

Situation Analysis of Nilphamari Sadar ADP

Conducted By GMark Consulting Limited

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Date of Submission: August 25, 2015

Letter of Transmittal

August 19 2015

Ms. Syeda Shaherbanu Shahbazi Ahmed Course Instructor BRAC Business School BRAC University 66 Mohakhali, Dhaka.

Subject: Submission of Internship Report on "Situation Analysis of Nilphamari Sadar ADP"

Dear Sir,

With due respect, we want to state that, it was a great pleasure and honor for me to submit my report of BUS 699 in the context of the "Situation Analysis of Nilphamari Sadar ADP". My report is prepared on the basis of information collected from different respondents and market reviews.

The purpose of the report was to analyze the actual status and perspective of developing a certain area's people and their livelihood. During the term of completing the report, I have learnt that the practical world is much more different from theory and I have also learnt about the value of effective time management and collaborative team-work. I have tried to put my best effort in order to make the report an informative and standard one.

I hope your acceptance and satisfaction about the report.

Sincerely Yours

Sanzida Parvin

Acknowledgement

The successful completion of this report might never be possible in time without the help of some person whose inspiration and suggestion made it happen. First of all I want to thank my honorable teacher, Ms. Syeda Shaherbanu Shahbazi Ahmed for helping me out with directions time to time when I needed it most. I cordially appreciate the opportunity that she has given to me to work on the report and for her guidance, suggestions and constructive criticism during the preparation of the report.

Secondly, the preparation of this report involves valuable time and cooperation of some respective people like the faculties and colleagues where I did my internship for three month long. Without their support the task of completing this report could have not been accomplished. I also cordially thank the respondents who helped us by giving the data we needed for the report. So I would like to thank all these peoples who have really helped to complete the report within available time and resources.

Report On

Situation Analysis of Nilphamari Sadar ADP

Phase Period: 1st Phase FY'11-FY'15

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List of Acronyms

Acronyms	Elaborations
ADP	Area Development Program
ANC	Antenatal Care
BCG	Bacillus Chalmette-Guerin
BRAC	Bangladesh Rural Advancement Committee
CBO	Community Based Organization
C-IMCI	Community Integrated Mother and Child Illness
EPI	Expanded Program for Immunization
ECD	Early Childhood Development
FGD	Focus Group Discussion
FVC	Full Vaccination Coverage
FY	Fiscal Year
GO	Government Organization
GOB	Government of Bangladesh
HSC	Higher Secondary School Certificate
HH	Household
IVDC	Integrated Village Development Committee
JSC	Junior School Certificate
KII	Key Information Interview
MBBS	Bachelor of Medicine/ Bachelor of Surgery
NGO	Non-Government Organization
OPV	Oral Polio Vaccine
PSC	Primary School Certificate
RC	Registered Children
RDRS	RangpurDinajpur Rural Service
SMC	School Management Committee
SWOT	Strength Weakness Opportunity and Threat
SSC	Secondary School Certificate
TDA	Traditional Birth Attendant
UAO	Upazilla Agricultural Officer
ULO	Upazilla Livelihood Officer
UP	Union Parishad
WASH	Water Sanitation and Health
WVB	World Vision Bangladesh
WV	World Vision

Executive Summary

Nilphamari Sadar ADP is designed to support the poorest of the poor in the possible comprehensive ways that vulnerable children and the families they live. The goal of the program is to sustained well-being of children and fulfillment of their rights within their families and communities of Nilphamari Sadar ADP working area. The Nilphamari Sadar ADP contains following major projects:

- 1. Child Wellbeing Project
- 2. Livelihood Security Project
- 3. Sponsorship Management Project

This phase evaluation contributed to an evidence base that enables ADP along with partners to improve program effectiveness, increase accountability and advocate for change by using evaluation results. The main results are indicated below.

Nutrition practice

47.3% of the targeted households are now practicing nutrition education in their daily lives. They have learned on the nutrition education form WV meetings, workshops, health service providers and school education programs. Baseline value of such households practicing nutrition education in their daily lives was only 39%.

Morbidity and mortality

The project attended a positive improvement in developing mother and child's morbidity and mortality rates. The study recorded present morbidity rate of children aged less than 5 years and their mother, 80.8% and 82.6% for the intervention and control households respectively. The morbidity situation had been improved than its baseline condition; morbidity rate was recorded about 94% at the time of baseline. The mortality rate was less than 1% (0.4% to be exact) in the project areas.

Due to the intensive activities on pregnancy care, frequency of pregnant women's visit to trained health service providers had been increased by 19%. At the same time, the project had impact on reaching 85.9% children (aged less than five year) with EPI cards. 78.3% children were brought under the full vaccination coverage (FVC) before their first birthday.

Education

Adult literacy rate has increased to 68% from 58% (baseline). WV's education and children dropout movement created necessary awareness of the community people to send their children for higher level education. The proportion of school going children was relatively higher, 89.9% children from intervention cohort and 88.8% children from control cohort. A developed sense of going to school and improved understanding on the impact of education in their social and economic lives had been observed within the project location.

Income generation

Due to project support on training on better farming techniques, average 12.4% HHs (Male 16.4%, Female 8.4%) had now expanded their income to two available sources round the year. They had better yields of sustainable production of target crops with improved technology for better coping with climate changes. Also, production of livestock had been increased over time, for cow it was 75% (baseline value 58.3%) and for goat, production is about 57.3% (baseline value 33.4%).

Business group

'Farm Group' was seen brought some changes in economic participation of the target households. Households now and then understood the benefits of forming such group and they were encouraged to actively participate in collective production and sales. Thus, there was increased opportunity to access in fair price market.

Sponsorship

The most successful impact that World Vision's Nilphamari Sadar ADP project had achieved was its sponsorship program towards the development of children. 98.3% intervention HHs and 95% control HHs strongly believed that WV's sponsorship program had contributed to their child's development. Also, 95.3% and 90.4% HHs from intervention and control group respectively mentioned that the program helped their families in terms of economic and social support particularly for their children.

FGD and discussion with stakeholders and community members an appreciable level of awareness on WV child sponsorship program; the project was successful in increasing community awareness on children sponsorship program. However, there were still areas of improvement particularly in active participation of community people in the sponsorship program. The percentage of community participation in WV's child sponsorship program was very low among the intervention households (35.8%) than control (65.8%).

Child rights

The need to consider how to discuss issues of children's rights in the given contexts requires considerable thought in order for community members to see the advantages that knowledge about their children's rights and entitlements to education can bring to their children as well as the wider community. Collaboration and discussion between teachers, parents and others showed that there was already evidence of some adults with a strong grasp of the empowering potential of this knowledge.

Overall impression

Overall, the project interventions made moderate impact on its different development components i.e. health care, livelihoods, education and sponsorship program. The impact of the ADP project activities is very comprehensible at creating a *buzz* in the overall community. Now the community people are aware of the importance of education, maternal health improvement, women and children heath, nutrition, and farming etc. and all these sectors were traced as contributing factors (from previous section – indicator mapping). The community people had grown a sense of awareness on different activities performed by the project, however rigorous transformation of the learning into real life activity had not been observed at mass level yet.

Outcomes of the project interventions clearly demonstrated the effectiveness of Nilphamary Sadar ADP program. It has achieved the goal in several particular areas with a specific group of people; particularly women and children were the most benefitted group in this project. More than this, the project's effectiveness was being strongly justified by the growth of development groups – the CBOs and IVDCs.

Key recommendations

Sanitation: Develop dedicated sanitation curriculum on different sanitation issues and create sequential arrangement of learning.

Mother and Child Health:

• Develop Community Health Mobilizers in order to improve the quality of mother and child care service and to create greater and quicker response in times of emergency.

• Increase awareness and monitoring on mother intakes of food during pregnancy by the community health mobilizers.

Sponsorship: Strengthen sponsorship program with proper identification of children, mapping their family's economic condition and identify anticipated timeframe to support the children.

Child Rights: Create more scope of participation for both the children and their parents in community programs, workshops for children and child forums.

Agriculture based Livelihood:

- Develop sub-sector specific interventions according to crop priority i.e. rice, potato, vegetable etc.
- Create sub-sector specific producer group to enhance information and knowledge exchange between the members, bulking and greater access to fair market price.

Disaster Risk Reduction:

- Develop Community Disaster Volunteer from the children.
- Liaison with local Disaster Risks Management Committee to transform the knowledge and risk management framework to the community particularly for disaster vulnerable 'groups' and 'crops'.

Group activities strengthening:

- Encourage group savings in CBOs and Producer Groups to reduce risk of individual savings and dependency on risky loan products.
- Developing effective group business model will create space for improved supply chain, better production and enhanced market linkages.

Community development is always an integrated endeavor, so there is a scope to improve more in access to improved nutrition and sanitation, livelihood through training of the household heads, and children & mother health care issues along with increasing more community participation. The following findings and analysis chapters this report will help to review the Nilphamari Sadar ADP program and provide suggestive guidelines for later phases.

Introduction of the **Organization:**

GMark Consulting limited is mainly a consulting farm. It works like a bridge between the donor and the local NGOs in Bangladesh. It also arranged many types of training programs for production developments. GMark mainly work with Australian Aid, Save the Children, Oxfam GB, Christian Aid, World Vision etc.

GMark mainly works in agricultural sector. Agricultural product development and market creation and development are their main focus point of work. They sometimes work in educational sectors also like people's awareness about health and sanitation, children education etc.

CHAPTER ONE INTRODUCTION

1.1 About World Vision

World Vision is an international Christian Humanitarian relief and development organization; serving to the children, their families and communities to alleviate poverty in Bangladesh since 1972 primarily through programs of transformational development, emergency relief and promotion of justice. 'Our vision for every child, life in all its fullness; our prayer for every heart, the will to make it so', and World Vision is serving in wide range for fullness of life considering this vision.

1.2 **About the Program**

Nilphamari Sadar, the most populous Upazilla of Nilphamari district, came in to existence in 1875 as Thana with its headquarters at Darowanimauza of Charaikhola union. In 1884, the Upazilla shifted to the present place. It is learnt that During the British period Nilphamari was famous for indigo (meaning Neel in Bangla) cultivation. The British established a big farm for indigo cultivation at Notkhana of Nilphamari Mouza. It is generally believed that the Upazilla might have derived its name from the above two words "Neel" and "Farm". The previous name of Nilphamari was Sakamachha Port. The British traders used this port for exporting indigo.

In context analysis with regard to geography and environment, Nilphamari is situated in the northern area of the country. Almost every year during the time of winter season people of Nilphamari have to suffer due to cold wave. This Upazilla is one of the most vulnerable areas mainly due to Monga (food scarcity). The Upazilla consists of 1 Paurashava (comprising of 9 wards & 13 Mahallas) and 15 unions (comprising of 105 Mauzas&108 villages).

Nilphamari S. ADP started its development journey for targeted community with funding of WV-New Zealand. To achieve the program goal there is continuing huge efforts from ADP staff, volunteer, CF members, IVDC, committees of ADP's project, others partners like GO, NGO and projects participants including need base technical support from division and national office to make greater impact in the community.

At present the ADP is working among 07 targeted communities (villages) intensively through various interventions to achieve its program goal "Sustained well-being of children and fulfillment of their rights within their families and communities of Nilphamari Sadar ADP working area", to make contribution regarding country strategy i.e. achieving "Promoting a better life of girls and boys in Bangladesh" as well as for WV ministry for" Sustained well-being of children, their families and communities specially for the most vulnerable".

1.3 **Purpose of the Phase Evaluation**

The Evaluation contributed to an evidence base that enables ADP along with partners to Improve program effectiveness, increase accountability and advocate for change by using evaluation results. It also provided important opportunities to improve the sustainability of programs by working jointly with local partners and local ownership of child well-being priorities can be strengthened. This evaluation had been scheduled as DPA adoption requirement and as phase evaluation (Fiscal Year 2011- 2015) to assess program impact lessons learnt to inform the program DPA adoption.

Primary objectives of this phase evaluation were-

- i. To assess the progress towards program outcomes by each project.
- ii. To measure the program efficient and effectiveness in achieving its intended goal.
- iii. To identify how people improve their empowering livelihood and capacities been developed
- iv. To determine the relevance, effectiveness, efficiency, impact, sustainability and accountability of the program. Also management aspects like personnel, planning, financial management, M&E and reporting. What were the assumptions and risks and how have they been managed?
- v. To assess the extent to which the program has put in place mechanisms for the benefits accrued over the program implementation period.
- vi. To determine the project assessment and risk and how have been managed it is program management aspects like personnel, planning, financial management, M&E and reporting
- vii. Lesson learned which would help ADP staff and community to replicate successes and promising practices in future i.e. identify lessons learnt and provide recommendations for the next phase, for example did the staff and the community partners have the experience and competencies necessary to carry out the activities envisaged?.
- viii. To identify the scope of area for improvements that will help decision maker to redesign effective program. Also considering the cultural environment the level of child participation and gender equity.
- ix. To identify the partnership level with stakeholder and communities towards CWBO and program ownership, sustainability.

CHAPTER TWO METHODOLOGY

2.1 Study Area and Population

The phase evaluation was conducted at four unions of Nilphamari Sadar – Nilphamari Pouroshova, Khokshabari Union, Palashbari Union and Tupamari Union.

The target populations were grouped in Health, Education, Economic Development, Disaster management and Sponsorship Projects include:

- Sponsored children and family members (Boys, girls, parents, adolescent and child)
- Poor non sponsored children and family members (Boys, girls, parents, adolescent)
- Poor and Ultra Poor Family Members, Others community members
- Under-5 children, pregnant and lactating mothers and adolescents
- Members of some committees like WASH, SMC, CMC, C-IMCI, IVDC, CBO etc.
- Local educational institutions and Local Government institutions.
- Community leaders/members (School Teacher/SMC member, Volunteer, etc.)
- Poor, marginal and small farmers
- Local Institutions, Like Primary Schools, Union Perished, NGOs, CBOs
- Family members RC, Poor and Ultra Poor Family Members
- Social / Religious & community leaders
- Local GOB representatives
- NGO representatives

2.2 Data Collection Method

2.2.1 Quantitative Method

For quantitative data, Face to Face interview was conducted through structured questionnaire. Interviews were done at the household level with various types of respondents. Household survey included respondents from three different categories like mothers of children under 5 years, adult men, and children under sponsorship. Also, height and weight of children under 5 years have been measured for Anthropometric measurement, using appropriate technique.

Sample Size

Total sample for quantitative survey was 1200 distributed as follows:

Sample			Control			Intervention					
	UNI	ON of the	Respond	ents		UNI	ON of the	Respond	ents		
	Nilphamari Pouroshova	Khokshabari Union	Palashbari Union	Tupamari Union	Total	Nilphamari Pouroshova	Khokshabari Union	Palashbari Union	Tupamari Union	Total	
Ν	46	135	44	135	360	240	120	240	240	840	

Table 1: Quantitative Sample Distribution



Image: HH interview conduction

2.2.2 Qualitative Method

Qualitative methods were as follows:

FGD: The focus group discussions were conducted with community members, including influential ones, measure program/project impact and prospects of sustainability of services rendered through short and long-term projects and interventions.

Key Informant Interview: This technique included interviews with individuals or groups. Loosely structured interviews were conducted with informed stakeholders in Community representatives Like UP Chairman, UP Members, commissioners, NGOs, CBOs, and local leaders, representatives from community groups, project facilitators and local media sources.

Case Study: This method was meant to give snapshot of a particular family/ individual/institution's situation over a period of time. It documented the life story or sequence of events over time related to a person, location, HH or organization in order to obtain insight into people's effect and to learn about people's experience, dreams, and understanding of the context and human factors behind summarized data collected through other means.

Change Tree Tool: This was very effective tool to see the change over the period of program implementation. Through using this tool, positive change that has made over the life of the community especially children were measured.

Spider Diagram and H Tool: To collect information from the children these two types tool were used in the evaluation. Separate group of children were participated in the process.

Onsite Visual Inspection: For an experienced observer, this was an excellent way to become familiar with program locations and realities. This method does not stand alone, and other assessment methods were used in conjunction. Onsite visual tasks include:

- > To observe people's physical condition and activities; ask questions.
- > To visit homes or shelters, water sources, schools, compartment offices.
- > To observe the daily lives of HH (use women as interviewers) and disadvantaged groups.

Sample Size

 Table 2: Qualitative Sample Distribution

Techniques	Respondents	Total Sample
FGD	RC Boys	01
	RC Girls	01
	School dropout children	02
	SMC	01
	Development groups	01
	Farm Group	01
	Parents of RC children	01
	CHD	01
Total FGD		09
KII	WV Project personnel	01 01
	Health inspector	01
	Upazilla Primary & Education Officer	01
	ULO	01
	UAO	01
	Upazilla Women & Children Affairs Officer	01
	UP Chairman	01
	Upazilla Health & Sanitation Officer	01
Total KIIs		08
Change Tree Tool	Group discussion with community people	01
Spider Diagram & H Tool	Group discussion with boy children	01
	Group discussion with girl children	01
Onsite Visual Inspection	Transect Walk	04

CHAPTER THREE **RESULTS**

3.1 Demographic and Household Information

This section reflects the demographic and household information like gender, age, education, marital status, occupation, household size, number of children, disability condition etc. of the respondents.

3.1.1 Engagement Status in WV ADP

Among the intervention group, about two-third of the HHs (60.8%) mentioned that there was no sponsored child or no member of development team followed by about one-third HHs (27.3%) who mentioned of having sponsored child. Only 10.1% HHs were member of World Vision's development team.

For the control group, a vast majority (99.4%) HHs have sponsored child.

Table 3: Percentage Distribution of the Households according to Engagement in WV ADP

HH types	Control	Intervention
Children sponsored by World Vision and member of development team	0.0	1.0
Member of World Vision's development team/ community organization	0.3	10.1
Family which only have sponsored child	99.4	27.3
There was one or more than one person who were members of development	0.0	0.8
team		
There was no sponsored child or no member of development team	0.3	60.8
N – 1200 respondents	360	840

3.1.2 Household Size and Demographic Features

Household size

The average household size is the average number of persons living in a household. The size of households in Bangladesh continues its long term decline, with an average of 4.35 persons per household in 2011 (Population and Housing Census, 2011).

It was found that average household size was 4.72 and 4.76 for intervention and control group respectively, which are relatively higher than the national average size (4.35).

Sex ratio

Sex ratio in the surveyed household was closer to 48:52 for both intervention and control households. Percentage of male members was relatively higher (51%) among the intervention households than among the control households (47.7%).

Sex			Control			Intervention					
	UNI	ON of the	Respond	lents	Total	UNI	Total				
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari		Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari		
Male	45.1	48.6	46.0	48.2	47.7	50.0	52.2	50.6	51.8	51.0	
Female	54.9	51.4	54.0	51.8	52.3	50.0	47.8	49.4	48.2	49.0	
Ν	206	624	200	685	1,715	1,177	561	1,083	1,145	3,966	

Table 4: Percentage Distribution of the Household Members according to their Sex

Marital status

Proportion of single HH member was higher (51.8%) among the control group while comparing with intervention group (47%). The study revealed that around half of the members in the surveyed households were married; group wise the incident was 49% among intervention HHs and 45% in control HHs. Distribution of percentages of married and unmarried HH members remained similar in the surveyed unions.

Incidence of divorce, widower and separate was not significant among the surveyed households while an average 3.0% HH members were widow, 2.7% and 3.3% in intervention and control HHs respectively.

Marital			Control			Intervention					
Status	UN	NION of the	e Respon	dents	Total	UN	UNION of the Respondents				
	Nilphamari Pouroshova	Khokshabari Union	Palashbari Union	Tupamari Union		Nilphamari Pouroshova	Khokshabari Union	Palashbari Union	Tupamari Union		
Unmarried	49.5	53.5	47.5	52.3	51.8	47.4	46.0	45.6	48.5	47.0	
Married	47.1	43.4	47.5	45.1	45.0	47.8	50.6	49.6	48.9	49.0	
Divorced	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.2	0.1	
Widow	2.9	2.6	4.0	2.5	2.7	3.8	2.3	4.5	2.2	3.3	
Widower	0.0	0.3	1.0	0.1	0.3	0.1	0.7	0.2	0.1	0.2	
Separate	0.5	0.2	0.0	0.0	0.1	0.8	0.2	0.1	0.2	0.3	
N	206	624	200	685	1,715	1,177	561	1,083	1,145	3,966	

 Table 5: Percentage Distribution of the Household Members according to their Marital Status

3.1.3 Education and Occupation

Education

As a whole, about one-sixth of the household members (16.35%) were found illiterate, 17% among the intervention group and 15.7% among the control group. The highest adult illiteracy rate of intervention group was largely found in Khokshabari union (23.4%) followed by Palashbari union (20.2%)because their distant position from Sadar. Households living in Nilphamari Pouroshova had better education background which explains the least illiteracy rate in Nilphamari Pouroshova, only 12.3% among the intervention group and 11.2% among the control group. Such results indicate a strong correlation between the distant locations of the unions and Pouroshova, as the Pouroshova is the heart of service access and development in Nilphamari.

Only a few from intervention and control groups have graduated while no one was found did postgraduation from control groups. A large proportion of the household members have education level between class one to five, 29.4% for intervention group and 37.1% for control group. Tendency of schooling goes down with the escalation of education level. That is why proportion of persons having education levels between classes six to nine fell down to 19.2% and 13.1% for intervention and control groups, respectively.

Education level			Contro	of the dents Image: point of the bene set of the						
	ו			è		ו				
	UNION of the Respondents I <thi< th=""> I I I</thi<>									
Pre School	6.3	3.8	3.5	5.1	4.6	2.7	5.2	3.5	4.6	3.8
Class 1-5	43.7	39.6	43.0	31.4	37.2	27.0	26.9	30.7	31.7	29.3
Class 6-9	17.0	12.7	10.5	13.1	13.1	21.2	18.2	18.8	18.1	19.2
SSC/Dakhil	2.9	2.1	2.5	1.9	2.2	6.8	6.1	5.0	3.3	5.2
HSC/Alim	0.5	1.1	2.0	1.2	1.2	6.1	4.3	2.7	2.7	3.9
Graduate/Fajil	0.5	0.3	0.5	0.4	0.4	1.7	0.4	0.5	0.3	0.8
Post Graduate/Kamil	0.0	0.0	0.0	0.0	0.0	1.2	0.2	0.2	0.3	0.5
Never went to school	1.5	3.0	2.5	9.8	5.5	6.2	0.7	3.8	8.4	5.4
Adult education	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Religious education/Hafeji	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2	0.5	0.3
Under 5 years children	9.2	10.1	12.0	10.9	10.6	9.4	8.4	8.7	10.0	9.2
Did not pass any class	7.3	11.2	9.0	9.1	9.6	5.0	6.2	5.8	4.4	5.2
Illiterate	11.2	16.0	14.5	17.1	15.7	12.3	23.4	20.2	15.7	17.0
Ν	206	624	200	685	1,715	1,177	561	1,083	1,145	3,966

Table 6: Percentage Distribution of the Household Members according to their Education Level

Occupation

As expected, majority of the household members were students, 31% and 34.9% for intervention and control groups respectively, followed by housewives or doing household works, 23.4% and 21.1% for intervention and control groups respectively. Apart from these, major income generating occupations of the intervention households were small & medium trade based entrepreneur (4.5%), govt. / non-govt. employee (3.6%), vehicle driver (3.2%), farmers doing agricultural production in their own land (3.1%) and skilled labors (3%) doing pottery, fishing or tailoring etc.

Occupation		(Contro				In	tervent	ion	
			N of the ndents					N of the ndents		
	Nilphamari Pouroshova		Palashbari	Tupamari	Total	Nilphamari Pouroshova		Palashbari	Tupamari	Total
Agriculture (own land)	0.0	0.5	1.0	0.9	0.6	1.4	5.2	4.5	2.5	3.1
Agriculture (own and leased land)	0.0	1.1	3.0	2.2	1.6	0.3	0.5	1.8	1.6	1.1
Agriculture (subleased/mortgaged land)	0.0	1.0	3.0	1.8	1.4	1.1	0.7	1.9	0.5	1.1
Agriculture (Day laborer)	0.0	3.5	4.5	2.3	2.7	0.1	0.2	0.3	0.3	0.2
Unskilled laborer (day laborer/ helper/ selling coal, stones)	4.9	2.6	1.0	2.0	2.4	2.0	2.5	1.5	3.5	2.4
Skilled labor (potter/ blacksmith/ cobbler/ fishermen/	5.8	0.5	1.5	2.0	1.9	3.6	2.0	2.2	3.8	3.0
tailor) Rickshaw/Van/ Boat/ Cart/ Auto rickshaw driver	3.4	4.0	1.5	3.1	3.3	3.1	2.7	2.8	4.0	3.2
Government/ Non-Government employee	5.8	0.8	1.0	0.3	1.2	5.9	3.0	3.0	2.2	3.6
Professionals (Teacher/ Lawyer/ Doctor/ Engineer)	0.0	0.0	0.5		0.1	0.8	0.4	0.1	0.2	0.4
Small/ Medium Entrepreneur	3.9	1.4	2.5	2.2	2.2	5.6	2.9	4.2	4.5	4.5
Large Entrepreneur			0.5		0.1	1.3	0.9	0.2	0.3	0.7
Housewife/ Helps in household works	22.8	19.4	22.5	21.8	21.1	22.0	25.7	22.7	24.4	23.4
Unemployed (18+ years)	0.5	0.2		0.6	0.3	2.0	1.1	0.4	0.5	1.0
Retired elderly/ disabled	2.4	3.0	5.5	3.5	3.4	3.9	3.2	4.9	3.1	3.9
Student	35.4	35.6	33.5	34.6	34.9	31.9	32.1	29.9	30.7	31.0
Not applicable (<6 years)	11.2	13.0	12.5	14.2	13.2	10.5	8.9	9.7	11.7	10.4
Others	3.9	13.5	6.0	8.6	9.5	4.6	8.2	10.0	6.1	7.0
Ν	206	624	200	685	1715	1177	561	1,083	1,145	3,966

Table 7: Percentage Distribution of the Household Members according to their Occupation

From the study it was found that a very few household members were unemployed (persons who have ages over 18 and do not do any income generating work), only 1% among intervention group and 0.3% among control group. Among the surveyed unions, Nilphamari Pouroshova has the highest unemployment situation, 2% intervention household members were not involved in any income generating activities.

3.1.4 Status of Disability

Incidence of disability among the intervention group was about five times higher than control group. The phase evaluation revealed that 59 intervention household members were persons with disability (PWD) while such number of case was only 12 among control households. Among different types of disability,

number of physically impaired persons was counted highest; 21 among 59 intervention household members and 5 among 12 control household members were physically impaired.

3.2 Findings on Water and Sanitation

3.2.1 Sources of Water for Drinking and Cooking

Vast majority households (about 99%) used water from "community tube-well" which is a common source of water for drinking and cooking for all the community people. Only a few used water from pipelines that come to their house or yard. The result indicates that almost all households had year round access to safe source for drinking water. For cooking, almost all the households relied on tube-wells or deep tube-wells. Very few (about 1.5%) of them collected water from pipelines in their houses for cooking.

3.2.2 Practice of Sanitation

Types of latrine used

Majority of the intervention households (33.6%) reported that they use water sealed pit latrine/ slab latrine followed by 32.7% intervention households who use open pit latrine. The sanitation practice of control households largely differed from the intervention group. Only 17.5% control households used water sealed pit latrine, 33.6% used open pit latrine and 25.6% of them use open latrine. Importantly, a good number of households are unaware of healthy sanitation and have no system latrine system in their households. Proportion of such users was higher among the control groups (21.9%) than those of intervention group (13.5%). The situation indicates higher absence of knowledge and usages of healthy sanitation among the households.

Usage of slab latrine (water sealed pit latrine) was more popular among the intervention households living in Khokshabari union (57.5%), followed by households living in Nilphamari Pouroshova (34.2%). While habits of using open pit latrine was largely popular among the control households (33.6%) particularly the households living in Nilphamari Pouroshova (50%). In the intervention households only 3.3% households use septic tank.

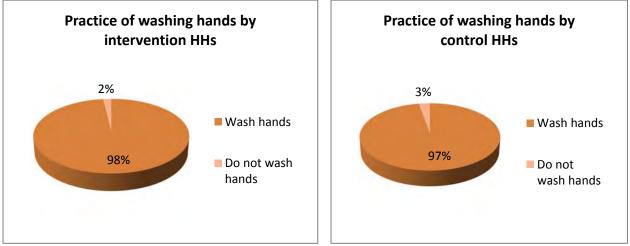
	Septic Tan	k		Water sealed pit latrine/ Slab Latrine							
	Open Pit la	atrine (wit	hout slab/oper	n) 📕 Ope	en latrine						
	Hanging la	trine		No :	system/ Bush	es/Field					
		1									
	Total	3.3	33.6		32.7		16.8 (0.1 13.5	7		
Intervention	Tupamari Union	3.8	25.0		29.6	23.8	23.8 0.4 17.5				
	Palashbari Union	0	29.6		39.2		19.2	0 12.1	7		
Inter	Khokshabari Union	0	57.	.5	1	20.8	11.	7 0 10.0	7		
	Nilphamari Puroshova	7.9	34.2	3!		5.4 10.0		0 0 12.5			
	Total	0.3 17.	5	33.6		25.6	1.1	21.9	7		
	Tupamari Union	0 12.6	25.2		28.9	3.0	30	.4	1		
Control	Palashbari Union	0 6.8	25.0		36.4	0	31.	8	1		
ŭ	Khokshabari Union	0	28.9		39.3		20.0	0 11.9	7		
	Nilphamari Puroshova	2.2 8.7	2 8.7		50.0		7 0	17.4]		

Figure 1: Types of latrines used by the households

Practice of washing hands after using latrine

The phase evaluation revealed good indication about the hygiene practice of washing hands after using latrines. Vast majority of the households wash their hands once they use latrines, 98% and 97% for intervention and control households respectively.





Agents used for washing

Among the 360 respondents in the control area 350 wash their hands after toilet which is 824 among the 840 respondents in the intervention area. Respondents had higher sense of washing hands hygienically after using latrines. Majority of the household members used 'soap and water' or 'ashes and water' (mutually exclusive) to wash their hands. A very small proportion used soil and water. However, lack of hygiene practice was prevalent highly among the control households, 15.7% had customs of using only water to wash their hands after using latrines. The proportion of such user was relatively lower among the intervention households, 7.9% of them use only water to wash hands.

Table 8: Percentage Distribution of the Respondents according to Agents used for Washing

Devices used			Contr	ol			In	tervent		-
		UNION Respo	N of the ndents	1	Total	UNIO	N of the	e Respo	ndents	Total
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari		Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	
Water only	2.3	15.7	11.4	21.7	15.7	3.8	13.3	3.4	13.6	7.9
Soap and water	90.7	78.4	81.8	79.1	80.6	97.5	86.7	91.8	87.7	91.5
Soil and water	7.0	4.5	6.8	5.4	5.4	3.4	8.3	9.5	3.4	5.8
Ashes and water	37.2	53.7	61.4	56.6	53.7	32.9	51.7	35.3	52.3	41.9
Ν	43	134	44	129	350	237	120	232	235	824

Dumping child's stool

The phase evaluation revealed a large 'knowledge gap' among the households on proper dumping of their child's stool. Only 41.6% intervention households and 32.1% control households properly used specific

pit for dumping child's stool. The rest households either dump stool in house dustbin or in open places in their backyard.

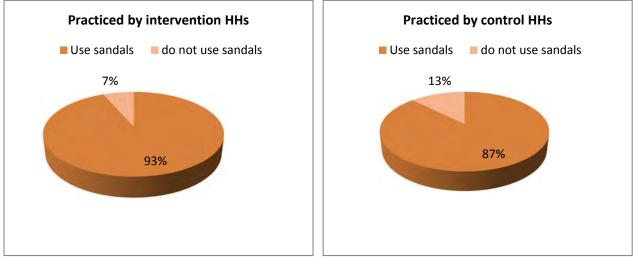
Dumping place			Contro	1			In	terventi	on	
	UNIO	N of the	Respon	dents	Total	UNION	Total			
	NilphamariP ouroshova	Khokshabari	Palashbari	Tupamari		NilphamariP ouroshova	Khokshabari	Palashbari	Tupamari	
Particular pit for stool	25.0	43.9	0.0	36.1	32.1	55.6	54.5	39.4	28.1	41.6
In the house dustbin	25.0	36.6	73.7	36.1	40.1	19.4	24.2	27.3	42.7	30.3
In open places	43.8	26.8	36.8	34.4	33.6	34.7	27.3	34.8	40.6	36.0
Others	6.0	0.0	0.0	6.6	3.6	4.0	3.0	0.0	2.1	2.2
N	16	41	19	61	137	72	33	66	96	267

Table 9: Percentage Distribution of the Respondents according to Child's Stool Dumping Place

Usages of sandals in latrines

Again the phase evaluation demonstrated developed sense on hygiene practice by the target households. 93% intervention HHs was found use sandals when going to latrines. The proportion of such users reduced for the control groups, 87% households was found practice wearing sandals when using latrines.

Figure 3: Practice of Sandal Usage in Latrines



Availability of soaps and water

The study revealed the necessity of increasing awareness on availability of soap and water near the places where household members wash their hands. 76% intervention HHs and 72% control HHs agreed that soap and water are available near or in the place where the family members wash their hands.

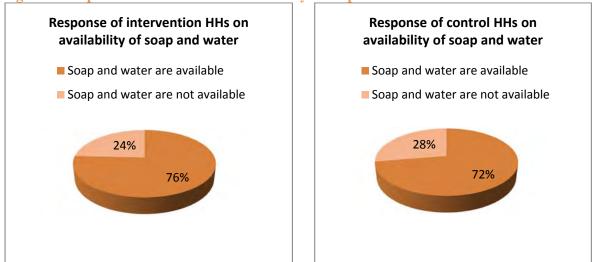


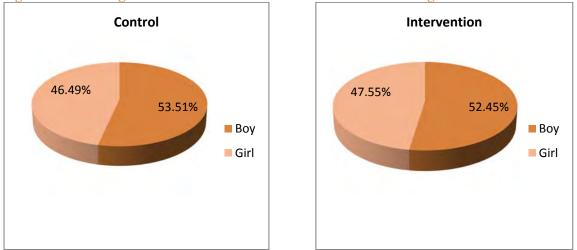
Figure 4: Response of Households on availability of soap and water

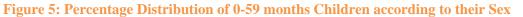
Govt. support and attainment

During a key informant interview with the Upazilla Health and Sanitation Officer, he said that they had good coverage of sanitation facilities. Under their sanitation program, around 80% households were getting benefit and had better access to safe drinking water and improved hygienic latrine. They also arranged training programs at school level to make the children aware on improved health and hygiene practices. He believed that community people are now more aware on health and sanitation than before due to intensive development programs and campaigns by GOB and different NGOs like World Vision, BRAC and Muslim Aid. He mentioned that at present, BRAC provided some hardware support (names Sato pan latrine) to aid improved sanitation under BRAC WASH program. Besides, WV had an ongoing project where they are supporting with sanitation products to the poorest. He said that WV model of sanitation encouraged many individuals to set up improved latrine by their own.

3.3 Maternal Health and New Born Child Care

The study revealed that there were 368 and 185 children in intervention and control households respectively who had age between 0-59 months. The proportion of boy child was relatively higher than girl child, 52.4% among the intervention households and 53.5% among the control households.





Only 39.9% children aged between 0-59 months from intervention households and 30.3% children aged between 0-59 months from control households were found registered under World Vision's nutrition program. However, a substantial portion of the respondents (both intervention and control) believed that World Vision aims to bring positive changes in their children's lives. This is supported by the fact that about 90% intervention and 96% control respondents positively responded that they think World Vision has contribution in children's welfare.

The most obvious thing was the training programs on nutritious food preparation that were impacted by World Vision officials. Only 16.5% intervention household members and 17.8% control household members took part in training organized by World Vision's nutrition program. This indicates that there was still a large gap in reaching the target households; yet average 83% households were not acquired the benefit of training.

Among those who received training, a substantial majority of the households applied their education in preparing nutritious food for the child (95% intervention households and 75% control households) and preparing child's food in hygienic fashion (41% and 39.1% intervention and control households respectively). Other than these transformed behavior and improved practice of child feeding, a handsome portion of the households daily gave extra meal to their child (36% and 40.6% intervention and control households respectively), the phase evaluation discovered.

3.4 Child Health

Survival is an enormous challenge to children aged between 0-59 months, particularly children less than 12 months and especially those younger than one month, the neonates. AUNICEF report on "Child Survival in Bangladesh" published that in Bangladesh, average 14 babies less than one month die every hour and 120,000 babies every year.

3.4.1 Mortality and Morbidity Rate

In post-natal periods, the health and nutrition of new born child and their mother became challenging in the present socio-economic conditions of the family and health service of the country. The study recorded present morbidity rate of children aged less than 5 years and their mother, 80.8% and 82.6% for the intervention and control households respectively. Notably, the morbidity situation had been improved than its baseline condition; morbidity rate was recorded about 94% at the time of baseline.

The below table shows statistics of casualties who suffered from various diseases in last year. The situation demonstrated that morbidity rate was higher among the mothers (who had children aged between 0-59 months) than those of boy and girl child (who had aged between 0-59 months). In last one year, a total 288 mothers (182 were from intervention groups and 106 from control groups) suffered from various diseases followed by 211 boy children (134 were from intervention groups and 77 from control groups). Morbidity rate was relatively lower among the girl child, a total 175 girl children (119 were from intervention groups and 56 from control groups) suffered from various diseases at their age between 0-59 months.

Casualty type			Contr	ol			In	tervent	ion	
					Total	UNIO	N of the	e Respo	ndents	Total
	UNION of the RespondentsNilphamariNilphamariPouroshovaPouroshovaPalashbariPalashbariPalashbariPalashbariPalashbariS208208211230			Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari			
Boy child	8	27	12	30	77	41	16	41	36	134
Girl child	10	23	6	17	56	39	14	26	40	119
Mother	10	44	11	41	106	54	27	46	55	182

Table 10: Mother and Child Morbidity Frequency

Among the intervention households, morbidity rate was found higher in Tupamari union and Nilphamari Pouroshova whereas the rate was higher in Khokshabari and Tupamari union among the control households.

When this was the given situation of morbidity rate in Nilphamari ADP project areas, the situation of child's mortality provided positive indication. Only 2 children aged less than 5 years were reported died from diseases in last two years. The incidence occurred in Nilphamari Pouroshova in some intervention groups. The mortality rate was therefore less than 1% (0.4% to be exact) in the project areas.

The phase evaluation reported that children aged between 0-59 months suffered from fever in 41.2% cases followed by 38.5% cases where the child suffered from cold. Diarrhea (7.7%) and Pneumonia (6.5%) were also been reported as fatal diseases caused miseries to the beneficiary households.

The incidence of fever (69.3%) and cold (57.6%) were also higher for mothers who had child between 0-59 months. Apart from these, they reported severe headache (27.4%) and stomach ache (19.6%) from which they suffered a lot in last year.

3.4.2 Mother and new born child's healthcare

Source of treatment

The study measured the degree of awareness of households when their children aged between 0-59 months and mothers having child between 0-59 months got sick. Households were seen frequently took the children to the nearby dispensaries where the owners or sales persons provide treatments based on the symptoms they identified. 35% intervention households and 44.1% control households mentioned about going to dispensaries at the time of illness.

Source of treatment for children	Cont	rol				Inter	ventio	ı		
aged between 0-59 months	UNIC		of	the		UNIC		of	the	
	Respo	ondent	ts			Resp	ondent	S	1	
	NilphamariP ouroshova	Khokshabari	Palashbari	Tupamari	Total	NilphamariP ouroshova	Khokshabari	Palashbari	Tupamari	Total
Community clinic	4.8	8.0	5.3	3.6	5.5	4.4	6.1	3.9	3.4	4.2
Upazilla health complex	19.0	2.0	15.8	16.4	11.7	8.9	12.1	3.9	13.8	9.4
NGO health clinic	0.0	0.0	5.3	1.8	1.4	1.1	0.0	2.6	0.0	1.0
Private clinic	0.0	8.0	5.3	1.8	4.1	5.6	9.1	2.6	3.4	4.5
Public hospitals	19.0	6.0	5.3	14.5	11.0	26.7	9.1	7.9	19.5	17.5
Doctor's chamber	28.6	24.0	21.1	29.1	26.2	26.7	6.1	30.3	44.8	30.8
Dispensary	19.0	62.0	42.1	38.2	44.1	27.8	66.7	39.5	26.4	35.0
Kabiraj	4.8	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Village doctor	0.0	0.0	0.0	1.8	0.7	0.0	0.0	3.9	0.0	1.0
Homeopathy	4.8	0.0	0.0	0.0	0.7	2.2	0.0	9.2	1.1	3.5
Never went anywhere	0.0	0.0	5.3	1.8	1.4	1.1	0.0	1.3	0.0	0.7
Ν	21	50	19	55	145	90	33	76	87	286

 Table 11: Percentage Distribution of the Mothers according to the Source of Treatment of their

 Children

Highest percentage of the households (44.1% and 35% in control and intervention household respectively) take the children to dispensaries for treatment. A significant portion of the households (30.8% and 26.2% intervention and control households respectively) showed awareness on taking the children to the doctors in their chambers. The third choice of taking children for treatment was public hospitals, 17.5% and 11% intervention and control households mentioned respectively. Apart from these, upazilla health complex was found a popular source of treatment for children aged between 0-59 months, reported by 9.4% intervention households and 11.7% control households.

Noticeably, the responses about the source of treatment for mother having child aged between 0-59 months remained similar. Almost half of the respondents (47.8% intervention and 56.9% control households) preferred taking the mothers to nearby dispensaries at the time of their illness. Others largely preferred doctor's chamber and public hospitals and a few talked about upazilla health complex, community clinic and private clinics.

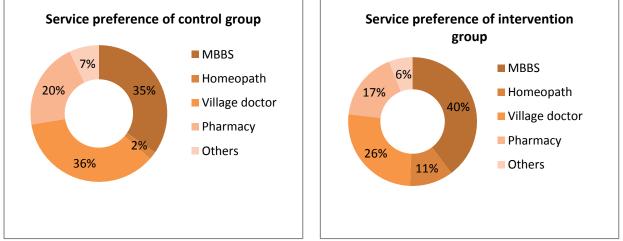
Source of treatment for mother			Control				erventi			
having children aged between 0-	l	UNION	l of the	;				N of the	;	
59 months		Respo	ndents			Respondents				
	NilphamariP ouroshova Khokshabari Palashbari Tupamari					NilphamariP ouroshova	Khokshabari	Palashbari	Tupamari	Total
Community clinic	12.5	1.1	15.4	4.9	5.0	3.2	8.8	7.8	2.8	5.1
Upazilla health complex	18.8	2.1	19.2	17.1	11.0	10.3	14.0	2.9	10.3	8.9
NGO health clinic	0.0	0.0	0.0	3.7	1.4	0.0	0.0	1.0	1.9	0.8
Private clinic	0.0	3.2	0.0	6.1	3.7	7.9	3.5		6.5	4.8
Public hospitals	0.0	3.2	0.0	6.1	3.7	23.8	10.5	6.8	30.8	19.3
Doctor's chamber	25.0	23.4	30.8	25.6	25.2	24.6	7.0	35.0	25.2	24.9
Dispensary	56.3	70.2	46.2	45.1	56.9	48.4	68.4	51.5	32.7	47.8
Kabiraj	0.0	3.2	0.0	0.0	1.4	0.0	0.0	1.9	0.0	0.5
Village doctor	0.0	0.0	0.0	1.2	0.5	0.0	0.0	4.9	0.0	1.3
Homeopathy	0.0	0.0 0.0 0.0 0.0 0.				0.0	0.0	5.8	2.8	2.3
Never went anywhere	0.0 0.0 0.0 2.4 0			0.9	1.6	0.0	0.0	0.0	0.5	
Ν	16	94	26	82	218	126	57	103	107	393

Table 12: Percentage Distribution of the Mothers according to their Source of Treatment

Health service provider

A little more than one-third of the respondents (40% in intervention and 35% in control) preferred MBBs doctors for their child's treatment. The second preferred health service providers are village doctors, 26% intervention and 36% control households mentioned. Pharmacies or dispensaries were also preferred for child's treatment, mentioned by 17% and 20% intervention and control households respectively.





The health service preference was not differed for mother's health when they get sick. As expected, MBBS doctors got the highest preference (37% in intervention and 23% in control households) to treat mothers having child between 0-59 months followed by village doctors. However, dependency on pharmacists or dispensaries to treat the mothers significantly increased than those of the children. Average 28% respondents mentioned about taking mother to pharmacy or dispensary when they require health treatment.

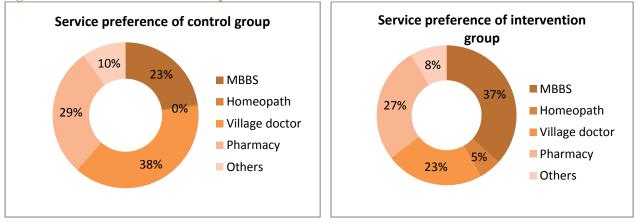


Figure 7: Preferred health service providers for mother's treatment

3.4.3 Knowledge& Practice on Child's Diarrhea & Pneumonia

After the neonatal period, diarrhea and acute respiratory infections (ARI) which is commonly known as pneumonia – are the leading causes of sufferings and death among children under five.

Diarrhea

In the surveyed locations, an average 11.2% respondent (both control and treatment) reported on the happenings of diarrhea of their children having age between 0-59 months in last two weeks prior to the field survey. To treat diarrhea, a large portion of the mothers fed ORS packet saline to their child (47.1% from intervention group and 39.1% from group) indicating the availability of ORS packet saline in the locality. Following this, mothers also gave zinc tablet or syrup or took their child to some trained village doctors when they were confronted to diarrhea. A very few portion mentioned about serving homemade saline or homemade liquid food to their child to treat diarrhea.

Diarrhea treatment			Control				Inte	erventi	on	
methods			N of the ndents				UNION Respon			
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total
Doesn't give anything	50.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	7.1	2.9
ORS packet saline	0.0	50.0	100.0	37.5	39.1	50.0	0.0	44.4	50.0	47.1
Homemade saline	0.0	0.0	0.0	6.3	4.3	20.0	0.0	0.0	0.0	5.9
Zinc tablet/ syrup	0.0	25.0	0.0	18.8	17.4	20.0	0.0	33.3	21.4	23.5
Zinc+ORS	0.0	25.0	0.0	0.0	4.3	0.0	0.0	0.0	7.1	2.9
Homemade liquid food	50.0	0.0	0.0	0.0	4.3	10.0	0.0	11.1	0.0	5.9
Breastfeeding	0.0	0.0	0.0	6.3	4.3	0.0	0.0	0.0	0.0	0.0
Fed normal food	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	2.9
Taken to trained doctor	0.0	0.0	0.0	18.8	13.0	10.0	0.0	11.1	21.4	14.7
Treated by private MBBS	0.0	0.0	0.0	6.3	4.3	20.0	100.0	0.0	0.0	8.8
doctor Admitted to hospital/clinic	0.0	0.0	0.0	6.3	4.3	0.0	0.0	0.0	0.0	0.0

Table 13: Percentage Distribution of the Mothers according to their Practice of DiarrheaTreatment

Diarrhea treatment			Control				Inte	erventi	0 n	
methods			N of the							
		Respo	ndents	r			Respon	dents	1	
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total
Ν	2	4	1	16	23	10	1	9	14	34

98.3% mothers from intervention group and 90.1% mothers from control group correctly explained the preparation of oral rehydration solution or oral saline in their houses to feed the diarrhea affected child. At the time of baseline, the percentage of such knowledgeable mothers was 76% indicating a developed situation of mothers' knowledge on the preparation of oral saline. However, the daily dosage of giving oral saline to child was correctly mentioned by only 29% and 31.5% mothers from intervention and control groups respectively. This indicates that the mothers need to be well-informed about the correct frequency of dose of oral saline.

Pneumonia

Half of the respondents correctly stated the symptom of pneumonia during the phase evaluation. The degree of rightly recognized about the symptom of pneumonia was higher by the intervention households than of control households. 55.6% intervention households rightly mentioned about the symptom of pneumonia that is 'high fever with rapid breathing' while the percentage went down to 50.4 for the control households.

A matter of anxiety was developed by one of the study findings –32.4% intervention households and 40.7% control households did not know about any symptom of pneumonia.

Symptoms of Pneumonia			Contro	ol			Int	erventi	on	
			N of the ondents				UNION of the Respondents			
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total
High fever with Rapid breathing	30.0	66.0	30.3	46.5	50.4	55.7	69.2	45.0	59.6	55.6
Rapid breathing	13.3	33.0	12.1	27.7	26.3	43.8	46.2	25.2	48.2	40.3
Rapid breathing with cough	6.7	33.0	9.1	24.8	24.1	15.3	24.6	7.3	18.7	15.2
Breathing problem with cough	6.7	9.4	21.2	10.9	11.1	8.0	27.7	1.3	27.1	14.2
Labored breathing	20.0	42.5	18.2	7.9	24.1	34.1	67.7	16.6	33.7	33.2
Others	7.0	0.0	0.0	5.9	3.0	2.8	0.0	0.0	5.0	2.3
Don't know	66.7	25.5	51.5	45.5	40.7	31.8	6.2	51.0	26.5	32.4
Ν	30	106	33	101	270	176	65	151	166	558

 Table 14: Percentage Distribution of the Mothers according to their Knowledge on Pneumonia

 Symptoms

3.4.4 Status of Child Immunization

Bangladesh has made significant progress in improving the health of its children. It is one of the few countries in the developing world that is on track to achieve Millennium Development Goal 4: reducing the under-five mortality rate by two thirds by 2015. Child immunization has made good progress on this aspect.

Status of EPI card

In the surveyed unions, total 85.9% children aged less than five year had EPI cards with a 4.2% case that lost the card. The degree of issuing an EPI card was relatively lower among the children aged between 1-5 months(75%)followed by the children aged between 48-59 months (81.5%). The case of misplacing the EPI card was highest among the children aged 48-59 months (7.3%) and lowest among children aged 1-11 months. This depicted that with the age increased; parents grew up a sense of carelessness to maintain the immunization process of their children.

Status of EPI card		Age of the child											
	1-5												
	months												
Had EPI card	75.0	94.5	93.9	86.9	84.3	81.5	85.9						
Did not have EPI card	23.2	3.6	4.1	11.1	9.1	11.3	9.9						
Lost EPI card	1.8	1.8	2.0	2.0	6.6	7.3	4.2						
Ν	56	55	98	99	121	124	553						

Table 15: Percentage Distribution of the Children according to their Status of EPI Card

Status of BCG vaccine

It was noted that almost all the children had received BCG vaccination among the target households. However, 9 among 368 babies from the intervention households who have aged between 1-5 months did not receive BCG vaccines yet.

Status of Penta vaccine

All the children received the first dose of penta vaccine followed by 97.7% children who received the second dose of penta vaccine. However, it was reported that 94.9% children received the third dose of penta vaccine. The declination rate of receiving penta vaccine dose indicates that parents became unaware or unconcerned once they gave the first dose of penta vaccine to their child.

Status of OPV

The tendency of receiving four doses of OPV followed the similar declination trend of penta vaccine. When the first dose of OPV was taken by all the children, the fourth and final dose of OPV was taken by only 83.3% children.

Status of measles vaccine

The study found that 81% children had received vaccination for measles while rest 19% mother stated that they had not taken any immunization measures against measles. The case of not taking measles vaccine was highest in Tupamari union where 45 of 202 children did not take vaccine for measles. The second worst situation prevailed in Nilphamari Pouroshova where 31 of 131 children did not immunize for measles.

Status of FVC

The study recorded 78.3% children who were brought under the full vaccination coverage (FVC) before their first birthday.17.2% children did not fulfill the age condition to be fully immunized. Only 2.9%

children did not complete the full vaccination coverage due to their parents' indifferent attitude in completing the full immunization program.

			Control				Int	ervent	ion	
Status of FVC	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total
Yes, Before first birthday	80.0	93.4	100.0	78.0	85.9	69.4	76.7	76.3	71.9	72.8
Yes, After first birthday		1.6		6.1	3.2	3.6		3.2	1.7	2.4
Not completed	10.0				1.1	6.3	2.3	2.2	3.3	3.8
Not fulfilled yet	10.0	4.9		15.9	9.7	20.7	20.9	18.3	23.1	20.9
Total	20	61	22	82	185	111	43	93	121	368

Table 16: Percentage Distribution of the Children according to their Status of FVC

3.5 Maternal Health

World Vision Bangladesh has been implementing health and nutrition interventions through ADPs over the past three decades. One of their key strategic objectives is to ensure healthy pregnancy and delivery. Since 1970s, maternal and child health services are particularly poor in some geographic areas of the country, Nilphamari was considered as one of the critical zones for developing and improving maternal health service. That is why World Vision pursued to make staggering progress in maternal health in Nilphamari through Nilphamari ADP initiative.

3.5.1 Health Status during Anti Natal Period

The study revealed that nearly half of the pregnant mothers (49.4% from intervention group and 46.2% from control group) during their last pregnancy received services 3-4 times. A good proportion of them received care services on pregnancy 5-6 times, reported by 22.5% and 15.4% mothers from intervention and control cohorts respectively. However, there were a large proportion of mothers who received care services on pregnancy only 1-2 times, reported by 12.5% mothers from intervention group and 21.2% mothers from control group.

Table 17: Percentage Distribution of the Mothers according to the Number of ANC

No. of ANC			Contro					nterventi		
		UNION Respo	N of the ndents		Total	UNIO	N of the	e Respo	ndents	Total
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari		Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	
1-2 times	42.9	21.4	50.0	13.8	21.2	6.4	10.0	11.4	19.0	12.5
3-4 times	42.9	42.9	50.0	48.3	46.2	57.4	45.0	45.7	46.6	49.4
5-6 times	0.0	14.3	0.0	20.7	15.4	19.1	25.0	34.3	17.2	22.5
7-8 times	0.0	0.0	0.0	0.0	0.0	6.4	15.0	0.0	5.2	5.6
9-10 times	0.0	14.3	0.0	3.4	5.8	2.1	5.0	5.7	8.6	5.6
11+ times	0.0	0.0	0.0	3.4	1.9	4.3	0.0	0.0	0.0	1.3
Not a single Time	14.3	7.1	0.0	10.3	9.6	4.3	0.0	2.9	3.4	3.1
Ν	7	14	2	29	52	47	20	35	58	160

When identifying the source of services for pregnant mothers, the phase evaluation revealed that majority of the pregnant women pursued care and advisory health services on pregnancy from rural health workers (25.2% intervention HH mothers and 36.2% control HH mothers). Upazilla health complex had been reported as the subsequent choice by 18.7% intervention HH mothers and 27.7% control HH mothers. Apart from these, private clinic and health centers of other NGOs were commonly mentioned where the pregnant mothers went to receive pregnancy services. World Vision health center was rarely mentioned by the pregnant mothers, only 0.6% mothers from intervention cohort mentioned that they received pregnancy services from World Vision health center.

Visited places for ANC			Contro	l		Int	ervent	ion		
	Nilphamari Puroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Puroshova	Khokshabari	Palashbari	Tupamari	Total
Primary health care Center or Community clinic				3.8	2.1	8.9	5.0	8.8	7.1	7.7
Upazilla health complex	33.3	15.4		34.6	27.7	17.8	15.0	8.8	26.8	18.7
Maternity clinic				3.8	2.1	11.1	5.0	5.9	3.6	6.5
World vision health center						2.2				0.6
Other NGO health care center	33.3	7.7	50.0	3.8	10.6	6.7	20.0	5.9		5.8
Private clinic		15.4		3.8	6.4	6.7	15.0	8.8	14.3	11.0
Hospital	16.7			15.4	10.6	33.3	5.0	41.2	16.1	25.2
Doctor's chamber				11.5	6.4	4.4	5.0		7.1	4.5
Dispensary								2.9	1.8	1.3
MBBS	16.7	15.4	50.0	3.8	10.6	11.1	20.0	2.9		6.5
Homeopath								5.9	1.8	1.9
Village doctor			50.0	7.7	6.4		5.0		8.9	3.9
Midwife				3.8	2.1		15.0			1.9
Pharmacy				3.8	2.1					
Rural health worker		53.8		38.5	36.2	6.7	40.0	32.4	30.4	25.2
Shaman							5.0			0.6
Nurse								14.7	10.7	7.1
Home				3.8	2.1				5.4	1.9
Brac Clinic				3.8	2.1					
ShishuMangal						8.9				2.6
Didn't go anywhere									1.8	0.6
Total	6	13	2	26	47	45	20	34	56	155

 Table 18: Percentage Distribution of Mothers according to the Visited Places for ANC

About 84.5% pregnant mothers acknowledged that they were aware about the pregnancy danger signs. 'Severe swelling of hand, feet& face with headache' (70.4% in intervention and 63.6% in control) and 'itching and cramping' (57% in intervention and 54.5% in control) were the mostly reported pregnancy danger signs that the pregnant mothers frequently recognized. Following these symptoms, they also mentioned about 'high fever' (45.2% in intervention and 43.2% in control) and 'bleeding or spotting from vagina' (38.5% in intervention and 36.4% in control) which they understood as critical or danger signs of pregnancy.

Pregnancy danger signs Control Intervention											
	1		N of the			UNION of the					
			ndents								
					Total	Nilphamari Pouroshova	·	Palashbari Palashbari	Tupamari	Total	
Bleeding from vagina	40.0	36.4	0.0	38.5	36.4	20.0	66.7	48.0	38.5	38.5	
Severe swelling of hand, feet&	100.	81.8	50.0	50.0	63.6	72.5	83.3	80.0	59.6	70.4	
face with headache	0										
High blood pressure	0.0	27.3	0.0	30.8	25.0	30.0	33.3	16.0	21.2	24.4	
Itching and cramping	20.0	36.4	50.0	69.2	54.5	52.5	38.9	32.0	78.8	57.0	
High fever	0.0	45.5	0.0	53.8	43.2	37.5	55.6	52.0	44.2	45.2	
Blurredvision and balance lost	20.0	18.2	50.0	11.5	15.9	27.5	38.9	16.0	40.4	31.9	
Others	40	0.0	0.0	12	11	17.5	16.7	8.0	8	11.9	
Ν	5	11	2	26	44	40	18	25	52	135	

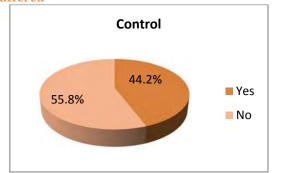
 Table 19: Percentage Distribution of Mothers according to their Knowledge on Pregnancy Danger

 Signs

87.5% pregnant mothers from intervention cohort and 82.7% pregnant mothers from control cohorts mentioned about taking iron tablet in their last prenatal period. A vast majority mother (36.4% intervention and 41.9% control) reported that they took average 61-120 iron tablets during their last prenatal period. About one-fifth of the pregnant mothers from intervention cohort (18.6%) and nearly one-third of the pregnant mothers from control cohort (27.9%) took only 10-30 iron tablets in their last pregnancy.

The phase evaluation also measured the volume of food intake of pregnant mothers at their prenatal stage. More than half of the pregnant mothers (54.4% from intervention group and 51.9% from control group) took usual amount of food likewise before their prenatal period. Among the rest of the respondents who took additional food due to their pregnancy, 51.4% from intervention group and 64% from control group reported that they took meal four times a day. Only 23.6% pregnant mothers from intervention group and 12% pregnant mothers from control group were found took meal five times a day, at their prenatal stage.

The phase evaluation discovered that about half of the pregnant mothers suffered from pregnancy dangers or complexities but no one died out of the complexity in last two years.



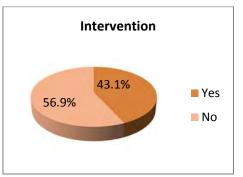


Figure 8: Percentage Distribution of Pregnant Mothers according to the Pregnancy Dangers Suffered

3.5.2 Health Status during Postnatal Period

For child delivery, 25% pregnant mothers from intervention group and 21.2% pregnant mothers from control group relied on nurses followed by 23.1% mothers from intervention group and 11.5% mothers from control group who relied on MBBS doctors to perform child delivery. A significant portion of the mothers (17.5% from intervention group and 26.9% from control group) depended on trained Traditional Birth Attendant (TBA) for their child delivery. The case of receiving child delivery service from amateur TBA was also significantly reported, relatively higher among the control group (13.5%) than the intervention group (10.6%).

Table 20: Percentage Distribution of	of the Mothers according to	the Persons they visited for Child
Delivery		

Source/ Child delivery service		(Contro	l		Intervention						
provider	1		N of the ndents	e		1						
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total		
MBBS doctor	0.0	7.1	50.0	13.8	11.5	31.9	25.0	14.3	20.7	23.1		
Nurse	14.3	14.3	0.0	27.6	21.2	31.9	15.0	20.0	25.9	25.0		
Paramedic	0.0	7.1	0.0	0.0	1.9	0.0	0.0	0.0	3.4	1.3		
CSBA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.6		
Health worker	0.0	0.0	0.0	6.9	3.8	0.0	0.0	2.9	0.0	0.6		
Community volunteer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.6		
NGO worker	0.0	0.0	50.0	6.9	5.8	6.4	5.0	14.3	15.5	11.3		
Trained TBA	0.0	42.9	0.0	27.6	26.9	14.9	35.0	22.9	10.3	17.5		
Amateur TBA	28.6	14.3	0.0	10.3	13.5	4.3	15.0	14.3	12.1	10.6		
Family member/ Relative	57.1	14.3	0.0	6.9	15.4	10.6	5.0	11.4	8.6	9.4		
Ν	7	14	2	29	52	47	20	35	58	160		

The phase evaluation recorded high level occurrences of not taking health service in the first week of child's birth, for mother as well as for the new born baby. 50.6% mothers from intervention group and 48.1% mothers from control group took health services for them within the first week of their child's birth. While 49.4% and 55.8% new born baby from intervention and control households respectively received health services in their first week of birth.

A large proportion of the mothers (40.6% from intervention group and 30.8% from control group) did not take any health advice or services at their postnatal stage. The fact gives an alarming indication for the health service providers that significant progress had not been made on raising awareness on postnatal services for mothers.

Frequency of receiving service			Contr		0					
		UNION Respo	N of the ndents		Total	1	Total			
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari		Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	
1-2 times	28.6	35.7	0.0	41.4	36.5	19.1	20.0	48.6	32.8	30.6
3-4 times	28.6	7.1	50.0	27.6	23.1	19.1	30.0	17.1	20.7	20.6
5 times and more	0.0	7.0	50	10.3	9.6	12.8	15.0	5.7	3.4	8.1
Never	42.9	50.0	0.0	20.7	30.8	48.9	35.0	28.6	43.1	40.6
Ν	7	14	2	29	52	47	20	35	58	160

Table 21: Percentage Distribution of the Mothers according to the Number of PNC

The study found that two-third of the respondents (70% from intervention and 71.2% from control) was aware of the post-delivery complexities. Among those who were aware on post-delivery complexities, they frequently mentioned about post-delivery itching & cramping, body swelling with severe headache, excessive bleeding from vagina and fever, as key physical complexities they faced.

Four-fifth of the mothers from intervention group (80.6%) and one-third mothers from control group (69.2%) were found familiar with the risks of newborns. Pneumonia (59.7% intervention and 41.7% control), labored breathing (46.5% intervention and 38.9% control), breast swelling (40.3% intervention and 27.8% control) and fever (34.1% intervention and 36.1% control) were the mostly reported danger signs for newborns.

Newborns Risks of newborns			Control				Int	ervent	ion	
	NilphamariP uroshova	Khokshabari	Palashbari	Tupamari	Total	NilphamariP uroshova	Khokshabari	Palashbari	Tupamari	Total
No Problem	16.7	9.1		5.9	8.3	2.8		3.7		1.6
Labored breathing	16.7	45.5	50.0	41.2	38.9	44.4	86.7	40.7	39.2	46.5
Pneumonia		45.5		58.8	41.7	66.7	46.7	44.4	66.7	59.7
Cold	83.3	18.2		35.3	36.1	38.9	53.3	33.3	19.6	31.8
Swelled chest	16.7	45.5		23.5	27.8	36.1	53.3	33.3	43.1	40.3
Skin gets dark maroon						5.6		14.8		4.7
Can't drink breast milk		45.5		29.4	27.8	13.9	33.3	11.1	9.8	14.0
Yellow skin (Newborn's jaundice)		18.2		11.8	11.1	19.4	33.3	7.4	11.8	15.5
Delayed separation of umbilical		9.1			2.8	5.6	20.0	11.1	9.8	10.1
cord										
Umbilical inflammation		18.2			5.6	2.8	20.0	3.7	13.7	9.3
Blisters in the skin							6.7			0.8
Seizure			100.0	5.9	8.3	16.7		22.2	17.6	16.3
Got weak						5.6			5.9	3.9
losing body temperature		18.2		5.9	8.3	2.8		18.5	7.8	7.8
fever	66.7	18.2		41.2	36.1	30.6	13.3	37.0	41.2	34.1
Baby didn't cry (weakness or				5.9	2.8	2.8			2.0	1.6
problems in throat)										
Cant urinate									2.0	0.8
Continuous vomiting		9.1			2.8	2.8			2.0	1.6
Swelled belly				5.9	2.8		6.7		5.9	3.1
Lower or greater weight								3.7	7.8	3.9
Jaundice			50.0		2.8			3.7		0.8
Diarrhea				5.9	2.8				3.9	1.6
Navel gets bigger									2.0	0.8
Measles						5.6			2.0	2.3
Typhoid									2.0	0.8
Total	6	11	2	17	36	36	15	27	51	129

 Table 22: Percentage Distribution of the Mothers according to their Knowledge on the Risks of Newborns

The study recorded significant rates of breastfeeding to child in their first hour of birth, 93.1% mothers from intervention group and 88.5% mothers from control group breastfed their child in the mentioned time. However, duration of breastfeeding (in days) was poorly recorded. Half of the respondents (55.6% intervention and 50% control) had mentioned that for more than 150 days they only breastfed their children. A significant portion of the intervention group mothers (10%) breastfed their children for only 10-30 days.

Govt. support and attainment

During a key informant interview with Upazilla Health Inspector, he revealed that the dept. currently had been working on EPI program. At first, they gave vaccinations for six diseases which had been now increased for nine diseases.

They provided health service to pregnant mothers and newborns through the community clinics of each Ward. In case of emergency, they sent the patient to govt.-run Sadar hospital. However, services from Sadar hospital were neither monitored nor measured by the health inspector.

For community health service, he emphasized on aligning govt. action plans with development programs to achieve greater result and to have a greater outreach. He highlighted on better communication with local leaders and community groups in order to improve the quality and responsiveness of health services towards the mother and children, who became easy victims of diseases most of the time.

3.6 Education

In the surveyed unions of Nilphamari ADP, there were 1954 children–1268 of them was in intervention cohort and rest 686 was in the control cohort. The male female ratio was 1.03:1. Only 9.5% children from intervention cohort and 12.7% children from control cohort got admitted to school in last year. The proportion of school going children was relatively higher, 89.9% children from intervention cohort and 88.8% children from control cohort were going to school at the time phase evaluation.

3.6.1 Status of Dropping out from School

6.2% children from intervention cohort and 5.7% children from control cohort were found dropped out from school. The percentage of dropped out children from intervention cohort was highest in Palashbari union (7.4%) and number of dropped out children from control cohort was highest in Nilphamari Pouroshova (7.5%).

A large number of dropped out children (45.2% from intervention cohort and 40.5% from control cohort) mentioned that they did not like to go to school to study. A good number of children mentioned 'to work for earning' as key reason for their dropping out from school (31.5% from intervention cohort and 16.2% from control cohort). The rate of dropping out from school was highest in Palashbari union (24) for intervention cohort and in Khokshabari union (16) for control cohort.

Reason for school drop out			Contro	l			Int	erventi	ion	
	UNION of the Respondents					UNION of the Respondents				
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total
School fees are high	0.0	18.8	33.3	8.3	13.5	9.5	20.0	0.0	5.6	6.8
Doesn't like to go to school/	66.7	43.8	0.0	33.3	40.5	42.9	10.0	62.5	44.4	45.2
doesn't like to study										
Has to work for earning	0.0	12.5	0.0	33.3	16.2	28.6	40.0	37.5	22.2	31.5
Has to help in household	0.0	12.5	0.0	8.3	8.1	4.8	10.0	8.3	11.1	8.2
chorus										
Others	33	25.0	100	25	32.4	14.3	30	4.2	33	17.8
Ν	6	16	3	12	37	21	10	24	18	73

Table 23: Percent Distribution of the Dropped Out Children according to the Reasons

An average child read up to class three before they dropout, findings from FGD with school dropout children tells. The FGD revealed that these children had enormous interest to continue their education, but their poverty incidence did not allow them to do so. Like the data said above, 31.5% from intervention

cohort and 16.2% from control cohort reported that they have to earn first to ensure their bread before they should go to schools.

FGD with dropout children revealed that these children, they do understand the necessity of education. They mentioned about book keeping, business calculation and social status are important factors that come from education. Despite their interest, they have to contribute to their family income from the very beginning.

The dropout children from FGD mentioned about creating awareness among their parents so that their parents allow them to go to school again. Also, they talked about education aid from govt. i.e. books, pen, uniforms etc. to ensure continuity of their education program.

Case: Story of a dropout boy

Mostafa (fictional name) lives in Haroa, Nilphamary. He is 15 years old. Five years ago, he left from his education as his father died. He read till class four and had not been in education for nine long years. After his father died, he started working in a tie manufacturing factory with a daily earning of only BDT 75. He finds it very hard to run his family of six members. In such a dreadful situation, he finds it even harder to get back to school.

Mostafa wished to get back to school only his family had a better earning source. He was frustrated that no one is there who can support his education.

3.6.2 Status of Children completed PSC and JSC/SSC

Among the children aged below 18 years, only 9.1% from intervention cohort were reported passed PSC while the percentage was higher among children from control cohort (12.3%). Among the PSC passed children, 36.1% from intervention cohort had grade 'A-' with 29.3% children from control cohort. One-third of the children from intervention cohort had achieved grade 'A' (29.5%), with two-fifth portion children from control cohort (41.5%).

The percentage of children below 18 years who passed JSC/SSC was also very poor. Only 9% children from intervention cohort and 6% children from control cohort were reported passed the JSC examination. 7.2% from intervention cohort was found passed the SSC examination while such the number decreased for control cohort children, only 3.3% of them had passed SSC program. Likewise the PSC, a good portion of the examinee were graded 'A' and 'A-' in their JSC/SSC program.12% from intervention cohort and 19.4% from control cohort passed SSC with 'B' grade, the study revealed.

3.6.3 Child Rights

Almost half of the parents living in Nilphamari ADP zone were found aware on child rights (56.4% from intervention households and 50.8% from control households). Among the rights, they frequently mentioned about 'right to live' (98.4% intervention and 95.3% control), 'right to be safe' (54.5% intervention and 48.5% control) and 'right to grow' (54% intervention and 48.5% control). A very few mentioned about the 'right to participate' (16% intervention and 11.2% control).

From intervention households, 75.4% boy children and 76% girl children aged below 14 years had birth registration. From control households, the percentage of boy children who had birth registration was 76.3% while the percentage for girl children was from the same cohort was 66.3%.

The phase evaluation revealed that almost two-third of the children aged between 6-12 years did not know anything about child rights. 60.1% children from intervention households and 74.5% children from control households had no knowledge on child rights.

The study found that as they children grew up, they became conversant with child rights which they learnt from their surroundings. Children aged between 12-18 years had more familiarity with child rights than the children aged between 6-12 years. The study found that 39.1% 12-18 years children from intervention households and 22.2% children from control households were aware on the rights for children.

From a key informant interview conducted with District Women and Children Affairs Officer, the study revealed that children rights had not gained momentum till days. Lack of education and awareness on child rights were spotted as the key reasons behind this failure. However, women discrimination was more at large than child discrimination, as reported by the key informant.

"Among the successful development activities from our department, child health gained the most success. Now-a-days, child mortality rate has been significantly reduced. Girls' participation in formal education has also been increased. Increased awareness and mass support from common people are the keys to these successes"

- KII with District Women & Children Affairs Officer

Some NGOs and development organizations had been working for establishing child rights apart from World Vision. There were BRAC working on child education and health, RDRS working on adolescent health and education.

In order to lure the drop out children to the school, there had been a program initiated in Nilpahamri Sadar, found from a key informant interview with Upazilla Primary and Education Officer. He mentioned that from their department a project named ROSC (Reaching out the School Children) had been initiated. Under the project, a program titled 'Anondo School' will be coming up to get back the children who dropped out from school.

Despite several programs and actions taken by the concerned authorities, child rights had been a major development; 'rights to participate' had been rundown many times, reported by the children during an FGD. The children (both boys and girls) claimed that most of the time their parents and community leaders do not care about their thoughts and opinions at the time of deciding on a matter that is related to child's betterment.

Case: The foul victim of child marriage

Maria (fictional name), 14 years old girl left school when she was at class seven. Her family put pressure on her to get married at this age and clogged her education. They believed that a girl child does not need to be educated as she grew up. With ages, she must get married and start a family. Moreover, her family's economic condition did not allow her parents to pay her school fees. Under the circumstances, despite having strong desire to be educated, Maria is now being surrounded by her family boundaries. They are now desperately seeking for a husband of their daughter to release the burden (the girl) of the family.

3.6.4 School Management Committee

World Vision had bridged their activities on education development with School Management Committees (SMC). SMC worked on managing different school development tasks and monitored the activities and performance regularly. SMC created liaison between school and different community stakeholders on various needs and development of the schools.

The key activities performed by SMC were monitoring teachers and students' attendance, teaching and academic performance, infrastructure development as and where necessary, admission and to prevent drop out from school. Also, the kept track on students' study materials and books so that every student got the similar environment for learning.

"It is evident that due to presence and operation of SMC, academic results became better than previous. With the help of teachers and members of SMC, the school has now 99% pass record"

- FGD with School Management Committee, East Khokshabari Govt. Primary School

SMC also aligned their activities with government to develop education system and performance of their schools. During FGD with SMC of East Khokshabari Govt. Primary School, the participant sex pressed positive notion about govt. activities in education development. They mentioned about book distribution in the beginning of academic year, infrastructure development and salary increase of the teachers, Bangladesh govt. had been successful in these areas.

3.7 Economic Development

3.7.1 Income and Expenditure Pattern

Intervention Households

23.6% respondents mentioned 'loan' as the major income source followed by 15.4% households who earned from livestock rearing. Other major sources of income for the households were backyard poultry (12.2%), different agricultural production i.e. rice, corn, fruits in their own and leased lands (10.1%) and labor wages (6.4%).

One-fourth of the households earned BDT 1000-5000 monthly. Two-fourth of the households earned within a rage starting of BDT 5001-50,000.

The major expenses were incurred in food (11.7%), followed by medical treatment for household members (11.5%) and clothes (11.1%). Other significant expense areas were fuel cost (11.1%), mobile phone bill (9.5%) and various entertainment costs (9.1%).

As expected, households had no savings as they spend whatever they earn.

Control Households

Likewise the intervention group, 29.2% respondents mentioned 'loan' as the major income source followed by 11.8% households who earned from livestock rearing. Other major sources of income for the households were labor wages (10.6%), backyard poultry (10.1%) and different agricultural production i.e. rice, corn, fruits in their own and leased lands (8%).

One-third of the households earned BDT 5001-10000 monthly indicating that control households had better earning in compared with the intervention households.

As expected, food was the major cash outflow area (12.5%), followed by medical treatment for household members (12.2%) and clothes (11.5%). Other significant expense areas were fuel cost (10.1%), mobile phone bill (9.2%) and various entertainment costs (7.5%).

3.7.2 Production and Productivity

Cropping pattern

In the surveyed region, households had been traditionally involved in agricultural production. The lands in which they grew different agricultural crops were mostly double cropped land (57.1% intervention and 48.9% control).33.3% land from intervention group and 27.7% land from control group were under multiple cropping.

The study found limited practice of single cropping, higher among the control beneficiaries (23.4%) and lower among the intervention beneficiaries (only 9.5%).

Practices											
Cropping nature			Contro	1		Intervention					
	UNIO	N of the	Respon	ndents	Total	UNION of the Respondents				Total	
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari		Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari		
Single cropped	0.0	0.0	33.3	23.3	23.4	0.0	0.0	15.7	0.0	9.5	
Double cropped	0.0	60.0	50.0	46.7	48.9	42.9	50.0	58.8	64.7	57.1	
Multiple cropped	0.0	40.0	16.7	30.0	27.7	57.1	50.0	25.5	35.3	33.3	
N	0.0	5	12	30	47	14	2	51	17	84	

 Table 24: Percentage Distribution of the Household Respondents according to their Cropping Practices

Types of crop produced

In the agricultural lands of intervention group, tobacco (36.5%) and potato (25.3%) were the mostly grown crops followed by wheat (11.2%) and jute (10%). These crops grow well in sandy loamy soil of Nilphamari district. The control households mostly grew tobacco (43.2%) and potato (25.7%) likewise the intervention households, followed by vegetables (14.9%) and jute (6.8%). Production of tobacco was found higher in Tupamari union (55.4% intervention and 58.1% control) while the lowest grown crop was eggplant, grown in Palashbari union in some intervention households' land (0.8%).

Types of crop			Contro	1			Ir	ntervent	ion	
	UNIO	N of the	Respon	dents	Total	UNIO	N of the	e Respo	ndents	Total
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari		Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	
Wheat	0.0	7.1	18.8	0.0	5.4	16.1	22.2	12.6	0.0	11.2
Potato	0.0	50.0	18.8	20.9	25.7	51.6	33.3	15.0	30.4	25.3
Vegetables	100.0	35.7	6.3	9.3	14.9	3.2	37.0	5.5	7.1	9.1
Tobacco	0.0	0.0	43.8	58.1	43.2	0.0	7.4	43.3	55.4	36.5
Corn	0.0	0.0	0.0	2.3	1.4	6.5	0.0	5.5	0.0	3.7
Jute	0.0	0.0	12.5	7.0	6.8	9.7	0.0	13.4	7.1	10.0
Mustard	0.0	0.0	0.0	2.3	1.4	6.5	0.0	2.4	0.0	2.1
Pepper	0.0	7.1	0.0	0.0	1.4	6.5	0.0	1.6	0.0	1.7
Eggplant	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.4
Ν	1	14	16	43	74	31	27	127	56	241

Table 25: Percentage Distribution of the Household Respondents according to the Crops Cultivated

Production volume

For intervention group, highest production was reported around 401-1000 kg (28.6%) followed by 101-200 kg (24.9%). Only in 12% land production volume was reported more than 1000 kg.

Among the control group, most of their land can produce crops only 201-400 kg (32.4%), followed by 101-200 kg (28.4%). While only 10.4% lands of intervention group produced less than 100 kg, 25.7% lands of control groups produced less than 100 kg, which is 2.5 times lesser than the intervention group.

Production			Contro	ol 🕺			Ir	ntervent	tion		
volume	UNIO	N of the	Respor	ndents	Total	UNIO	UNION of the Respondents				
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari		Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari		
1-100 Kg	100.0	21.4	25.0	25.6	25.7	6.5	25.9	11.0	3.6	10.4	
101-200 Kg	0.0	21.4	31.3	30.2	28.4	9.7	14.8	29.1	28.6	24.9	
201-400 Kg	0.0	28.6	25.0	37.2	32.4	12.9	14.8	26.8	28.6	24.1	
401-1000 Kg	0.0	14.3	18.8	7.0	10.8	41.9	29.6	26.8	25.0	28.6	
1001-1500 Kg	0.0	7.1	0.0	0.0	1.4	6.5	0.0	3.1	5.4	3.7	
1501-2000 Kg	0.0	7.1	0.0	0.0	1.4	6.5	7.4	1.6	5.4	3.7	
2001-3000 Kg	0.0	0.0	0.0	0.0	0.0	9.7	7.4	0.0	1.8	2.5	
3000+ Kg	0.0	0.0	0.0	0.0	0.0	6.5	0.0	1.6	1.8	2.1	
Ν	1	14	16	43	74	31	27	127	56	241	

Productivity

More than half of the land had productivity of 1-10 kg per hectare (54.2% intervention and 54.1% control).

Productivity			Contro				Ir	itervent	ion	
(kg/hectare)	UNIO	N of the	Respon	ndents	Total	UNION of the Respondents				Total
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari		Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	
1.00-10.00 Kg	0.0	28.6	56.3	62.8	54.1	30.0	40.7	62.2	55.4	54.2
10.01-20.00 Kg	100.0	28.6	12.5	30.2	27.0	36.7	18.5	24.4	25.0	25.4
20.01-40.00 Kg	0.0	21.4	31.3	4.7	13.5	26.7	33.3	7.9	16.1	15.0
40.01-100.00 Kg	0.0	21.4	0.0	2.3	5.4	6.7	7.4	4.7	3.6	5.0
100.01-150.00 Kg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.4
Ν	1	14	16	43	74	30	27	127	56	240

 Table 27: Percentage Distribution of the HH Respondents according to the Productivity per Hectare

One-fourth of the lands can produce 10-20 kg crop per hectare. Only 20.4% land of intervention group and 7% land of control group gave yield more than 20 kg in each hectare, the study recorded.

3.7.3 Market Linkage

The propensity of receiving market information or information for increasing the production was relatively very poor among the target groups in Nilphamari ADP zone. The study revealed that 86% intervention households did not market their products rather relied on traditional marketing and selling products to haat (local market). Proportion of such agro producers was higher among the control households (92.5%). Only 20.8% intervention HHs used production and marketing information while buying inputs and selling their products. Percentage of such HHs went down to 11.7% for control HHs.

Among the households who contacted for production and market related information, 6.2% intervention HHs and 4.2% control HHs communicated with other local producers and producer groups. 5.2% and 2.5% intervention and control HHs respectively communicated with agro-product buyers (the forward market actors) or wholesalers. Only 3.8% intervention HHs and 2.8% control HHs contacted with line department officials from DAE and DLS.

Only 1.4% intervention HHs tried selling their products at the distant markets willing to get higher price. Share of such control HHs was very low, only 0.7% tried selling their products at distant market.

3.7.4 Profitability of the Enterprises

Only 10.6% HHs from intervention group were involved in SME business, the phase evaluation calculated. Percentage of SME business persons for control group was 3.3. Number of SMEs was highest in Nilphamari Pouroshova (14.2% intervention and 8.7% control) due to its urbanized nature. Among these SMEs, 31.5% (intervention) and 41.7% (control) were grocery shops. Others are mostly product stock business (16.9% intervention and 33.3% control).

Intervention SME owners were more successful in making money from their business operation than those of control SMEs. The study found that 84.3% intervention SMEs were making profit from their business operation most of the time, while such number of SMEs decreased for control group, only 58.3% reported they were successfully making profit from their SMEs.

Case: Prosperity comes from confidence

Mala (fictional name), got married in 2003 and now had two sons. When she got married, her husband was a day labor who could barely earn BDT 4,000 in a month. Mala passed SSC in 2002 and her education made her confident and aware on economic empowerment.

In 2010, Mala attended in a 3 months training program on tailoring at World Vision. Upon completing the training, she received a sewing machine from WV. Along with the machine she got little other equipment (scissor, clothes etc.) and started making clothes. This in fact was her major turning point. She has been making money of around BDT 2,000 per month. During festivals, she earns around BDT 5,000 at a time.

Her strong economic situation made her even more confident and gave her a strong attitude to help others. She along with her husband, in last month, financially helped her neighbor to get their daughter married. Not only this, she bought a 20 decimal land, few days ago with her savings and DPS. She is now happily living a prosperous, empowered and solvent life.

3.7.5 Farm Group

From the qualitative findings, the study found that in order to increase production & productivity and to share knowledge & information among the producers, the beneficiaries formed 'Farm Group'. These farm groups were particularly formed for farmers involved in agricultural production – rice, wheat, potato and vegetables to be precise. Number of members in each farm group varies from 15-45 depending on the interest of the producers to work collectively. The farm group selected president, secretary and cashier for effective management and operation.

"At first, Mr. Ranjan from World Vision came to us. He talked about different techniques on how to increase farm production. We then understood the necessity of forming groups so that we can collectively learn and share knowledge and information among us."

- FGD with Farm Group, Dolapara, Khokshabari

Farm group had provision of collective savings. Also the groups operated in a way where collective production and sales were encouraged. During an FGD with Farm Group in Dolapara, Khokshabari, members of the group agreed on the higher profitability due to collective production and sales as each producer produced smaller volume of products but demand for products from output buyers was in bulk amount.

The groups were trained on vegetable cultivation technique and improved production technique, the FGD revealed. Even, they learned about food security, preparation of nutritious food for their child. Apart from these, the farm group members received training on livestock rearing and improved compost preparation.

During FGD, farm group members expressed their interest to receive modern training on improved farm management through farm groups. The suggested that to strengthen group activity and sustainability of the benefits; internal communication within the groups shall be increased. The ADP program shall continue till they become economically solvent.

Problems and Prospects

The Upazilla Agricultural Officer in his interview said that the agriculture of the locality had been intricate by problems like farmers' poor knowledge on crop selection and land selection, poor quality seed usages, reluctance to adapt new technologies, diseases and pests, irrigation and last but not the least lack of training facilities on cultivation management. These lead to poor production of the lands and resulting on lower income for the households depending on agriculture farming.

The respondent underlined that supply chain development, group production & marketing and capacity building training would be the key success factor for sector growth and contribute to the marginal households. He also emphasized on introducing better cultivation technique and promotion of high yielding seed varieties. At the end, he appreciated WV's initiative for economic and livelihood development of the local people through training programs on compost making, seed bed preparation and imrpoved cultivation& marketing.

3.8 Sponsorship

World Vision had found that sponsoring a child is a powerful way to fight against poverty. WV ADP works with children whose family cannot support the child's basic need due to extreme poverty situation. WV aims to provide these children with sponsors that give them opportunity to meet their basic demand i.e. clothing, education and health without a major family support. No other organization or agency is working on sponsorship program in Nilphamari area except hostel based sponsorship program run by Talitakumi Church in very small scale.

3.8.1 Extend of the Sponsorship Program

The number of sponsored child was found stumpy among the intervention HHs. Only 34.5% HHs had sponsored child at the time of phase evaluation. Surprisingly, the proportion of sponsored child was higher among the control HHs, which was almost 100%.

A good number of stakeholders and caregivers were reported able to articulate at least two personal and organizational responsibilities related to sponsorship program. They participated in the program mostly by providing right information followed by taking picture of the child and agreed to include their child in sponsorship program.

Responsibilities relating to			Contro				Int	erventi	ion	
sponsorship	UNION of the Respondents						UNION Respon		e	
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total
Helped providing right information	86.4	83.5	66.7	82.3	81.3	92.6	89.2	89.3	93.2	91.4
Helped taking pictures of the child	36.4	21.5	37.5	46.8	33.7	27.8	29.7	30.4	30.1	29.5
Agreed to participate	22.7	36.7	29.2	22.6	29.4	33.3	40.5	16.1	16.4	24.5
Gave seeds	0.0	0.0	0.0	1.6	0.5	0.0	0.0	0.0	0.0	0.0
Did not participate	4.5	0.0	0.0	1.6	1.1	0.0	0.0	7.1	1.4	2.3
Ν	22	79	24	62	187	54	37	56	73	220

Table 28: Percentage Distribution of the HH Respondents according to their Responsibilities to Sponsorship

FGD with parents or care givers of RC children revealed that first they analyzed economic condition of the poor families like checked their land size, number of family members, income source, income volume etc. and identified which families are in requirement for education sponsorship.

3.8.2 Satisfaction on Sponsorship Program

98.3% intervention HHs and 95% control HHs strongly believed that WV's sponsorship program had contributed to their child's development.

Table 29: Percentage I	Distribution of the	HH Respondents o	n Contribution of	WV sponsorships
program				

Contribution of WV		Control					Intervention			
sponsorships program	UNIO	N of the	e Respo	ndents		UNION of the Respondents				
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total
Contributed	100.0	99.3	100.0	87.3	95.0	100.0	100.0	98.5	96.4	98.3
Did not contribute	0.0	0.7	0.0	12.7	5.0	0.0	0.0	1.5	3.6	1.7
Ν	46	134	44	134	358	49	37	67	83	236

Case: Sponsorship made a big difference

Kayes (fictional name) is 10 years old boy. He has four sisters and one brother. His father is a farmer and mother is a housewife. Before getting registered to World Vision's sponsorship program, he hardly could manage his education materials. His father was not able to give him pen, papers, books, bags and even an umbrella to protect his education gears from rain.

Bow, he is a happy RC boy. He had received study materials from WV and now happily attending to study. Even before he was a RC child, his mother could not feed him properly. Now, his family attends to WV program and he gets regular food. He is happy to be with World Vision and wished for WV's longer life. He also wished that following World Vision, other institutes can come to solve education problem of the children like him.

95.3% and 90.2% HHs from intervention and control group respectively mentioned that the program helped their families in terms of economic and social support particularly for their children.

Table 30: Percentage Distribution	of the HH Respondents on	Family Benefit of WV sponsorships
program		

Family Benefit of WV			Control			Intervention				
sponsorships program	UNIO	UNION of the Respondents				UNION of the Respondents				
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total
Benefitted	100.0	95.5	100.0	78.4	90.2	95.9	100.0	95.5	92.8	95.3
Did not benefit	0.0 4.5 0.0 21.6				9.8	4.1	0.0	4.5	7.2	4.7
Ν	46	134	44	134	358	49	37	67	83	236

94.1% and 90.5% HHs from intervention and control group respectively informed that their children got better service due to WV's sponsorship program.

Table 31: Percentage Distribution of the HH Respondents on Service Performance of WV sponsorships program

Service Performance			Control			Intervention				
of WV sponsorships	UNIO	N of the	e Respon	ndents		UNIC	ON of the	e Respon	dents	
program	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total
Got fine service	93.5	97.8	97.7	79.9	90.5	98.0	100.0	88.1	94.0	94.1
Did not get fit service	6.5	2.2	2.3	18.7	8.9	2.0	0.0	11.9	6.0	5.9
Ν	46	134	44	134	358	49	37	67	83	236

The proportion of satisfied stakeholders or care givers on the sponsorship program was 94.5% and 93.6% intervention and control HHs respectively.

Table32:Percentage	Distribution	of	the	HH	Respondents	on	Service	Satisfaction	of	WV
sponsorships program										

Service Satisfaction of		Control				Intervention				
WV sponsorships	UNION of the Respondents				UNION of the Respondents					
program	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total
Satisfied	95.7	97.0	97.7	88.1	93.6	98.0	100.0	91.0	92.8	94.5
Not satisfied	4.3	3.0	2.3	11.9	6.4	2.0	0.0	9.0	7.2	5.5
Ν	46	134	44	134	358	49	37	67	83	236

In the FGD with parents or care givers of RC children, it was revealed that improved mother and child care is an area of satisfaction. Children were informed about benefits and techniques of good and hygienic health, about nutritious food, vaccination programs for the new born babies and pregnancy care for

women etc. This had been improved their knowledge and practice and brought significant changes in their behavior for taking care of their family members.

3.8.3 Participation in Sponsorship Program

The percentage of community participation in WV's child sponsorship program was very low among the intervention households (35.8%) than the control households (65.8%). Among the program participants, 86.1% (intervention) and 84% (control) mostly participated in the program meeting or workshop. Other than meeting, child rights and security based program and learning events were frequently visited by the community people.

Table 33: Percentage Distribu	tion of the HH Respondents	on participation in WV sponsorships
program		

Participation in WV	Control				Intervention					
sponsorships program	UNION of the Respondents					UNION of the Respondents				
	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total	Nilphamari Pouroshova	Khokshabari	Palashbari	Tupamari	Total
Participated	93.5	63.7	97.7	48.1	65.8	33.3	38.2	36.4	36.1	35.8
Did not participated	6.5	36.3	2.3	51.9	34.2	66.7	61.8	63.6	63.9	64.2
Ν	46	134	44	134	358	49	37	67	83	236

FGD with parents of RC children found that these children were very much attached to WV activities; they took part in early child marriage movement, social meetings arranged on different social issues and national govt. programs.

3.9 Disaster Management

The phase evaluation of Nilpahamri ADP was conducted at a time when the area was experiencing cold wave. Thus the study recorded actual and field reality of disaster management in aspect of cold wave.

The study recorded that it was the elderly (92.48%) and children (84.74%) who suffered most from cold wave, followed by pregnant mothers (31.31%) and day laborers (12.72%). Accordingly, the respondents agreed to take special care of the elderly, children and the pregnant mothers at the time of cold wave (72.04%). They also emphasized on availing sufficient warm clothes for to prevent them from cold wave (60.48%).

The key agricultural damage due to cold wave was reported in potato fields (69.05%) – yield got lower due to excessive cold.

Cough & cold (93.5%) and fever (85.7%) were the frequently mentioned diseases occurred due to cold wave.

CHAPTER FOUR CONCLUSIONS & RECOMMENDATIONS

4.1 Strategic Vision

The results highlight some considerations going forward for the ADP program. The project requires continuing to make the changes sustainable with some strategic changes. Key recommendations are therefore -

- 1. Expansion of program through the *service providers and private sector actors* will help in achieving the present coverage target.
- 2. Participation rates in communal activities are already relatively high but low rates of *active participation in trading and exchanging information*. This suggests the need to improve the extent to which community organization impacts decision-making. The beneficiaries shall be encouraged to arrange and facilitate development activities to create confident among them.
- 3. Few people are able to access information about basic development planning. *Greater access to information* could improve the quality of participation in decision-making and the effectiveness of community organization or business groups. Creating information hub through IVD and then transforming the knowledge and information to CBO level will generate greater harmony to bring more positive results.
- 4. *Creation of Forum* to carry out and sustain the benefits of program could be an effective way. Participants has now a common ground of knowledge, it is time to take them in the next level of development. Creation of forum would create a participatory platform for them, where they can exchange their ideas, problems and advocate for solutions.

In later stage of the program, Nilphamary Sadar ADP should have more focus on developing effective market linkage and rigorous private sector engagement to continue the benefits of this phase. Engaging private sectors will provide more opportunities for economic development and when the economy of the poor becomes stable, it will contribute to all other development indicators. Along with, the project should re-shuffle and set specific indicators rather than going for a holistic development.

4.2 Areas of Interventions

Broad area	Key findings	Proposed interventions
Sanitation	Among the 360 respondents in the control area 350 washed their hands after toilet which was 824 among the 840 respondents in the intervention area. Also, 93% intervention HHs was found use sandals when going to latrines, such users for control group stood 87%. This developed a clear indication that target households had grown a developed sense on hygienic sanitation. But, when it came to dumping their child's stool, only 41.6% intervention households and 32.1% control households either dump stool in house dustbin or in open places in their backyard.	Develop dedicated sanitation curriculum on different sanitation issues and create sequential arrangement of learning.
Mother and Child Health	For pregnant mother and newborn babies, 35% intervention households and 44.1% control households frequently took the mother and children to the nearby dispensaries where the owners or sales persons provide treatments based on the symptoms they identified. This created a greater health risk due to the dispensary owners' or sales persons' poor knowledge on disease identification and treatment. More than half of the pregnant mothers (54.4% from intervention group and 51.9% from control group) took usual amount of food likewise before their	Develop Community Health Mobilizers in order to improve the quality of mother and child care service and to create greater and quicker response in times of emergency.
	prenatal period.	

Broad area	Key findings	Proposed interventions
Sponsorship	31.5% from intervention cohort and 16.2% from control cohort claimed 'to work for earning' as key reason for their dropping out from school.The number of sponsored child was found stumpy among the intervention HHs. Only 34.5% HHs had sponsored child at the time of phase evaluation.	Strengthen sponsorship program with proper identification of children, mapping their family's economic condition and identify anticipated timeframe to support the children.
Child Rights	For children aged between 6-12 years, 60.1% children from intervention households and 74.5% children from control households had no knowledge on child rights. For children aged between 12-18 years, only 39.1% from intervention households and 22.2% children from control households were aware on the rights for children.	Create more scope of participation for both <i>the children and their parents</i> in community programs, workshops for children and child forums.
Agriculture based Livelihood	15.4% households earned from livestock rearing. Other major sources of income for the households were backyard poultry (12.2%), different agricultural production i.e. rice, corn, fruits in their own and leased lands (10.1%) and labor wages (6.4%).	Develop sub-sector specific interventions according to crop priority i.e. rice, potato, vegetable etc. Create sub-sector specific producer group to enhance information and knowledge exchange between the members, bulking and greater access to fair market price.
Disaster Risk Reduction	Elderly (92.48%) and children (84.74%) suffered most from cold wave indicating their highest vulnerability to climatic shocks, followed by pregnant mothers (31.31%) Also, agricultural damage was reported (69.05%) – yield got lower due to excessive cold.	1 2

Broad area	Key findings	Proposed interventions
Group savings	For livelihood, 23.6% intervention HHs heavily relied on taking 'loan' to propel their income source.	Encourage group savings in CBOs and Producer Groups to reduce risk of individual savings and dependency on risky loan products.
Group business	Farm business groups had started realizing the value of group production and marketing. However, they lacked the knowledge to capitalize the groups approach.	Developing effective <i>group business model</i> will create space for improved supply chain, better production and enhanced market linkages.