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Submission of Paper

Title

Developing effective and youth-friendly community based reproductive health services for rural youth in Zimbabwe project: results of an impact evaluation.

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STEP 1: ABSTRACT

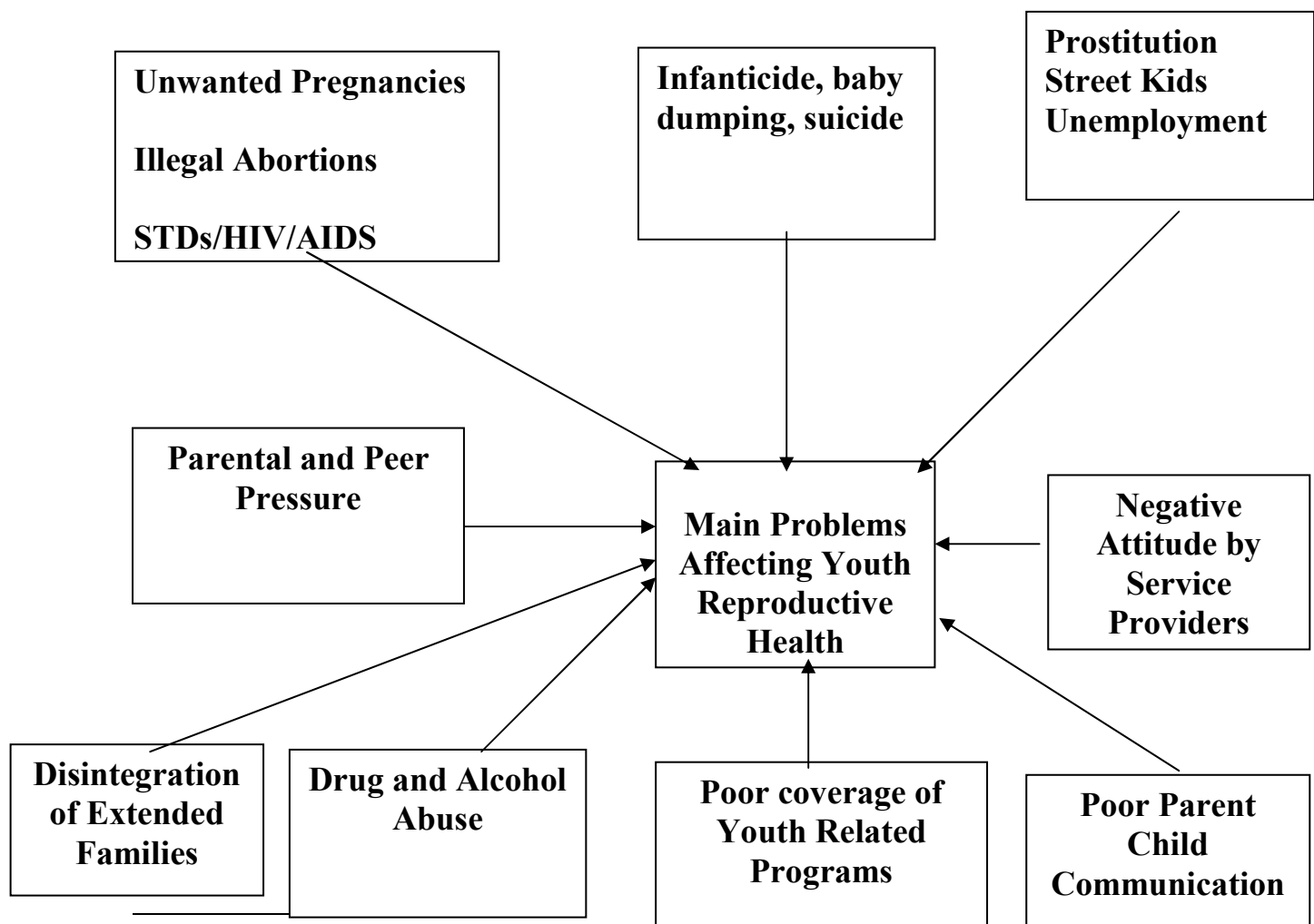
The project used a quasi-experimental design. Altogether, 793 youth (10-24 years) were interviewed during the baseline survey (1997) while 835 youth were interviewed at endline (2003). The objective of the evaluation was to determine whether the intervention was associated with changes in the RH behaviour of youth in Magunje (experimental site). Binary logistic regression was run on baseline and endline survey data for the experimental and comparison sites. Between 20% and 39% of youth in Magunje were aware of the project components at endline. Exposure to various IEC materials was between 27% to 40%. The proportion of males who had never had sex increased from 69% to 73% between surveys. Corresponding proportions for females were 90% and 91%. Use of contraception among sexually experienced youth increased from 56% (1997) to 80% (2003). Generally, the project was significantly associated with observed positive RH behaviour changes among youth in the experimental site.

STEP 2: EXTENDED ABSTRACT

Background

Until the 1994 International Conference on Population and Development (ICPD), youth¹ were commonly believed to constitute the healthiest segment of the population, particularly in the developing world. The design of health service delivery systems was thus largely biased towards addressing women and children's reproductive health (RH) needs. Youth have since been highlighted as a group in special need of sexual and reproductive health information and services². Youth in Zimbabwe are no exception. Figure 1 below summarizes the main RH problems affecting youth in Zimbabwe.

Figure 1: Main Youth Reproductive Health Problems



¹ While recognizing that each term refers to a slightly different age grouping, the terms "youth", "young people" and adolescents will be used interchangeably in this report.

² McCauley, A P and Salter, C 1995, "Meeting the Needs of Young Adults" Population Reports Series J, No. 41, Baltimore, USA.

In 1994, the Zimbabwe National Family Planning Council (ZNFPC), in collaboration with the Ministry of Health and Child Welfare and other stakeholders, began designing a youth friendly RH initiative, with technical assistance from the Population Council and funding from The Rockefeller Foundation. The project was entitled “*Developing Effective Reproductive Health Service Delivery Models (DERHSDM) for Youth in Zimbabwe*” Project, and is an intervention research project that uses a quasi-experimental research design. Two models were ultimately developed, one rural and the other urban, in order to address RH needs in different settings. The rural model was implemented in Magunje, the *experimental site*, with Mubaira as the *comparison site*. The urban model was implemented in Bulawayo with Kwekwe as the comparison site.

The overall goal of the project was to develop and test effective reproductive health information and service delivery models/approaches for unmarried youth aged 10 to 24 years. The project’s specific objectives were to:

- increase the proportion of youth who are not yet sexually active by 15%;
- increase the proportion of youth using modern family planning and reproductive health services by 20%;
- increase the availability and accessibility of quality reproductive health information and services in the project sites to 50% of youth; and
- create a positive attitude towards youth reproductive health services among the influential leadership, service providers and general public.

The rural model is the focus of this paper. A community-based youth RH programme was piloted in Magunje from 1998 to 2003. The design of the model was based on results of studies carried out among youth and adults in Magunje and the surrounding catchment area. Youth indicated that they preferred discussing RH information and services from adults residing in the community, whom they referred to as “sahwiras” (Shona term for ‘trusted family friend’) as well as youth-friendly medical staff. In response to these preferences, ZNFPC and local stakeholders recruited a group of “sahwiras.”

The criteria for selection were that they be mature and youth-friendly adults who reside within the communities, whom youth can trust and in whom they can confide. The “sahwiras” were recruited from traditional birth attendants, schoolteachers, agricultural extension workers, environmental health technicians, village community workers and ZNFPC Community Based Distributors.

Sahwiras were trained in adolescent and sexual reproductive health (ASRH) to enable them to provide information and counseling to youth. The “sahwiras” operate from their homes and also move within the communities, discussing and educating youth on ASRH issues. In addition to providing information and counseling, “sahwiras” distribute condoms to sexually active youth. They also refer youth to the community services centre and other youth friendly health facilities for further counseling and RH services such as STI diagnosis and treatment, contraception, voluntary counseling and testing (VCT) for HIV and AIDS, and pre and postnatal services.

The formative research also showed that youth preferred to get RH services from stand alone facilities³. Based on this finding, a disused rural district council library at Magunje Growth Point was renovated and upgraded to a Community Services Centre that serves as the focal point around which the project’s outreach activities revolve. The centre comprises a library, recreational facilities and a youth clinic. These facilities combine to provide youth in the project area with educational, recreational and RH services in one location. The youth clinic is manned by a retired ZNFPC nurse and is also served by a sessional doctor. Selected nurses working in health facilities within the catchment area of the project were trained in ASRH to enable them to provide youth-friendly RH services.

³ ZNFPC, 1996. Developing Effective Reproductive Health Service Delivery Models for Youth in Zimbabwe Project Document, unpublished, Harare, Zimbabwe.

STUDY OBJECTIVES

ULTIMATE OBJECTIVE

The main objective of the intervention research was to determine whether the project intervention was associated with the desired impact on the reproductive health behaviour of youth in Magunje.

SPECIFIC OBJECTIVES

The specific objectives of the research was to:

- ascertain changes in the proportion of youth who are not yet sexually active;
- determine changes in the proportion of sexually active youth using family planning methods;
- ascertain changes in the availability and accessibility of reproductive health information and services in the project sites.
- determine changes in community attitudes toward youth reproductive health services.

METHODOLOGY

Study Design

The Magunje Project used a quasi-experimental research design. A descriptive cross-sectional baseline survey was conducted in the experimental and comparison sites in 1997. The same survey was conducted in the sites at the end of the implementation phase in 2003. A comparison of the baseline and endline survey data forms the basis for assessing the impact of the intervention.

Study Area and Population

Magunje Growth Point is located on the main trucking route between Harare and Zambia. With the proximity of military barracks, combined with the truck route, Magunje was perceived to be a high risk area for young people. Mubaira Growth Point was selected as a comparison site because its

population, economic base and socio-economic status was comparable to that of Magunje Growth Point. Both areas are “growth points,” and, as such, represent areas chosen by the government for additional development in an effort to curb rural-urban migration. At the same time, growth points also represent areas of additional risk because of the associated intensified economic activity. The two sites are approximately 300 kilometres apart thus minimizing the chances of contamination. Magunje had an estimated total population of 24,476 while Mubaira had a population of 14,814 at the beginning of the project, in 1994. Youth aged 10 to 24 years constituted 35 percent and 36 percent of the total population in Magunje and Mubaira respectively.

Sampling and Data Collection

At baseline, young people aged 10 to 24 years, regardless of marital status, were considered eligible for survey; at endline, young people and adults aged 10 to 28 were interviewed, given that the adults may have benefited from the project in the early years of implementation. At baseline, the sample size was calculated at 400 per site (800 total), which was based on a 95 percent confidence interval, with a margin of error of +/- 5 percent. At endline, the sample was increased to account for inclusion of older respondents aged 25 to 28. Magunje and Mubaira consist of three wards each. At both baseline and endline, equal numbers of adolescents were sampled from each of the three wards in the two sites. The sampling interval was calculated based on the number of adolescents required per ward and the number of households in each ward. In order to control for intra-household correlation, only one adolescent was interviewed per household. Where there were two or more eligible youth, only one eligible youth was randomly selected for the interview from the sampled household.

The same questionnaire was used at each round of survey. At endline, however, additional questions were added to the questionnaire to assess exposure to the project. Given that young people were to be interviewed, relatively young interviewers were chosen. Interviewers received a one-week

training on the survey instrument at both baseline and endline. Boys interviewed only boys while girls interviewed girls.

Data Processing and Analysis

Data were captured using the statistical package Epi-Info version 6.04d and exported to SPSS version 11 for analysis. For each of the project objectives, indicators were identified to reflect whether or not the objective had been achieved (Table 1).

Table 1: Objectives, Variables, and Indicators

Objective	Variable	Indicator
To increase the proportion of youth in the project site who are not yet sexually active by 15 percent.	Level of sexual activity among unmarried young people	Percentage of unmarried boys and girls who have never had sex
To increase the proportion of sexually active youth using family planning by 20 percent.	Modern family planning practice among sexually experienced young people.	Percentage of sexually experienced young people currently using modern family planning methods.
To increase the availability and accessibility of reproductive health information and services in the project site.	Intention to use a youth center or health facility for reproductive health information or services in the next six months.	Percentage of all young people intending to use youth center for RH information or service in the next six months. Percentage of all young people intending to use health facility for RH information or service in the next six months.
To create a positive attitude toward youth reproductive health services among community leaders, service providers, and the general public.	Attitude of young people towards use of family planning by unmarried youth. Young people's communication patterns on RH topics, with leaders, service providers, and the general public.	Percentage of young people approving of unmarried youth using family planning. Percentage of young people discussing RH topics in the last 6 months Percentage of young people discussing with community leaders, service providers, parents and other adults, in the last six months.

In order to measure the change in attitudes of the community, the extent to which adolescents discussed various RH issues was analyzed. Specifically, the extent to which they discussed RH issues with adults in the community, including leaders, service providers, parents and other adults.

All analysis was stratified by sex. For each indicator selected, the prevalence was calculated at baseline and endline in the experimental and comparison sites. Where there appeared to be an association between the intervention site and the outcome of interest, further multivariate analysis was conducted to assess the impact of the project site on the indicator. Binary logistic regression was used to model the outcomes with a number of background variables, including age, living arrangements, school status, educational attainment, religion, socio-economic status, and marital status. Except for age, all control variables were dichotomous.

Living arrangements reflected whether or not the adolescent lived with both parents. Virtually all young people in the sample had been to school. The school attainment variable reflected whether or not the respondent had reached the secondary level of schooling, or had only attained primary education. While the vast majority of respondents were Christians, the religion variable reflects those who reported they follow no religion versus those who have a religion. A variable reflecting whether the respondent resided in the experimental or comparison site was included in the model. If the project site variable was not a significant predictor of the outcome at baseline, but was a significant predictor of the outcome at endline, then the intervention was considered to have been positively associated with an improved outcome.

Limitations of the Study

While one of the objectives was to create a positive attitude among community members, this study did not interview community members directly, making it difficult to measure changes in community attitudes. Instead, community attitudes were measured indirectly, through attitudes of

young people themselves and the degree to which young people hold discussions on RH with adults.

Summary of Findings

At baseline 793 youth aged 10 to 24 years were interviewed while 835 were interviewed at endline. Fairly large proportions of the youth in the project site were aware of the “sahwiras” (20 percent) and the community services center (39 percent) at endline. Males were significantly more likely to be aware of the “sahwiras” than females. In terms of the IEC materials, 40 percent of Magunje youth had seen a poster and 27 percent had seen a pamphlet; the respective figures for Mubaira youth were 20 percent and 3 percent.

One of the project’s objectives was to delay the onset of sexual activity among youth who were not yet sexually active. Similar percentages of unmarried Magunje youth had not had sex at baseline and endline (about 79 percent). In comparison, 79 percent of Mubaira youth had not had sex at baseline and 86 percent had not had sex at endline. Survival analysis further reveals that youth interviewed at baseline tended to initiate sex earlier than those interviewed at endline, particularly in the comparison site. The delay at endline was more significant among girls than boys.

Fifty-six (56) percent of sexually experienced Magunje youth and 59 percent of sexually experienced youth in Mubaira were using family planning (FP) methods at baseline. There was a marked increase in FP use at endline with 80 percent and 74 percent of the sexually experienced youth in Magunje and Mubaira, respectively, reporting that they were currently using FP.

Availability and accessibility of RH information and services was measured in terms of respondents’ intention to visit a youth center or health facility for RH services. The proportion of Magunje boys who intended to visit a youth center increased from 14 percent at baseline to 47 percent at endline while those who intended to visit a health facility increased from 28 to 52 percent. For Magunje girls, 39 percent intended to visit a youth center at baseline

compared to 56 percent at endline; the corresponding figures for the girls who intended to visit a health facility were 45 percent at baseline and 61 percent at endline.

Respondents' attitudes towards use of FP by unmarried youth and discussion of FP and other RH issues were used as proxies for assessing the environment in which youth reproductive health services were being provided. Approval of use of FP by unmarried sexually active youth increased from 16 percent at baseline to 28 percent at endline among the Magunje boys; for Magunje girls, it decreased from 32 percent to 23 percent. In general, Magunje youth were discussing RH issues to a greater extent than the Mubaira youth.

DISCUSSION

The project in Magunje was a systematically developed and tested reproductive health project for youth in rural Zimbabwe. The design of the intervention took into account the local realities and preferences. For example, young people said they preferred to receive RH information from people who were older than themselves, so the project capitalized on existing community resources to reach young people with information and referrals for services through "sahwiras". The project was designed so that the effect of the project activities could be assessed using baseline and endline surveys in both experimental (Magunje) and comparison (Mubaira) sites. The effect of the intervention was measured against the set objectives for the project.

Relatively large proportions of youth, especially at endline, did not live with both parents. Studies of adolescents have shown that living with both parents may have a protective effect; conversely, the presence of only one parent, or absence of parents is associated with heightened RH risk, such as early sexual debut, drug use and child abuse.⁴ This implies that a large proportion

⁴ Purdy, P.; Ramsey, C. 1998. "Involving Parents in Reproductive Health Education for Youth". *In Focus*;

Ngom, P, Magadi, MA, Owour, T (2003) "Parental presence and adolescent reproductive health among the Nairobi urban poor", *Journal of Adolescent Health*, 33 (5) 369-377.

of the youth might be at additional risk of negative RH outcomes and, moreover, might not be getting the necessary support and guidance a young person needs during this critical stage.

Overall, the project seemed not to be associated with delays in sexual initiation or in increased use of family planning methods. In both the experimental and comparison sites, there were greater proportions of unmarried youth who had never had sex at endline, compared to baseline. However, the marginal increase in the proportions not sexually active was greater in the comparison site, than in the experimental site. Life table analysis calculated the probability of being sexually experienced, by single years of age. This analysis revealed that there were similar delays in sexual initiation in both experimental and comparison sites, suggesting that exogenous factors may be involved. Similarly, youth in both the experimental and comparison sites seemed to increase their use of family planning methods between surveys. This trend could be due to a variety of factors, including the increased nationwide attention to the HIV and AIDS epidemic, or increased experience with HIV in one's own life. For example, at baseline in 1997, 49 percent of respondents knew someone who was suffering from, or who had died of AIDS. By 2003, that figure had risen to 62 percent.

Low proportions of youth reported that they were sexually experienced. Twenty-two percent and 21 percent of the youth in Magunje and Mubaira respectively reported ever having sexual intercourse at baseline compared to 21 percent and 14 percent at endline. Generally, early and premarital sex is unacceptable in Zimbabwe, especially in rural areas where cultural norms and values are still largely observed⁵. Given the stigma attached to premarital sex, it is also possible that the youth underreported their sexual practices.⁶ The low and possible under-reporting of sexually activity likely distorts the measurement of family planning usage, because the questions on family

⁵ Phiri, A. 2002. *Non-proximate correlates of reproductive health practices among single/never married rural youth in Mashonaland West Province, Zimbabwe* (Thesis), University of Pretoria, South Africa.

⁶ Mensch, B, P. Hewett, AS. Erulkar. 2003. "The Reporting of Sensitive Behavior among Adolescents: A Methodological Experiment in Kenya," *Demography*, Vol. 40, Number 2, May.

planning usage were only asked to those who admitted they had had sex. There was no significant difference in current family planning usage between the two sites, suggesting that the project was not associated with a measurable increase in uptake of family planning methods in the experimental site.

The accessibility of reproductive health (RH) services was measured through intention to visit a youth center or health facility for RH services in the next six months. Magunje youth were significantly more likely to intend to visit a youth center and health facility, indicating that they perceived the services to be accessible and available. Magunje boys were nearly six times more likely to intend to visit a youth center than Mubaira boys. Both Magunje boys and girls were twice as likely to intend to use a health facility in the next six months for RH information or services, compared to their counterparts in Mubairia. These findings suggest that the project was associated with youth feeling more comfortable accessing services from health facilities compared to their counterparts in the comparison area.

Likewise, the environment in Magunje seemed to improve over the course of the project period compared to the environment in Mubaira. At endline, Magunje boys were significantly more likely to approve use of family planning methods by unmarried youth compared to Mubaira boys. Importantly, increased discussion of various reproductive health issues was significantly more likely to occur among Magunje youth than Mubaira youth. On average, both boys and girls in Magunje discussed a significantly larger number of topics than their Mubaira counterparts. Differences between Magunje and Mubaira were statistically significant even after controlling for other background factors, which suggests that the project was associated with large improvements in the likelihood of discussion of RH issues. Magunje youth were significantly more likely to discuss RH with a service provider, another indication that the project was positively associated with the availability and accessibility of RH services.

CONCLUSIONS AND RECOMMENDATIONS

Generally, the results show that the intervention is significantly associated with the observed positive differences between the experimental and comparison sites in terms of some of the measured parameters. For example, a higher proportion of youth in Magunje indicated that they intended to visit either a youth center or health facility for RH information and services. Further, youth in Magunje were more likely than those in Mubaira to discuss specific RH issues or approve use of family planning methods by unmarried sexually active youth at endline.

“Sahwiras” and the Community Services Centre are the major components of the youth reproductive health model that was piloted in Magunje. The study results show that relatively low proportions of the youth were aware of “sahwiras” (20 percent) and the Community Services Centre (39 percent) at endline, and even smaller proportions had actually had contact with sahviras or gone to the centre. Similarly, less than half of the youth had seen either a poster or pamphlet targeted at youth. There is need to review the current outreach strategy in order to improve the youth’s awareness of and contact with the key programme components.

It should be noted that a majority of existing programs for young people have been implemented in urban areas, with little programmatic experience in rural settings. Despite the fact that the majority of Zimbabwean adolescents reside in rural areas, the majority of youth programs in the country - and on the continent - have been implemented in urban areas, often in the school setting where only a fraction of young people are reached. The Magunje project is one of the very few pilot interventions to test a community-based model, reaching young people in a rural setting. It demonstrated that programs could make a positive impact on young people’s behavior, while making maximum use of community resources and minimal new investments in infrastructure. The Magunje project benefited from the ownership, commitment, and support of the Hurungwe Rural District Council. The project is a prime example of the

way that local ownership can add synergy to a project, while increasing sustainability.

Although discussion of reproductive health issues among youth is quite prevalent, a majority of the respondents did not approve use of family planning by sexually active unmarried youth. There is need to raise awareness among youth on safe sexual behaviour and the need for protection if one is sexually active.

In summary, the intervention addressed the set objectives of the project. The findings of the intervention research demonstrate that with proper management, supervision, community commitment and ownership, community-based youth RH programmes can have a positive impact on the youth's RH behaviour. The Magunje project is one such programme that could be replicated in order to address youth's RH needs and problems on a broader scale.

**STEP 3: Either Session 103: Reproductive health programmes Or
 Session 104: Adolescent reproductive health Or
 Session 102: Sexual and reproductive health and family
 planning**

(Please note that sessions are ranked in order of preference depending on where the paper is found more relevant).

Should the paper fail to go through, I would appreciate if it could be considered for poster presentation.