
Operational Research Report

Reproductive Health Promotion through Essential Service Delivery Package Project (RHP- ESDP), Sumangonj

Period: January 2012-December 2015

Conducted for:
**Voluntary Association
For Rural Development (VARD)**

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Finally, while acknowledging the valuable inputs of all the above, CBSG stands by the data, analysis and conclusions reached from the surveys and believes them to be a sound response to the information available. However, CBSG recognizes that the findings, analysis, and conclusion including any errors and omissions contained within this report are of its own.

List of Acronyms and Abbreviations

ANC	Antenatal Care
ARI	Acute Respiratory Infection
BCC	Behavioural Change Communication
BDHS	Bangladesh Demographic and Health Survey
CBSG	Capacity Building Service Group
CAR	Contraceptive Acceptors Rate
DPT	Diphtheria, Pertussis and Tetanus
EPI	Expanded Program on Immunization
ESP	Essential Service Package
FGD	Focus Group Discussion
FP	Family Planning
FWV	Family Welfare Visitors
NGO	Non Government Organization
PNC	Post Natal Care
RH	Reproductive Health
SPSS	Statistical Package for Social Science
TBA	Traditional Birth Attendant
THFPO	Thana Health and Family Planning Officer
TT	Tetanus Toxoid
TTBA	Trained Traditional Birth Attendant
VARD	Voluntary Association for Rural Development

Table of content

Acknowledgement	2
List of Acronyms and Abbreviations	3
Executive Summary	6
1 Background	7
1.1 Introduction of the Study	8
1.2 Objective of the study	8
2 Methodology	9
2.1 Survey:	9
2.2 Sample size	9
2.3 Sampling procedure:	10
2.4 Identification of Primary Sampling Unit (PSU)	10
2.5 Focus Group Discussion (FGD):	10
2.6 Review of materials and documents:	11
2.7 Quality Control	11
2.8 Data Management	11
2.9 Reporting.....	11
2.10 Limitation of the study	11
2.11 Report Flow	12
3 Results	13
3.1 Family Planning Method Use	14
3.2 Reproductive Health Services	19
3.3 CHILD HEALTH	26
4 Discussion and Recommendations	28
4.1 Recommendation	28

List of tables and figures

Table 3.1 Age structure of the studied women	13
Table 3.2 Education attainments of studied women	13
Table 3.3 Employment status of the respondents and their husbands	14
Table 3.4 Distribution (%) of currently married women by contraceptives method	14
Table 3.5 Length of period of Family planning method use.....	15
Table 3.6 Increase of family planning method user from baseline.....	16
Figure 1: FP user (%) of Sunamgonj Sadar Thana and Sylhet Division	16
Table 3.7 Method-wise comparisons between baseline and endline	17
Table 3.8: Reason for not using family planning by age	18
Table 3.9 Types of problems encountered in using family planning methods	18
Table 3.10: Treatment source for contraceptive complication	19
Table 3.12: Antenatal check up by provider	19
Figure-2: Trend of anti-natal check-up over two different periods in percent.....	20
Table 3.12: Reasons for not receiving ANC.....	20
Table 3.13: Women anticipating problem during delivery	21
Table 3.14: Place of delivery by mothers (%)	22
Table 3.15: Assistance during delivery by providers.....	23
Figure-3: Facilities provided for management of complicated labour.....	23
Table 3.16: Knowledge on problems after delivery.....	24
Table 3.17: Major problems faced by mothers during pregnancy by age	24
Table 3.17a: Post-natal care service received by their age	25
Table 3.18 Immunization coverage in Baseline and End line	26
Table 3.19: Diarrhoea occurrence by age	26
Table 3.20 Children experienced ARI by age.....	27

Executive Summary

Voluntary Association of Rural Bangladesh (VARD) is delivering health services through Essential Service Package Delivery program in remote and underserved area of Bangladesh. The overall objective of the program is to improve health status of people particularly women and children. Through an integrated approach the program has been implemented in 10 unions of Sumangong Sadar Thana plus two wards of the municipality. The program has started in 2012.

An evaluation study has been conducted to assess the impact of few important health indicators of the program. The findings of the study have been compared with baseline survey result to view overall change situation occurred by VARD program.

The background characteristics of people have not changed much such as education attainment and employment status of women remained same. Family planning method has substantially increased from baseline to end line, 20.3 percent to 41.3 percent. Although contraceptive prevalence rate increased but there have not been much improvement in method mix. Long-term family planning method is still very low. Even, women between age 30 to 45 years and completing family size takes pill. Condom use is almost negative. The reasons for not using family planning methods might be due to miss conception, wrong beliefs, orthodoxy and lack of male participation.

Maternal health services also improved significantly. Women knowledge on problems during pregnancy, delivery and after delivery has increased. Women have acknowledged the need of services of ANC, safe deliver care and PNC. ANC and vaccination coverage of women has increased much. But the mothers do not practice still institutional deliveries. The main reasons might be family members and male counterpart role. Women health seeking behaviour has not much changed. Postnatal care visits of mothers has also increased.

The project has achieved significantly in immunization coverage to children from baseline to end line. Diarrhoea and respiratory problems has declined. Treatment seeking behaviour has positively increased. 95 Percent of the children received treatment.

The project needs to develop strategy to include male participants in the mainstream program in order to make impact on such a socio-cultural community. Institutional mechanism should be developed for referral support and clinical facility.

The project has acceptance in the community, but for sustainable point of view potential opportunity still remains for improvement. Keeping socio cultural barriers of this regions the project should develop innovate approaches for sustainable development.

1 BACKGROUND

Voluntary Association for Rural Development (VARD) is a national level Non Government Organization (NGO) working in Bangladesh with vision to *enlightened humanistic society with a sustainable basis for livelihood*. To accomplish the vision VARD has adopted integrated program approach for both human and institutional development opportunities as the major components of sustainable poverty reduction. The organization has started working in 2002 with major program components in 15 Upazillas under Sylhet division. Objectively they have chosen relatively untouched area where development process was lacking. This region is categorised as high degree of conservativeness and religious bias.

Voluntary Association for Rural Development (VARD) has a strong presence in the Sylhet Region for its rural development program. Health, in particular, reproductive health is one of its programmatic priority intervention areas. It has been implementing The Reproductive Health Promotion through Essential Service Package Delivery Project (RHP-ESPD) in Sumamgonj sadar Upazila since January 2002. The main objective of the project is to sensitise community on better health and to provide accessible ESP services.

The project has covered 67 villages spread over 12 unions of Sumamgonj sadar Thana. It has reach to nearly 80000 populations of all ages and sex covering just over 12000 households.

The project is targeted to take the RH and FP services to the reach of the poorer section of the people in the remotest places of Sumamgonj Sadar Thana. To this end the goal of the project is to improve health status of the people of Sumnamgonj, particular to project unions. The specific objectives of the project were to:

- Increase health awareness of the community people
- Reduce number of maternal deaths
- Reduce number child morbidity and mortality due to vaccine preventable diseases, ARI, diarrhea and malnutrition
- Increase number of FP user
- Increase access of the target population to limited curative care
- Create linkage with the other health service providers
- Establish an effective referral network
- Increase awareness among the adloscents
- An agreed referral system established

The project adopted an integrated approach in addressing the problems of the people aimed at reducing health problems. The approach comprise of elements of services and providing health education and awareness rising. The goal of the project is to improve the health status of the people of Sunamgonj in particular the project area. VARD has adopted an integrated approach towards achieving the goal. It has laid down specific objectives in line with the project goal.

1.1 Introduction of the Study

As part of the project, VARD has planned to undertake operation research to assess and measure the result of the project periodically. The operation research is expected to provide information regarding the progress of the project with regard to its expected results in particular area. In-depth qualitative and quantitative assessment approach will be followed in the operation research.

1.2 Objective of the study

The overall objective of the study is to

Evaluate or measure the effects of VARD intervention on the life of the target beneficiaries

The objective of the study was to assess the impact of reproductive health service specifically family planning, maternal and child health. The specific objectives were to assess –

Specific Objective

- i. The contraceptive prevalence rate among currently married women of reproductive age
- ii. Proportion of women who receive antenatal care
- iii. Proportion of deliveries done at acknowledged facilities and proportion of deliveries done by trained personnel
- iv. Proportion of women who received post-natal care
- v. Immunization coverage of children

2 METHODOLOGY

The Operation Research adopted a combination of social and statistical research methodology to optimize the data validity and presentation. Thus it has drawn upon the qualitative and quantitative research approach. Specifically, CBSG adopted household survey, FGD, key informant interview and document review.

2.1 Survey:

Survey was used to capture the response of key research questions from large audience with variety of socio-economic characteristic. The survey itself attempted to capture information that is sought in the study quarries. Two types of questionnaire were developed targeting project beneficiaries. They were structured and mostly pre-coded. Questionnaire one was targeted to married women of reproductive age to gather information on their family planning related behaviour. Questionnaire was administered to ever-pregnant women to gather information primarily on reproduction health issues and their child health and immunization behaviour. Both the questionnaires captured quantitative and qualitative information from the respondents through interactive personal interviews. The qualitative data was derived through open end and pre-coded questions. The survey data was collected between 1 July and 15 July 2005. A total of 12 trained and female enumerators and two quality controllers were employed to collect data from the field.

2.1.1 Questionnaire Development:

Survey questionnaires were designed in such that it satisfies information needs to achieve research objective. This was done through a rigorous consultative process between CBSG and VARD. The following steps were followed:

- Identified issues coherent to study objectives from document review
- Conducted semi structured and open ended interview with the beneficiaries and service providers including VARD project staff
- Developed a draft questionnaire with code options
- Shared with VARD and received their input and finalize a draft for pre-test
- Conducted pre test in the field
- Updated the questionnaire with field test findings
- Obtained approval of VARD.

2.2 Sample size

Overall sample size was 593 respondents – 293 married women of reproductive age and 300 ever-pregnant women of reproductive age. The client (couple list) list maintained by VARD for the project constituted the overall sampling frame.

2.3 Sampling procedure:

As we know the catchments population of the program, CBSG used following formula for determining the sample size. This formula is applicable for the known population size up to 1,000,000 and widely used in development and social studies.

$$n = \frac{z_{1-\alpha/2}^2 pq * N}{d^2 (N - 1) + z_{1-\alpha/2}^2 pq}$$

where, N= population size

p = .60 (it is assumed that project benefit has reached to 60% targeted beneficiaries)

q = 1-p

d = precision level of the proportion

z = 1.96, for 5% level of significance

In this case, number of fertile couple are said to be 12355 (Project information system)

So,

N = 12,355

p = .60

q =.40

d =.05

Equating this formula, we got a figure of 358 samples that represent the catchments population. Then adding design effect by multiplying 358 into 1.5 provides a figure of 538 (as the samples will be drawn from different unions – service delivery points). This was the minimum number of sample to be drawn. However, for better representation and considering time and cost, a size of 593 samples was studied in this research.

2.4 Identification of Primary Sampling Unit (PSU)

VARD has covered 10 unions of Sumangong Sadar Thana plus two wards of the municipality. This research randomly selected 5 unions and one ward thus covered 6 service deliver points for sampling. 99 samples were drawn from each of the 6 areas. Ultimate sampling units were selected using exiting client list. Systematic random sampling method using Kth number were used to specify the beneficiary. However, in case of non-availability or missing respondent, next number from the existing client list was chosen for interview

2.5 Focus Group Discussion (FGD):

In this research, FGDs were conducted once data ranges, frequency distribution and descriptive tables are available from survey data. This has provided us the dimensions of FGDs and the information requirements. This process helped validate survey findings of quantitative nature. FGDs were conducted with the client groups to verify the validity,

quality and relevance of the project services and its impact on them. A total of 10 FGDs were conducted on different age specific groups, service providers and areas.

2.6 Review of materials and documents:

CBSG reviewed the project documents including manual, IEC materials, Service delivery manual, reports, and other relevant documents.

2.7 Quality Control

Intensive quality control measures were installed to ensure quality and authenticity of data. VARD and CBSG staff observed the data collection and FGD process and provided necessary feedback to the interview/facilitator. Besides, FGD facilitation team reviews the survey questionnaire in depth on a daily basis to see any inconsistency in the data collection. Occasionally they had to revisit the survey questionnaire with the respondents to fill any gaps in the questionnaire. CBSG's senior consultants also undertook number of field visits and conducted sharing meetings with all interviewer to improve the quality of data collection.

2.8 Data Management

CBSG edited and rechecked each of the survey forms using logical sequence for any omission and inconsistency before entering data into electronic format. Qualitative responses were coded with appropriate levels for processing and analysis. CBSG developed smart and conditional data-entry software using a combination of Access and Visual Basic that filtered data quality and ensured consistency during data entry. Survey data was initially stored in the Access database. CBSG cleaned the data while in ACCESS format. Data then transferred into SPSS format that provided the main frame for data analysis. Decoding was done in SPSS while generating descriptive tables and analysis. CBSG generated frequency distribution, data ranges and descriptive tables, which guided to develop a more detail and cross-analytical tables for analysis

2.9 Reporting

Survey data analysis and reporting framework evolved through a consultative process between VARD and CBSG. This report presents the survey findings based on the agreed framework. In that, report is also a co-creation of CBSG and VARD. The reports tried to capture in-depth analysis of findings, key RH issues and changes that might have resulted from the project intervention. The findings and analysis were presented in visual forms besides tabular presentation and text..

2.10 Limitation of the study

VARD has numbers of programs to reach its mission; this study has only focused on health service ESP program. The study was conducted in the same area where VARD has already started operation of a follow-up project with similar intervention package. In that, there might have certain affect of new project came under this study. Apart from this, data collection for baseline and operation research was conducted by two different sets of enumerators, which might have lack of common understanding.

2.11 Report Flow

This report is presented in four parts besides an executive summary at the beginning. Part one and two contains background, introduction and methodologies while Part three and four included results and discussion and recommendations.

3 RESULTS

3.1 Background characteristics of the study population

A total of 593 currently married women were interviewed from 600 samples. Among the women 300 were selected who children have aged 12 to 23 months. The average age of women covered under the study is around 30.

3.1.1 Age structure by Currently Married and Ever Pregnant Women: Age structure is an important variable dominates basic demographic indicators. The age structure under study is shown that 43.7 percent of currently married women age is between 30 to 39 years and majority (30.7%) of pregnant women age is between 25 to 29 years. Table 3.1 shows age distribution of the respondents.

Table 3.1 Age structure of the studied women

Variables	Percent age distribution	
	Currently married	Women having children 12-23 years of age
Age		
15-19 yrs	7.5 (22)	0.6 (2)
20-24 yrs	16.4 (48)	23.0 (69)
25-29 yrs	18.8 (55)	30.7 (92)
30-34 yrs	22.2 (65)	23.7 (71)
35-39 yrs	21.5 (63)	17.0 (51)
40-44 yrs	11.6 (34)	4.0 (12)
45-49 yrs	2.0 (6)	1.0 (3)
Total	100 (293)	100 (300)

3.1.2 Education attainment

As far as educational status of the respondents is concerned, a majority (61.7%) of respondent has never attained any school in her life. More than one quarter (26.5%) completed primary level or not completed primary level. Among them 11.8 percent of the respondent gone beyond primary level and attained secondary level of education. Almost similar picture was found in BDHS Survey 2004. Education attainment in Sylhet division was found worrisome, majority (53%) of female did not attain school and 17 percent of women had attained or not completed secondary education.

Table 3.2 Education attainments of studied women

Education	Frequency & Percentage
Never gone to school	366 (61.7)
Primary	157 (26.5)
Secondary	70 (11.8)
Total	593 (100)

3.1.3 Employment

The respondents were inquired whether they are employed at the time of survey. Table below represents respondents' status of employment.

Table 3.3 Employment status of the respondents and their husbands

Background characteristics	Not employed	Currently employment				Total
		Service	Business	Day Labourer	Farmer	
Currently married women	96.13 (570)	1.52 (9)	0.9 (5)	1.45 (8)	-	100.0 (593)
Husband's of currently married women	1.8 (11)	8.2 (43)	27.2 (161)	32.1 (190)	30.7 (183)	100.0 (593)

A large proportion (96.13%) of currently married women is not employed at the time of survey. Sylhet division overall employment status of women is 15.7 percent found in Bangladesh Demographic and Health Survey (BDHS), 2004. This indicates that currently married women employment status in VARD working area is much below compared to Divisional status.

3.1 Family Planning Method Use

Currently married women were asked whether they were using any family planning method and the time period of use. 121 respondent gave positive response, among them 106 were using modern family planning methods rest 8 were using traditional methods viz. safe method and withdrawal, 7 were using other methods from quack.

3.1.1 Current use of Family planning methods

Table 3.4 Distribution (%) of currently married women by contraceptives method

Age	Any method	Any modern method	Pill	IUD	Injectables	Norplant	Condom	Sterilization	Traditional method
15-19	-	-	-	-	-	-	-	-	-
20 - 24	12.4	12.4	46.7	6.7	33.3	4.3	4.3	-	-
25 - 29	19.0	16.5	39.1	-	34.8	-	2.9	4.3	2.5
30 - 34	28.1	26.4	50.0	2.9	35.3	-	-	2.9	1.6
35- 39	24.8	23.1	23.3	3.3	53.3	-	-	3.3	1.6
40 - 44	14.0	9.9	47.1	5.9	29.4	-	-	-	4.1
45 - 49	1.7	0.8	-	-	-	50.0	-	50.0	2.5
Total	41.3	36.2	39.7	3.3	38.0	1.7	1.7	3.3	12.4

Current use of family planning use varies by age. Use of contraception started from 20 years rise to peak between age 30 to 34 years and then drops to 14.0 percent between age 40 to 44 years, this is very typical picture. Traditional method includes periodic abstinence, withdrawal and method use from quack. Result shows a reasonable proportion of women still practice traditional method.

The pill is the most commonly used methods, almost forty percent reported they are using pill, among them almost twenty one percent using for less than one year, almost twenty three percent using for one year, more than fourteen percent for two years, another fourteen percent for three years and less than nine percent using four or above four years. Next popular method is injectables which count to thirty eight percent during survey. Twenty six percent is using less than one year, thirty percent using for one year, almost twenty percent for two years, fifteen percent for three years and less than nine percent for four or more than four years. The respondents do not frequently use other long-term methods IUD, Norplant and sterilization.

Table 3.5 Length of period of Family planning method use

Family planning methods	< 1 Year	1 Year	2 Year	3 Year	4 Year & above
Pill	20.8	22.9	14.6	14.6	27.3
Condom	0	0	0	0	100.0
Injectables	26.1	30.4	19.6	15.2	8.7
IUD	25.0	0	0	25.0	50.0
Norplant	0	0	50.0	50.0	0
Sterilization	25.0	25.0	25.0	0	25.0
Traditional method	3.6	3.6	4.8	0	17.8(5)
Other	42.9	14.3	28.6	0	14.3
Total	23.2(28)	23.1(28)	17.4(21)	13.2(16)	23.1(28)

Analysis of method mix indicates that pill is the dominant method and it is used for longer period of time. Majority of the respondents are using Injectable between one year or less than one year.

Voice of beneficiaries (from FGD)

a. Family Planning Method: In FGD women were asked about their perception and experience on use of family planning in their area. Summarization of their responses is as follows

- *“In our area use of family planning methods has increased. Awareness has increased. VARD played a major role to change our mind”.*

b. Barrier to use family planning

- *“Some miss conception is there in the community. Some think contraceptives especially pill will affect our health. Husband dislike is also there. Some had belief if contraceptive injection is taken then no Janaza prayer after death is offered for her”.*

c. Source of supply

- *“We do not have any problems receiving supply of contraceptives, VARD health worker visit our house and distribute contraceptives”.*

d. Side-effect and treatment

- “Weakness and irregular menstruation are major problems we face. We do not think we need treatment for this problem. In case we need treatment we go to Sadar hospital. But it is not always possible for us due to distance and cost”.

e. Frequency of visit of VARD Health worker

- “Health worker from VARD comes once or twice in a month; usually they come between 10.00 a.m. to 2.00 p.m. They usually do not take any service charge but take charge of medicine. In community clinics Taka 5.00 is taken as service charge. This amount is affordable for us”.

3.2.1 Comparative analysis of family planning method use

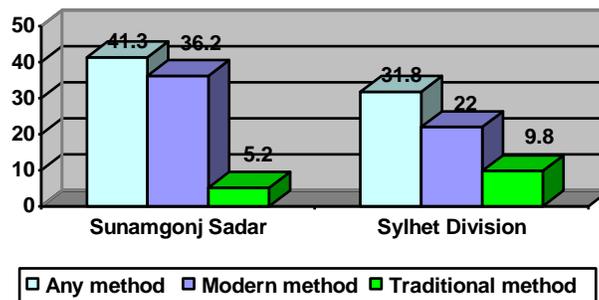
VARD has been working in the area for last 3 years giving emphasis to increase contraceptive prevalence rate. The impact of the program on family planning use has been represented in table 3.6

Table 3.6 Increase of family planning method user from baseline

Background characteristics	Baseline Year 2002	End line Year 2005	Percentage Increase	Sylhet division BDHS 2004
Any method	20.3	41.3	21.0	31.8
Modern method	19.3	36.2	16.9	22.0
Traditional method	0.9	5.2	4.3	9.8

Family planning any method use has remarkably increased from baseline to end line. The baseline of 2002 figure shows any method user 20.3 percent, which has increased to more than one fold in three years and reached to 41.3 percent. The project has reached beyond Sylhet divisional coverage. Although the project had set a target to achieve 60 percent contraceptive prevalence rate in 2005. But the target is far beyond reach.

Figure 1: FP user (%) of Sunamgonj Sadar Thana and Sylhet Division



3.1.2 Method Mix

Between baseline 2002 to end line 2005 the contraceptive prevalence rate has increased by 16.9 percentage points, from 19.3 to 36.2 percent (only modern method are considered). The method mix almost remained same from 2002 to 2005. Only, almost 10 percent of the user switches over from pill to injectables.

Table 3.7 Method-wise comparisons between baseline and endline

Family planning methods	Baseline Year 2002		End line Year 2005	
	Frequency	Percent	Frequency	Percent
Pill	64	49.6	48	39.7
Condom	3	2.3	2	1.7
Injectables	38	29.5	46	38.0
IUD	5	3.9	4	3.3
Norplant	1	0.8	2	1.7
Sterilization	12	9.3	4	3.3
Traditional	6	3.9	8	6.6
Other	1	0.8	7	5.8
Total	129	100.0	121	100.0

3.1.3 Reason for not using family planning methods

Among the currently married who were not using family planning method at the time of survey was found to be 58.7 percent. The major reason for not using family planning methods found was 32.7 percent want child, especially prominent in young age group. The next major reason stated was irregular menstruation 21.6 percent. The rest stated other reasons for not using were husband aboard (5.8 percent), fear to use for side effect (5.8 percent), in-laws disagreement.

It is interesting to mention here that almost equal number of responded stated similar reasons for not using contraception in baseline survey.

Table 3.8: Reason for not using family planning by age

Age	Percent age not using	Reason for not using							
		Want child	Pregnant	Husband aboard	Fear of side effect	In-laws disagreement	Infertile	Newly mother	Irregular menstruation
15-19	12.8	40.9	27.3	4.5	-	4.5	-	4.5	18.2
20-24	19.2	45.5	24.2	3.0	-	9.1	-	3.0	15.2
25-29	18.6	31.3	25.0	9.4	3.1	3.1	-	3.1	21.9
30- 34	18.0	30.0	20.0	3.3	6.7	10.0	-	-	26.7
35 - 39	19.2	30.3	12.1	12.1	18.2	3.0	9.1	3.0	12.1
40 - 44	9.9	17.6	-	-	5.9	11.8	23.5	-	41.2
45+	2.3	-	-	-	-	-	50.0	-	50.0
Total	100.0	32.7	18.7	5.8	5.8	6.4	5.3	2.3	21.6

3.1.4 Problems of using Family Planning and treatment received

The women in survey were asked whether they have encountered any health problems in using family planning methods. Among the 106 family planning users 37 responded positively. Problems in using methods may reduce confidence and ultimately result to termination. The problems mentioned by them are as follows:

Table 3.9 Types of problems encountered in using family planning methods

Problems	Contraceptive methods		
	Pill	Injectables	Total user
Weakness	80.0 (12)	27.3 (6)	48.6 (18)
Pain in abdomen	-	9.1 (2)	5.4 (2)
Irregular menstruation	20.0 (3)	63.6 (14)	45.9 (17)
Total	40.5 (15)	59.5 (22)	100.0 (37)

Among 37 of the respondents who faced problems in using contraceptives, 37.8 percent availed treatment. Majority 50 percent of them received treatment from government facilities, 29 percent from NGO facilities and 14.3 percent from village doctors, rest (0.7 percent) seek homoeopathic treatment.

Table 3.10: Treatment source for contraceptive complication

Sources	Baseline	End line
GOB	29.0	50.0
NGO	38.0	28.6
Private	28.0	-
Village	5.0	14.2
Other	-	7.2
Total	100.0	100.0

3.2 Reproductive Health Services

300 Currently married women who had children of 12-23 months were selected for interview. Findings on use of maternal and child health services, specifically antenatal, delivery and postnatal care, vaccination coverage, in particular childhood illnesses and immunization are presented here.

3.2.1 Ante-natal care and TT vaccination

Pregnancy is a period that has potential risk. Any pregnant women can develop complicacy during pregnancy which may lead to death. Antenatal care has been acknowledged for pregnant women to reduce risk of morbidity and mortality. Respondents were asked whether it is necessary to avail ante natal check even if there is no problem during pregnancy. Majority (83.7%) has stated that it is necessary to get antenatal check even if there were no problem during pregnancy. Participants in FGD gave same response to similar question.

Among them 56.4 percent received at least one antenatal check, more than half received 2 antenatal check and nearly 50 percent of them received 3 checkups. ANC check up increased from baseline, it was 38 percent who received at least one check up and 10.9 percent 3 check-ups.

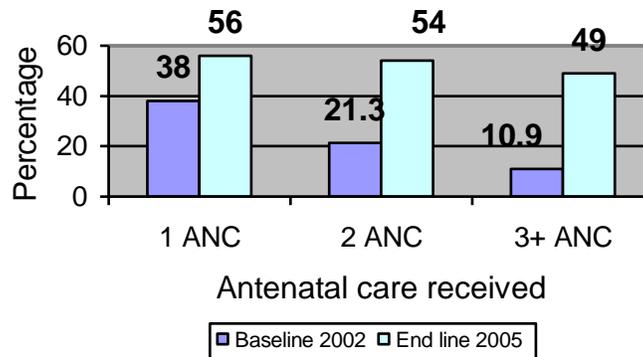
Table 3.12: Antenatal check up by provider

Background characteristics	Government facilities	NGO	Private	Village doctor	Total
Received at least 1 ANC	23.5 (39)	60.6 (101)	14.5(24)	1.5(3)	56.4 (167)
Received at least 2 ANC	20.8(33)	64.9(105)	14.5(23)	-	54.0 (161)
Received 3& above ANC	23.3(34)	61.6(90)	15.0(22)	-	49.0 (146)

The above table shows that NGO has a lead role in providing ANC services, majority received services from NGO clinics. When asked about taking iron tablet during pregnancy almost half of them gave positive response.

Sharp rise in antenatal coverage is evident from baseline to end line period. The following diagram shows the trend of ANC increase from baseline to endline.

Figure-2: Trend of anti-natal check-up over two different periods in percent



3.2.2 Reason for not seeing anyone for Antenatal care

Mothers who did not receive an antenatal check up were asked about the reason for not receiving ANC. About sixty percent responded that they did not face any problem and therefore they did not receive check up. It is to be mentioned here that the majority were affirmative when asked about ANC check up needs. It seems that they have knowledge but practice is lacking. Their responses are summarized in table 3.13

Table 3.12: Reasons for not receiving ANC

Reasons	Frequency	Percent
No problem	77	58.8
Service centre is far away	7	5.3
Cost is high	18	13.7
Hampers daily works	3	2.3
Family oppose	8	6.1
Husband oppose	9	6.9
Had no money	9	6.9
Total	131	100.0

3.2.3 Knowledge on danger sign during pregnancy

Early detection of complication in pregnancy can be diagnosed in antenatal checkups, on the other hand women should also know about the complication that can occur. VARD behavioural change communication program (BCC) has communicated the messages of danger sign during pregnancy. Regarding danger sign 42 percent of them said about convulsion, 32 percent severe headache, 29.4 percent high blood pressure.

3.2.4 Vaccination of Mothers

Tetanus Toxoid vaccination is given to mothers during pregnancy for the prevention of neonatal tetanus. A pregnant woman should receive at least two doses of tetanus toxoid to protect herself and newborn baby. If she already had received full two-dose vaccination during previous pregnancy, she still will require one dose during the current pregnancy. Five doses of TT are considered to protect whole reproductive period. Information on TT vaccines is collected to assess present coverage in the area.

Nearly eighty-three of the respondents reported to received two doses TT during last pregnancy. And 91 percent of them received 5 doses of TT for whole reproductive life. Sharp increase in TT coverage is evident. The coverage of 2 doses of TT was 73 percent in baseline and it is 55 percent in Sylhet division (BDHS, 2004).

3.2.5 Safe Delivery Care

Safe delivery can be assured when the delivery is completed by a trained service provider who has skills and knowledge to take necessary measures in any complication during pregnancy. The goal of safe delivery care is to reduce maternal and neonatal morbidity and mortality. The project VARD has specific activities to ensure safe delivery care to mothers. To understand present situation respondent were asked to provide information on their knowledge, place of delivery, type of assistance during delivery.

3.2.6 Knowledge on danger sign during delivery:

Regarding necessity of trained medical person, women were asked whether they know that complication might arise during delivery that needs trained person assistance. Almost 92 percent of them said they know a problem could happen at any time during delivery, which needs medical assistance. 5.3 percent reported they did not know such problem could happen during delivery and 3 percent said they did not know about it.

Table 3.14 Distribution of women whether they think any problem can occur during delivery that needs trained person assistance. Similar question was also asked in baseline survey. Findings of baseline and end line survey are presented in the table to compare the situation.

Table 3.13: Women anticipating problem during delivery

Responses	Baseline	End line
Yes	93.2	91.7
No	5.1	5.3
Do not know	1.7	3.0
Total	100.0	100.0

The result shows no difference from baseline to end line. This indicates that the awareness level of mothers still require improvement.

3.2.7 Place of Delivery

The distribution of live births occurred by place of delivery is presented in table 3.14. The table also shows trends from baseline to end line period.

Table 3.14: Place of delivery by mothers (%)

Place of delivery	Baseline	End line
Home	97.6	94.7
MCWC	0.7	2.3
Hospital	1.4	2.0
Private clinic	0.3	0.3
NGO clinic	-	0.7
Total	100.0	100.0

The proportion of births in institution has hardly changed. The place of birth at institution is found only 5.3 percent in end line, which was 2.4 percent at baseline. Significant change is not evident during 3 years. Still majority of the births occurred at home by not a trained person. The BDHS also represent similar picture in Sylhet division, the survey in 2004 found 93.8 percent delivery is done at home.

3.2.8 Assistance during delivery

Presence of trained birth attendant during delivery is considered to reduce the risk factors of maternal and neo natal mortality and morbidity. Trained Traditional Birth Attendants (TTBAs), Family Welfare Visitors (FWV)/Paramedics, Nurse, Medical officers, NGO clinics and specialist in midwifery are considered as Safe Delivery care providers.

Some significant change occurred in selecting birth attendant from baseline to end line. Assistance from medical doctor has doubled from baseline. Birth by trained attendance (TTBA) has increased significantly from 6.4 percent to 24.3 percent almost 18 percentage points increased. Table 3.15 represents both baseline and end line picture.

Table 3.15: Assistance during delivery by providers

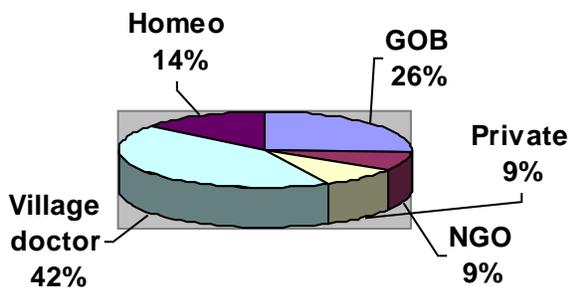
Delivery attendant by providers	Baseline	End line
Medical doctor	2.6	5.0
Midwife/nurse	3.3	3.7
TTBA	6.4	24.3
TBA	59.9	57.7
Mother and mother –in-laws	5.7	3.0
Relatives	21.3	6.0
Self	0.7	0.3
Total	100.0	100.0

3.2.9 Problems during Delivery

Women were asked whether they faced any problems during delivery, only 17 percent reported they faced problems during delivery. Equal percentage has reported having problems during delivery in baseline survey also. The problems reported were prolonged labour (66.7%), convulsion (5.9%), breech presentation (4.0%), retained placenta (7.8%), rupture of the uterus (7.8%) and others (7.8%).

Regarding problems during pregnancy FGD participants mentioned of anaemia, bleeding, fetal distress. Those who have experienced problems during delivery, 68.6 percent of them sought treatment at different facilities. Received management and treatment from following facilities

Figure-3: Facilities provided for management of complicated labour



Village doctors and homoeo practitioners are still preferred by the communities. A large proportion seeks assistance from them. The rest 42.9 percent took assistance from acknowledged facilities.

3.3.4 Post Natal Care (PNC)

Post Natal Care are essential for mothers for treatment of complications resulted from delivery, especially for births at home. PNC gives opportunity to mothers getting proper counselling on how to take care for themselves and their new born. In order to assess perception and practice of mothers several questions were asked. Whether post natal care is essentials mothers were

inquired. Almost eighty percent responded that they know it is essential. Table 3.18 shows age specific responses of the mothers.

Table 3.16: Knowledge on problems after delivery

Age group	Have knowledge on problems after delivery
10-14	0.4(1)
15-19	0.4 (1)
20-24	23.8 (56)
25-29	30.6 (72)
30-34	25.5 (60)
35-39	14.9 (35)
40-44	2.9 (7)
45+	1.3 (3)
Total	79.0 (235)

3.2.10 Knowledge on Problems after delivery

Care of the mothers and the new born immediately after the delivery and follow-up of their condition for six weeks (42 days) after delivery is termed as postnatal care. During this period most postpartum complications could arise that can lead mother to fatal condition. According to Technical Standard and Service Delivery Manual² 2 PNC visits are recommended. The danger sign after delivery are mentioned as Fever (>100.4⁰ F), excessive bleeding, foul smelling vaginal discharge, severe abdomen pain, fainting, fits or convulsion, etc. Knowledge has increased from baseline 67 percent to end line 79 percent. Problems reported by the mothers during pregnancy, their responses are given in table 3.17.

Table 3.17: Major problems faced by mothers during pregnancy by age

Age	Fever for more than 3 days	Fainting, fits or convulsion	Excessive bleeding
15-19	100.0	-	100.0
20-24	14.5	58.0	33.3
25-29	11.0	64.8	34.1
30-34	18.3	56.3	42.3
35-39	23.5	56.9	31.4
40-44	33.3	50.0	33.3
45+	-	33.3	100.0
Total	17.1	58.9	36.5

From the table it is evident almost 60 percent of them mentioned of convulsion.

3.2.11 Postnatal Coverage

Postnatal care received by the mothers: Although 235 (78%) mothers know about the importance of post-natal care but very few of them reported they received the services. Only 26.7 percent of them received postnatal care services. Majority 36 percent received services from NGO clinics

(VARD), 29.3 percent GOB facilities, 17.3 percent Private doctor and rest 17.3 from Village doctors or Homeo practitioners. Postnatal care received by mothers according to age are shown in Table 3.20

Table 3.17a: Post-natal care service received by their age

Age group	Frequency & percent
15-19	1(1.3)
20-24	22(27.5)
25-29	24(30.0)
30-34	19(23.8)
35-39	8(10.0)
40-44	5(6.3)
45+	1(1.3)
Total	80(100.0)

Mothers were asked about checking their new born during postnatal care, only one quarter responded positively. Only 30.0 percent mother took Vitamin A after delivery.

3.3 CHILD HEALTH

3.3.1 Vaccination of children

World Health Organization (WHO) guideline recommends that all children under age one should receive a BCG vaccination against tuberculosis; three doses of DPT vaccine for the prevention of diphtheria, pertussis (whooping cough), and tetanus; three dose of polio vaccine; and a vaccination against measles. Prevention of six deadly diseases is proved to be the most cost effective program to reduce infant and child morbidity and mortality. According to WHO guideline Expanded program on immunization (EPI) is designed to provide vaccine to all children. During survey, vaccination given to children was recorded from EPI card.

It was found that only 51 percent of the children completed 5 doses vaccinations, which were 20 percent in Baseline survey; a significant increase in immunization is evident. 31 percentage point increased. BCG, DPT, Polio vaccine coverage had also increased from baseline.

Table 3.18 Immunization coverage in Baseline and End line

Information source	BCG		DPT 3		Polio 3+		Measles		Completed 5 dose	
	Base line	End line	Base line	End line						
EPI Card	84.1	100.0	60.5	88.5	66.9	89.0	56.3	87.0	20.0	51.0

VARD has achieved tremendous success in achieving immunization coverage. Baseline and end line figures confirm that. With exception in complete 5 doses immunization, it has exceeded Sylhet division national coverage. In Sylhet division the vaccine coverage according to BDHS 2004 found to 61.5 percent received complete five doses, BCG-87.3, DPT3 – 68.3, Polio – 69.5 and Measles 66.3.

3.3.2 Childhood Illness

Diarrhoea and Acute Respiratory Infection (ARI) are major two diseases in Bangladesh that contribute to childhood mortality and morbidity. Information was collected on diarrhoea and ARI diseases prevalence and their treatment.

3.3.3 Childhood Diarrhoea

According to mothers report 19.2 percent children had affected by diarrhoea in the last two months. The children between age 13 to 23 months suffered from diarrhoea diseases mostly (76.3 percent). Among those who had diarrhoea, 95 percent received treatment from any source. A significant proportion (61 percent) received treatment from village doctors. One tenth of them received treatment from GOB facilities preferred, 10.7 percent from private doctors rest 14.3 percent from Homeo, quack and dispensary. Table 3.19 shows information on diarrhoeal diseases by age.

Table 3.19: Diarrhoea occurrence by age

Age group	Diarrhoea
< 6 months	1.6 (1)
6 – 12 months	22.1 (13)
13- 23 months	76.3 (45)
Total	19.8 (59)

The main sources of treatment at the baseline survey were village doctors (57percent) still they are the main source found in end line.

3.3.4 Acute Respiratory Infection (ARI)

ARI has been considered as one of the leading cause of mortality and morbidity of children in Bangladesh. Early diagnosis, management and guideline of ARI can prevent mortality and morbidity.

Table 3.20 Children experienced ARI by age

Age	ARI
< 6 months	50.0(1)
6 – 12 months	27.9 (17)
13- 23 months	37.0 (87)
Total	35.2 (105)

Survey found 35.2 percent of the children ever suffered from respiratory diseases. The mean age of occurrence of respiratory problems is in 5 months of age. Among them 95 percent received treatment, 28.0 percent received treatment from GOB facilities, 19 percent private doctor, 45 percent village doctor and rest homeo and quack. The disease prevalence has reduce from baseline 42 percent to end line 35.2 percent. But influence to Village doctors remained same.

3.3.5 VARD Assistance

VARD is working in the area for more than 3 years. During the survey their assistance and influence was assessed. A general impression found that community people knows about VARD activities. On different health services they preferred VARD. It was found that in family planning they are receiving contraceptives from VARD. About 80 percent reported that VARD worker visit them once in a month, 6.8 percent reported once in two months and rest reported once in 3 or 6 months. Regarding service charge nearly 53 percent said they did not pay any charge for the services. In FGD participants mentioned that VARD has raised their awareness on family planning, antenatal and delivery care and child health care.

Regarding delivery care, 39.7 women reported they received help from VARD trained traditional birth attendance (TTBA), regarding type of assistance majority (80.7 %) reported of consultation services.

About VARD clinic, 63.3 Percent of them said that they have visited VARD clinics. Most of them (72.6%) reported they have visited the clinic in case of problems.

Regarding health workers visit, Majority (80.0 percent) of mothers reported that health workers from VARD come to visit them once in a month. 11 Percent reported once in every two months, 3 percent one in every 3 months rest said in every six months. Regarding service charge 48.7 percent said they do pay service charge. Except 6.2 percent, rest (93.8%) of them said they service charge is affordable to them. In FGD and survey community people reported, they are satisfied with the services. They have some expectation that VARD doctor presence in the clinic should be ensured, though services charge is affordable but some of them want free medicine.

4 DISCUSSION AND RECOMMENDATIONS

Reproductive health program of VARD has been implemented in 10 unions and Paurshava of Sunamgonj Sadar upazilla since January 2002. Through this program VARD is providing Essential Services Packages which include Reproductive and Child care services. The project has been designed to supplement the National Health Sector Program (HPSP) to reduce morbidity and mortality of women and children. The project has given especial emphasis to women and children. The important health indicators in Sylhet region are comparatively low to other parts of Bangladesh. VARD has intervened in this area to improve overall health status of the people, specifically women and children. The project has adopted an integrated approach to improve the status.

At the beginning, the project had conducted a benchmark survey to estimate important health indicators of those areas. After 3 years of project life, evaluation on the same indicators has been one to understand the impact of the program.

At the baseline VARD working area was found to be low performing area in terms of utilising health services. After 3 years the situation has improved from baseline with exception to few indicators. The family planning user in any method has increased from 21 percentage points from baseline. Long-term family planning method shows decline by almost 3 percentage points. Though traditional method has been discouraged to use for its effectiveness but the rate of use has increased. Due to fear of side effect complication some are discouraged to accept contraceptives. A reasonable proportion of women have experienced irregular menstruation and afraid to take contraceptives. Proper communication and counselling could improve the situation.

Maternal care service and utilization has improved from baseline. Antenatal coverage, TT coverage has increased from baseline. Though mothers have knowledge on needs of ANC, PNC and trained attendant but practice is lacking. Still more than 90 percent delivery is done in home. Not much significant change occurred in case of institutional delivery. It might be influenced by socio-cultural background. Male involvement and family counselling have a role to improve the situation.

The project has achieved significantly in immunization coverage to children from baseline to end line. Diarrhoea and respiratory problems has declined. Treatment seeking behaviour has positively increased. 95 Percent of the children received treatment.

The project has acceptance in the community, but for sustainable point of view potential opportunity remains for improvement. Keeping socio cultural barriers of this regions the project has to develop innovate approaches for sustainable development.

4.1 Recommendation

- i. Mothers have still belief on misconception on family planning use. Proper counselling and communication strategy needs to be designed to reach target population
- ii. Male involvement in Family Planning, maternal health and child health needs to be developed. In the project area still orthodox and male dominated, without participation of

- male group improvement expected result will be difficult to achieve. The project need to develop strategies to address its male community.
- iii. Preference for village doctors and quack is still reasonably high for RH services. Therefore, strategy should be developed to raise awareness on institutional health facilities and trained providers.
 - iv. To reduce risk of maternal mortality and morbidity it is necessary to ensure delivery by trained personnel at institution. In this area the project could not achieve much. Effective strategy needs to be formulated to ensure institutional delivery.
 - v. Proper referral mechanism should be developed for more utilization of GOB sources.

REFERENCES:

- a. Project Proposal of VARD Sunnamgonj Project
- b. Baseline Survey Report 2002
- c. Bangladesh demographic and health survey, 2004
- d. Project MIS reports