact of these program on the desired outcomes and, ultimately, to direct resources to more effective interventions.

Integrated international development programs that simultaneously affect more than one outcome can have broader impact than isolated initiatives. For example, the PROGRESA initiative to alleviate poverty in Mexico is a multifaceted intervention that jointly addresses concerns about health, education, and nutrition rather than just one issue. Each concern does not occur within a vacuum and overlapping poverty issues connect in a variety of ways that are dependent on societal norms and policy constraints. More attention to identifying policy relevant questions that will have lasting positive effects at the community level should address these concerns. In doing so, the strong encouragement given to governments and implementation agencies to integrate impact evaluations into social programs can result in a more effective utilization of development resources.

The importance of impact analysis has become clear, as developing countries with international agency partnerships have adopted broad social assistance programs in the second half of the twentieth century. Despite efforts to alleviate poverty, many social programs did not contribute significantly to reducing poverty due to high costs and poor program design, management, and implementation (Skoufias 2005). Some programs have been service-based, which does provide assistance to needy individuals. However, providing only inputs with little to no outcome sustainability does not alleviate inter-generational hardships. The question of how to improve the outcomes of development efforts began to be answered by looking at previous programs through evaluative research (Ravallion 2008). Lessons could be learned from past policies and experiences, and could provide insight to improve future programs so that they have more effective results and eventually lead to appropriate policies to meet a region's needs.

Although governments and development agencies are beginning to realize the value of measuring development effectiveness they must be willing and able to invest resources in

evaluative research. Often it is hard to recognize or justify spending on evaluation when it does not directly impact the program's community or has a large lag-time. Therefore evaluative research remains an underutilized tool. Furthermore, constraints that limit development effectiveness are not always addressed by the methods used in impact evaluation (Ravallion 2008).

The Ishraq Program described in this paper designed its intervention to include evaluative research and impact analysis components. During the pilot phase of the program, Ishraq implemented an intervention that reached one of Egypt's most disadvantaged segments of its population. Through the program, adolescent girls who were out-of-school and lacked basic knowledge of their well being were given a second chance to attend or return to school. This opportunity for girls was conducted within the poorest region of Egypt. The district of Samalut in rural Upper Egypt was chosen to reach this specific population, due to its low human development aspects. I will present the context of rural Upper Egypt followed by, implications of the problem, the intervention, evaluation design, analysis of the evaluation and a summary of findings with recommendations.

Rural Upper Egypt

Egypt has a total of 26 governorates and of those the eight governorates that are located in the Nile Valley constitute Upper Egypt (DHS 2005). Upper Egypt consists of a thin strip of land that runs along the Nile River. It extends through the governorates of Aswan and north to Qena, Sohag, Assiut, Al-Minya, Beni Suef, Fayoum and Giza (see Figure 1 in Appendix) (Assaad et al 2007). Upper Egypt consists of both urban and rural communities, however Upper Egypt displays larger disparities between urban and rural areas compared to the rest of the country.

Rural Upper Egypt places high importance on agricultural land around the Nile. Most families in this rural area rely on farming, as either small landowners, landless workers, producing cotton, wheat, rice, clover, or raising water buffalo, sheep and goats. Despite major foreign assistance and national policy efforts, this region still remains impoverished and is considered to be Egypt's most disadvantaged region. There are persistent disparities among Egypt's rural and urban populations in indicators of health, social status and economic development. Moreover, Upper Egypt is more isolated, less prosperous and more socially conservative than the Egyptian Delta (Assaad et al 2007).

Among Arab countries, Egypt has the largest and most densely settled populations. The Arab Republic of Egypt Central Agency for Public Mobilisation and Statistics (CAPMAS) reports the most recent population census completed for the country was in 2006. The results indicated a population size of 72.8 million people. Today the population is estimated at 76.6 million people. Overall, Egypt's population increased by 50% between 1986 and 2006, with the share of rural areas increasing slightly from 55.8% in 1986 to 56.9% in 2006. (CAPMAS 2006).

The most recent Demographic Health Survey (DHS) country report explains that "the age structure of the household population reflects the effects of past demographic trends, particularly high fertility" (see Figure 2 in appendix) (DHS 2005,14). Of the household population, 56% were less than 25 years old and one-third were less than 15 years old. The proportion under age 15 was greater in rural at 37%, compared to 31% in urban areas. The report states this is due to lower fertility in urban vs. rural areas (DHS 2005).

The United Nations (UN) World Population Prospects for adolescents between the ages of 10 to 19 indicate a decrease within the cohort over the next 20 years. The percentage of 10 to 19 year olds was 22% in 2005 and is projected to decrease to 18% in 2025 (see Tables 1 to 3 in

appendix) (World Population Prospects 2009). While the projections illustrate a decrease in the future in the proportion of adolescents, it is clear that this age group will continue to constitute an important share of Egypt's population for the foreseeable future.

In 2005, there were nearly 8.5 million girls in their second decade of life in all of Egypt, of which about 30% live in rural Upper Egypt (calculated from Assaad et al 2007, p. 4 and World Population Prospects 2009). Many of these girls receive at least nine years of schooling, which is more than their parents received, but girls in rural Upper Egypt continue to be highly disadvantaged in this regard compared to their counterparts elsewhere in Egypt (Assaad et al 2007).

Implications of the Problem

According to the most recent Egypt Labor Market Panel Survey (ELMPS) of 2006, 26% of adolescent girls ages 13 to 19 living in rural Upper Egypt received no schooling or they dropped out within the first two years. This 26% translates into more than 380,000 girls (13 to 19 years old) who are approaching adulthood will be without the proper skills and resources to succeed in a rapidly changing world because of missing out on school. Girls who are not enrolled in school, are hindered by community norms that dictate their development chances (Assaad et al 2007). Even though there are laws mandating free education in state-run schools for all children, starting at the age of six, there continues to be a difference specifically with girls ages 11 to 15. "An estimated 26% of rural Upper Egyptian girls ages 11 to 15 were out of school in 2006" (Assaad et al 2007,6). This means that 160 thousand girls between 11 to 15 years old were not in school, with many of them scattered among small and isolated villages (Assaad et al, 2007). Furthermore, girls ages 12 to 14 that had ever enrolled and had dropped out was 11% compared to boys at 7% (see Figure 3 in Appendix). The dropout figures for girls' ages 15 to 19 are higher,

with a significant gap between rural Upper Egypt (26%) and the rest of the country (16%), (Assaad et al 2007).

Not only are enrollment and dropout rates discouraging for girls in rural Upper Egypt, but also their limited opportunities due to cultural norms. Adolescent girls face restrictions of their mobility and participation within their own communities because parents fear for their daughters' reputations. Parents want their daughters to remain ready for marriage without a tarnished name. Therefore, girls remain socially invisible from public spaces such as youth centers and sports facilities. Most girls lack awareness of their civil and legal rights, as well as their sense of entitlement. Family and community members, who view girls as inferior, repeat this type of seclusion and keep girls from public life (Assaad et al 2007). This is further "reflected in young women's age at marriage, fertility, maternal mortality and the prevalence of female genital mutilation" (El Zanaty and Way 2006,5). The median age for women in urban governorates to marry is 23 years old compared to rural Upper Egypt at 18 years old. The legal age to marry in Egypt is currently 16 years of age for girls and 18 for boys. However, a number of social and economic barriers relating to gender roles, poverty and girls' invisible status in public policy forums keep them from fully accessing their rights (Assaad et al 2007). These barriers have continued to be perpetuated across generations despite national mandates set forth by the Supreme Council for Youth on improving the educational status of girls.

Adolescent girls in rural Upper Egypt are marrying younger and also having more children compared to the rest of the country. There have been changes with trends in fertility behavior in the past 25 years. Even though fertility in Egypt has decreased by more than two births per woman, from 5.3 births in 1980 to 3.1 births in 2005, the birth rate is still higher in rural Egypt compared to urban settings. The fertility rate is 3.4 births in rural areas, which is 25%

higher than the 2.7 births in urban areas. Moreover, the fertility levels in rural Upper Egypt are 3.9 births per woman. Girls between the ages of 15 to 19 have around 19 births per 1,000 in urban governorates and 41 births in Lower Egypt. The figures in rural Upper Egypt “show a staggering 67 births per 1,000 in the same age group” (El Zanaty and Way, 2006).

“Over 40% of Egypt's poor can be found in rural Upper Egypt” (Assaad et al 2007,15). Many adolescent girls have little knowledge about their reproductive health and overall general health. Information about reproductive topics is considered shameful until girls are married. During the pilot phase of the Ishraq Program, girls were asked six different questions about their menstrual cycle. Many of them had little to no knowledge of their menstruation in advance to their first period. These girls rarely, if at all have ever visited health centers. This burden of poor health becomes a problem because girls do not have proper knowledge of what kind of resources they should be accessing for their own well being (Assaad et al 2007). Girls in rural Upper Egypt therefore remain unaware of their own health options for themselves and their children.

Rural Upper Egypt has a higher child mortality rate than urban governorates. According to the 2005 DHS report on Egypt, “under-five mortality in rural Upper Egypt is 72 deaths per 1,000 births, around 80% higher than under-five mortality in rural Lower Egypt, which is 40 deaths per 1,000 births” (DHS 2005,113). The child mortality rate in rural Upper Egypt (16 per 1,000) is twice as high as the rate in rural Lower Egypt (6 per 1,000) (DHS 2005).

These trends in rural Upper Egypt led four non-government organization (NGO) partners, Caritas Egypt, Centre for Development and Population Activities (CEDPA), the Population Council and Save the Children collaborated with two government agencies, Ministry of Youth and the National Council for Childhood and Motherhood (NCCM) to address the situation of out of school adolescent girls. These partners chose the Minya governorate in rural Upper Egypt,

because it is one of Egypt's poorest governorates and that has some of the lowest social development indicators. The partners were encouraged to address the vulnerability of Upper Egypt's most isolated population, namely out-of-school girls ages 13 to 15. These girls are a segment of Egypt's population that have been the hardest to reach and thus largely underserved by other programs (Brady et al 2007). It was recognized that in order to reach the large number of disadvantaged girls, both local mobilization of communities and a concerted policy shift to make resources and leadership available on a broad scale was needed (Assaad et al 2007).

The Intervention

The Ishraq "enlightenment" pilot program began in 2001 is a non-formal education intervention program for girls between the ages of 13 to 15 in rural Upper Egypt. The program was created to give out-of-school adolescent girls a second-chance with building knowledge, self-confidence, and life skills. By intervening during adolescence and by addressing family and social norms, the program seeks to effect lasting change that will translate into progress across generations.

The short-term objectives of the program were to have more girls enroll in school for the first time or return (second-chance). It also sought to raise girls' awareness on health and right issues, to increase better attitudes on gender roles, to make and keep friends and oppose genital cutting. Furthermore, it aims to raise literacy rates with greater academic skills and to participate in sports. The program's long-term goal was to have Ishraq institutionalize within existing government agencies, NGOs, youth centers, community development associations. Ultimately, to achieve sustainability and align with national objectives, which are mandated through the Supreme Council to improve girls' educational status and participation within the community (Brady et al 2007).

The program was carried-out in four rural villages in the Minya governorate and enrolled 277 girls over an intervention period of 30 months. Girls met four times a week, for up to three hours each time. Each group encompassed 25 girls, with female secondary school graduates serving as the teachers, along with other role models and girls' advocates (Brady et al 2007). The program activities fell into four categories, described below, which were spread out over various timeframes within the 30 months.

Literacy

The literacy component aimed to give girls the proper reading and writing skills to pass the official Ministry of Education examination, known as the General Authority of Literacy and Adult Education exam (Brady et al 2007,14). This part of the curriculum is known as *Learn to Be Free*. It is one of the most successful literacy courses in Egypt, developed by Caritas, a Catholic NGO. The method focused on participation in the classroom to emphasize expressing and respecting opinions, with the intention of encouraging the girls' re-entry into formal education.

Life Skills

The New Horizons life skills curriculum was developed by the Centre for Development and Population Activities (CEDPA) and funded by USAID. It was designed to raise girl's awareness of self, family, health and social issues. The program was intended to raise self-confidence, increase knowledge and build skills based on real-life situations. The curriculum covers life skills, including communication, negotiation, reproductive health, marriage, and gender-based violence. This curriculum is known as one of Egypt's most important informal education programs that have served young girls and women. Furthermore, it is the only nationwide program of its kind that has been adopted by over 230 NGOs (Brady et al 2007).

Sports and Physical Activity

Ishraq's aim was to increase girl's participation in sports and help them to develop healthy values and self-esteem. The sports component began six months after the initial start of the program, lasted for a total of 13 months, and occurred twice a week for 90 minutes. The activities were conducted at youth centers that had walls surrounding the play area, which would enable girls to learn and play in safety and comfort.

Home Skills and Livelihoods

Ishraq provides training included both home and vocational skills. The home skills prepare the girls for their future roles as mother and homemaker, including making cheese and jam, and sewing. Vocational training provided included electrical appliance management and repair, hairdressing, and production of sweets.

In an effort to have a comprehensive effect, another aspect was to educate and influence attitudes and behaviors of gatekeepers, such as parents, brothers and community members, toward girls and their capabilities. Lastly, Ishraq wants to improve local and national policymakers' support for girl-friendly measures and policies (Brady et al 2007).

Evaluation Design

The Population Council recognized that programs to intervene before marriage and childbearing years (i.e. during adolescence) would need to be established to break continued intergenerational traps. The Council along with research partners found in 1997, through the first nationally representative Adolescent and social Change in Egypt (ASCE) survey, that while many young people were receiving more education than their parents, adolescent girls were disproportionately disadvantaged. It also revealed a concern that existing programs were not addressing cycles of illiteracy, poor job prospects, and social isolation (El Tawila et al 1999).

A Review of the Ishraq Program's Quasi-Experimental Impact Evaluation

The ASCE survey found that adolescent girls faced gender gaps in education, health and livelihood opportunities. It also found that an environment for public engagement was not popular for youth, especially for adolescent girls, in which socializing outside the home was not allowed. Boys were more able to socialize on the streets and play sports, versus girls who could only be involved in household work or school, if they were allowed to attend (Brady et al 2007).

The Population Council conducted evaluation design and analysis using a quasi-experimental pre-test post-test study. The design randomized by villages but then allowed girls to self-select into the program. It then compared responses of the sample participants and non-participants before and after the program in intervention and control villages. The impact therefore is assessed to learn the effects of the outcomes. The impact of the program on various outcomes could therefore be assessed using a difference-in-difference (DD) methodology (Ravallion 2008). The design also controlled for various observable characteristics with a multivariate analyses of some program outcomes (Brady et al 2007).

The design not only implemented quantifiable methods for observable characteristics, it also utilized qualitative methods through several information gathering techniques. It did this by way of focus groups, unstructured interviews that monitored changes among the girls, local program promoters and families. Observations were also completed within classes and training sessions and with parents and community meetings. This allowed for midpoint adjustments to the intervention in recognition of village dynamics.

Achieving Randomization

The program targeted rural Upper Egypt because poverty is widespread and child mortality rates are higher than in other parts of the country, as well as rates of non-enrollment in school.

The preference for quantity in childbearing is due to farming responsibilities that require more helping hands. This ties into the notion that rural Upper Egypt remains in a societal norm configuration that relies predominately on family farming versus individual wage labor (Brady et al 2007). The two major problems that led to the Ishraq intervention were therefore poverty and rapid demographic growth. These problems coupled with little awareness of gender roles can be detrimental to a community's future well being if left unchecked. Therefore the program further narrowed its process to target the governorate of Minya.

Al Minya governorate is home to the district of Samalut, which was chosen because of the relative consistency of characteristics between villages and the general isolation of these villages. These characteristics are: poverty, lack of public services, low literacy rates, proportion of girls not enrolled in school, scarcity of secondary schools and/or vocational training facilities.

The six villages were selected from among the 39 villages that make up the Samalut district. First villages that had a usable youth center with a wall surrounding it were identified and then the six villages were randomly selected from among them.

Selecting Participants

Those eligible for the program were girls in the selected intervention villages between the ages of 13-15 years of age and not enrolled in school. Of all eligible girls in the four villages, 277 self-selected into the program, while 176 did not participate. There were 134 girls who met the eligibility criteria in the control villages. The importance of girls between the ages of 13-15 years of age is to increase the likelihood she can enter or reenter lower secondary school before the age of 18. Once a girl reaches the age of 18, she is no longer eligible to enter lower secondary school. This is regardless of circumstance and her academic preparation (Brady et al 2007).

Data Collection

A Review of the Ishraq Program's Quasi-Experimental Impact Evaluation

The Ishraq partners sought to learn as much as possible about adolescent girls living within the selected villages. A household census identified eligible girls 13-15 years of age (target group) who were not in school. It was from this village census that eligible girls were surveyed at the beginning of the program. The research team collected information from the girls and their families in a baseline survey--before the intervention started and after the intervention in an endline survey (Brady et al 2007). The endline survey results were then used to measure the impacts of the intervention. For the 65 girls who joined the program after the original starting period and that were not missed in the baseline, mid-line data was collected and treated as baseline data.

Outcome Measurements

The following outcomes were measured to assess the impact of the intervention. They were collected from participants, non-participants, mothers, fathers and brothers.

- Attitudes about marriage and childbearing.
- Attitudes about age of marriage and number of children.
- Literacy, education and practical skills were measured through simple reading, writing, and math exercise completion.
- High levels of work among girls measured work-habits at baseline/midpoint and endline.
- Friendship and peer networks surveyed attitudes about the girl's mobility and social networks after reaching puberty.
- Gender role attitudes measured girls attitudes based on a gender role attitude index.
- Health knowledge and behavior measured female Genital Cutting prevalence. This measured the number of girls that had experienced it before, and after the intervention.
- Sports and recreation activities measured base and endline information about the amount of time playing sports and attitudes regarding sports.
- Harassment and violence measured attitudes about physical abuse, verbal harassment, as well as attitudes about deserving physical discipline.

Results on Program Impact

The main intent of impact evaluation is to determine outcomes of program intervention. This is done through comparisons between comparable treatment and control groups, using

baseline (or midline) and endline measurements. Evaluation of the Ishraq program also included comparison of the changes from baseline to endline between non-participants in program villages and three categories (based on level of participation) of program participants: participation for 1 year or less, participation for 13-29 months, participation for the full 30 months. The evaluation can provide valuable information as to whether a program or policy should be improved (World Bank 2009).

Furthermore, evaluation determines the causal effect of a program by estimating the impact of the program on participants, by inferring what would have happened in the absence of the program (the counterfactual). Therefore, evaluative research, such that is used in the Ishraq program examines the project's cost and benefits (ex ante) and the process and impact of the evaluation being administered (ex post) (Assaad 2009).

Literacy, Education, Practical Skills

Results of the evaluation show that, of the girls who remained in the Ishraq program for the full 30 months, 68.5 % returned to formal schooling. Further, math and reading skills of those girls also showed statistically significant increases. Based on testing of the coefficient of the independent dummy variable for full-term participants, those participants showed significantly greater abilities in all categories. The estimated coefficients were all positive with statistical significance at 99.9% and 95% confidence levels. The girls who participated in the program, but dropped out early, still performed better than non-participants in the control villages and non-participants in the treatment villages. In terms of practical skill improvement, girls who participated in the program had greater ability prior to program implementation, but were also more likely to improve in their abilities by the end of the program.

High Levels of Work Among Girls

Among girls who had participated in Ishraq, those who were enrolled in middle school at the time of the endline survey were at least as likely to be working as those girls who were out of school. The result suggests that work is not necessarily incompatible with studying if the hours worked per day are fairly low. The result shows that even though they study, they still work in the field only 10% less than girls not in school. Overall, there were 78% of girls in school working one to four hours per day, compared to 70% of girls not in school. This means entering the program will not significantly reduce the hours a girl works, or her income.

Attitudes about marriage and childbearing

Results show that the longer the girls participated in the program the more likely they were to have less desire to marry before the age of 18. The greatest result is in the full-term participant case; the decline was from 26% of desiring to marry at the baseline to 1% at the endline (see Figure 4 in Appendix). There was no significant difference in results between girls living in program villages who did not participate in the program and those in the control villages. Moreover, attitudes about who should make decisions governing the marriage are also changed. Only 4% of girls with 13 to 29 months of exposure and 1% of full-term participants mentioned that a girl should not have the right to select her husband. Attitudes about fertility and childbearing also changed with time. The desire for girls to have fewer than three children rose among all groups from baseline to endline (see Figure 6 in Appendix). At the end of the program 17% of girls surveyed were married. Of the full-term participants, 5% were married by the endline survey and the girls who marry have higher risk of losing their friends and peer network.

Gender role attitudes

Overall, gender role attitudes appear to become more equitable as girls mature. The result shows that the girls who participated in the program for less than one year did not have

significantly different results in comparison to the girls with no participation. On the other hand, girls with full-term participation clearly changed the most with a statistically significant result. The full-term mean score changed from approximately 4.5 to 8 with the difference being significant at 99.9% confidence.

Health Knowledge and behavior

There were small rates of increase in Female Genital Cutting (FGC) prevalence between baseline and endline in the program. Most of the girls had already been circumcised by the beginning of the program thus the program had little impact on the first generation and made results regarding the potential impact of the program on FGC unclear. Surveys regarding the attitudes of girls toward circumcising their daughters did show significant change from baseline to endline for all girls surveyed. However, the longer a girl participated in the program, the lower her intention for FGC. Full participants' results dropped from 55% intending to circumcise to less than 5%. This meant the program had the impact to change the attitude of the girls for FGC but actual outcomes should be measured on future generations.

Sports and recreation

The sports outcome was only measured at the end of the program and the results show that 94% of participants enjoyed playing sports and 99% would encourage their daughters to do so. The girls felt they had benefited from playing sports; 90% had improved physical health and 59% percent had improved mental health. The endline survey found that half of the Ishraq graduates would continue playing sports, compared to only 10% of non-participants and 3% in control villages who actually played sports.

Harassment and Violence

A Review of the Ishraq Program's Quasi-Experimental Impact Evaluation

There was concern that as girls participated more in social activities, it would lead to higher potential for various harassment and violence behavior. Overall, participation in Ishraq did not appear to have association with greater exposure to verbal harassment. However, there was an interesting increase in harassment at the endline survey for full-term participants. This was thought to be due to girls becoming more aware of what constitutes harassment and therefore more able to communicate this after the program.

Of girls who experience verbal harassment sometimes or often, there was an increase from 30% in the baseline survey to almost 45% in the endline survey. Within family violence, there was significant change between nonparticipants and full-term participants attitudes. The violence outcome was only measured in the endline survey among the proportion of girls. The percent of a girl's attitude who thinks she "should be beaten if she disobeys her brother," dropped from nearly 90% to just above 60%. The percent of girls who agree that girls "should be beaten if she goes out without permission" also dropped from 90% to 80%. (Brady et al 2007,28).

The outcomes of the program met the intended goals but there were a few that had slightly different results. Of the Friendship and Peer Network outcome, girls created the networks only when involved for the full-term of the program. Girls', who married early and left before completing the program, did not generate the peer network connection. The Gender Role outcome reached girls who finished the full-term of the program. However, it did not meet the goal if their participation was less than a year. Of the Health Knowledge and Behavior outcome, the rate of FGC would decrease only for future generations. The effect did not have a significant impact for the first generation.

From the impact result above, all of the outcomes would meet the expected goals for the program only for full-term participation. Interestingly, the outcome might not have an impact at all for the first generation participants, in regards to the health knowledge outcome. Although, some results illustrate that if the girls do not attend the program for the full duration, then the program might not benefit them. Because being a participant was not randomly assigned, there are classical concerns of selection bias.

In addition, attitudinal behavior could be short lived and problems of whether a long-term change will occur are questioned, especially with the girls' gatekeepers. Furthermore, there is concern with misreporting of what the expected attitude change should be and calls into question again whether the program changed core behaviors for girls' to make better decisions with regard to their own life choices.

Analysis of Program Evaluation

Selection Bias

Ideally, when designing for program evaluation, participants are selected for the program randomly. Often, however, entirely random selection is not possible when working with human subjects, nor is it desirable from a social program standpoint. Because the Ishraq program evaluation is quasi-experimental (randomly chose villages, but not the participants), differences in program between participants and non-participants had to be addressed through regression analysis. However, this only corrects for potential selection on observables. The differences between participants and non-participants were correlated with characteristics that influence the program outcomes (i.e. girls may have been more motivated to participate and may have better outcomes in the absence of the program anyways).

A Review of the Ishraq Program's Quasi-Experimental Impact Evaluation

There is also a correlated effect among the three participant categories; participation for 1 year or less, participation for 13-29 months, participation for the full 30 months, that demonstrates systematic difference among the groups. For example, the behavior of being self-motivated (unobservable characteristic) can affect the outcomes and self-selection into the program, and therefore participation becomes endogenous within the design. Therefore, the unobservable outcomes have an effect on both the outcome and selection into the program, leading to the potential of selection bias on measuring the impact on the outcome of interest.

Another example of why selection bias may happen could be due to parents that are more traditional vs. non-traditional, who would be more likely to withdraw their daughters from the Ishraq program early. This could be a factor that could also influence many of the outcomes that were measured and has not been corrected for.

The final report addresses that the selectivity bias was partially corrected for when researchers controlled for various observable characteristics through a regression analysis. However, the analysis cannot address selectivity on unobservable characteristics using the double difference method, because there are time varying outcomes (i.e. age of marriage and genital cutting). Expansion phases of Ishraq could consider addressing selection issues that are associated with unobservables that also determine participation or retention. For example, girls who prefer early marriage rather than later marriage may result in dropout behavior compared to girls who stay in the program will prefer to marry later, which leads to selection and not the impact of the program.

Another consideration for determining bias is the systematic differences between the control villages and treatment villages. Among the five villages, based on descriptions in the Full Report, characteristics seem to vary drastically. For example, religious beliefs among villages

varied. Program evaluation did not control for such unobservable differences, which will generate bias. The socio-cultural norms, such as religious beliefs (Christian vs. Muslim), possibly have correlation with the outcome of FGC. Findings on FGC for all girls surveyed are unclear. Villages have different traditions on FGC, including typical age of circumcision. Results may vary depending on when the girl is circumcised and when the survey is taken.

Measurement Issues

In program evaluation, determining what to measure can impact the clarity of findings. One example, in which the Ishraq program measurements could improve, is in the determination of verbal abuse. Results from the study show that full term participants experience more verbal abuse. What is not clear, but important, is to determine why the girls that completed the program experience more harassment. The report recognizes that girls have greater awareness of what constitutes verbal harassment and therefore would be likely to report higher frequency. Another possibility that would impact interpretation of the results is that girls who participate in the full program are also more likely to gain confidence and other skills that encourage being in public more frequently and therefore more susceptible to harassment (Brady et al 2007,28).

Furthermore, girls could be impacted by similar programs, had Ishraq not been implemented. For example, given that the *New Horizons* program was quite widespread across Egypt, it is very possible that it or a similar program exists in the control villages. Consequently, the impact measured in the evaluation is a measure of the impacts of Ishraq compared to impacts on the community by alternative programs, rather than nothing at all, which is an important distinction.

Leakage

Leakage of program impacts may be an issue for the Ishraq program. Because the villages come from the same region and they are targeted at many community members--from parents and siblings, to other community members. For example, a sibling of a participant has the potential to influence other participants in a nearby village about the program. There is also the likelihood that leakage could occur from participants to non-participants in the same village by talking to their friends. This could have an unintended effect, positive or negative on the outcomes being measured. It also, could hinder responses to survey questions of future participants. Girls in potential expansion phase villages could possibly hear about the program and therefore answer questions to surveys the way they think they should, rather than answering with no preconceived notions.

Another possible misrepresentation in the data is the possibility that government or other suppliers of similar programs may have shifted aid to other communities once they discovered that the Ishraq program would be implemented in certain villages. In such a case, some outcomes may have resulted in the treatment villages had Ishraq not been implemented.

Implementation Issues

Because the Ishraq program relies on promoters (female mentors) from within villages to conduct the program, an issue that arises is the consistency of program delivery. It was unclear based on program reports what emphasis there was placed on the curriculum mechanics and how they vary from village to village. If training for the young women who led the program's curriculum is inconsistent between villages, results may be skewed.

Comparison

Comparison to other intervention programs is one way to learn and prepare a better evaluation design or adapt a program evaluation in progress. For example, observable indicators

can reveal a larger program impact that can help guide adjustments to other outcomes that could not have been predicted.

A program that is comparable to Ishraq in terms of evaluation is the Mexican social program called PROGRESA. Both Ishraq and PROGRESA use the double difference analysis. The International Food Policy Research Institute (IFPRI) conducted an analysis of PROGRESA from 1998-2000. PROGRESA's multifaceted approach to reduce poverty through simultaneous intervention in health, education, and nutrition. This type of multifaceted intervention is believed to have a greater social return than isolated implementation.

Although the program proved effective, the design was not without flaws, specifically in evaluation design. One key constraint to the program was that its objectives were limited to two years, although there were clear long-term goals. The program was then limited to measuring results that would give limited insight into long-term impacts. IFPRI's critique of PROGRESA (Oportunidades) is similar to that of the Ishraq program, in the fact that its Pilot Phase objectives were to effect adolescent girls for the long-term, but resulted in short-term indicators to be evaluated (Skoufias 2005).

For any program to see real effects over time, the same group of individuals should be questioned after program outcomes have time to truly surface. For the Ishraq program, it would be valuable to question girls from the program and from the control groups five and 10 years later. Although longitudinal research could help reveal the lasting impact of the intervention, financial constraints are an inhibitor for program evaluation. If possible, funding should be included for comprehensive evaluation, which can reveal important points in addition to short-term evaluation findings.

Because program experimental evaluation is relatively new in the social development field compared to medical treatment trials, many funders believe evaluation is something that can be conducted after the program has been completed or well into its phase. This is not optimal, as an evaluation designed properly will be integrated in the program from the beginning all the way through the end. The IFPRI evaluation of PROGRESA (Oportunidades) recognized that “program evaluation can improve the design and implementation of programs so that they can have a greater effect on household welfare” (Skoufias 2005,x). Additionally, program evaluation allows governments to have a stronger effect on social welfare when applied consistently. This will result in more efficient reallocation of the same budget, if funding is through the government, for resources from less to more effective programs (Skoufias 2005).

Innovation of Ishraq

There are three components to the Ishraq program that make it unique among the international development community. Ishraq provides several benefits for adolescent girls living in rural Upper Egypt. It gives them opportunities to socialize in a safe environment, both physically and psychologically. It provides girls' who have dropped out of school with a second chance for education. Most importantly, it empowers girls' to make life skill choices that will benefit the next generation living in Upper Egypt.

One of the most important features that Ishraq provides is the intervention component. It is an innovative concept that targets a specific age of girls. The reason for intervening in girls' lives between the ages of 13-15 years is to reach them early enough within the life cycle to have meaningful and lasting impact on their life course. This age group has not yet met the demands of raising children and is not obligated to a family of their own. By intervening during these

adolescent years, Ishraq can more effectively build skills that will enable girls to make appropriate decisions throughout their adult lives.

The Ishraq program also addresses the World Bank's World Development Report 2007. The report clearly defines strategies that are important to reach the next generation by providing quality opportunities for youth of today. It recognizes what policy makers must keep in mind when choosing programs to influence the future of developing nations. Ishraq aligns itself innovatively with the strategies of the World Bank (WB) by implementing a "second chance" program that impacts adolescent girls. Through the Ishraq program, adolescent girls gain a safe place to socialize, foster a will to learn, and develop a healthy lifestyle that includes starting a family at an appropriate time (World Development Report 2007).

The three strategic directions the 2007 report has implemented are providing opportunities by developing human capital; encourage young people's capabilities to recognize decision-making agents and providing a second chance through targeted programs. Ishraq is a "second chance" intervention that attempts to reach vulnerable girls in rural Upper Egypt girls that missed out on going to or staying in school. These adolescent girls have been left out and now have been given a second chance through the program. They now have a social environment to interact with girls of their same age who experience the same isolation within their community and their families.

Secondly, Ishraq provides social support networks for girls. This aspect is not built into other development initiatives. Typically evaluations of how a program has impacted its intended target group are implemented at the end of a program, rather than having it built into the program from the beginning and throughout the duration of the intervention. Girls' in Upper Egypt are isolated within the private space of their family's home. They are subjected to household chores

and rarely given the chance to socialize outside this environment. Culturally, in this socially conservative region, parents do their utmost to protect a girl's virtue in order to ensure her marriageability. Families do this by isolating their daughters from the risks that could cause unwanted attention and could hinder their marriage options. Ishraq addresses this concern and is consistent with development policy frameworks, such as those of the World Bank and the Millennium Development Goals (MDG) of the United Nations (UN). The MDG's aim is to address the world's main development challenges by 2015 (MDG 2006).

Thirdly, Ishraq not only recognizes that this age group of girls has become invisible politically, but has also confined to the household. The social norms and culture in Upper Egypt do not perceive social isolation, genital cutting and domestic violence as disempowering to the girls affected by these actions. Local policies and politics do not address these factors as societal concerns or as needing to be changed. Ishraq enlightens this region through its safe spaces and non-formal education intervention, by positively influencing not only the girls who enroll but sending a message to families and the community that the development field recognizes girls as a vital part of society.

Summary of Findings and Recommendations

The pilot phase proved to have positive impacts and has moved into an expansion phase. Potential improvements to the Ishraq design include gathering more applicants than there are seats for and randomizing among them to determine who will participate. This is known as a "pipeline design" and can serve to bring a degree of randomness in the selection process at the individual level as well as at the village level. Ishraq could also institute a randomized incentive or a promotion system, much like what PROGRESA does by giving cash transfers for having their children enrolled in school. However, only randomly selected families with eligible girls

would get such an incentive to participants. Admittedly, this approach could be problematic from a practical point of view, as some parents will wonder why others got the incentive and not others.

Also, Ishraq could address the impact of other existing programs that implement non-formal education programs. For example, the Girls' Education Initiative of the NCCM. The NCCM seeks to improve the educational status of girls within disadvantaged regions of Egypt. Evaluation researchers could assess if other programs reached everyone it intended for and what effects occurred on outcomes. Specifically looking at what other programs do when counting people that have not been involved in education or had been but stopped early.

Because this was a pilot phase for the program, the timeframe of analysis was short. However, the short-term outcomes showed that the program has positive impact. The long-term effects should also be reviewed for future measurement objectives. Often, socio-cultural norms take longer to change. Further, changes are also likely to be more significant between the girls and their daughters, as in "intergenerational transmission of poverty, age at marriage, level of fertility, reproductive health and child health and nutrition and the reduction or elimination of harmful practices such as female genital cutting" (Brady et al 2007,28).

Evaluating the outcomes along the way allows for the program to shift meeting the needs of the participants. A program may start with a set of objectives with outcomes it wants to measure, but the results may reveal a slightly different picture of what is actually occurring during an intervention. As in the example of PROGRESA, the impact results indicated a greater effect for secondary school enrollment than for primary school enrollment. It therefore, adjusted its program to meet the needs of children of secondary-school age.

Surveys that were administered in the pilot phase seem to reflect sentiments, attitudes, feelings, but not actual behaviors. Sometimes people say one thing in surveys, but actually do another. A long-term follow-up study of the Ishraq participants and the control group could reveal how actual behaviors and human development outcomes have changed over time.

Further analysis regarding self-perception issues (i.e. girls attitudes towards being beaten, marrying early, etc.) should be considered in any expansion phases of Ishraq. The program could therefore look at less normative, more observable and measurable outcomes that could result in a stronger analysis. Perhaps measuring parents, siblings, and community actions toward girls could be implemented within future intervention phases.

The ultimate question of extending and expanding a social program is how to implement without additional costs and still allow for change and acceptance for the change. Ishraq could collaborate more heavily with other NGOs to facilitate the program through additional partnerships and their joint monetary support. Networks have been established with existing literacy programs, which have been integrated into Ishraq, however, because of the positive impact from the pilot phase, the program could seek out even more integrated components to share the costs.

Conclusion

Accomplishments

The Ishraq program implemented a robust and innovative intervention that connects, educates and raises awareness among not only adolescent girls but for families, communities, Government agencies and other organizations. It produced multiple public awareness campaigns within the villages to promote the program widely. This gathered more self-selected girls than what was originally intended (50 to 277). Mothers of participants even admitted to the desire of

joining the program. This itself illustrates a shift in attitudes and behaviors among girls and women. Through the sports component of the program, the surveys produced feedback from fathers and adolescent boys that were supportive of their daughters and sisters participating. It was also successful at reaching the poorest region of rural Upper Egypt and targeted a disproportionate segment of the population--adolescent girls that have been highly isolated and not enrolled in school.

It further aims to strengthen its goals through government agency support and to gain momentum on a national level. This could translate into a countrywide expansion and used as model in other developing nations that have similar cycle problems of poverty and rapid demographic growth, with little to know gender role and health education.

The program creates a positive environment to conduct both process and impact evaluation. Implementing a multi-dimensional education program that simultaneously addresses other various outcomes (e.g. increasing a girls' agency through sporting events) does not come easily. Even though the evaluative research has not corrected for unobservable characteristics, it has established a positive relationship between participation in the program and desirable changes in knowledge and attitude among the girls who participated. Once the Ishraq program addresses some of the weaknesses in the impact evaluation methodology and is able to document impact on both attitudes as well as behaviors and human development outcomes, it could become a model that is sought after, much like the Mexican PROGRESA program.

What could be done: Other Statistical Analyses

Other statistical models can be used to address and correct for selectivity issues, such as intent to treat (ITT) analysis, propensity score matching (PSM), and instrumental variable (IV) estimator methods. These methods could be used to better match girls in the treatment and

control groups on important observable characteristics and also adjust for selection on unobservables.

Furthermore, because Ishraq is a quasi-experimental program, a mixed set of statistical analyses could be considered. The intent to treat (ITT) statistical analysis can be used with non-experimental and quasi-experimental evaluations to neutralize the impact of self-selection on unobservable characteristics. It compares girls in treatment and control villages, irrespective of their actual participation status in the program. ITT does not distinguish between participants and non-participants within the treatment group to avoid the problem of non-random selection along unobservable characteristics. However, if the number of non-participants in the treatment group sample is large enough, the impact of the program will be diluted and the analysis can show no effect.

The propensity score matching (PSM) method is typically implemented in non-experimental evaluations when selection into participation is non-random. It corrects for systematic differences across individuals in the treatment and comparison group by matching participants and non-participants along their observable characteristics. It does this so by calculating a propensity score for participation based on a model of the probability of participating in the program and then matching participants and non-participants who have similar scores. However, this method assumes that unobservables correlated with the outcome do not also influence participation.

Ultimately, this method aims to determine all the observables that interact with the outcome and then how much weight to place on each one. This could be done to test for systematic differences among control and treatment villages. There were no specific characteristics included at the village level (i.e. overall education level of a village and religion).

Once a census is performed at the village level, it could reveal more information about the percentage of boys and girls that could be matched accordingly.

Lastly, the program could identify an instrumental variable (IV) to learn the effects of participation and that those effects do not impact the outcome conditional on participation, as well as various other covariates. IV's seek out additional variables that impact the participation decision but not the outcome directly. To be valid, the IV must be exogenous to either participation or outcomes and should be used only when the variable can safely be excluded as a determinant of the outcome. This for example could be used to create a distance from youth center IV within the villages, to learn if this exogenous factor of how far the girl must travel to reach the youth center and if that effects on participation into the program. However, a researcher must have a strong IV to test in order to illustrate validity. This method has been recognized as difficult to implement within evaluative research because of the difficulty of finding an instrumental variable that is purely exogenous and not directly related to the outcome (Assaad 2009).

By using different statistical analyses, further expansion phases of the program could then root out the main problem of selection bias. However, one must be cautious when testing for bias. The 'power of the test' concept states that as a researcher attempts to reduce bias, the less precision in the measurement of the impact. This conversely can receive the wrong answer because inefficiency increases with the use of methods that reduce selection bias.

The main intent in integrating evaluative research into the design of social programs is to assess the impacts of that program on the outcomes it intends to change. The change in policies for a better life within developing countries and effectively producing a shift in poverty cycles

A Review of the Ishraq Program's Quasi-Experimental Impact Evaluation

that perpetuate negative behaviors, which ultimately have consequences not only at the micro-village-level, but also for better human development in the country as whole.

Bibliography

- Arab Republic of Egypt. 2006. Central Agency for Public Mobilisation and Statistics (CAPMAS). <http://www.capmas.gov.eg/>.
- Assaad, Ragui. 2009. Development Planning and Policy Analysis: Causal Inference and Program Evaluation. PA 5521 lecture notes, spring semester. Hubert H. Humphrey Institute of Public Affairs, University of Minnesota.
- Assaad, Ragui. 2009. *Development Planning and Policy Analysis*: Introduction to program evaluation methods. PA 5521 lecture notes, spring semester. Hubert H. Humphrey Institute of Public Affairs, University of Minnesota.
- Assaad, Ragui, Ghada Barsoum, Martha Brady, Alya Danish and Nevine Elzayat. 2007. Egypt Hot Zones Report. *Coming of Age in the New Egypt: Adolescent Girls' Lives in Upper Egypt Constraints, Challenges, and Opportunities*.
- Brady, Martha, Ragui Assaad, Barbara Ibrahim, Abeer Salem, Rania Salem and Nadia Zibani. 2007. Ishraq Full Report, *Providing new opportunities to adolescent girls in socially conservative settings: The Ishraq program in rural Upper Egypt*. The Population Council, Inc.
- Egyptian Labor Force Market Panel Survey (ELMPS), 2006.
- El Tawila, Sahar, Barbara Ibrahim, Omaima El-Gibaly, Sunny Sallam and Fikrat El Sahn. 1999. Transitions to Adulthood: A National Survey of Egyptian Adolescents. Cairo: Population Council.
- El-Zanaty, Fatma and Ann Way. 2006. *Demographic and Health Survey, Egypt, 2005*. National Population Council, Cairo.
<http://www.measuredhs.com/pubs/pdf/FR176/10Chapter10.pdf>
- El Zanaty, Fatma, and Ann Way. 2006. Egypt Demographic and Health Survey 2005. Cairo, Egypt: Ministry of Health and Population, National Population Council, El-Zanaty and Associates, and ORC Macro, 215.
- Ravallion, Martin. 2008. "Evaluation in the Practice of Development." Policy Research Working Paper 4547. The World Bank, Washington DC.
- Ravallion, Martin. 2007. "Evaluating Anti-Poverty Programs," In T. Paul Schultz and John Strauss (eds.) *Handbook of Development Economics*, Volume 4. Amsterdam: Elsevier.

A Review of the Ishraq Program's Quasi-Experimental Impact Evaluation

Skoufias, Emmanuel. 2005. "PROGRESSA and its Impact on the Welfare of Rural Households in Mexico." Research Report 139. International food Policy Research Institute, Washington DC.

The World Bank Group. 2009. "Impact Evaluation Overview."
<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTISPMA/0,,menuPK:384339~pagePK:162100~piPK:159310~theSitePK:384329,00.html>.

World Development Report. 2007. Development and the Next Generation.
<http://siteresources.worldbank.org/INTWDR2007/Resources/1489782-1158107976655/overview.pdf>.

United Nations Development Programme (UNDP). 2006. Millennium Development Goals.
<http://www.undp.org/mdg/basics.shtml>.

United Nations. 2009. Population Division of the Department of Economic and Social Affairs, World Population Prospects: The 2008 Revision Population Database, Egypt.
<http://esa.un.org/unpp/p2k0data.asp>.

Appendix:

Figure 1: Egypt



Table 1: Egypt Population:

By five-year age group and sex (thousands), Medium variant 2005

Year	Age	Both sexes combined	Male	Female
	10-14	8 155	4 171	3 984
	15-19	9 123	4 654	4 469
% Of the Population	22%			

Table 2: Egypt Population Projections:

By five-year age group and sex (thousands), Medium variant 2015

Year	Age	Both sexes combined	Male	Female
	10-14	9 005	4 603	4 402
	15-19	8 381	4 271	4 110
% Of the Population	19%			

Table 3: Egypt Population Projections:

A Review of the Ishraq Program's Quasi-Experimental Impact Evaluation

By five-year age group and sex (thousands), Medium variant 2025

Year	Age	Both sexes combined	Male	Female
	10-14	9 846	5 033	4 813
	15-19	9 511	4 847	4 664
% Of the Population	18%			

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp>, Friday, May 15, 2009.

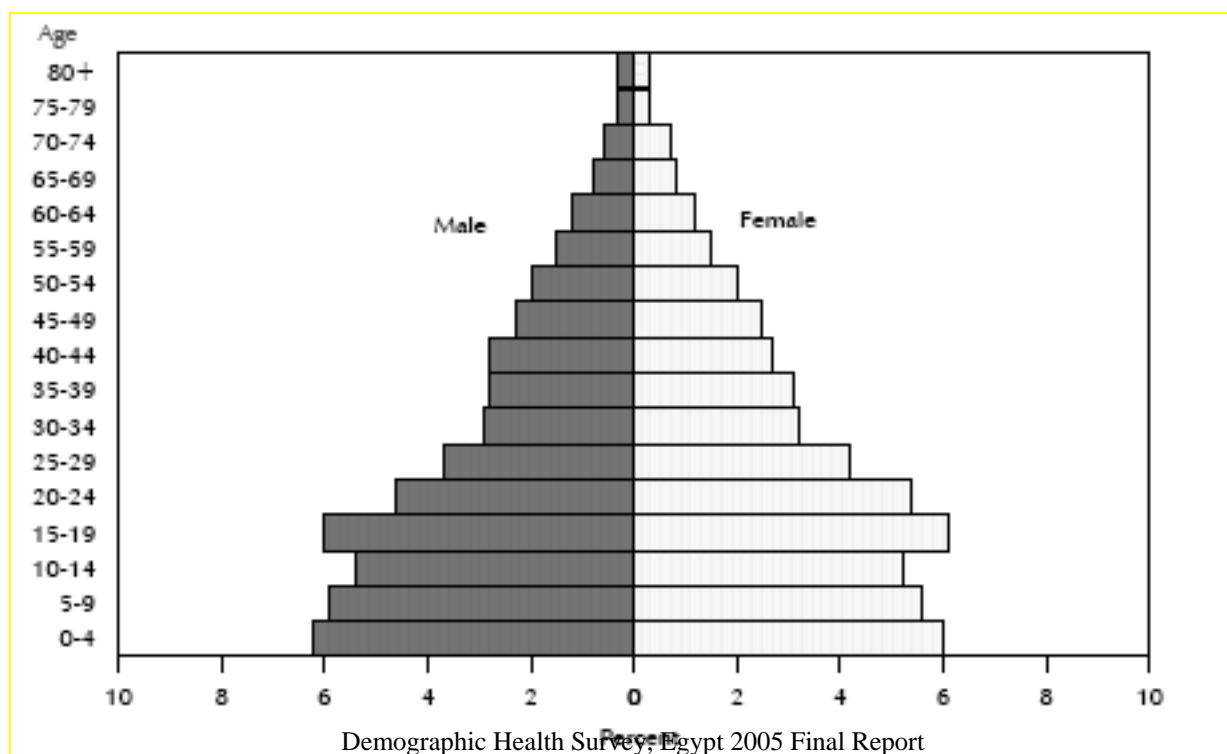


Figure 3: Children Attending School, rural Upper Egypt

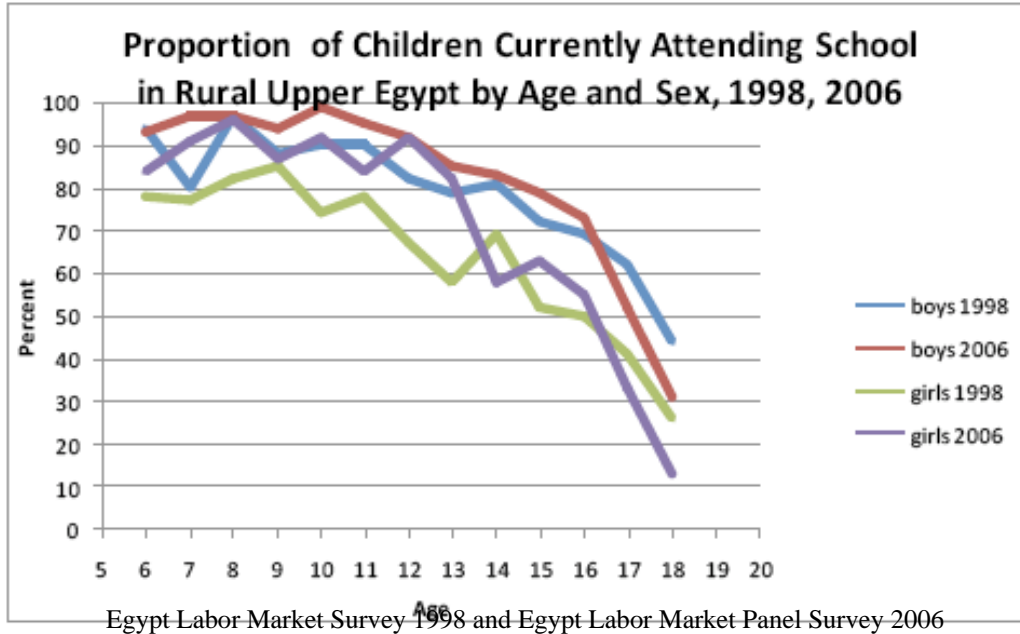


Figure 4: I

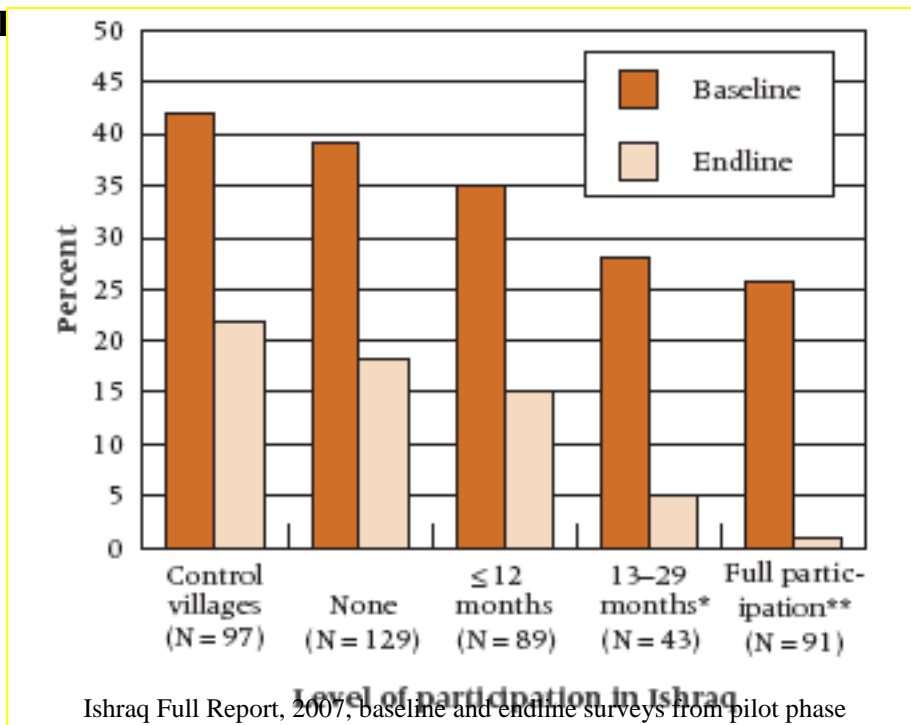


Figure 5: Percent of girls who desire fewer than three children

A Review of the Ishraq Program's Quasi-Experimental Impact Evaluation

