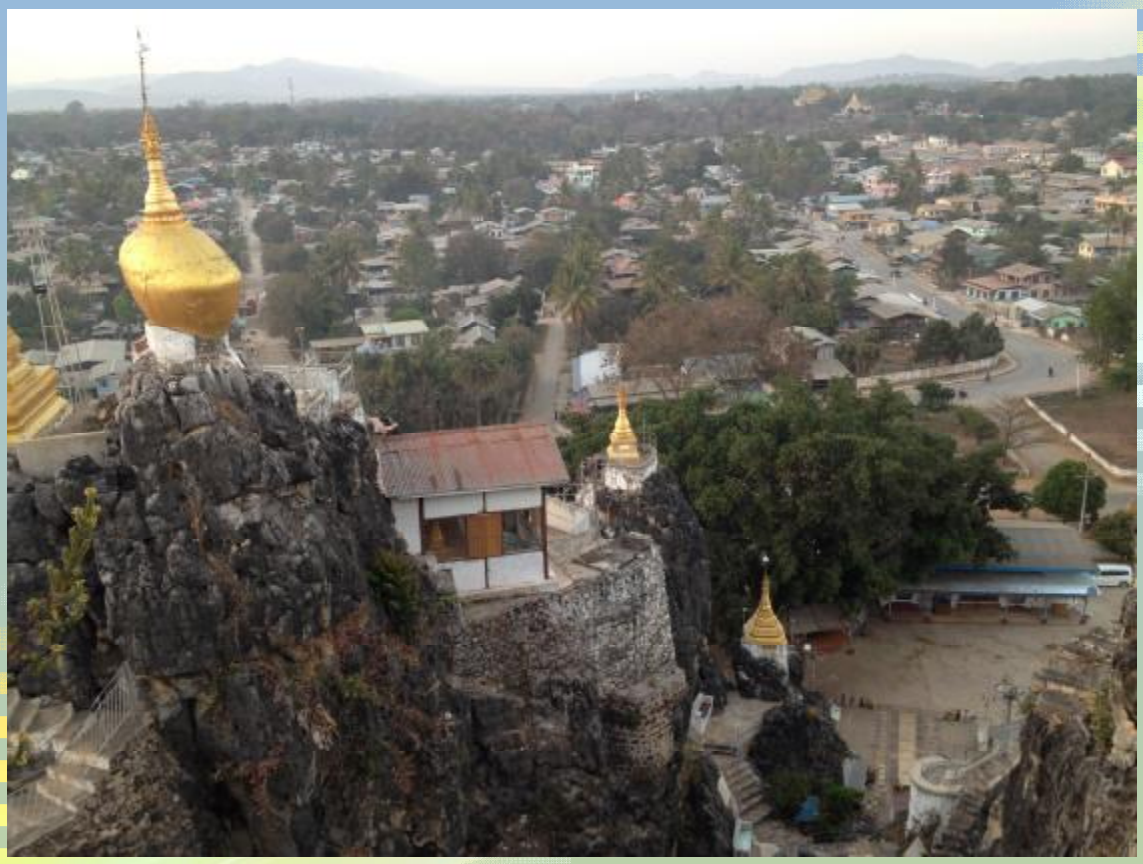
Community Based Health and First Aid Program in Loikaw and Demawso Township, Kayah State, Myanmar



Baseline survey

March 2014

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List of abbreviations

MRCS	Myanmar Red Cross Society
FGD	Focus Group Discussion
INGO	International Non-government Organization
CBO	Community Base organization
CBHFA	Community Based Health and First Aid Programme
KII	Key Informative Interview
CBDRM	Community Based Disaster Management
LNGO	Local Non-government Organization
MDG	Millennium Development Goals
MPR	Myanma Perfect Research
SPSS	Statistical Package for the Social Sciences

Acknowledgement

We would like to express our deep gratitude to the Finnish Red Cross for the financial contribution towards for the baseline survey.

We would also like to express our very great appreciation to Myanmar Red Cross Society, Health Division for their valuable and constructive suggestions through the baseline survey process.

We would like to thank the “study participants “ who are beneficiaries of MRCS, who are actively contributing and participating in this research study undertaken in 20 selected villages from Kayah state, Myanmar.

We would like to express our sincere gratitude to the volunteers of MRCS from each area, and participants taking into our discussions for assistance during the baseline survey.

Special thanks also to villagers form selected project area. Their support has greatly contributed to achieve data collection and on overall smooth process of the research.

Last, but not least, we wish to express our gratitude to Myanma Perfect Research consultancy firm’s colleagues for hard work to complete this research and their valuable advice, assistance, and timely completion of the study.

Executive Summary

Introduction: The Myanmar Red Cross Society (MRCS) Community-Based Health and First-Aid (CBHFA) Programme starts to develop Programme's activities in Loikaw Township and Demawso Township in 2014. CBHFA approach is based on involvement of Red Cross volunteers of Township (branch) Red Cross society. This baseline survey of Community-Based Health and First-Aid was conducted in May 2014. This survey will help the needs of health status of the community and First-Aid knowledge of the community.

Aim: The main aim of this survey is to provide current situation of health, First-Aid, water and sanitation, and disaster conditions in the study villages.

Method: Cross sectional design was used among the respondents in twenty villages in in Loikaw Township and Demawso Township. Data collection was started on March 2014 and ended March 2014. Mixed methods of qualitative and quantitative surveys have been conducted. Data were collected by direct observation and interviews including both qualitative and quantitative.

Findings: The finding found that most of the respondents have gaps in knowledge relating to health. Half of the respondents did not practice how to prevent the disease occurrence including communicable and non-communicable disease. In general, mostly respondents used latrines but nearly half of respondents did not wash their hand with or without soup after defecation. Due to poor personal hygiene and lack of complete sanitary pit latrine, diarrhea is the most occurrences in the study population. They practiced danger behavior after delivery such as culture, bathe as soon as delivery, take traditional medicine, water and honey, coconut oil lotion on cord and stimulus the baby to cry. Attitude of the respondents were found to be mostly in positive scales except HIV/ AIDS topic. Some village in this study was flooded in rainy season. The people faced lack of drinking water, poor transportation, poor environmental sanitation and water related diseases. They also did not know how to respond the disaster and most of the respondents did not know first aid activity.

Conclusion: However, members and volunteers of Red Cross Society well participate and arrange health education and health related activity; the most villagers do not obey and participate well because most of the villagers struggle for family income and they occupy limited knowledge. The people need more knowledge and practice on disaster preparedness and disaster risk reduction.

Recommendations: In this regards, the following recommendations are made:

1. Knowledge on modes of transmission, signs and symptoms, preventive measures of malaria, diarrhea, ARI as well as hypertension, diabetes (NCDs) is needed to be strengthened in communities to get early diagnosis, treatment and early referral of severe cases.
2. Concerning about the maternal and child health, knowledge about danger signs of pregnancy and infant could be improved by giving training the facilitators through midwives.
3. First-Aid knowledge and practices on injuries and snakebites were poor at village community level. First-Aid should be trained more.
4. Knowledge and practice on early warning system and preparedness were needed before raining season if floods occurred due to heavy rain.
5. Latrine pans and ORS should be distributed free-of-charge to encourage construction of sanitary latrines and prevention and control of diarrhea and dehydration.

Community Based Health and First Aid Program in Loikaw and Demawso Township, Kayah State, Myanmar: Baseline survey

1. Background

1.1 Introduction

In November 2013, Myanmar Red Cross Society (MRCS) started to develop Community Based Health and First Aid Programme (CBHFA) at Loikaw and Demawso Township, Kayah State. This programme was funded by Finnish Red Cross (FRC), and implemented in ten communities each in Loikaw and Demawso Township.

This programme is the long-term development programme. The overall goal is to reduce the number of deaths, illnesses, injuries, and impact from diseases, public health emergencies and disasters. Therefore, the following objectives were set for the whole programme.

1) Enable the target communities to become safer, healthier, and more resilient by taking the CBHFA in action approach
2) Strengthen the MRCS' capacity at all levels to facilitate and support the implementation of the CBHFA programme

Initial needs assessment visits have been undertaken in 20 communities in Loikaw and Demawso Township. These assessment processes have resulted in a general understanding of the main Health, Injury (First Aid), Water and Sanitation, and Disaster issues and needs. All these findings were came from quantitative, Focus Group Discussion (FGD), Key Informant Interview, direct observation, resource mapping, and seasonal mapping. Based on these findings, a total of 20 villiages will be implemented for the first phase of the programme.

1.2 Rationale

Health, Injury (First Aid), Water and Sanitation, and Disaster needs were found out from initial needs assessment visits in Loikaw and Demawso Township. However, the detailed needs are lacking in these two Townships. Moreover, there is no available baseline data on demographic, socio-economic characteristics, water and sanitation, disaster conditions in two selected Townships. In addition, knowledge, attitude, and behavior about health in these areas are still unknown. All these data are very crucial for the improvement and development of Health, Injury (First Aid), Water and Sanitation, and Disaster areas. The findings of this baseline survey will be very useful for further projects designating and implementing.

1.3 Implication of the study

The results of this study will be provided projects designing, planning, and implementing. The findings of these study will be useful to talk and discuss with health policy decision makers and health policy planning Kayah States and similar setting of rural areas of Myanmar. The baseline survey findings will be provided the potential to provide ideas to improve the current health care situation in Kayah State.

1.4 Objectives:

- The objectives of this baseline survey were to explore the situations of health, injury (First Aid), water and sanitation, and disaster and its needs, and to learn residents' knowledge, attitudes, practices on Health, Injury (First Aid), Water and Sanitation, and Disasters issues.

1.4.1 Specific objectives

- To collect data/ information regarding Health, Injury (First Aid), Water and Sanitation, and Disasters in identified 20 villages in two Townships.
- To analyses, the data/ information collected in order to provide a clear understanding of knowledge, attitudes, practices on Health, Injury (First Aid), Water and sanitation, and disasters issues.
- To discuss possible solutions with relevant stakeholders (may include community members, villages leaders, local health authorities, Myanmar Red Cross Society (MRCS staff and volunteers)
- To provide recommendations regarding the development of Health, Injury (First Aid), Water and sanitation, and disaster issue.
- To build the capacity of MRCS staff and volunteers in data collection and analysis methodology

2. Methods

2.1 Study design

The study was conducted by using a cross-sectional study design with both qualitative and quantitative approaches.

2.2 Study period and area

The study duration was two months, and starting from March and April 2014. The study areas were 20 villages in Loikaw and Demawso Twonships that are located in Kayah State, Myanmar. We conducted face-to-face interviews for using structured questionnaire for quantitative survey, and FGD, Key Informant Interview, direct observation, resource mapping, and seasonal mapping as a part of qualitative survey.

2.3 Participants

The study participants was recruited Household based within the selected two townships. The inclusion criteria were participants who were 18 years or older and those who had under five children in the family, who were living in the MRCS projects areas last three months ago, and willing to provide informed consent to participate in this study.

2.4 Sampling method

The 20 villages from Loikaw and Demawso Townships in Kayah State were selected for data collection. Systematic random sampling was applied to find out the required number of respondents from Loikaw and Demawso Townships. MRCS volunteers were provided the list of the HH for recruitment to identify the population

2.5 Sample size

The sample size was calculated 388 household (HH) in Kayah State for quantitative survey. First, he survey recruited 171 household from Loikaw Township. Secondly, the study selected 234 household from Demawso Township (20% coverage based on the MRCS list).

In total, eight FGDs were conducted with the community members. Twenty Key informant interviews were conducted with key stakeholders from the selected communities as well. The observations of the project activities were also conducted during in this survey at the targeted areas.

2.6 Measurement variables

The structural questionnaires constructed with 18 sections which included socio-demographic characteristic of participants, participants' knowledge, attitudes, practices on health, injury (First Aid), water and sanitation, disasters and Non Communicable Disease (NCD).

2.7 Evaluation team

The volunteers from MRCS conducted interview for quantitative survey. Supervisor conducted focus group discussion and key informants' interview. Assistant field supervisor recorded the responses. As the impact survey was carried out at the same time in targeted area, supervisor took overall responsibilities and supervised the study team. The research team leader also went the field's sites together and supervised the fieldwork to assure interview quality.

2.8 Pre-testing of questionnaires

The questionnaire was pre-tested in the study area by researcher in order to correct any inconsistencies or anomalies or to add any suggested points before finalizing the instrument for data collection. The pre-test was done on 10% of the total sample size.

2.9 Data quality control

Data quality assurance-mechanisms were used at several points during the research process. The supervisors checked for missing data and inconsistencies, and carefully reviewed all questionnaires. Trained personnel under the continuous supervision of a principal researcher checked the data. During the study, period regular meetings were held with the interviewers in order to improve the quality of collected data.

2.10 Data collection

Myanmar language structured questionnaire was used for data collection. The face-to-face interview approach was applied in this study. The lead researcher and 20-trained MRCS volunteers were conducted interviews. The interviewers were trained by the lead researcher before data collection on the interview techniques and the meaning of each question. Structured questionnaires used for quantitative information (i.e. challenge, situation).Key informants among identified respondents requested to provide more information about perceived quality of health services, satisfaction.

2.11 Data analysis

Data entry was done with the help of computer using Statistical Package for the Social Sciences (SPSS) 18.0 statistical software. Data were firstly analyzed descriptive results. For data validation and quality control, checking for completeness and internal consistency using range checking, consistency checking, completeness checking, and the few open-ended responses were coded and cleaned data. The errors that were found during the process of

checking the raw data were corrected and the corrected data were put into checking procedure again until it was cleaned and no errors was found.

This study used qualitative design to obtain in-depth information. It has also been proven that it is useful to quantify some of the data. Key points were identified and responses taken into account in order to highlight issues that were consistently raised within a specific category of participants.

2.12 Ethical considerations

Before interviews, the survey team made clear to participants about the meaning of this study and study procedures. If participants fully understood, the study team asked participant to agree on an informed consent form. They were also informed that they could skip answering any questions which they did not want to answer, and that they could withdraw from participation at any time during or after interview without penalty. All indicated their acceptance and signed an informed consent form with their initials. To assure confidentiality, ID numbers were used instead of personal identities, such as name, address, and national registration number.

2.13 Limitations

The data collections were carried out ten days throughout 20 villages. Time constraint was one of the limitations of the Baseline survey.

The study teams encountered minor difficulties during data collection. Most of respondents were at their residences or workplace. So, most of the interview were conducted at their place.The study team was carried out successfully.

3. Results and Findings

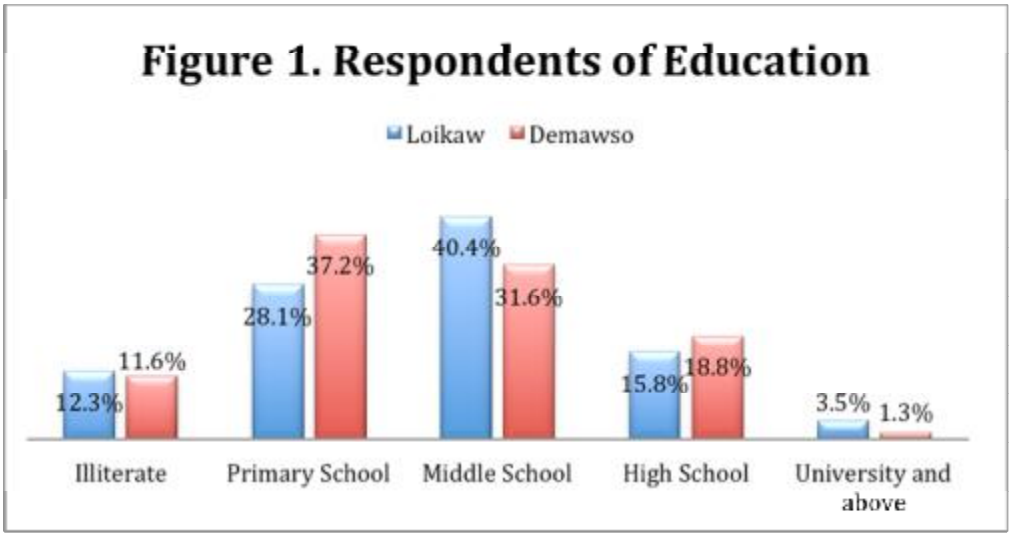
3.1 Socio-demographic Characteristics of the Respondents

A total of 405 respondents (57 males and 348 females) those who had under-five children household participated in the structured questionnaire using face-to-face interview method from Loikaw and Demawso Townships. The following table shows the socio-demographic characteristics of participants such as age structure, marital status, education and occupation of the respondents in targeted communities. Among the respondents, 171 respondents (42.2%) from Loikaw Township and 234 respondents (57.8%) from Demawso

Township were included in this study respectively. Most of the participants were at the age of 26 to 35 years (48.1%) and second highest was at the age of 36 and 45 years (29.4%). The majority of respondents (95.6%) were married. Regarding education, over 88 percent of respondents had been to school. The highest percent of the respondents were in middle school level (35.3%). About 11.6 percent (n=21) were illiteracy. Regarding occupation, most of the respondents were farmers (70.4%) and second highest were dependent (17.5%).

Table 1. Socio-demographic Characteristics of the Respondents

	Category	Loikaw (n= 171)		Demawso (n=234)		Total (N=405)	
		Number	Percent	Number	Percent	Number	Percent
Age	18 -25 years	31	18.1%	36	15.4%	67	16.5%
	26 -35 years	73	42.7%	122	52.1%	195	48.1%
	36 -45 years	57	33.3%	62	26.5%	119	29.4%
	46 -55 years	3	1.8%	10	4.3%	13	3.2%
	<=56 years	7	4.1%	4	1.7%	11	2.7%
Marital Status	Married	163	95.3%	224	95.7%	387	95.6%
	Separated	3	1.8%	5	2.1%	8	2.0%
	Divorced	1	0.6%	0	0.0%	1	0.2%
	Widow	4	2.3%	5	2.1%	9	2.2%
Been to school	Yes	150	87.7%	208	88.9%	358	88.4%
	No	21	12.3%	26	11.1%	47	11.6%
Occupation	Dependent	42	24.6%	29	12.4%	71	17.5%
	Handicraft	2	1.2%	4	1.7%	6	1.5%
	Farmer	108	63.2%	177	75.6%	285	70.4%
	Shopkeeper	1	0.6%	5	2.1%	6	1.5%
	Vendor	5	2.9%	7	3.0%	12	3.0%
	Employee	5	2.9%	9	3.8%	14	3.5%
	Others	8	4.7%	3	1.3%	11	2.7%



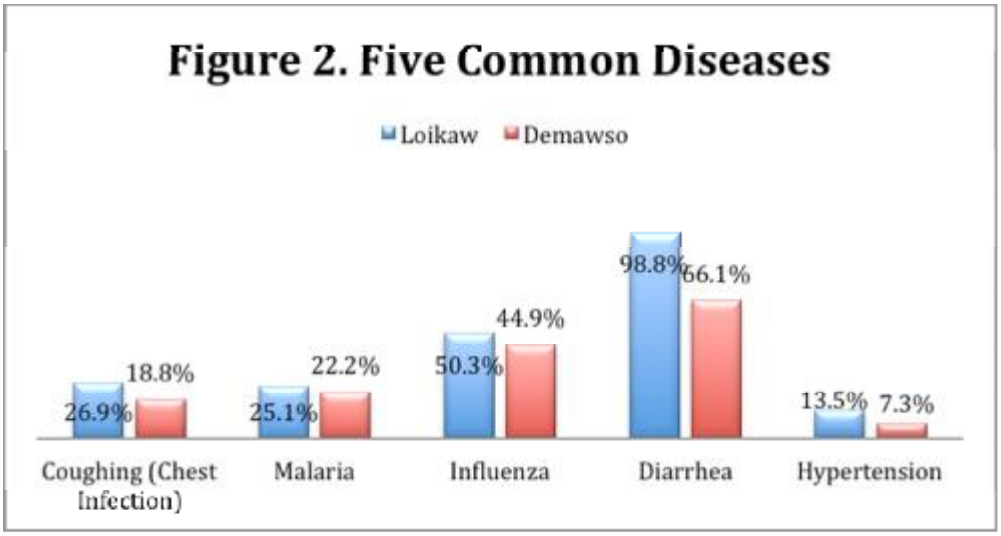
3.2 Health status of community

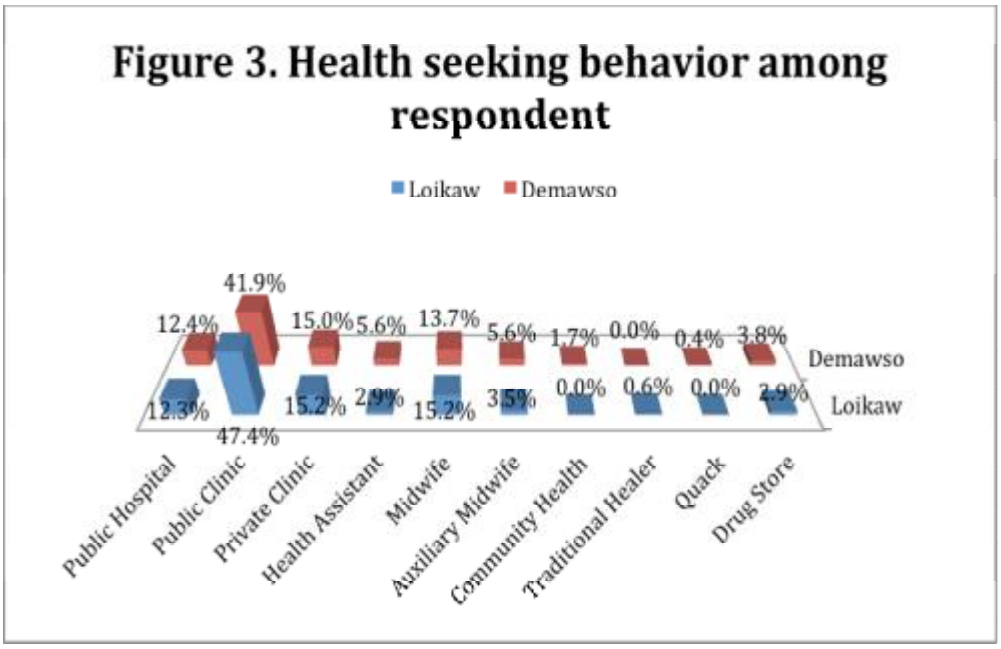
The following table 2 shows the respondents common health problems in these two Townships. The five common problems that they answered in this study were Diarrhea (59.8%), Influenza (47.2%), Malaria (23.5%), Chest Infection (22.2%) and Hypertension (9.9%) respectively. Below table also shows that the five common problems more occurred in Loikaw than Demawso Townships. It is also stated that health service utilization pattern of the respondents. Among the respondents, 44.2% of respondents mentioned public clinics as the commonest place to seek health care services. It was followed by private clinics (15.1%), mid-wives (14.3%) and public hospital (12.3%) respectively. Only 0.4% of respondents (n=2) were treated by traditional healer and quack.

Table 2. Health status of community

	Category	Loikaw (n= 171)		Demawso (n=234)		Total (N=405)	
		Number	Percent	Number	Percent	Number	Percent
Common Diseases	Diarrhea	84	98.8%	154	66.1%	238	59.8%
	Influenza	86	50.3%	105	44.9%	191	47.2%
	Malaria	43	25.1%	52	22.2%	95	23.5%
	Coughing (Chest Infection)	46	26.9%	44	18.8%	90	22.2%
	Hypertension	23	13.5%	17	7.3%	40	9.9%
Health Services	Public Hospital	21	12.3%	29	12.4%	50	12.3%
	Public Clinic	81	47.4%	98	41.9%	179	44.2%
	Private Clinic	26	15.2%	35	15.0%	61	15.1%
	Health Assistant	5	2.9%	13	5.6%	18	4.4%
	Midwife	26	15.2%	32	13.7%	58	14.3%

	Auxiliary mid-wivies	6	3.5%	13	5.6%	19	4.7%
	Community Health Worker	0	0.0%	4	1.7%	4	1%
	Traditional healer	1	0.6%	0	0.0%	1	0.2%
	Quack	0	0.0%	1	0.4%	1	0.2%
	Drug Store	5	2.9%	9	3.8%	14	3.5%





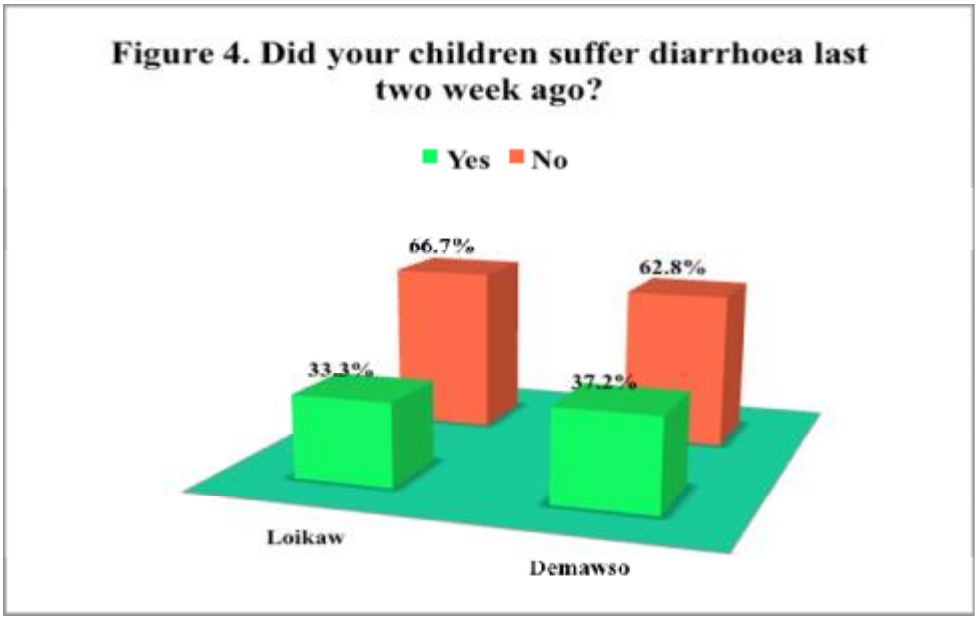
3.3 Behaviors and knowledge on Diarrhea

The findings revealed that one-third of respondents' babies suffered from diarrhea previous two weeks ago. About 69.1% of respondents knew how to treat with ORS if the children have diarrhea. The respondents (9.4%) stated that they gave home-treatments such as traditional medicine, mixed lime and water, honey and betel leave soup. Unfortunately, it was revealed that 9.1% of respondents did not know how to treat if the children would suffer diarrhea. Among the respondents, 58.0% of respondents answered that the diarrhea children were given normal breastfeeding. About 27.7% and 7.2% of respondents presented that the diarrhea children were given more breastfeeding and less breastfeeding respectively. Similarly, 48.6% of respondents stated that the diarrhea children drunk normal amount of juice and soup. However, 36.3% of respondents revealed that the diarrhea children drunk more amount of juice and soup, 8.6% of respondents knew that the children drunk less amount of juice and soup. Only 2.0% of respondents (n=8) indicated that the children did not need juice and soup during occurring diarrhea and 4.4% of respondents (n=18) did not know. Regarding on taking meals during occurring diarrhea, 60.5% of respondents specified that the diarrhea children ate normal amount of meal. Yet 18.0% of respondents revealed that the diarrhea children ate more amount of meal, 14.8% of respondents said that the children ate less amount of meal. Only 2.7% of respondents (n=11) indicated that the children did not need a meal during when having diarrhea and 4% of respondents (n=16) did not know to take the meal for their children when the children suffered diarrhea. Two-third of respondents accepted advice from other if their children would suffer diarrhea. The people who gave the advice about diarrhea were from public clinic (40.5%), midwife (13.6%), private clinic (10.4%), health assistant (8.4%), public hospital (5.4%), auxiliary midwife (4.4%), drug store (1.7%), traditional healer (1.2%) and community health worker (1.0%). Over 10.0% of respondents accepted from other people such as their parents, relative, non-government organizational clinic and surrounding friends. Only 1.2% of respondents did not accept the advice about diarrhea from other.

Table3. Behaviors and knowledge on Diarrhea

Question	Category	Loikaw (n= 171)		Demawso (n=234)		Total (N=405)	
		Number	Percent	Number	Percent	Number	Percent
Diarrhea	Did your children suffer diarrhea last	57	33.3%	87	37.2%	144	35.6%

	two ago?						
Ever know how to treat baby with diarrhea	No Treatment	4	2.3%	5	2.1%	9	2.2%
	ORS	121	70.8%	159	67.9%	280	69.1%
	Drink Juice &Soup	2	1.2%	5	2.1%	7	1.7%
	Zinc Tablet & Syrup	3	1.8%	7	3.0%	10	2.5%
	Injection	2	1.2%	2	0.9%	4	1.0%
	Infused drip	1	0.6%	0	0.0%	1	0.2%
	Traditional Medicine	5	2.9%	14	6.0%	19	4.7%
	Others	15	8.8%	23	9.8%	38	9.4%
	Don't Know	18	10.5%	19	8.1%	37	9.1%
Breastfeeding	Less breastfeeding	6	3.5%	23	9.8%	29	7.2%
	Remain normal	105	61.4%	130	55.6%	235	58.0%
	More breastfeeding	49	28.7%	63	26.9%	112	27.7%
	No breastfeeding	1	0.6%	5	2.1%	6	1.5%
	Don't Know	10	5.8%	13	5.6%	23	5.7%
Drink juice and Soup	Less drink juice	10	5.8%	25	10.7%	35	8.6%
	Remain normal	85	49.7%	112	47.9%	197	48.6%
	More drink juice	64	37.4%	83	35.5%	147	36.3%
	No juice	3	1.8%	5	2.1%	8	2%
	Don't Know	9	5.3%	9	3.8%	18	4.4%
Taking meals	Less take meals	15	8.8%	45	19.2%	60	14.8%
	Remain normal	102	59.6%	143	61.1%	245	60.5%
	More taking meals	41	24.0%	32	13.7%	73	18%
	No meals	4	2.3%	7	3.0%	11	2.7%
	Don't Know	9	5.3%	7	3.0%	16	4%
Take advice	Do you take any advice	134	78.4%	169	72.2%	303	74.8%
From whom take advice	Public Hospital	7	4.1%	15	6.4%	22	5.4%
	Public Clinic	64	37.4%	100	42.7%	164	40.5%
	Private Clinic	18	10.5%	24	10.3%	42	10.4%
	Health Assistant	18	10.5%	16	6.8%	34	8.4%
	Midwife	27	15.8%	28	12.0%	55	13.6%
	Auxiliary Midwife	5	2.9%	13	5.6%	18	4.4%
	Community Health Worker	0	0.0%	4	1.7%	4	1.0%
	Traditional	2	1.2%	3	1.3%	5	1.2%
	Healer/quack	2	1.2%	5	2.1%	7	1.7%
	Drug Store	23	13.5%	26	11.1%	49	12.1%
	Other	5	2.9%	0	0.0%	5	1.2%
	Don't know						



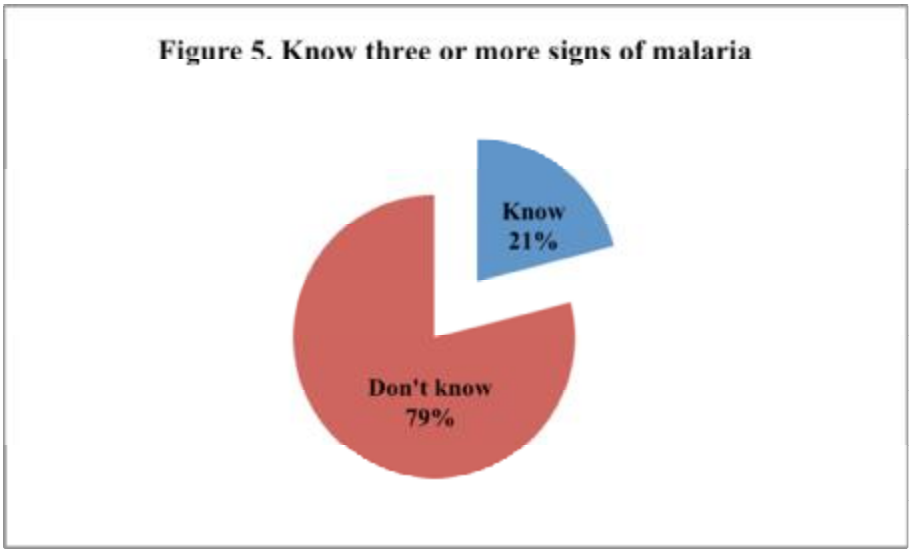
3.4 Knowledge and observation of Malaria

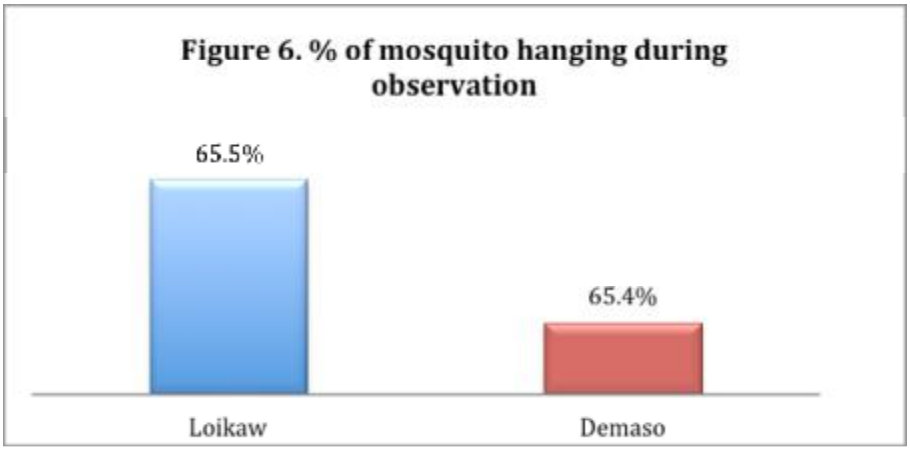
This table shows knowledge of symptoms and observation of Malaria. Only 21.0% (n=85) of respondents knew three or more signs of malaria. Therefore, there is still need to know more about signs of malaria. Almost all respondents (96.5%) answered that they used the mosquito nets. Among them, the observers found that 65.4% of respondents hanged mosquito net and 27.9% of people stored mosquito net at the time of survey. The observers had not seen 3.2% the remainders' mosquito nets. Over one-third of respondents knew mosquito could be killed by impregnated treated net. They also knew that how to hang up and full body sleep under a mosquito net.

Table 4. Knowledge and observation on Malaria

	Category	Loikaw (n= 171)		Demawso (n=234)		Total (N=405)	
		Number	Percent	Number	Percent	Number	Percent
	Fever	48	28.1%	55	23.5%	103	25.4%
	Chill and Rigor	130	76.0%	168	71.8%	298	73.6%
	Sweating	14	8.2%	18	7.7%	32	7.9%
	Headache	38	22.2%	47	20.1%	85	21.0%
	Dizziness and Vomiting	8	4.7%	10	4.3%	18	4.4%
	Ache and Pain	31	18.1%	32	13.7%	63	15.5%

	Malaise	13	7.6%	7	3.0%	20	4.9%
	Loss of Appetite	8	4.7%	9	3.8%	17	4.2%
	Vomiting	3	1.7%	8	3.4%	11	2.7%
	Fits	4	2.3%	2	0.8%	6	1.5%
	Unconscious	3	1.7%	2	0.8%	5	1.2%
	Above all	3	1.7%	0	0.0%	8	0.7%
	Don't know	35	20.5%	52	22.2%	87	21.5%
Know 3 or More Signs of Malaria				85		21.0%	
Know Less than 3 Signs of Malaria				320		79.0%	
	Use Mosquito Net for Sleeping	165	96.5%	226	96.6%	391	96.5%
Observation	Mosquito Net Hanging	112	65.5%	153	65.4%	265	65.4%
	Mosquito Net Stored	43	25.1%	70	29.9%	113	27.9%
	Mosquito Net Not Seen	10	5.8%	3	1.3%	13	3.2%
	Knowledge on Mosquito can be killed by impregnated treated Net	136	79.5%	171	73.1%	307	75.8%





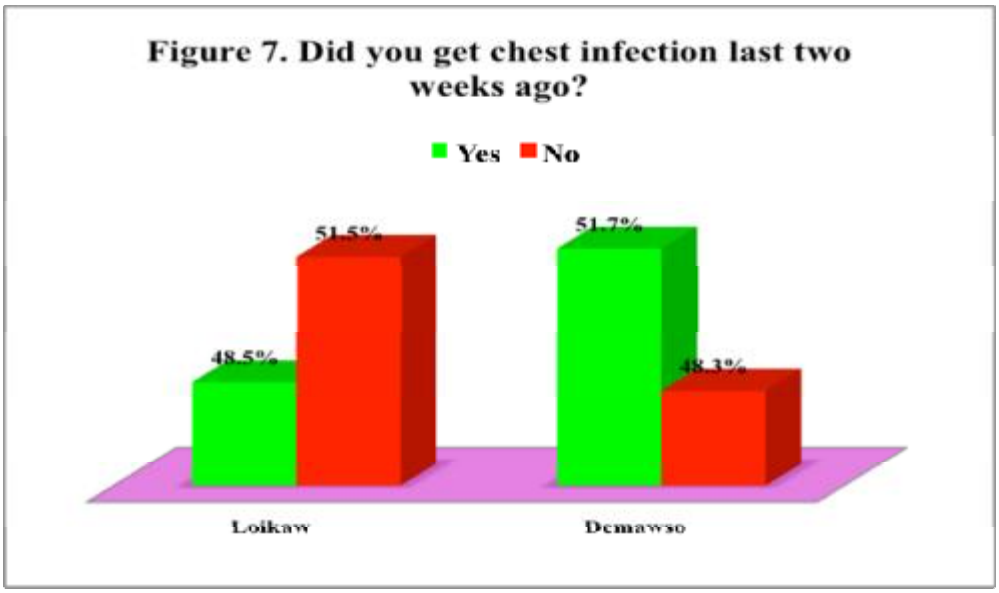
3.5 Behaviors and knowledge on respiratory tract infection

The findings from following table revealed that about the behaviors and knowledge on respiratory tract infection. However, over one-half of respondents (50.4%) had suffered chest infection previous two weeks ago, (33.8%) of respondents had presented severe respiratory tract infection. Among them, about (29.4%) of respondents had taken effective treatment. Below 10.0% of respondents had taken the treatment after suffering fever. Unfortunately, 57.5% of respondents did not know about serious symptoms of acute respiratory infection. Over 10.0% of respondents stated that other serious symptoms of respiratory infection such as cyanosis, fits and high fever. Only 30.4% of respondents knew one serious symptom of respiratory tract infection. Therefore, the respondents still need that they can correctly identify at least 3 serious symptoms of respiratory tract infection.

Table 5. Behaviors and knowledge on respiratory tract infection

	Category	Loikaw (n= 171)		Demawso (n=234)		Total (N=405)	
		Number	Percent	Number	Percent	Number	Percent
	Did you have Chest Infection?	83	48.5%	121	51.7%	204	50.4%
	If yes, fast-breathing and breathlessness	58	33.9%	79	33.8%	137	33.8%
	Take Treatment	54	31.6%	65	27.8%	119	29.4%
Get a fever to take treatment	Day 1	17	9.9%	16	6.8%	33	8.1%
	Day 2	11	6.4%	14	6.0%	25	6.2%
	Day 3	13	7.6%	12	5.1%	25	6.2%

	Day 4	13	7.6%	23	9.8%	36	8.9%
Knowledge on serious signs and symptoms of ARI	Fast breathing	18	10.5%	22	9.4%	40	9.9%
	Chest indrawing	7	4.1%	18	7.7%	25	6.2%
	Wheezing	8	4.7%	20	8.5%	28	6.9%
	Coma	6	3.5%	1	0.4%	7	1.7%
	Refuse To Sucking and Drinking	5	2.9%	7	3.0%	12	3.0%
	Vomiting	4	2.3%	7	3.0%	11	2.7%
	Other	27	15.8%	22	9.4%	49	12.1%
	Don't Know	96	56.1%	137	58.5%	233	57.5%



3.6 Knowledge about Hypertension

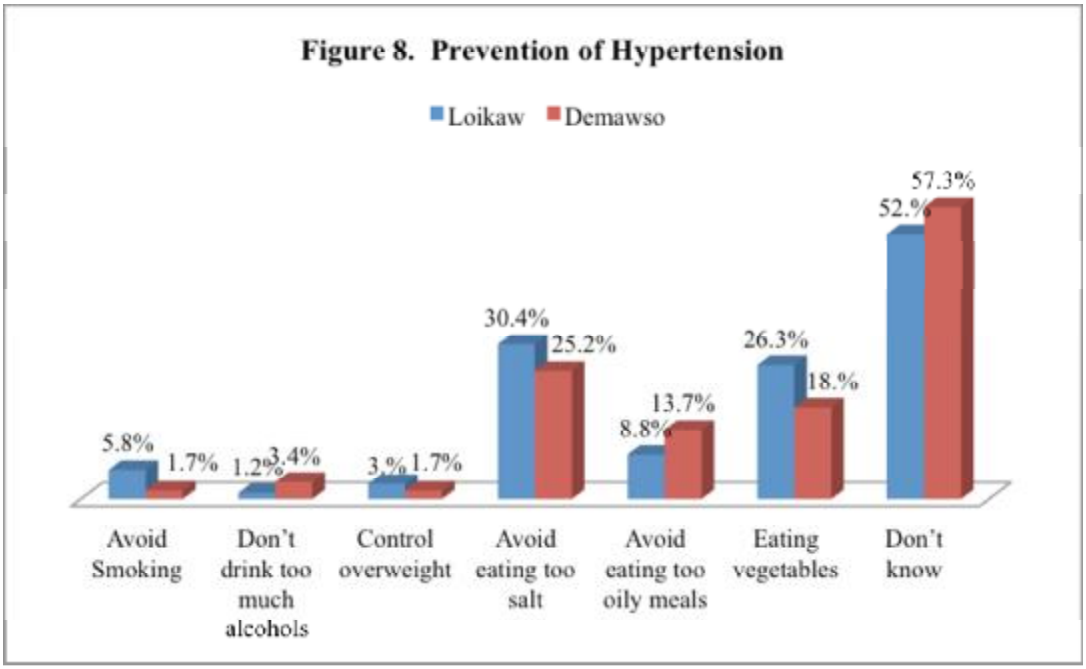
The findings revealed that almost all respondents (96.3%) knew about hypertension and half of respondents had hypertensive patients at home. Table 5 shows symptoms of hypertension. The respondents presented that the following symptoms such as dizziness, headache, neck pain and unconsciousness. Only 4.7% of respondents did not know symptoms of hypertension. About one-third of respondents knew causes of hypertension such as eating too many oily meals and eating too much salt. 33.1% of respondents did not know causes of hypertension. Over half of respondents did not know complications of hypertension. Over 15% respondents presented sudden death and paralysis as the complication of hypertension. The findings stated that 55.1% of respondents did not know any preventive measures of hypertension. Only 27.4% and 21.5% of respondents could answer avoid eating too salt and

eating vegetables to prevent hypertension respectively. These results presented that the respondents still have limited knowledge on prevention of hypertension.

Table 6. Knowledge about Hypertension

	Category	Loikaw (n= 171)		Demawso (n=234)		Total (N=405)	
		Number	Percent	Number	Percent	Number	Percent
Hypertension	Know Hypertension	165	96.5%	225	96.2%	390	96.3%
	Hypertensive Patient at home	96	56.1%	109	46.6%	205	50.6%
Signs & Symptoms Of Hypertension	Headache	50	29.2%	64	27.4%	144	28.1%
	Neck Pain	54	31.6%	57	24.4%	111	27.4%
	Dizziness	49	28.6%	93	41.0%	142	35.0%
	Unconscious	5	2.9%	5	2.1%	10	2.5%
	Don't Know	9	5.3%	10	4.3%	19	4.7%
Cause Of Hypertension	Due To Genetic	12	7.0%	11	4.7%	23	5.7%
	Due To Smoking	1	0.5%	4	1.7%	5	1.2%
	Drink Too Much Alcohol	10	5.8%	12	5.1%	22	5.4%
	Overweight	10	5.8%	16	6.8%	26	6.4%
	Due To Eating Too Much Salt	69	40.3%	74	31.6%	143	35.3%
	Due To Eating Too Much Oily Meals	68	39.7%	79	33.7%	147	36.2%
	Due To Eating Vegetables	3	1.7%	3	1.2%	6	1.4%
	Don't Know	51	29.8%	83	35.5%	134	33.1%
What are the Complications of	Tiredness due to heart disease	23	13.5%	15	6.4%	38	9.4%

Hypertension?	Oedema	6	3.5%	4	1.7%	10	2.5%
	Paralysis	29	17.0%	40	17.1%	69	17.0%
	Ischemic Heart Disease	17	9.9%	15	6.4%	32	8.0%
	Sudden Death	35	20.5%	38	16.2%	73	18.0%
	Don't Know	84	49.1%	138	59.0%	222	54.8%
Prevention of the Complication of Hypertension?	Avoid Smoking	10	5.8%	4	1.7%	14	3.5%
	Don't drink too much alcohols	2	1.2%	8	3.4%	10	2.5%
	Control overweight	5	3.0%	4	1.7%	9	2.2%
	Avoid eating too salt	52	30.4%	59	25.2%	111	27.4%
	Avoid eating too oily meals	15	8.8%	32	13.7%	47	11.6%
	Eating vegetables	45	26.3%	42	18.0%	87	21.5%
	Don't know	89	52.0%	134	57.3%	223	55.1%



3.7 Health status on children

Table 4 shows that health status on children. Regarding important factors after child birth at home, one-third of respondents (33.3%) reported that keep warm the newborn baby as soon as delivery and one-fourth of respondents (25.7%) stated that dry and clean cord after delivery. The respondents (12.1%) practiced danger behavior after delivery such as bathe the baby, coconut oil lotion on cord and stimulus the baby to cry as soon as delivery. Therefore, they accepted incorrect knowledge about other factors after child birth at home. The respondents (14.8%) did not know about the important factors after child birth at home. Nevertheless, 94.6% of respondents' baby received immunization. Among them, 93.9% of children under 12 months vaccinated. Only 5.4% of respondents' baby did not receive immunization. About 66.6% of households that report children under 5 slept under the mosquito net the previous night.

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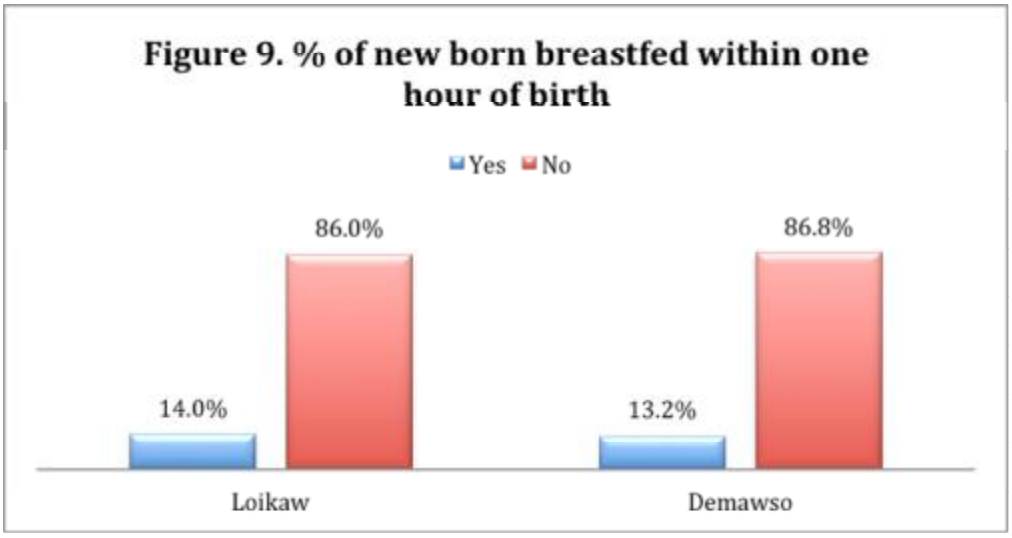
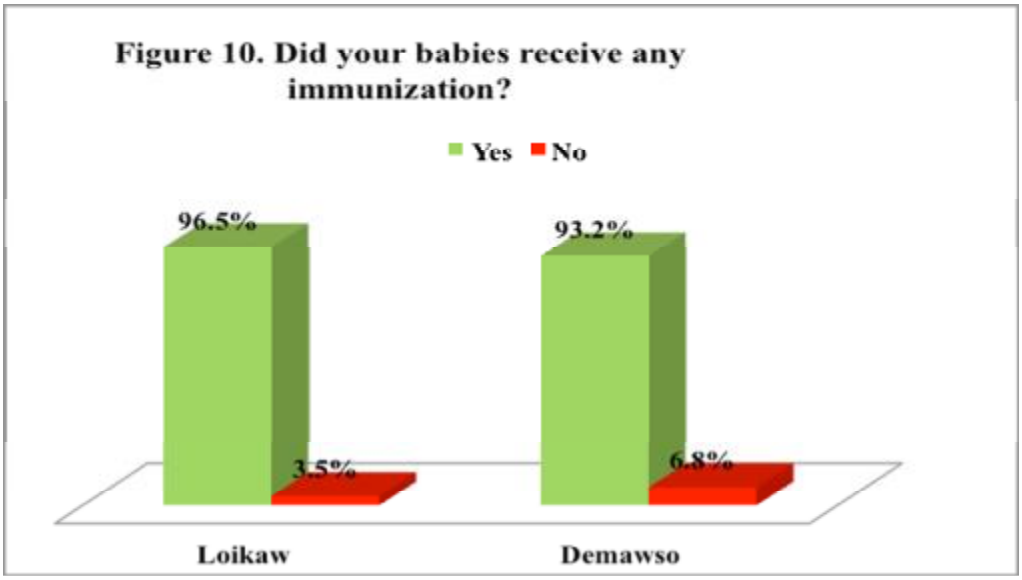
Table 7. Health status on Children

Questions	Category	Loikaw (n= 171)		Demawso (n=234)		Total N=405)	
		Number	Percent	Number	Percent	Number	Percent
Important factors after child birth at home	Hand washing with soap before delivery	1	0.6%	8	3.4%	9	2.2%
	Hand washing with soap before neonate contact	2	1.2%	7	3.0%	9	2.2%
	Dry and clean cord	48	28.1%	56	23.9%	104	25.7%
	Keep warm the newborn baby	45	26.3%	90	38.5%	135	33.3%
	Wraps baby in dry towel and mother's bare chest skin to skin	19	11.1%	27	11.5%	46	11.4%
	Take shower after 3 days	16	9.4%	24	10.3%	50	12.3%
	Breastfeeding initiated within the first hour after birth	24	14.0%	31	13.2%	55	13.6%

	Breastfeeding first milk with yellow	24	14.0%	32	13.7%	56	13.8%
	Prepare for delivery at the hospital/ clinic	5	2.9%	1	0.4%	6	1.5%
	Others	19	11.1%	36	15.4%	55	13.6%
	Don't know	35	20.5%	25	10.7%	60	14.8%
Did your baby receive any immunization?	Yes	165	96.5%	218	93.2%	383	94.6%
	No	6	3.5%	16	6.8%	22	5.4%





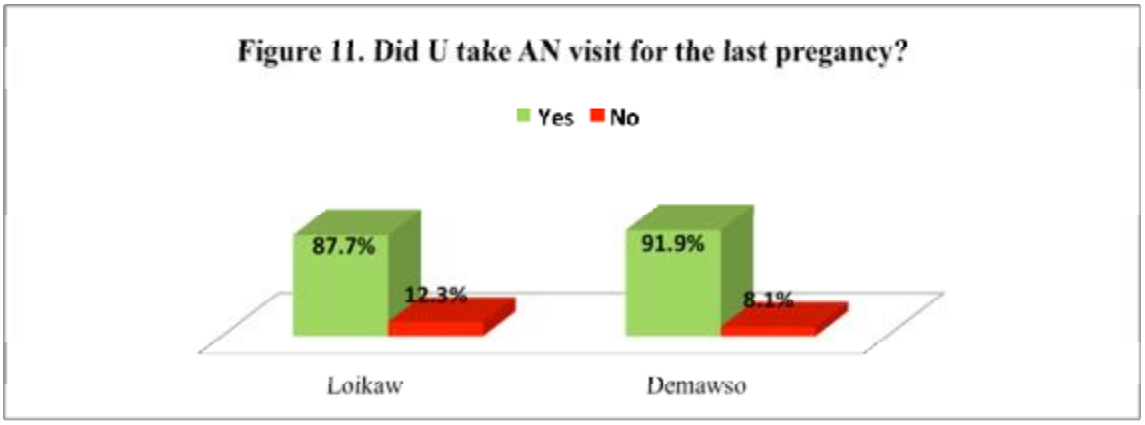
3.8 Safety Mother Modes

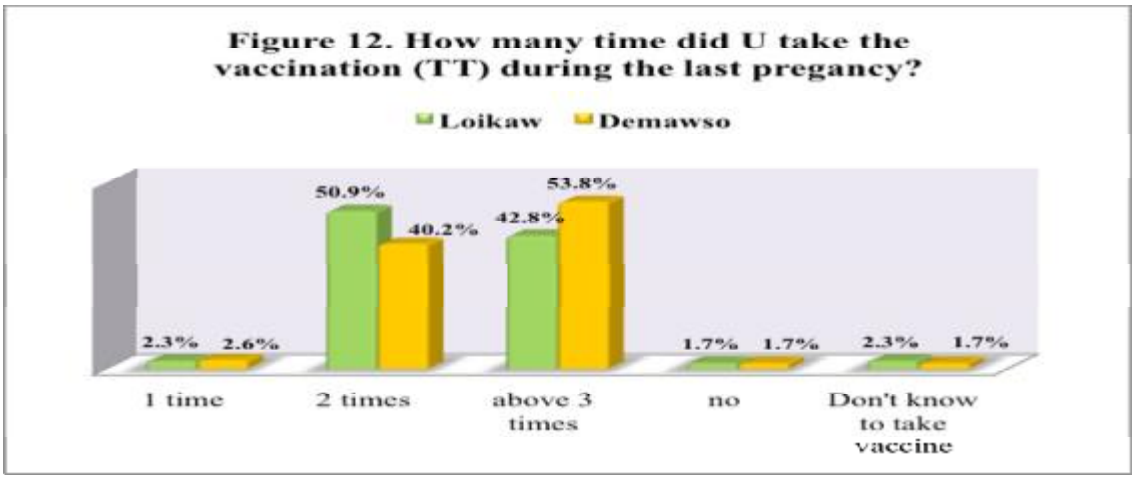
Table 5 the safety mother modes among the respondents. Nearly 58% of women age 15-49 years currently married or in a union who are using (or whose partner is using) a contraceptive method. About 150 participants (87.7%) in Loikaw and 215 participants (91.9%) in Demawso reported they visited the health center the last pregnancy. The remainders, 21 participants (12.3%) in Loikaw and 19 participants (8.1%) in Demawso reported they did not visit antenatal care the last pregnancy respectfully. Among 365 respondents who visited to antenatal care, most of the visiting places were public hospital (54.2%) and home visits (40.5%) respectively. Only 5.2 of respondents (n=19) had ever gone to private hospital. Regarding vaccination time, over 49 % of respondents had taken vaccination completely; about 44.7% of respondents had taken 2 times, only 2.5% of respondents had taken 1 time and the remainders (3.7%) did not accept. About 66.3 % of births attended by skilled health personnel who were mid wife, nurse and medical doctor. Health workers trained for delivery, trained health worker and volunteer community health worker delivered only 2% of respondents.

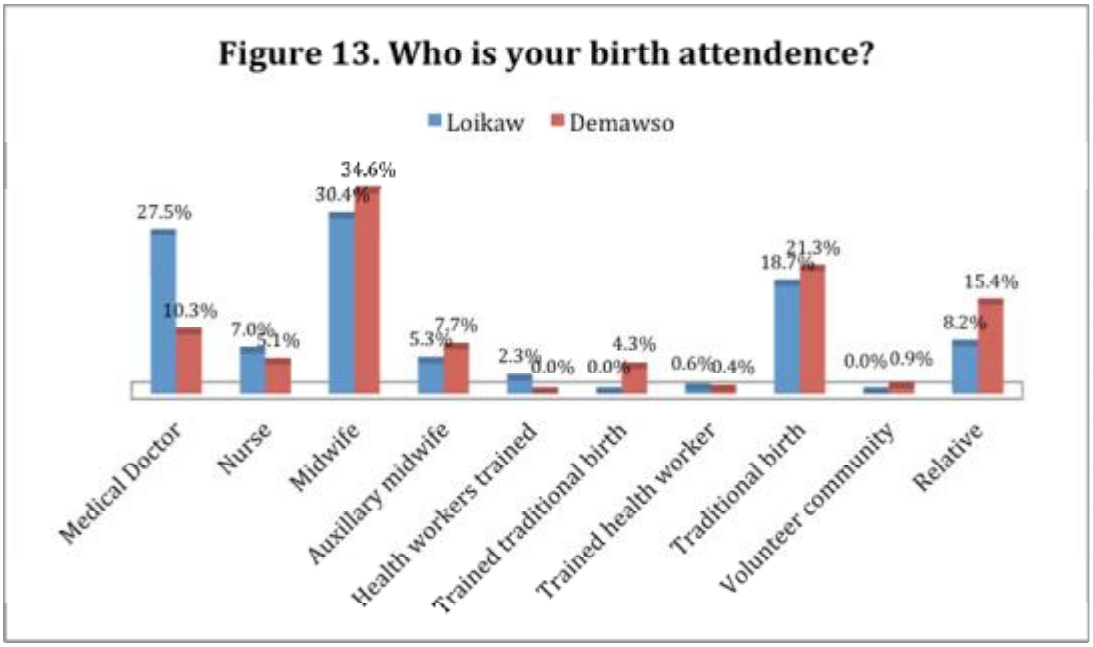
Table 8. Safety Mother Modes

Safety Mother Mode Questions	Category	Loikaw (n= 171)		Demawso (n=234)		Total (N=405)	
		Number	Percent	Number	Percent	Number	Percent
Did U take antenatal care for the last pregnancy?	Yes	150	87.7%	215	91.9%	365	90.1%
	No	21	12.3%	19	8.1%	40	9.9%
Where do U visit antenatal care?	Home	60	40%	88	40.9%	148	40.5%
	Public Hospital	80	53.3%	118	54.9%	198	54.2%
	Private Hospital	10	6.7%	9	4.2%	19	5.2%
Vaccination time	1 time	4	2.3%	6	2.6%	10	2.5%
	2 time	87	50.9%	94	40.2%	181	44.7%
	3 time	73	42.8%	126	53.8%	199	49.1%
	Don’t accept	3	1.7%	4	1.7%	7	1.7%
	Don’t know to accept	4	2.3%	4	1.7%	8	2%
Who is your birth	Medical Doctor	47	27.5%	24	10.3%	71	17.5%
	Nurse	12	7.0%	12	5.1%	24	5.9%

attendance?	Midwife	52	30.4%	81	34.6%	133	32.8%
	Auxiliary midwife	9	5.3%	18	7.7%	27	6.7%
	Health workers trained for delivery	4	2.3%	0	0.0%	4	1%
	Trained traditional birth attendance	0	0.0%	10	4.3%	10	2.5%
	Trained health worker	1	0.6%	1	0.4%	2	0.5%
	Traditional birth attendance	32	18.7%	50	21.3%	82	20.2%
	Volunteer community health worker	0	0.0%	2	0.9%	2	0.5%
	Relative	14	8.2%	36	15.4%	50	12.3%







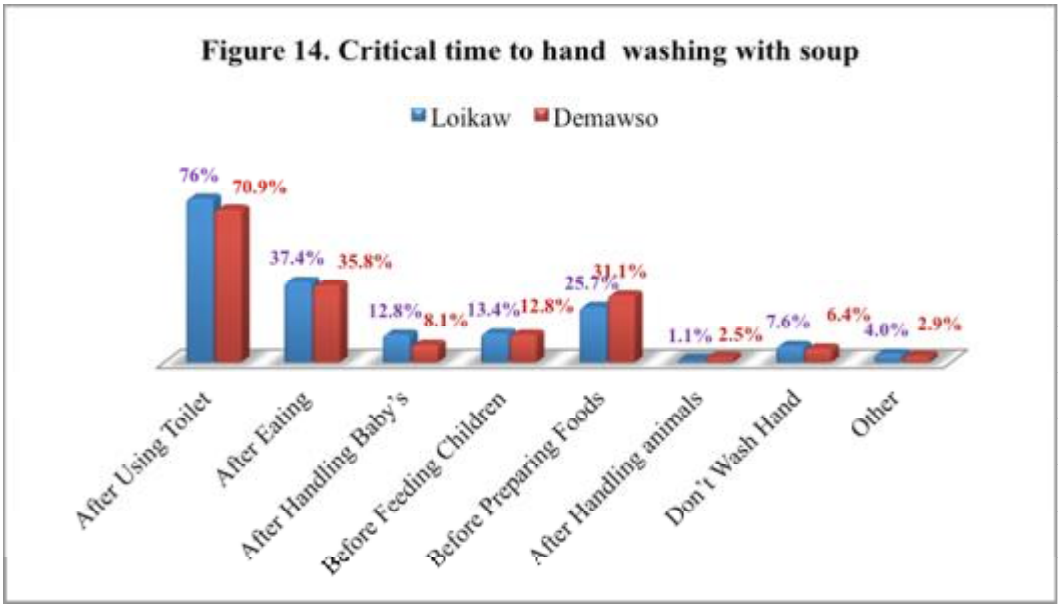
3.9 Personal hygiene and Environmental sanitation related behaviors

The findings revealed that 73.0% of respondents knew about hand washing with soup after using the toilet. The percentage of respondents answered critical times to wash hand with soup i.e after eating (36.5%), before preparing foods (28.8%), before feeding children (13.0%), after handling baby's waste (10.1%), no hand washing with soap (6.9%) and after handling animals (1.9%) respectively. 3.4% of respondents stated that other condition such as before bed rest. There is still lack of knowledge about personal hygiene in these two Townships. Results also showed that 39.0% and 15.6% of respondents are using protected well and unprotected well for drinking respectively. Other sources of drinking water are river/pond (13.1%), water pipe line (11.6%), tube well (10.9%), tube well with water hand pump (2.2%), tape water (0.2%) and other (7.4%) such as purified water and water from dam. Almost all respondents (99%) treated water for drinking. Among the respondents, 90.9% of respondents boiled water for drinking and 5.7% of respondents filtered water for drinking. Although all respondents treat water for drinking, they still need purified drinking water source.

Table 9. Personal hygiene and Environmental sanitation related behaviors

	Category	Loikaw (n= 171)		Demawso (n=234)		Total (N=405)	
		Number	Percent	Number	Percent	Number	Percent
Critical Time to Hand	After Using Toilet	130	76.0%	166	70.9%	296	73.0%
	After Eating	64	37.4%	84	35.8%	148	36.5%

washing with soup	After Handling Baby's Waste	22	12.8%	19	8.1%	41	10.1%
	Before Feeding Children	23	13.4%	30	12.8%	53	13.0%
	Before Preparing Foods	44	25.7%	73	31.1%	117	28.8%
	After Handling animals	2	1.1%	6	2.5%	8	1.9%
	Don't Wash Hand	13	7.6%	15	6.4%	28	6.9%
	Other	7	4.0%	7	2.9%	14	3.4%
Source of Water	Water Pipe Line	46	26.9%	1	0.4%	47	11.6%
	Tap Water	1	0.6%	0	0.0%	1	0.2%
	Tube Well	20	11.7%	24	10.3%	44	10.9%
	Tube Well With Water Hand Pump	4	2.3%	5	2.1%	9	2.2%
	Protected Well	44	25.7%	114	48.7%	158	39.0%
	Unprotected Well	15	8.8%	48	20.5%	63	15.6%
	River/Pond	28	16.4%	25	10.7%	53	13.1%
	Other	13	7.6%	17	7.3%	30	7.4%
Treat Water	Yes	171	100%	230	98.3%	401	99.0%
	No	0	0.0%	4	1.7%	4	1.0%
	Boiled Water With Filter Pot	156 6	91.2% 3.5%	212 13	90.6% 5.6%	368 19	90.9% 4.7%
	Chlorination Water Guard	0	0.0%	1	0.4%	1	0.2%
	Filter By Clothes	3	1.8%	2	0.9%	5	1.2%
	No Treatment	1	0.6%	0	0.0%	1	0.2%
	Other	5	2.9%	6	2.5%	11	2.7%



3.10 Utilization of Latrine

The following table shows utilization of latrine among respondents. About 80.1% of households using and maintaining clean latrines. Among them, two-third of respondents used sanitary pit latrine. Another one-third of respondents used latrine without cover (12.1%), pit latrine with cover (9.1%), septic tank (0.7%) and unsanitary latrine (2.5%). The places of latrines are in the compound (88.9%), outside the compound (2%) and without home latrine (4%). The observer saw that 26.4% of latrine had stools around the squat. Although two-third of respondents used sanitary pit latrine, another one-third of respondents used latrine without sanitary. Therefore, sanitary pit latrine is still needed in this population.

Table 10. **Utilization of Latrine**

	Category	Loikaw (n= 171)		Demawso (n=234)		Total (N=405)	
		Number	Percent	Number	Percent	Number	Percent
Types Of Latrine Septic Tank	Septic Tank	0	0.0%	3	1.3%	3	0.7%
	Sanitary Pit Latrine	120	70.2%	165	70.5%	285	70.4%
	Pit Latrine With Cover	21	123%	16	608%	37	9.1%
	Latrine Without Cover	15	8.8%	34	14.5%	49	12.1%
	Other	6	3.5%	4	1.7%	10	2.5%

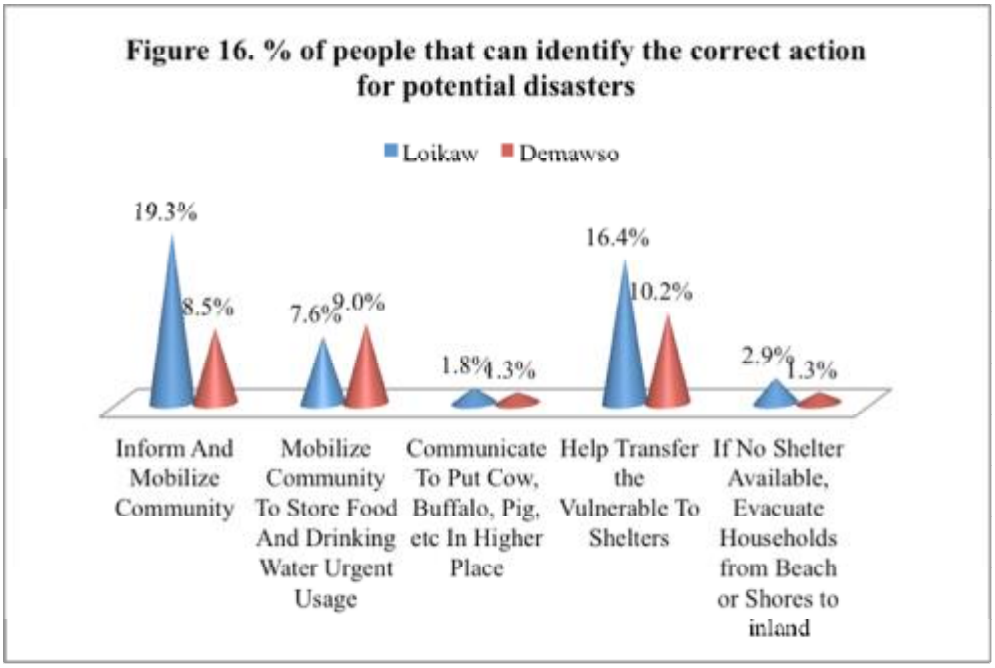
Places Of Latrine	Without Home	5	2.9%	11	4.7%	16	4.0%
	In The Compound	151	88.3%	209	89.3%	360	88.9%
	Outside The Compound	6	3.5%	2	0.9%	8	2.0%
	Permission to look Latrine	162	94.7%	217	91.5%	376	92.8%
Observation Stool At The Latrine	Stool Present	44	25.7%	63	26.9%	107	26.4%
	No Stools	10	64.3%	144	61.5%	254	62.7%
	Can't Be Seen	9	5.3%	15	6.4%	24	5.9%

3.11 Knowledge about Disaster

The findings revealed that there were 67.4% of respondents who did not know the types of disaster. The remainder knew types of disaster such as flooding, landslides, storm, earthquake, drought and climate change. The few respondents knew disaster response such as inform and mobilize community (13.1%), help transfer the vulnerable to shelters (12.8%), mobilize community to store food and drinking water for emergency usage (8.4%), if no shelter available and evacuate households from beach or shores (2%) and communicate to put livestock(cow, buffalo, pig) in higher places (1.5%). It was found that the respondents were had low knowledge about disaster risk reduction. Regarding on qualitative findings, some respondents said that a few villages in this study was flooded in rainy season. It is due to poor water drainage system and some villages are presented low land area. The people in flooding villages faced lack of drinking water, poor transportation, poor environmental sanitation and water related diseases such as diarrhea, acute dysentery, skin infection and etc… Although they faced the flooding, the findings revealed that there were most of respondents who did not know the types of disaster and how to respond if the disaster occurs. It was found that the respondents were low knowledge about disaster to prepare before and after disaster. We should arrange the preparedness and the mitigation phases such as mobilization plan, construction of cyclone shelter and storage food and drugs in some villages that was faced history of flooding. We should train selected people about community based disaster management (CBDM). The government's inadequacy and the limitations of the prevailing view of disaster management at that time compelled NGOs and people's organizations to promote and develop an alternative approach with the organization of the Citizens' Disaster Response.

Table 11. Knowledge about Disaster

	Category	Loikaw (n= 171)		Demawso (n=234)		Total (N=405)	
		Number	Percent	Number	Percent	Number	Percent
Type Of Disaster	Flooding	27	15.8%	54	23.1%	81	20.0%
	Landslide	3	1.8%	0	0.0%	3	0.7%
	Storm	24	14.0%	4	1.7%	28	6.9%
	Earthquake	0	0.0%	1	0.4%	1	0.2%
	Drought	7	4.1%	10	4.3%	17	2.5%
	Climate change	2	1.2%	0	0.0%	2	0.5%
	Don't know	108	63.2%	165	70.5%	273	67.4%
Disaster Responses	Inform And Mobilize Community	33	19.3%	20	8.5%	53	13.1%
	Mobilize Community To Store Food And Drinking Water Urgent Usage	13	7.6%	21	9.0%	34	8.4%
	Communicate To Put Cow, Buffalo, Pig, etc In Higher Place	3	1.8%	3	1.3%	6	1.5%
	Help Transfer the Vulnerable To Shelters	28	16.4%	24	10.2%	52	12.8%
	If No Shelter Available, Evacuate Households from Beach or Shores To InLand	5	2.9%	3	1.3%	8	2.0%



3.12. Knowledge about First Aid

The following figures stated that knowledge about first aid among the respondents. According to figures, only 14.6% of respondents from Loikaw and 9.4% of respondents from Demawso trained in basic first aid respectively. Most of the respondents had low knowledge concerning first aid especially first aid treatment of minor burns, first aid treatment of bleeding , first aid treatment of unconscious person and first aid treatment of snake bite according to below figures.

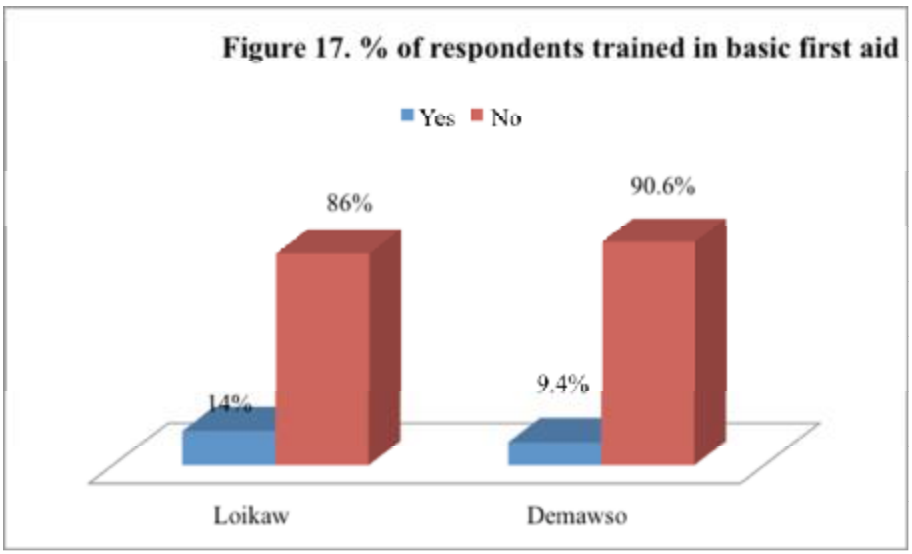


Figure 18. How will you treat minor burns?

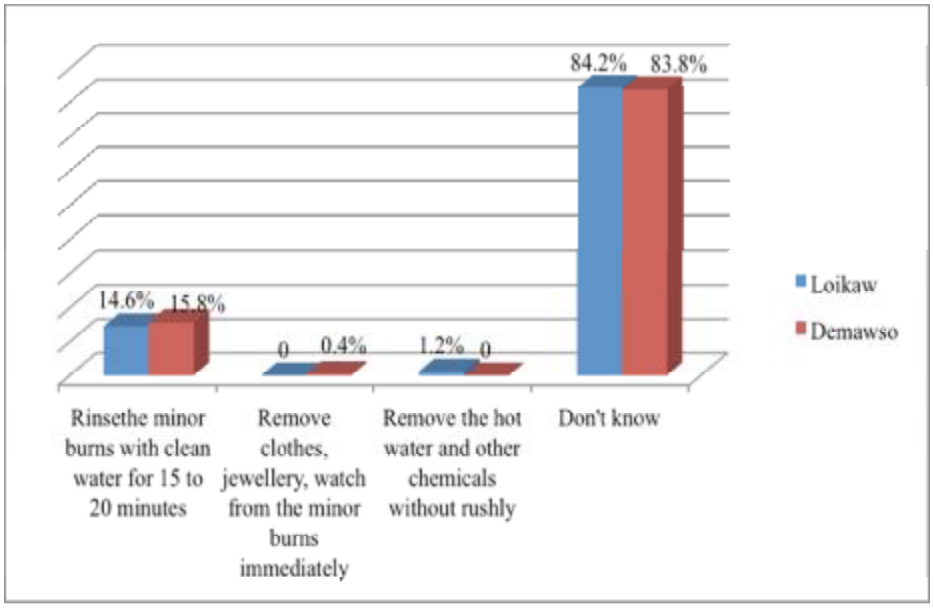


Figure19. How will you treat the bleeding?

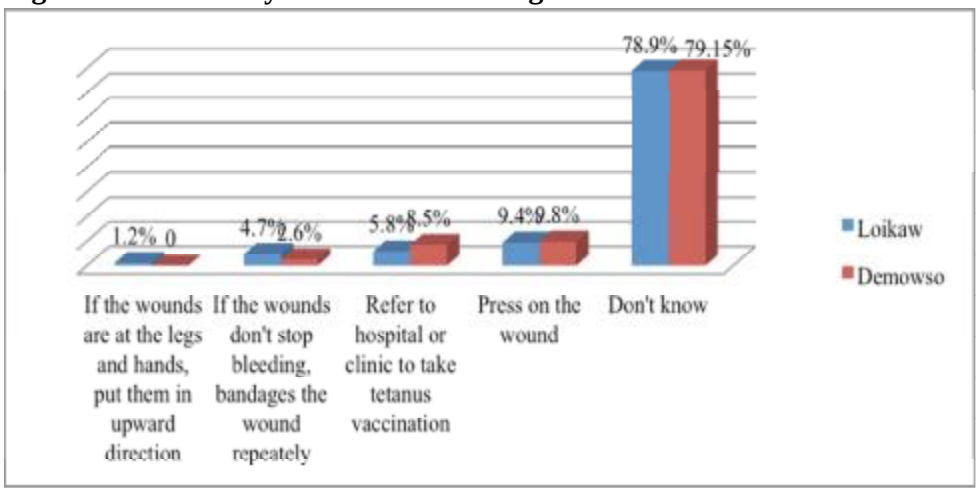


Figure 20. How will you treat the person who getting unconscious?

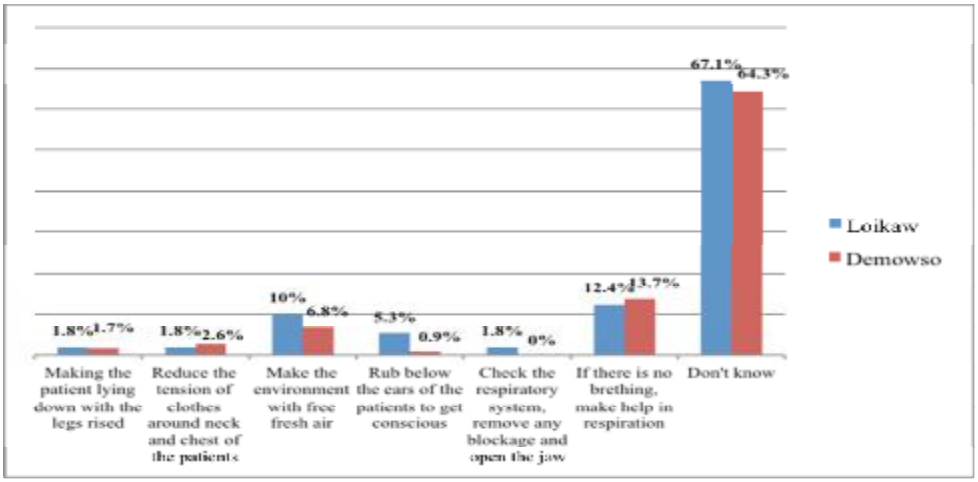
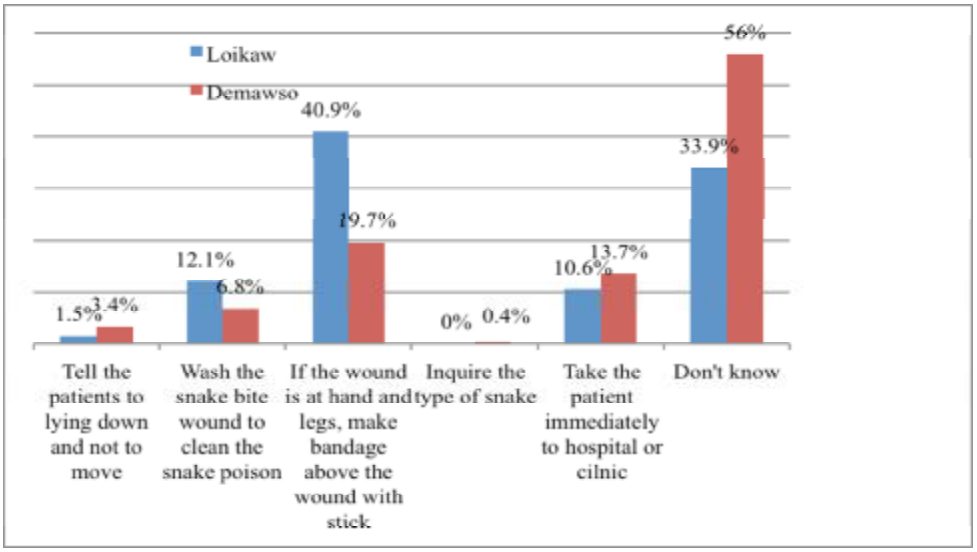


Figure 21. How will you treat the person with snake bite?



3.13 Knowledge about Red Cross Association

The following table shows knowledge about Red Cross National Society among respondents. Nearly all respondents (94.6%) knew about Red Cross National Society. Among them, 60% of respondents answered that RC volunteers came to their home last year. The RC volunteers came to their home to talk about prevention of malaria, vaccinations, antenatal care, hygiene promotion and prevention of TB.

Table 12. Knowledge about Red Cross Association

	Category	Loikaw (n= 171)		Demawso (n=234)		Total (N=405)	
		Number	Percent	Number	Percent	Number	Percent

Know about RC	Yes	160	93.6%	223	95.3%	383	94.6%
Come RC volunteers	Yes	92	53.8%	151	64.5%	243	60.0%
When come	More than one month	66	38.6%	106	45.3%	172	42.5%
	Within one month	26	15.52%	45	19.2%	71	17.5%
Why volunteer come	Prevention for malaria	17	9.9%	13	5.6%	30	7.4%
	Vaccine	10	5.8%	4	1.7%	14	3.5%
	Antenatal Care	2	1.2%	0	0.0%	2	0.5%
	Washing hand	5	2.9%	5	2.1%	10	2.5%
	Prevention for TB	1	0.6%	2	0.9%	3	0.7%
	Others	53	31.0%	127	54.3%	180	44.4%

3.14. Attitudes for Health status

Response to each attitude statement was given strongly agree, agree, uncertain, disagree and strongly disagree by using Likert scale, on different health status. In attitude section, 404 respondents included because one respondent did not include. The table 10 shows the assessment of attitude on health and diseases including water and environmental sanitation, care of infants, malaria, dengue hemorrhagic fever (DHF), tuberculosis, HIV and snake bites. Attitude of the respondents on the measurement scales were found to be mostly in positive scales except HIV/ AIDS section.

While looking at the statement on HIV/ AIDS, over 50% of respondents presented as the negative attitude. Percentages of respondents for the negative attitude were greater than that of positive attitude. As knowledge and attitude of HIV/AIDS was still a problem in communities within these two Townships, more activities for HIV /AIDS related health education, awareness campaigns are needed to improve the proper knowledge, attitude and behavior.

Table 13. Attitudes for health status

No.	Attitude Statement	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

1	Boiling is the best/simplest method for treatment of water for drinking purpose	242 59.9%	159 39.4%	3 0.7%	0 0.0%	0 0.0%
2	Defecation in the latrine at the back of the house is good for health than in the field	159 39.4%	235 58.2%	5 1.2%	4 1.0%	1 0.2%
3	Hand washing before handling food and after defecation is important for prevention of diarrhea	152 37.6%	245 60.7%	6 1.5%	1 0.2%	0
4	Breast feeding is the best for prevention of diarrhea among infants	115 28.5%	252 62.4%	22 5.4%	11 2.7%	4 1.0%
5	Giving Oral Rehydration Salt solution is very important in treatment of child with diarrhea at home	144 35.6%	248 61.4%	9 2.2%	3 0.8%	0 0.0%
6	Sleeping under bed net can prevent mosquito bite at night and can also prevent occurrence of malaria	137 34.0%	257 63.6%	9 2.2%	0 0.0%	1 0.2%
7	For prevention of DHF to our children, it is not necessary to sleep under mosquito net	16 3.9%	17 4.2%	41 10.1%	230 56.9%	100 24.7%
8	TB spread to the family can prevent by using handkerchief or mask over the mouth during sneezing and cough in the	96 23.8%	261 64.6%	42 10.4%	4 1.0%	1 0.2%
9	Nowadays, TB is curable with DOTS treatment Program	71 17.6%	198 49.0%	123 30.4%	8 2.0%	4 1.0%
10	Wearing rubber boot during working in the field is not necessary for prevention of snake bite cases	147 36.4%	248 61.4%	8 2.0%	1 0.2%	0 0.0%
11	Proper first-Aid and early referral to hospital is very important for treatment of snake bite cases	89 22.0%	233 57.7%	66 16.3%	14 3.5%	2 0.5%

12	Treating the poisonous snake bite cases at the hospital is the best for the patient	89 22.0%	234 58.0%	61 15.1%	19 4.7%	1 0.2%
13	If you knew a shopkeeper or food seller had HIV, buy food from him/her is not safe from HIV transmission	23 5.7%	88 21.8%	72 17.8%	188 46.5%	33 8.2%
14	If your friend got HIV/AIDS, he/she should not be treated as friend anymore	52 12.9%	218 54.0%	121 29.9%	13 3.2%	0 0.0%
15	If one of your friends got infected with HIV, would you want to remain a secret	64 15.8%	219 54.2%	114 28.2%	7 1.8%	0 0.0%
16	We should encourage use of condom to prevent HIV infection in the community	26 6.4%	73 18.1%	19 4.7%	215 53.2%	71 17.6%
17	Living under the same roof with people living with HIV/AIDS persons, having meals together can transmit HIV infection	154 38.1%	235 58.2%	14 3.5%	1 0.2%	0 0.0%
18	Immunization Program is necessary for prevention of childhood diseases	178 44.1%	212 52.5%	13 3.2%	1 0.2%	0 0.0%

3.15 Practice on health behavior

The following table shows the practices of latrine utilization, bed nets, personal hygiene and rubber boot utilization of the villagers. As over 90% respondents used latrines, nearly 50% of respondents did not wash their hand with or without soup. It was concluded that they had a poor practice on latrine utilization. It may be due to the fact that, poor education and poor healthy knowledge intend to poor practice. Unluckily, half of the respondents did not know how to prepare ORS in their home. Furthermore, over 50% of respondents did not use mosquito net while children were sleeping at noon to prevent dengue fever and long neck rubber boot to work in the farm to prevent snakebite. As the respondents

had poor education and poor healthy knowledge, their healthy behaviors were poor in these villages within two Townships.

Table 14. Practice on health behavior

Category	Total (N=404)					
	Yes		No		Don't know	
	Number	Percent	Number	Percent	Number	Percent
Do you treat drinking water?	142	35.1%	262	64.9%	0	0.0%
Do you have latrine in your home?	382	94.6%	22	5.4%	0	0.0%
Do you use latrine?	390	96.5%	13	3.2%	1	0.2%
Do you wash your hands after using latrine?	205	50.7%	199	49.9%	0	0.0%
Do you use soap after using latrine?	200	49.5%	204	50.5%	0	0.0%
Do you wash your hands before taking foods?	325	80.4%	79	19.6%	0	0.0%
Do you know how to prepare ORS in your home?	192	47.5%	181	44.8%	31	7.7%
Do you treat your child with ORS while getting diarrhea?	379	93.8%	16	4.0%	9	2.2%
From preventing infectious disease, you should kept cattle, pigs, chickens under your home.	73	18.1%	271	67.1%	60	14.9%
Do you use mosquito net last night?	331	81.9%	73	18.1%	0	0.0%
Do you use mosquito net while children are sleeping at noon to prevent dengue fever?	200	49.5%	202	50.0%	2	0.5%
Do your family use long rubber boot to work in the farm?	201	49.8%	198	49.0%	5	1.2%

4. Discussion

A total of 405 respondents (57 males and 348 females) of under-five children from twenty villages in Loikaw and Demawso Township participated in this study. As most of male households went to their work places during data collection, the female respondents (86%) were more included than the male (16%). Regarding education, over 10% of respondents (n=21) were illiterate and two-third of respondents were primary and middle education in the study Townships. It may be due to difficulty in transport, low income and poor knowledge of households. Therefore, there is need to promote the educational status in these two Townships.

According to the data from study, leading health problems were diarrhea, influenza, malaria, acute respiratory infection (ARI) and hypertension. Communicable diseases such as diarrhea, influenza, ARI and malaria are still common health problems while non-communicable diseases (NCDs), as hypertension, were a rising health problem in the rural community. In one of the study of Mongolia, the main communicable diseases in the sample households were: sexually transmitted infections, diarrhea, hepatitis, and tuberculosis. In addition, cardiovascular disease was a significant issue and accidental injuries were increasingly common. (Community-based health and first aid (CBHFA) Global case study collection 2012).

Most of respondents took self-treatment at first. If they suffered serious symptoms, they went to clinics. Diarrhea is the highest health problem. It is most likely due to low utilization of sanitary pit latrines, lack of knowledge about hand washing before and after defecation and over eating ripe fruits according to data from face-to-face interview, the observation and key informed interview. Hence, behavior change communication (BCC) program about diarrhea should be emphasized these two Townships.

The second health problem is seasonal influenza and occurs in any age group. Malaria is still common health problem in these villages and mostly occurs in men due to sleeping in the forest without mosquito net. Similarly, there is still a gap in knowledge of malaria. Thus, health educational program about the knowledge of malaria prevention should be promoted in this situation.

Over one-half of respondents and their children had suffered chest infection previous two weeks ago. It may be due to they usually go without umbrella and raincoat in the rainy

season. They did not know about serious symptoms of acute respiratory infection. Therefore, it is still needed that they can correctly identify at least 3 serious symptoms of respiratory tract infection and can change healthy behavior.

Half of respondents had hypertensive patients at home. It is due to poor healthy life style such as over eating too much salt and too much oily meal according to key informed interview. But they did not know about the complication of hypertension and any preventive measures of hypertension. These results presented that the respondents still have low knowledge on hypertension and healthy life style modifications.

Regarding on health status on children, one-third of respondents reported that to keep warm the newborn baby as soon as they are delivery and one-fourth of respondents stated that they dry and clean cord after delivery. Unluckily the respondents (12.1%) answered that they practiced danger factors after delivery such as culture, bathe as soon as delivery, take traditional medicine, water and honey, coconut oil lotion on cord and stimulus the baby to cry. It was found that they accepted incorrect knowledge and danger behavior after childbirth at home. In this situation, effective health education program about how to care neonate after birth at home should be emphasized these two Townships. Although universal coverage of vaccine program is well function the whole country, few respondents' baby did not receive immunization in the study villages. Therefore, universal coverage of vaccine program should be done to reach grass root level.

Only 21 participants (12.3%) in Loikaw and 19 participants (8.1%) in Demawso reported they did not visit the last pregnancy respectfully. The birth attendance of half of respondents were mid wife and traditional birth attendance in village, it is due to problem of transportation. Regarding vaccination time, nearly half of the respondents did not access complete vaccination time and the few respondents did not accept and did not know to accept it during antenatal care. It is important point to evaluate the maternal and child health program. Hence, effective antenatal care program should be promoted to this population.

Although most of respondents practiced hand washing with soup after using toilet, the some respondents did not practice it. It is still gap knowledge about personal hygiene in these two Townships. While Red Cross Society, UNDP and Care Myanmar support well, they still need purified drinking water source especially hot season. Similar results in Afghanistan, access to safe drinking water and adequate sanitation is limited, particularly in rural areas, and personal hygiene practices are generally considered to be extremely poor. (Community-based health and first aid (CBHFA) Global case study collection 2012). The drinking water

from dam is not purified because most of the people and animals are bathing and washing in the dam. So, diarrhea is the most common problem in the study. Therefore, we should promote personal hygiene program and support the source for drinking water to prevent gastrointestinal diseases.

Regarding on utilization of latrine among respondents, although two-third of respondents used sanitary pit latrine, another one-third of respondents used latrine without sanitary. One-third of respondents did not wash after defecation. Most of the children did not use latrine, even though there were latrines in their houses. Due to poor personal hygiene and lack of complete sanitary pit latrine, diarrhea is the most occurrences in the study population. Therefore, sanitary pit latrine is still needed in this population. Government organization and other non- government organization should support sanitary pit latrine.

Regarding on disaster, a few villages in this study was flooded in rainy season. It is due to poor water drainage system and some villages are presented low land area. The people in flooding villages faced lack of drinking water, poor transportation, poor environmental sanitation and water related diseases such as diarrhea, acute dysentery, skin infection and etc… Although they faced the flooding, the findings revealed that there were most of respondents who did not know the types of disaster and how to respond if the disaster occurs. It was found that the respondents were low knowledge about disaster to prepare before and after disaster. We should arrange the preparedness and the mitigation phases such as mobilization plan, construction of cyclone shelter and storage food and drugs in some villages that was faced history of flooding. We should train selected people about community based disaster management (CBDM). The government's inadequacy and the limitations of the prevailing view of disaster management at that time compelled NGOs and people's organizations to promote and develop an alternative approach with the organization of the Citizens' Disaster Response.

There were volunteers, health education program and training from Red Cross Society in twenty villages of our study. Regarding about Red Cross Society among respondents, nearly all respondents knew about Red Cross Society. Among them, over one-half of respondents answered that RC volunteers came to home last year. It is concluded that Red Cross Society' activities are well functioning at grass root level but the villagers are still poor knowledge and poor healthy behavior in this study.

Regarding first aid, there was poor knowledge in this study. Only the trained persons from Myanmar Red Cross Society and educated persons had little knowledge about first aid. It was also found that the false knowledge about first aid was presented among respondents

such as culture. Therefore, we should suggest that Red Cross Society must promote more train and more education program about first aid.

The community-based integrated approach in first aid and health involves engaging communities and their volunteers, who use simple pictures adapted to the local context in order to promote behavioral change in health, first aid and safety practices. More than just training, the community-based volunteers provide preventative, promotional and first aid services to the community in their areas.

Attitude of the respondents on health status were found to be mostly in positive scales except HIV/ AIDS section. When looking at the statement on HIV/ AIDS, over half of respondents presented as the negative attitude. While asking HIV/ AIDS question, most of male and female respondents dare not to answer the question due to the shame and they think this disease is not related them. Therefore, knowledge about HIV/ AIDS is low among study population. As knowledge and attitude of HIV/AIDS was still a problem in communities within these two Townships, more activities for HIV /AIDS related health education, awareness campaigns are needed to improve the proper knowledge, attitude and behavior.

Though mostly respondents used latrines, nearly half of respondents did not wash their hand with or without soup after defecation. It was determined that they had a poor practice on personal hygiene. Unfortunately, half of the respondents did not practice how to prevent the disease occurrence. It may be due to the fact that, poor education and poor healthy knowledge intend to poor practice within these two Townships. Therefore, we should promote education status at first, and then we must try to improve healthy knowledge and healthy behavior by combining inter-sectorial and intra-sectorial approach.

Limitation of study

The field data collection was carried out one week throughout 6 villages. Time constraint was one of the limitations of the evaluation. The evaluation teams encountered minor difficulties during data collection. Most of respondents were at their residences or workplace and the team conducted at their place. On the other hand, this study was conducted in some villages in Kayah region; the findings cannot be represented to the all villages in Myanmar.

There is lack of impact data about the morbidity and mortality of health and disaster related problems in implementation villages.

Strength of study

The strength of this study was remarked, as sample size was large enough to make inference

about knowledge, attitude and healthy behavior of respondents on health. In addition to this, twelve interviewers, including the researcher so there might be interviewers' variations in asking and recording the answers, did face-to-face interviews and key informant interview. Providing proper training to the interviewers before data collection minimized this. Moreover, both quantitative and qualitative methods are used in data collection to get actual data.

5. Conclusion and Recommendations

The findings of baseline survey revealed that the respondents have gaps on knowledge and awareness of health and disaster issues were needed to promote among study population. In the study areas, health education such as hygiene, malaria, and NCDs and disaster related knowledge and response should be strengthened.

In general, mostly respondents used latrines but nearly half of respondents did not wash their hand with or without soup after defecation. Due to poor personal hygiene and lack of complete sanitary pit latrine, diarrhea is the most occurrences in the study population.

In addition, surprisingly, the few respondents answered that they practiced danger behavior after delivery such as culture, bathe as soon as delivery, take traditional medicine, water and honey, coconut oil lotion on cord and stimulus the baby to cry. It is danger activity after childbirth at home.

On the other hand, some village in this study was flooded in rainy season. The people faced lack of drinking water, poor transportation, poor environmental sanitation and water related diseases. Most of respondents did not know the types of disaster and how to respond the disaster. We should plan the preparedness and the mitigation phases and train about community based disaster management (CBDM).

In conclusion, though members and volunteers of Red Cross Society well participate and arrange health education and health related activity, the most villagers do not obey and participate well because most of the villagers struggle for family income and they occupy limited knowledge.

In light of these findings, following recommendations are suggested for appropriate interventions and additional research needed to provide services for community.

1. Additional Educational program should be introduced especially for illiteracy in these two Townships.
2. Develop economic zone to improve the family income.
3. Behavior change communication (BCC) program about diarrhea should be emphasized these two Townships. This program needs to be done by using role-play, posters, leaflets and peer group discussion through health personnel such as RC volunteers, mid-wife, community health volunteers, health assistance and community leader.
4. House-to-house Health education program about the knowledge of malaria and acute respiratory tract infection should be promoted in this situation.
5. Life style modifications should be supported to prevent non-communicable disease.
6. Effective health education program about how to care neonate after birth at home should be emphasized these two Townships.
7. Concerning about child health, knowledge about danger signs of respiratory tract infections and basic important activities for home based care after birth could be improved by giving training to the facilitators through LHVs or midwives.
8. Universal coverage of vaccine program should be done to reach grass root level.
9. Evaluation of Universal coverage of vaccine program should be done.
10. Effective antenatal care program should be introduced to this population.
11. Promote personal hygiene program and support the source for drinking water from donor or other organization.
12. Government organization and other non- government organization should support sanitary pit latrine.
13. Arrange the preparedness and the mitigation phases and train-selected people about community based disaster management (CBDM) in history of flooding villages.
14. Develop the community-based integrated approach in first aid and health.
15. More activities for HIV /AIDS on health education, awareness campaigns should be promoted.
16. Community based health related survey should be done the whole region.
17. All of the implementer (RC volunteer and project staff) should be harmonized with the community.
18. Prior the project activities, all of the project staff should be introduced to the community "what they have to do and why they have to come".