

Evaluation Report - Executive Summary Safe Adolescent Transition and Health Initiative (SATHI)

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Introduction

The **Safe Adolescent Transition and Health Initiative (SATHI)** project is a multi site intervention project for improving the reproductive health of married adolescent girls and averting the adverse consequences of early motherhood.

The SATHI project that has been scaled up by the Institute of Health Management, Pachod (IHMP) in collaboration with the Population Foundation of India, in 5 districts of Maharashtra.

‘Gokhale Institute of Politics and Economics’, Pune, evaluated the project in April, 2010.

The Pilot SATHI project 2003-2006: Institute of Health Management, Pachod, with the support from the MacArthur Foundation, implemented a pilot intervention from 2003-2006 to improve the reproductive and sexual health of married adolescent girls (MAGs). The project aimed at averting the consequences of early motherhood that have a bearing on the reproductive health of adolescent girls. Results of the pilot project indicated – delay in age at first conception, increase in the mean interval between age at marriage and first conception, increase in contraceptive use, reduction in prevalence of self reported Reproductive Tract Infections (RTI) and prevalence of Low Birth Weight (LBW) babies, contributing to the achievement of two key Millennium Development Goals (MDG) of reduction in child mortality and improvement in maternal health. Since then the Macarthur Foundation has been supporting the IHMP to scale up this intervention.

Scaling up the SATHI project in 5 Districts since 2008: In January 2008, Sir Dorabjee Tata Trust approved the proposal for scaling up the interventions of SATHI pilot project through a coalition of NGOs in 5 Districts of Maharashtra. The proposed action research project was implemented in four of the lowest ranking districts and one average ranking district of Maharashtra. The criteria used for the selection of the districts were districts with the lowest RCH index and the lowest median age at marriage. The other selection criterion was the existence of an NGO with established credibility working in the district. The SATHI project for married adolescent girls is being implemented in a rural population of 20,000, at each site, by the following five NGOs, since February, 2008:

- Sanskruti Samvardhan Mandal, Nanded
- Gram Vikas Mandal, Beed
- Apeksha Homoeo Society, Amaravati
- Youth Welfare Association of India, Buldana
- Late Shriram Ahirrao Memorial Trust, Dhule

Situational Analysis

Adolescents constitute approximately 22 percent of the total population of Maharashtra -- 11.9 percent boys and 10.5 percent girls (Census of India 2001). In rural Maharashtra, 49 percent of girls get married before the age of 18 years (NFHS 3, 2006) The median age at marriage among adolescent girls is 15 years, and the median age at first birth is 17 years (NFHS 3, 2006).

A mere 4.6 percent of married adolescent girls had received minimal antenatal care and 42 percent reported home deliveries (NFHS 3, 2006)

According to the NFHS-3, Maharashtra, a high proportion of married adolescent girls reported maternal complications. Thirty-five percent girls, who had delivered reported at least one complication during the antenatal period, and 12 percent reported at least one postnatal complication (NFHS 3, 2006). A high proportion of married adolescent girls (38.6 percent) gave birth to at least one low birth weight baby and 7.8 percent married adolescent girls reported at least one non-live birth (NFHS 3, 2006).

Only 9.8 percent of married adolescent girls in Maharashtra practice contraception (NFHS 3, 2006).

In 2003, IHMP study in Aurangabad district during which 36.5 percent married adolescent girls reported symptoms indicative of a reproductive tract infection (IHMP 2003). In the NFHS 3, 2006 survey, 4.6 percent married adolescent girls reported symptoms indicative of a sexually transmitted illness (NFHS 3, 2006)

While 68.6 percent girls had some knowledge of HIV-AIDS, only 29.4 percent knew of local testing centres, 0.7 knew about the ICTC services, and a mere 1.3 percent had ever been tested for HIV (NFHS 3, 2006)

The SATHI Project

Project Objective

To demonstrate effective interventions to improve the sexual and reproductive health of married young women in 5 districts of Maharashtra.

Specific Project Objectives

1. To delay median age at first conception.
2. To increase contraceptive use to delay first conception.
3. To reduce prevalence of anemia among young married women.
4. To increase treatment utilization behaviour for RTI, post abortion complications and post natal complications.
5. To increase proportion of pregnant young women receiving minimum ANC.

6. To increase proportion of institutional deliveries.

The first 6-8 months of the project were spent on capacity building, baseline survey and other preparatory activities. The SATHI interventions were introduced in September 2008.

Project intervention – 5 Components

1. **Monthly Surveillance** – Is a process of assessing reproductive health needs of married adolescent girls on a monthly basis. One ASHA was appointed for every 1000 population or 200 households. The ASHA would visit 10 households a day, covering 200 households in 20 days to identify the health and information needs of married adolescent girls on a monthly basis. They were provided with a simple tool that enabled them to collect this information.
2. **Micro-planning** – Data collected by the ASHAs on the specific health and information needs of each married adolescent girl, forms the basis of micro-planning. ASHAs prepare a list of MAGs with their reproductive health needs every month which they hand over to the ANMs. Examples of health needs are: pregnancy confirmation, ANC care, contraceptives, RTI treatment, etc. Examples of information needs are: delaying first conception, birth spacing, adequate diet, treatment of RTIs / sexually transmitted infections (STI), location of ICTC facility, etc. ANMS plan their work and logistics on the basis of the monthly micro-plans prepared by ASHAs.
3. **Behaviour Change Communication (BCC)** - A new paradigm in behavior change communication has been developed by Institute of Health Management, Pachod. During monthly household visits the AHSAs use simple algorithms to assess the information needs of each client and make a behavioral diagnosis. ASHAs provide need specific BCC and counseling based on her behavioural diagnosis. For example – ASHA visits a household where marriage of an adolescent girl is being considered. She tells them about the risks involved in early marriage and first birth and counsels them to delay her marriage till 18 years of age. ASHA visits the home of an anaemic married adolescent girl and provides dietary advice and asks her to consume IFA tablets. A married adolescent girl with an RTI is informed about the danger her condition poses and why she must get treated, etc.
4. **Primary level care** – The ASHAs inform all their clients that were identified during surveillance about the date and time when the ANM will hold the village clinic. On the stipulated date she gathers all her clients and takes them to the ANM. During surveillance if an ASHA comes across a married adolescent girl who reports any danger sign or symptom, the ASHA counsels her to go to a referral facility and accompanies the girl if necessary.
5. **Community Based Monitoring** – At the end of each month the ASHA convenes a Village Health and Sanitation Committee meeting. During the meeting the ASHA submits the list of married adolescent girls in need of services compiled by her and the ANM submits the list of married adolescent girls to whom she has provided services as well as the list of girls that were referred and the girls that actually utilized referral services. By comparing the health

Supervision of data collection was instituted at three levels. At the first level, investigators re-checked each completed interview schedule before handing it over to their supervisor. The supervisors checked each interview schedule for completeness and consistency, while the data collection was still in progress. If there were missing or inconsistent values, the supervisors asked the investigators to go back and re-validate the information. At the end of each day, investigators sat with their supervisor and checked the interview schedules a second time and their validity was certified by the supervisors.

At the third level, a senior data quality assurance coordinator checked each interview schedule for completeness and consistency of data. If any inconsistency was detected, the investigator was sent back to the respondent the next day.

A software programme was prepared in 'Epi data' for data entry. A data entry clerk entered data from each questionnaire, and a second data entry cross clerk checked the entries. Data were transferred to 'SPSS' for analysis. Data from baseline and end-line studies were compared to study any change in reproductive health status and health utilization behaviours.

Salient Findings from the Evaluation

These findings are based on aggregate of study and control areas of 5 districts. It should be borne in mind that the differentials among the districts could affect the average results. District wise findings re presented in the report.

Socio-demographic Findings

In the study area, the mean current age of the respondents for the end-line sample (18.2 years) is slightly more than that of the baseline sample (17.8 years), whereas, the mean current age of the respondents in the control area is similar for the baseline and end-line samples. In the study area, in the end-line evaluation sample the median current age is a little higher than that of the baseline sample. There is no difference between the end-line and baseline samples in the level of educational attainment (educated \geq Class 8) for both study and control samples. Likewise, the occupational pattern of the respondents for the end-line and baseline samples for the study and control areas is similar. The intervention sites were broadly similar to the control for most socio demographic indicators.

Age at Marriage

The mean age at marriage at the intervention site has not changed (15.4 years) between the baseline and end-line studies. The mean age at marriage at the control site also remained unchanged at 15.5 years. However, among the girls (35) that got married in 2009 - 2010 at the intervention site there is a delay in age at marriage by one and half years indicating a trend in the positive direction.

Age at First Birth

Out of 759 respondents interviewed during the end-line evaluation, 509 reported a birth outcome. Out of the 509 married adolescent girls reporting a birth outcome, 111 delivered in 2008 and their mean age at first delivery was 16.9 years. Out of 509 respondents, 160 delivered in 2009 and their mean age at first birth was 17.5 years. A total of 61 MAGs delivered in 2010 and the mean age at first birth was 18.1 years.

In comparison, in the control area, out of a sample of 516 girls, 267 girls reported a birth outcome. Out of 267 married adolescent girls that had delivered, 72 girls delivered in 2008 and their mean age at first birth was 16.6 years. Out of 267 MAGs, 97 delivered in 2009 and their mean age at first birth was 16.9 years. In 2010, 41 MAGs delivered and their mean age at first birth was 17.6 years.

This indicates that in comparison with MAGS in the control area, MAGS in the study area are delaying their first birth marginally.

Contraceptive Use

Current contraceptive use was analyzed after standardization by marital duration. However, the standardized prevalence did not differ much from the unstandardized prevalence (33.7 percent and 31.5 percent). The current use of spacing methods has significantly increased in the study area. The prevalence of current contraceptive use has gone up from 6.6 percent at baseline to 33.7 percent at end-line in the study area. The increase in prevalence of use of spacing methods method-wise was: **1) Oral pills - 1.9 percent to 7.9 percent; 2) Condoms - 4.5 percent to 26.5 percent; and 3) IUD - 0.4 percent to 0.6 percent.** However, **in the control area, there was no change** in contraceptive use.

Proportion of Respondents reporting sustained contraceptive use (=> 6mths.) by parity

| Parity | Percent using contraceptives for >=6 months – end-line data | |
|--------|-------------------------------------------------------------|------------------|
| | Study area (%) | Control area (%) |
| 0 | 0.39 | 0.19 |
| 1 | 6.8 | 0.96 |
| 2 | 4.5 | 0.58 |
| 3 + | 1.4 | 00.0 |
| Total | 759 | 516 |

During the evaluation, the proportion of respondents reporting sustained contraceptive use, for more than 6 months, was significantly higher for each parity group, in the study area as compared to the control area.

In study area, 256 out of 759 MAGs (33.7 percent) reported contraceptive use. Out of these 41 percent reported sustained use for 6 months or more. On the other hand in the control area, merely 33 out of 516 MAGs (6.4 percent) reported current contraceptive use of which only 27.3 had used contraceptives for more than 6 months.

At the time of the evaluation, the program had been implemented for a period of 18 months only. This project duration would be insufficient to capture the impact of contraceptive use on fertility. What is evident, however, is that consistent use of contraception has increased in the study area as compared to the control area.

Maternal and Neonatal Health

In the SATHI project, registration with an ANM, for antenatal care, before 12 weeks of gestation was defined as early antenatal registration. Early antenatal registration increased in the study area from **60** percent at baseline to **78** percent at end-line. However, in the control area there was no significant change between baseline and end-line (**55** percent and **54** percent respectively).

A significant increase has occurred in the proportion of married adolescent girls availing of the minimum antenatal care package (early registration, 3 ANC check-ups, 2 TT injections and 90+ IFA tablets) from **8.1** percent at baseline to **56.1** percent at end-line in study area. In the control area, the increase is from **7.1** percent at baseline to **24.3** percent at end-line. The increase in coverage with minimum standard antenatal care in both the study and control areas may be partially attributed to NRHM but the substantially higher increase in the 5 intervention sites is attributed to the SATHI intervention.

The SATHI project had altogether 9 key activities. The reported exposure of the respondents to these activities was measured. About 33 percent respondents reported low exposure (Exposure to less than 3 activities); 36 percent reported medium exposure (exposure to 4 to 5 activities) and 31 percent reported high exposure (exposure to 6 or more activities) Exposure to SATHI intervention is associated with utilization of minimum standard antenatal care package. 67 percent MAGs with high exposure to the SATHI inputs had availed of the minimum standard of antenatal care as compared to 43 percent MAGs with low exposure to SATHI inputs.

The prevalence of any one self-reported antenatal complication decreased from **55** percent at baseline to **44** percent at end-line in the study area. Conversely the prevalence of any one self-reported antenatal complication increased from 37.7 percent at baseline to 50.7 percent at end-line in the control area, which may be due to better reporting.

Treatment seeking behaviour for antenatal complications in the study area increased from **75** percent to **88** percent, whereas in the control area it increased from **63** percent to **77** percent.

The proportion of institutional deliveries increased from **60** percent to **73** percent at end-line in the study area, whereas that in the control area the increase was from **49.9** percent to **69.2** percent. Large scale studies in India indicate that the increase in the proportion of institutional deliveries in both intervention and control sites is attributable to NRHM and JSY. In the control sites where the level was lower at baseline the change has been more rapid.

The number of postnatal visits by the govt. ANM increased significantly from **18** percent at baseline to **31.6** percent at end-line in the study area, whereas in the control area it increased

from **14.12** percent to **20.8** percent. Additionally, in the study area at end-line **33.4** percent of the MAGs reported that they were also visited by the SATHI project ANMs.

There was a significant increase in the proportion of MAGs seeking treatment for postnatal complications from **56.0** percent at baseline to **78.8** percent at end-line, in the study area. However, no change was observed in the treatment seeking behaviour for postnatal complications between baseline and end-line, in the control area.

The proportion of respondents that reported early treatment seeking for neonatal complications increased from **40.2** percent to **58.2** percent in the study area, whereas in the control area, it increased from **45.0** percent to **51.6** percent.

Reproductive Health

Findings indicate a reduction in the proportion of self-reported menstrual problems from **78.5** percent to **64.6** percent at the intervention site. Even though the reported prevalence was lower at the control site, no change was observed between the baseline and end-line surveys (**64.9** percent at baseline and **63.1** percent at end-line).

The proportion of MAGs that reported treatment seeking behaviour for urinary tract infection (UTI) symptoms increased from **26.3** percent to **46.4** percent in the study area, whereas no change was observed in the control area.

Treatment seeking behaviour for reproductive tract infections among those who reported the symptoms increased significantly from **28.1** percent to **60.4** percent in the study area. There was a significant reduction in the proportion of self-reported symptoms of reproductive tract infection from **34.8** percent to **27.3** percent in the study area. In the control area, no significant change occurred in the proportion of self-reported symptoms of reproductive tract infections (**29.6** percent to **28.8** percent), or in the treatment seeking behaviour for reproductive tract infections (**30.8** percent to **28.9** percent).

The proportion of self-reported symptoms of sexually transmitted infections in both the study and control areas was about 5 percent. The proportion of treatment seeking behaviour for self reported sexually transmitted infections increased from **21.2** percent at baseline to **65.0** percent at end-line in the study area; and from **12.5** percent at baseline to **30.8** percent at end-line at the control area

Testing for HIV

Both the study and control areas reported a high level of awareness of the availability/existence of a test to detection of HIV. There was a significant increase in the proportion of awareness of ICTC services in the study area from **12.9** percent to **42.8** percent. In the control area, awareness increased from **5** percent to **13** percent.

The proportion of MAGs who reported ever having been tested for HIV significantly increased in the study area from **11.7** percent to **58.7** percent. In the control area, it increased from **1.8** percent to **15.9** percent. The increase in the control area can be attributed to the decentralization of ICTC services from the district level to rural hospitals. The significantly higher increase in the intervention sites is attributable to the SATHI intervention.

Conclusions

The SATHI project for married adolescent girls was implemented in five backward districts of Maharashtra with the aim to improve their reproductive health. The project was implemented through a network of 5 NGOs working in those districts.

The project was evaluated in April 2010. The data from the intervention sites compared to 5 control PHCs located in the districts where the SATHI intervention was implemented. The married adolescent girls at the intervention sites were slightly older. The intervention and control sites were similar for most other socio-demographic indicators.

At the time of the evaluation, even though the duration of the intervention was brief, it indicates some substantive impact. For couples that got married recently; delay in the age at marriage is noticeable. Similarly, the increase in age at first conception can be attributed to the intervention. In the control sites there is neither an increase in the age at first birth or in contraceptives use.

In the case of contraceptive use, the impact is remarkable. The evaluation indicates sustained use of contraceptives, condoms being the most preferred method. This reflects an attitudinal change brought out by the intervention, reflected through increased male participation in family planning. Contraceptive use appears to be mainly for spacing between the first and second child.

A significant increase is observed in the utilization of antenatal care services. The data indicate that this achievement was contributed by the increased supply of IFA tablets. The role of the intervention in increasing coverage with minimum standard antenatal care services cannot be denied.

Even though the change is significantly less than that seen at the intervention sites, there is an increase in utilization of maternal care services, particularly institutional delivery, and in health seeking behaviors for maternal morbidity in the control sites as well. The evaluators feel that this change can be attributed to the National Rural Health Mission.

Another significant outcome of the intervention is the increase in treatment seeking for antenatal, postnatal, post-abortion and neonatal morbidity. The reduction in maternal morbidity is attributable to the intervention.

There is a change in the health utilization behavior for UTI, RTI and STI. However, the prevalence of RTIs has not come down proportionately, in spite of the fact that a significant proportion of young women are opting for institutional deliveries.

In the context of HIV, there is significant increase in awareness of ICTC facilities and testing for HIV. The intervention appears to have influenced the service seeking behaviours among married adolescent girls and their spouses.

There was no change in the prevalence or in the health seeking behavior for RTIs and STIs in the control sites. However, there is an increase in the proportion of young women undergoing counseling and testing for HIV which may be attributable to the decentralization of HIV testing by NACO in 2009.

The collaboration between SATHI workers and the health providers from formal health sector seems to make an impact on RCH utilization behaviors which have the potential to reduce maternal and neonatal mortality and improve the health of married adolescent girls.

Recommendations and Implications for NRHM

It is recommended that the five components of a focused intervention on reproductive and sexual health for married adolescent girls, which was demonstrated by the SATHI project, be replicated on a larger scale as it has the potential of rapidly addressing two key MDG goals.

Surveillance of health needs by ASHA appeared to have played a significant role in this project. The process of ASHA visiting a few households every day and assessing the health and information needs of her community and ensuring that those at need access the services of the ANM, and PHC seems the most rational approach to improving the efficacy of RCH services.

Assessing health needs in the population under the ASHAs jurisdiction, ensuring that they have access to health services and supporting the VHSCs to monitor whether the needs of the community were addressed adequately or not seem the most rational responsibilities of an activist (ASHA) that represents her community.

With over 700,000 ASHAs trained in the country, replication of this strategy seems imminently feasible. The implications for NRHM are to include the skills for monthly surveillance, and linking the beneficiaries with health providers in the training curriculum for ASHAs. The system of surveillance developed for the SATHI project can be easily adapted for NRHM.

It is recommended that these functions are included in her roles and responsibilities and that she is reimbursed for carrying them out efficiently.

The need specific communication strategy based on behavioural diagnoses that was used in the SATHI project hails a paradigm shift in the way BCC is implemented in rural India. Its effectiveness is reflected in the dramatic change in behaviors related to HIV testing (a considerably difficult behaviour to influence). Since this BCC strategy was implemented by community based women with 7 to 8 years of schooling, its operationalisation through ASHAs in the NRHM should not be a challenge.

References:

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