



RESEARCH ARTICLE

HEALTH SEEKING BEHAVIORS IN BPHS UNCOVERED AREAS OF MEHTERLAM, ALISHANG, ALINGAR AND QARGAYEE DISTRICTS OF LAGHMAN PROVINCE, AFGHANISTAN.

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Abstract

Rational: The BPHS 2010 is claiming that almost 85% of population is covered and have access to health services in all over the country. It has been also claiming by MOPH that the vicinities which they are located in 2-3 hours walking distance from health facilities have access and benefited from BPHS health facilities. Community is not agreed and stated that they are not benefited from health services in such distance that several reasons are claimed. To understand the reality a house holds survey was conducted in rural villages of 4 districts (Mehteralm, Qarghayee, Alingar and Alishang) of Laghman province.

Objectives of the study: Primary objectives of the study is to understand the health seeking behaviors in BPHS uncovered areas. Where the secondary objectives of the study are:

- To identify health gaps in BPHS uncovered areas
- To provide recommendation for solution of the existing problems
- To lead the action for health status improvement in the areas.
- To provide a baseline data and set the targets for provision of the services
- To provide base for evaluating the effect of the project implemented

The survey has resulted to encourage the CWSA (Community World Services Asia) and agreed with public health directorate of Laghman province to establish 6 Sub Health Center and 26 health posts in the surveyed areas.

Methodology: A descriptive quantitative survey was conducted in 6 rural villages of Alingar, Alishang, Qarghayee and Mehterlam districts of Laghman province which has taken a period of 4 months duration. A sample of 700 HHs from 52000 population are randomly selected from six big villages, Epi info was used for the sampling. Male and female head of households are interviewed, 95% confidence level and 5% margin of error is estimated. A structured questionnaire is developed and used for the data collection. Eleven couples (male and female) of surveyors are (funded by an INGO), hired who did the survey after they are trained. To ensure the quality of data, the data was checked by five male and female supervisor in the field and re checked by study coordinator in the office. Data is entered and analyzed in excel sheet by NGO (CWSA) expert.

Conclusion: It is concluded that 86 % of the HHs in surveyed areas are living in mud mad hoses, men are mostly the head of HHs and 93% are monogamous. Main source of income of family is agriculture (75%) and livestock. Sixty six (66%) of the households heads are illiterate and only 3% of people have access to sanitary latrine and 66% of HHS use unsafe water sources for drinking. Main source of energy is solar boards (67%). Most of the poor health indicators are due to either absence of or prohibitive distance to health facilities. The existing health facilities are underutilized due to their improper location. Poor awareness, poor literacy rate, poor sanitation, unsafe drinking water, poor nutrition and poor vaccination, has caused high morbidity of communicable and non-communicable disease in the areas. Men are the only decision maker in households which poor decision making of women has resulted to increase RH problem.

Recommendation: To address the existed problems, numbers of Sub Health Center and health posts should be established with main focus on MNCH (Mother newborn and Child Health) services, community awareness should be in high priority of the health facilities. Addition to this a network for referral system should be in placed to refer the cases on the right time to other level of health facilities.

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Rationale and Background:-

The study is conducted in Laghman province of Afghanistan. Laghman is located in east part of Afghanistan, has 471,986 population (CSO2016) and close border with five other provinces. Study has covered six big villages (Surkhakan, Nwadamora, Shamaram, Ghaziabad, Badiabad, Salingar) of four districts (Mehterlam, Alingar, Alishang, Qarghai) of the provinces. The areas are selected based on the low access and 2 hours walking distanced from other BPHS health facilities. The areas selected has included parts of four districts, the selected areas are semi urban, and rural. People from different ethnic groups like Pashtoon, Pashai and Tajik. Different culture and languages is considered in sampling. The study has covered almost 4 months period carried out by numbers of trained couples recruited from local community.



Laghman like the other provinces in Afghanistan, is badly affected by the ongoing conflicts. Over the past several years. Because of continued conflicts, nearly all infrastructure and public services have been badly affected in the province which rural areas are the most sufferers. Instability, in combination with difficult terrain may have led to continuous challenges among individuals and families accessing health services and has resulted in the poor delivery of health programs.

World Health indicators rank Afghanistan as the 15th in terms of having the world's poorest health indicators. Please refer to table-1 for key health indicators reported by different surveys conducted in the country.

Table1:- Health indicators

No	Indicators	Value	Year	Source
1	Total Fertility Rate	5.1	(2010)	AMS
2	IMR /1000 birth	74	010/2011	MICS
3	<5 MR/1000 birth	102	010/2011	MICS
4	MMR/100000 birth	600/100000	2002	NRVA
5	CPR	13.8	2011/12	NRVA
6	Skilled ANC, at least 1 visit	51.2	2011/12	NRVA
7	Pregnant women receiving at least 2 TT doses	33.3	2012	AHS
8	Skill Attendant present at birth	40	2012/12	NRVA
9	Exclusive breast feeding	54.9	2011	AHS
10	3 rd dose of Penta valent vaccine coverage	46.7	2011	AHS
11	TB prevalence (all cases/100,000 population)	358	2013	NTP
12	HIV prevalence	<0.01	2013	UNAIDS
	Measles vaccination rate	58	2011	AHS
13	LLINS utilization rate among <5 children	20	2011	MICS
14	Proportion of HHS having access to health services within 2 hours distance by any means of transport	86.7	2011/12	NRVA
15	Exclusive breast feeding	30%	2010	AMICS
16	Use of iodized salt	20%	2010	AMICS
17	Fully immunized children	18%	2010	AMICS
18	Vaccination cards available	21%	2010	AMICS
19	Safe drinking water	57%	2010	AMICS
20	HIV knowledge	2%	2010	AMICS
21	Improved sanitation	*31%	2010	AMICS

* Other survey show this 8%

Though the Afghanistan Health and Demographic Survey (AHDS) conducted in 2015 shows a significant improvement in some of the key health indicators, the data provided by AHDS might still do not reflect the remote villages with little or no access to health facilities due to insecurity. Table-2 describes improvement in some key health indicators reported by AHDS 2015.

Table 2:- improvement in some indicators, AHDS 2015

Indicator	Value	Year
Family planning method (one)	23%	2015
MMR	1291/100000/year	2015
<5 MR	55/1000	2015
ANC visit	59%	2015
ANC 4 th visits	18%	2015
TT vaccine	53%	2015
Delivery in HFs	48%	2015
Fully immunized children	46%	2015
Vaccination card availability	56%	2015
Fertility rate	5.3	2015
Use of modern methods of contraceptive	20% mostly pills	2015

IMR	45/1000	2015
Neonatal mortality rate	22/1000	
PNC visit	40%	2015
Cesarean delivery	3%	2015
Breast feeding	98%	2015
Exclusive breast feeding	43%	2015
Access to LLINS	13%	2105

The achievement in various health indicators is claimed to be credited to the implementation of BPHS and EPHS in the country enabling access to health services both in urban and rural areas. Even with the recent increases in health care services nationally, important health problems persist for pregnant women, new born, mothers and children under 5 such as MMR, IMR and NMR. It is assumed that the provincial healthcare indicators in Laghman might be much lower than the national ones, because most of the surveys are carried out in areas where surveyors could go and feel secured.

The BPHS is a standard that has been implementing in Afghanistan as a standard package and guideline for provision of primary health care services. The package was developed in 2003 and implemented in 2005. After 2 years implementation the effectiveness of the package was evaluated. Evaluation result has shown that most rural areas are covered by BPHS services and stated that most people are benefited from the health services, it also announced the achievements in health indicators improvement.

Addition to the above indicators' tables, achievements in improvement of health indicators are reported/evidenced in 2010 revised copy of BPHS. Some indicators like OPD, DPT3 coverage, skilled birth attendance, IMR, <5 MR, numbers of health facilities, skilled birth attendance and ANC are examples of improved indicators announced by BPHS 2010. The BPHS 2010 has been claiming that almost 85% of population is covered and have access to health services in rural areas. It has been also claiming that the vicinities located in 2-3 hours walking distance from health facilities are well covered and benefited from the health services.

The MoPH is emphasizing that the areas where there is health facilities in 5 Km distance, they have access and are covered by health services. Addition to this national health indicators has also described some improvement compared to the last years.

The assertion made by MoPH is not accepted by community, Community claims there is gap inside community in terms of access and availability of health services. The community say the argument of MoPH is not the truth. The claim of community is well verified by a KAP survey done by an international NGO (HealthNet TPO) in year 2007 and minutes of provincial health coordination committees meeting. Addition to this there are evidences regarding inequality and inequitable distribution of health services. Most of health facilities are established by force of politicians with improper site selection, beside of politicians, influential and powerful members of community has also contributed in improper allocation of health facilities. A good example of this is presence of health facility in Torkham border. The facility has 3-6 OPD per day which is just the waste of resource. But closer to the same area there are thousands of people with no access to health facility.

Besides of above mentioned factors, most of the rural areas are located in such geography that they should not have access to the health facilities. Additionally, insecurity, maldistribution of health facilities, scattered population and poverty/ignorance are the other factors contributed to have less or no access at all. Moreover, The claim of BPHS and other surveys are not reflecting the areas those are not under control of government, the surveys are done only in places where surveyors could go and feel themselves secured. Looking to the health indicators mentioned in tables above, even in BPHS covered areas there is gaps in health services, like limited use of sanitary latrine, poor vaccination, high maternal, infant and <5 mortality rate and etc.

Low access to health services causes lack of health knowledge, lack of awareness, poor nutrition of children, pregnant and lactating mothers. Poor personal and environmental hygiene has caused high numbers of disease particularly diarrheal disease, ARI, vaccine preventable disease and mal nutrition. This is well evidenced in hospital which most cases are admitted from rural areas where there is no health facilities.

In order to find the hidden truth in BPHS uncovered areas a health seeking behaviors study (KAP) is conducted that help us to understand the health seeking behaviors and health related gaps in targeted vicinities. The study has led and encouraged public health directorate and CWSA (INGO) to start action for improvement. As a result 6 health facilities 26 health posts have been established and access of people to health services is increased, health educations sessions conducted by newly established health facilities will impact to improve health seeking behaviors, reduce morbidity and mortality in the community. Mothers and children will be on priority focus for actions and provision of health care services.

Literature Review:-

Several local documents are reviewed that has described the health seeking behaviors and health status in different provinces/community of Afghanistan. **BPH** is one of the standard guideline for provision of primary and secondary health services in of Afghanistan. The standard help the partners to implement health projects and provide services in a harmonized manner. The package is revised in 2010 with indication of numbers of achievement in health services. The BPHS 2010 indicated 85% coverage and access to health services. It has also announced improvement in some key Afghan health indicators. These indicators are OPD consultation, IMR, MMR, numbers of health facilities, skilled birth attendance< mortality rate and DPT3. Improvement in these indicators are compared with year 2003 where BPHS was not implemented. Table-3 describes improvement in some key health indicators after BPHS implementation (2004).

Table 3:- improvement in some key indicators after BPHS implementation

Indicators	Year	Value	Year	Value
OPD visit per capita	2003	0.6	2008	1.04
DPT3	2003	29.9	2007	82%
Skilled birth attendance	2000	26%	2010/11	39
IMR/1000 life birth	2000	165	2010	97
<5 mortality rate/1000 life birth	2003	257	2010	77
ANC firs visit	2003	4.6%	2011	51%
No of health facilities	2003	1214	2009	1688

The improvement health indicators are credited to BPHS, claimed by ministry of public health. BPHS is also claiming that all areas with 2 hours walking distance are covered by the services and have easy access to health facilities.

RAMOS (Reproductive Age Mortality Survey) is another survey done in the country. The RAMOS was carried out in 2011, implemented in three districts of Afghanistan which was aiming to measure changes in maternal and child mortality, maternal causes of death, and risk factors. The results have shown significant improvements in maternal and newborn mortality risk, but also evidence of great disparity between urban and rural settings. RAMOS has not only announced some improvement it has also provided a signal for improvement in numbers of reproductive health indicators and services. Like it reported the highest mortality (1600) in the world.

According to Afghan Midwifery Education and Accreditation (**AMEA**) board number of midwives are increased between 2003 and 2012, the number is increased from 467 to 3001 midwives.

AMS (Afghanistan Mortality Survey) is another survey conducted in 2010. The AMS report describes that fertility rate is 4.6 and one of each fifth women (22%) women use family planning method that 20 % of total is modern methods and other indicators are described in table-4.

Table 4:-

Indicators	Values	Remarks
TFR	5.1	
Life birth	98%	
Birth spacing	26%	
Knowledge on any contraception	91%	
ANC 1 st visits	42%	
PNC 1 st visits	28%	

<5 MR	77/1000	
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AHDS (Afghanistan demographic and health survey) is conducted in 2015 describes the family planning practices in Laghman province as:

All methods use	21.4%
Modern method use	13.6%
Total demand for FP	42.5%
Percentage of satisfied	34%

It has reported that 59% of pregnant women had at least one ANC visit during their pregnancy. The ADHS (Afghan demography and Health Survey) described 42 % of delivery attended by skilled birth attendance where this is shown more than 70% in urban areas. The survey has shown 28 % of PNC visits by rural women in 1-2 days after delivery. The survey has shown vaccination coverage in Laghman as:

BCG	93%
Measles	72%
All vaccines	54%

AMIS (Afghan Multiple Indicators Survey) study conducted in 2010 has indicated the people access to some basic need that their details in rural areas are described in table-5.

Table 5:-

Indicators	Values	Remarks
Access to safe water sources	48%	
Electricity	32%	
Radio	59%	
TV	20%	
Mobile phone	65%	
Bicycle	26%	
Motor bike	24%	

NRVA (National Risk and Vulnerability Assessment or Afghanistan living condition survey) is another survey done in 2011 by CSO which was supported by EU and ICON-Institute public sector GmbH. This survey has expressed some concerns related to the services which some are exemplified below.

- Unequal distribution is a concern
- Access is multidimensional
- Access to female staff 52%
- Transportation cost for 2 hours distance 150Afgs

Addition to the local literatures reviewed, studies and literatures of other countries are also reviewed which had similar to our study done in Laghman province of Afghanistan.

Similar studies have been conducted in India, Rwanda, Somalia and Egypt that has described the health seeking behaviors in their respective communities. These study has also described a poor health seeking behaviors in rural areas. Some other studies are also reviewed that are describes below:

KAP study on HIV/AIDS in Tamil Nadu, India: This is done by Gupta et al in May-March 2007 with a sample size n= 845 (482 M and 363 F). Some indicators which were relevant to my study are picked up and described as described in table-6.

Table 6:-

Indicators	Values	Remarks
Heard about HIV	24%	
Not aware that HIV is contagious	58%	
Aware of mode of transmission	98%	
Knowledge on any contraception	91%	

Know HIV is preventable	50%	
Use of condom	4%	
Source of information	43%	Mass media

These indicators also verified that people in rural areas of other countries also have poor indicators on health seeking behaviors.

KAP study on immunization of children and mothers in north Kashmir, India: This survey is done in 2012 (online Journal of health and Allied sciences) with a sample size n=300 mothers with children aged 1-2 years, some of finding of the survey are:

-1% know BCG is protective

-39% know OPV is protective

-80 % mothers reported fever for DPT3

-100% mothers know vaccine is beneficial

-All mothers know about immunization in pregnancy but 86 % were unaware of its protective role.

Look at to these indicators, some of them are similar to rural areas of Afghanistan. Like fever, poor knowledge on protective role of vaccines are similar in context of Afghanistan.

KAP study on reproductive and sexual transmitted diseases among high school girls of Vadodara: This study is done on Jan 2010 with a sample size of n=1122 (Bidisha Das, Gaurav J Desai dasbidisha1981@yahoo.com). Some finding of this study is interesting to compare it with Afghanistan situation in rural areas. It is found that health seeking behaviors and knowledge is a similar concern in rural areas of developing countries as some indicators from this study is described in table-7.

Table 7:-

Indicators	Values	Remarks
Participants have heard about STD	55%	
Have awareness regarding HIV/AIDS	69%	
Participants did not know regarding features of STD	66%	
Did not know about the mode of transmission of STD/AIDS.	19%	
Participants share information on STD/AIDS with others.	61%	
Did not know about prevention of STD and 73 % did not know about prevention of HIV/AIDS	83%	

Healthcare Seeking Behavior for Symptoms of Reproductive Tract Infections among Rural Married Women in Tamil Nadu: A Community Based cross sectional study was done in 2011 with a sample size n= 520 rural women aged 18-45, by Geetha Mani (drgeethamm@gmail.com). Some of the findings are relevant to my study and context of study areas in Laghman which I have picked them up with some given indicators described below:

- 50% prevalence of STI/RTI in rural Tamil Nadu
- 33.3% experiencing symptoms of RTI/STI in the past 12 months.
- 51.45% of those who had RTI/STI symptoms sought health care
- Private health care facility was preferred by nearly two-thirds.

Perceived Morbidity, Healthcare-Seeking Behavior and their Determinants in a Poor-Resource Setting; This survey is done in 2014, Malda west Bnagal, India with a sample size n=43999 (Published: May 12, 2015 <http://dx.doi.org/10.1371/journal.pone.0125865>). This survey has focused on disease prevalence in community which findings are on both communicable and non-communicable disease, as some findings are describes in table-8.

Table 8:-

Indicators	Values	Remarks
Recent illnesses	55.91%	
NCDs.	50.92%	
Respiratory diseases	17.28%	
Gastrointestinal diseases	13.78%	
Musculoskeletal problems	6.25%	
Non-qualified practitioners treated episodes.	53.16%	

Objectives:-

The primary objectives of the study is:

- To understand the healthcare seeking behaviors (KAP) in BPHS uncovered areas.

The secondary objectives of the study are:

- To provide information on health status of people in BPHS uncovered areas
- To provide recommendation for solution of the existing problems
- To lead actions for health status improvement in the areas.
- To provide a baseline data and set the targets for provision of the services
- To provide base for evaluating the effect of the project implemented

Research Question/Hypothesis:-

People with 2 hours walking distance have less access to BPHS health facilities, lacking health knowledge and have high morbidity/mortality.

Research Methodology:-

Before the survey is conducted the survey plan was coordinated with public health directorate of Laghman and elders of the target communities. The list of main villages and their population which are not covered by BPHS were obtained from PHD. These are the villages where CWSA want to implement MNCH project. Then the list of sub villages were obtained from relevant community leaders. Additionally, we received a letter of permission from the PHD and governor to implement the baseline study in target villages.

Study Design:-

Descriptive study is carried out in rural areas of Laghman province, the data is collected by interviewing households which are randomly selected. Inclusion and exclusion criteria are used for survey participants. All permanent residents, head of households (adult age), those accept consent and able to answers are included. Those who are not heads, did not accepted consent, guests, non-residence, not able to answer are excluded from the survey.

The overall logistical/financial support is provided by the CWSA (Community World Service Asia) that is an international NGO working in east region of Afghanistan.

Research Approach:-

A quantitative approach is used which the data is obtained through structured questionnaire. In order to get the idea of male and female, both male/ female head of the households have been interviewed. To interview both sexes, couples (male and female) are hired which has facilitated smooth running of the survey and obtaining the idea of both sexes. The couples are trained on the questionnaires and methodology before they are introduced to the field.

Sampling:-

Total population for the survey is estimated 52000. The study is done in rural areas of four districts (Alishang, Alingar, Qarghai, Mihterlam) of Laghman province. The target population live with different ethnicity and cultures. For the random selection, the list of uncovered areas are obtained from public health directorate of Laghman province, then all villages are listed and randomly selected by using the villages table. Randomly 30 villages are selected for sampling. Number of HHs and population at each villages are recorded, among the total households 702 households (23HHs per village) are randomly selected. Epi info is used for sampling. The confidence interval for the survey is 95% and the accepted error is 5%.

Population size	= 52,000
Expected frequency	=50%
Confidence limit	=5%
Design effect	= 2
Confidence level	=95%

Since study is conducted in different districts so randomized sampling was preferred with proportion to the area size. For selection of the villages a sample frame was prepared (list of all villages) that based on the villages list, villages for the survey was randomly selected by the study coordinator. In short this means that over the study area certain villages are selected at random in which the survey is carried out. Table-4 is the list of selected villages

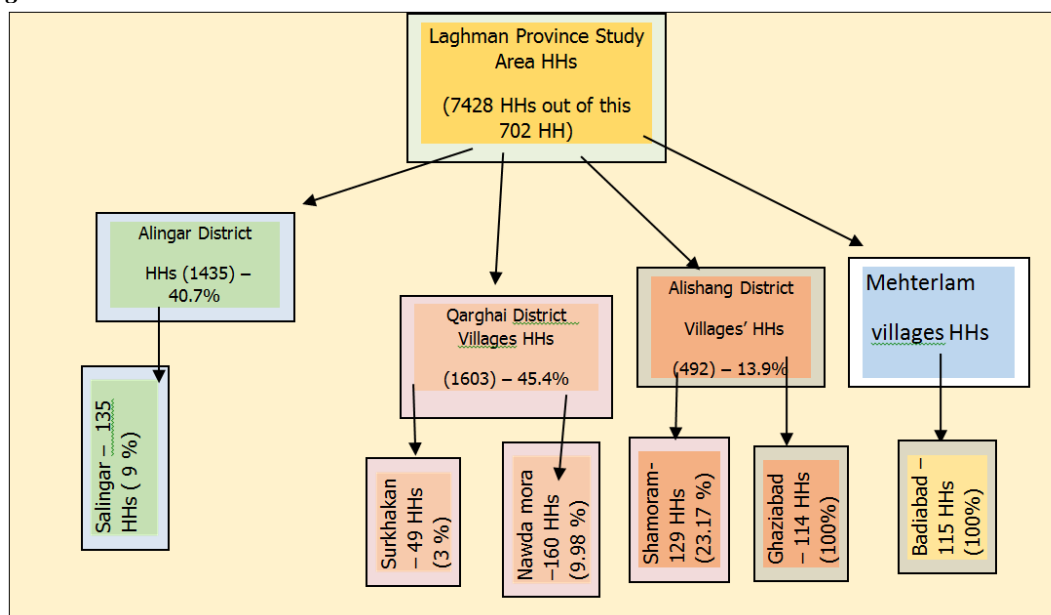
Table 9:- List of selected villages

District	Name of Main Village (Delivery Room Village)	No. of Project Villages (including main village)	# of Villages to be Selected for Baseline
Alingar	Salingar	16	4
Qarghai	Surkhakan	3	3
	Nawda Mora	10	3
Alishang	Shamoram	10	3
	Ghaziabad	20	6
Mehterlam	Badiabad	23	6

In each selected village/area, households (HHs) are also selected at random. This is done by selecting HHs from the area center randomly a direction by spinning a pen in that direction. Houses are counted from the random table which the first house is to be surveyed is selected and continued forward. All HHs in the compound are enrolled, this means if in one compound several HHs are accommodated all of them are surveyed in that compound.

From there the next house is chosen by selecting that every other 5 houses till the sample size is reached. As mentioned earlier, in total 30 villages and 23 HH per each village are included in the survey, making a total of 702 HHs (rounded up).

Sampling Strata:-



To keep the study gender and environmentally sensitive, the questionnaires were filled with both male and female adult (heads are preferred) of the households. The male household members are interviewed by male and the female are be interviewed by female surveyor.

Data collection:-

A structured questionnaire is developed and used for data collection. Staff are trained on questionnaire for two days in office and one day in field. After training the questionnaire was piloted and edited for gaps. After piloting the questionnaire it was used by surveyors for data collection. Since the questionnaire had some female specific questions male and female surveyors were deployed to collect data from male and female head of HHs respectively. The data was checked by four supervisors in the field and by study coordinator in the CWSA Jalalabad office. After that final check/revision it was entered in spreadsheet.

Survey teams:-

The survey team was composed of 11 couples (female and male) of surveyors who conducted interview with male and female members of the households respectively. Performances of the surveyors is supervised and supported by four supervisors and overall survey was coordinated by project manager.

To ensure the quality of data, the data collected in the field are checked by female and male supervisors and rechecked by study coordinator and then entered into computer. The data are analyzed, interpreted and reported at the end stage of the study.

Date Analysis:-

Before data is entered and analyzed, all questions were coded, after coding the data base in excel is developed so that all data is entered in the excel sheet for analysis. Data is analyzed by NGO expert who used spreadsheet for data entry and analysis. The details of data analysis is described in results part.

Ethical Consideration:-

Though it is a descriptive study with no intervention and harm to the population, however, to be in safe side and minimize ethical concerns, an approval letter is obtained from PHD and governor, this has helped us to freely start survey in community. Addition to this the survey is shared with concerned community leaders. Questionnaire is developed in local language which on the top of the questionnaire permission from the participants is asked. Confidentialities is ensured and maintained while asking the questions.

Limitations of the study:-

Though security was predicted as big limitation for the study but fortunately there was no big concern to prohibit the survey. However, there was slight security problem in one day in a village which has delayed survey for few hours. Culture was another limitation for the study that some questions like questions regarding SRH and STD were difficult to obtain. Addition to this some samples were closer to some health facilities that has affected study in some limited extend. Though surveyors were properly trained but due to Ramadan time information biased is predicted. Survey is conducted during the month of Ramadan which was difficult for staff to work as they could in non-Ramadan days, therefore, the duration was a bit expanded. At the beginning it was agreed to analyses the data by using SPSS but later it was changed to excel which data entry and analyses has taken some times.

Results (with tables, graphs and figures):-

The details of data analysis is highlighted in two ways. First, the data is presented as Demographic Information which gives a detailed description of our participant's socio-economic situation and living conditions. Second, the data is presented in the Major Study Findings which gives a detailed analysis of the data as it pertains to the healthcare seeking behaviors (KAP) in study areas.

Demographic Information:-**Key findings:**

Type of houses: 86% live in mud houses

Numbers of working members in HHs: 75% of HHs have only one income earning member

Number of marriage: 93% of HHs are monogamous

Main source of income: 62% is agriculture as a main source of income

Source of energy: 67% is solar board

Means of transportation: 74 % HHs use public transportation

Source of drinking water: 34% use safe sources of drinking water

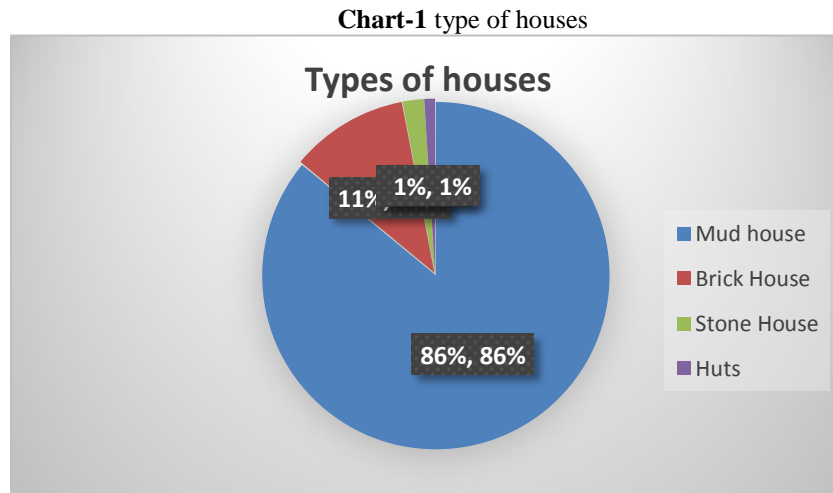
Sanitation: 3% use improved latrines

Education level: 66% men and 98% women head of HHs are illiterate

Property: 88% have mobile phones, 18% have Iranian rug, 45% have radios, 15% have TV and 1% have Afghani carpet

Housing:-

Out of all surveyed households, 86% (604/702 HHs) of them live in mud houses. The rest lives in brick, stone constructed houses. Only 1% (7/702HHs) of households live in Huts. Chart-1 describes type of houses in the areas.

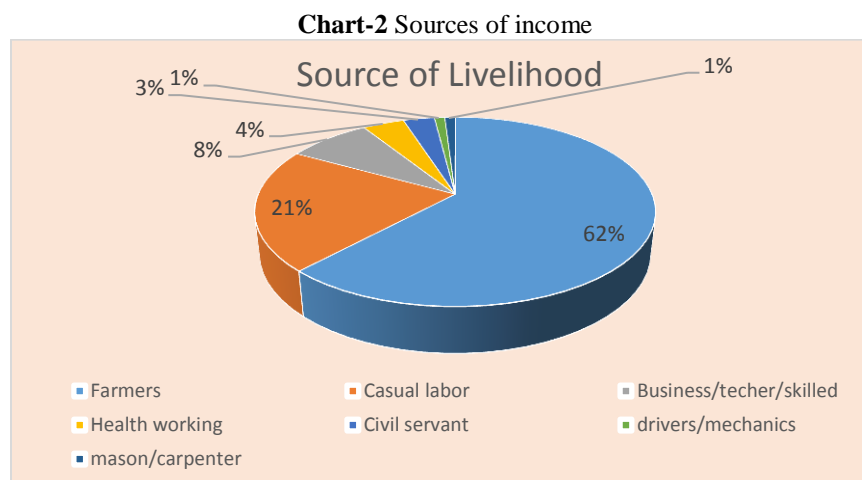


Finding of the survey on housing, is similar to other parts of Laghman and other provinces of the country. People in rural areas mostly use the local resources for constructing houses for their living.

The easy and common houses people build them in rural areas is constructed from Mud (Qala). The reason why people prefer the mud made houses are: firstly, since materials like land, soil, stone, wood etc. are their own thus could be cheaper for them, it is not only the cheaper materials, the laborer are also cheaper for them. Secondly, Qala is being constructed in such way that has high and strong surrounding wall which is more secured for the families. Thirdly, in Qala they could keep their livestock, harvest, wood and other stocks much securely, and final, Qalas are located closer to their agricultural land where they could take care of their crops.

Source of income:-

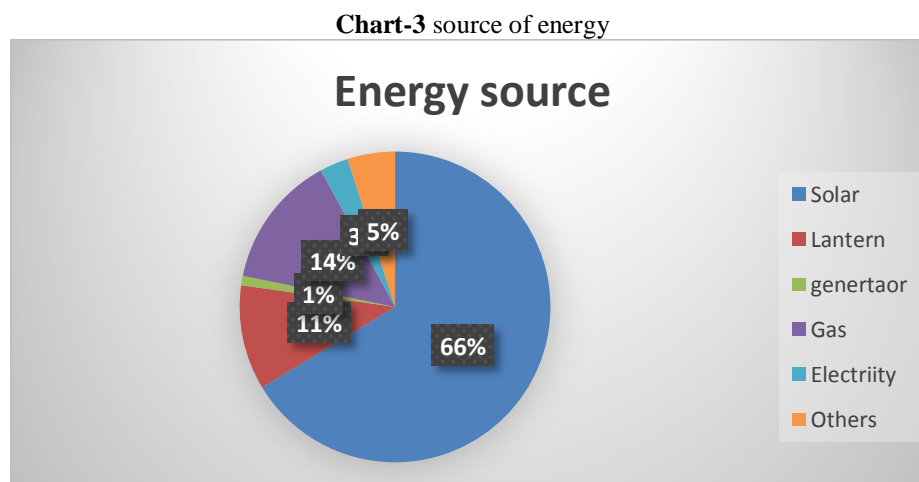
It was found in survey that out of total households surveyed, 75 % (527/702HHs) have only one income earning member while the rest had two, three and up to four earners. It was also revealed that out of all surveyed HHs 93% (652/702HHs) are monogamous and the rest of them are polygamous. The main source of income by households is agriculture/farming, 62% (147/702HHs). The rest of households are engaged with other types of works such as 21% (147/702HHs) casual labor, 8% (56/702HHs) entrepreneurs, 4% (28/702HHs) health worker, 3 % (21/702HHs) civil servant, 1% (7/70HHs) driver/mechanic and 1% (7/702HHs) mason/carpenter. Chart-2 describes source of income



The source of income here does not mean that they earning money from employment, mostly, the source of income is other kind of work like farming, daily wage working and other private works. In Afghanistan most of the people even in urban areas are jobless which the data is much higher in rural areas. In rural areas the main source of income is agriculture that most people are farmer. Similar like other parts of the country, our survey also identified the agriculture in top of income source.

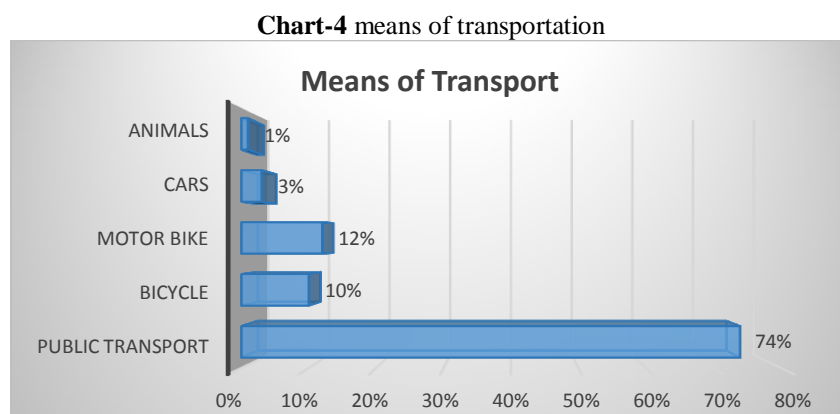
Energy Sources:-

It was identified that out of total households 67% (470 /702 HHs) of them are using solar energy as their main source of energy. The rest of households use other types (generator, city power, gas, local materials) of sources for energy and lighting. It was found that lantern (run by kerosene) is still common lighting source in rural community which is the cheapest means for lighting. Not only in rural, lantern is used by low income families in urban areas also. Chart-3 describes source of energy in the areas.



Tough the values for solar energy seems to be higher in such remote area, however, since the NSP (National Solidarity Program) has distributed free solar energy boards to the rural areas thus it could be defensible and rational, addition to this it is cheaper in Afghanistan compare to generator and other source of power. Afghanistan health and demographic survey conducted in 2015 also described high access of people to electricity. It described 93% of urban and 64% of rural people have electricity which data is closer to this survey. Gas is the other source which most people use it for lighting and generating energy, it is common in both urban and rural areas. It is also cheaper from generator but not from solar energy source. Beside of this people still use local lighting system like lantern, lamp (gas and kerosene, patrol, run) and others local available means for their lighting.

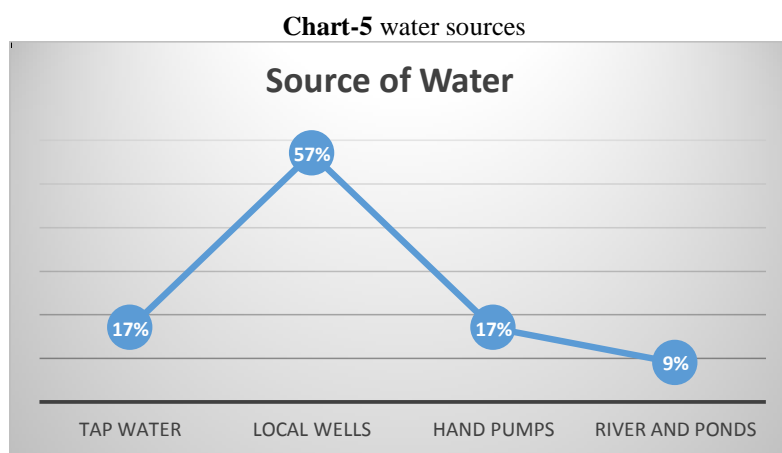
Means of transportation: Of the total households surveyed, 74% (519/702HHs) of them use public transportation and the rest have their own means (car motorbike, cycles, and animals) for their travelling. Chart-4 describes means of transportation in the areas.



Mostly, in both rural and urban areas roads are built either by NGOs or government. Roads availability has resulted to encourage people for investing on cars as a source of income for them. Since public transportation is available everywhere that is why they use it for their transportation. Public here means private care used by people on public and charging fares. The fare for of public transportation is not affordable for big numbers of families, as reported by NRVA (National Risk and Vulnerability Assessment) that one round transportation cost for households with 2 hours distanced from health facilities is (150Afgs) which is high cost for people living in rural areas. This cost might be a reason that why people has less access and underutilizing the existing health facilities in rural areas. As such, the presence of health facilities, if not within walking distance, does not translate into improved access of health facilities.

Potable Water Sources:-

It was found in the survey that most of the people in survey areas use unsafe drinking water. Out of total households, 66% (463/702HHs) use unsafe source (local well, ditched, river and ponds) for their drinking water. Chart-5 describes water sources in the areas.



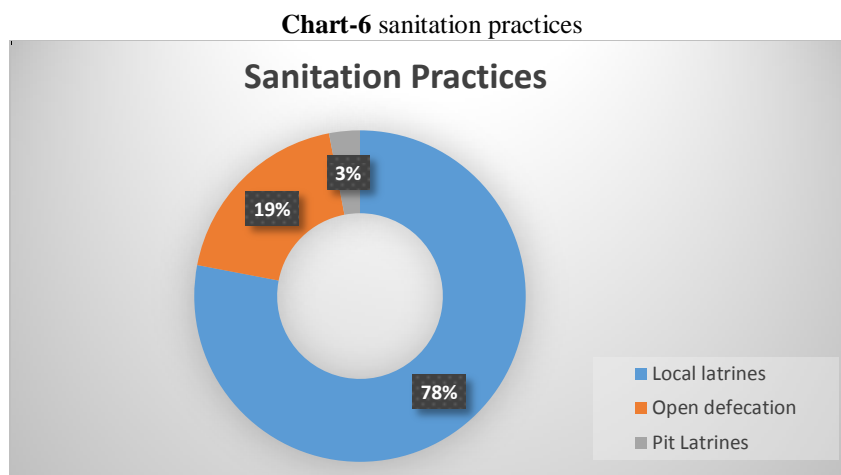
This data is conflicting to the AHDS survey 2015 which indicated 65 % of people access to safe drinking water (85 % in urban and 58% in rural areas) the variance here might be again due to less coverage of insecure areas by AHDS.

Since in rural areas most of the people use unsafe sources for drinking water it has contributed to high prevalence and morbidity of water born disease like diarrhea, dysentery, typhoid etc. In addition to this, even when there is a safe source of drinking water due to lack of awareness/knowledge people do not handle it safely. As such, it can be

contaminated during collecting, storing and usage (used by dirty hands and utensils) which was evidenced during the survey.

Sanitation:-

It was found that only 3% (21/702 HHs) of surveyed households use sanitary/improved latrines (VIP, pit latrine, local with slabs) while the rest use unhygienic/unsafe latrines and sanitation practices. Though AHDS 2015 reported that 75% of rural people use non improved latrine but the data seems closer to this survey. The variance might be still due to selection of areas where sample is selected. It has been experienced that most of other surveys are not conducted in places where they are not under control of government. Chart-6 describes sanitation practices in the areas.

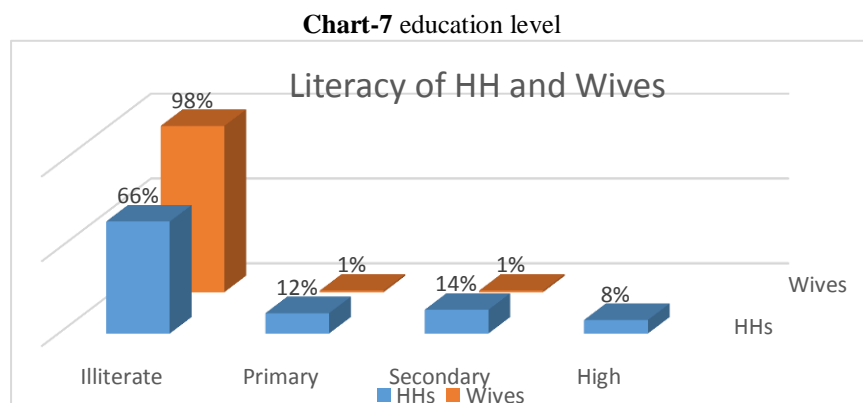


To summarize, most of households in surveyed areas use local latrine which is not safe and a contributing source of infection transmission to the environment. In addition to the poor sanitation practices, it was also found that most of the people keep domestic animals in their houses. People in remote areas do not handle the dung of animal in a safe way, after touching the dung they do not wash their hands with soap and do not consider that the animal waste is unsafe. With such unhealthy behaviors/practices this is also a factor for spread of infections and high morbidity in the areas.

Out of total surveyed houses, 69% (484 /702 HHs) of the households keep animals in their houses while the rest of 31 % (217 /702 HHs) do not. The reasons for not keeping was described as: no space, no fodder, cannot afford to buy animals and few responded that they are not interested keeping animals. Keeping animal in houses has also caused environmental contamination and spread of disease which need to be considered while providing health/hygiene education sessions.

Education:-

It was found that most of the heads of households are male and are uneducated. Out of a total male headed households, 66% (463 /702 HHs) of them are illiterate. Out of total households, 98 % (688/702 HHs) of the wives of the respondents have not attended any school and remained illiterate. Chart-7 describes education level in the areas.

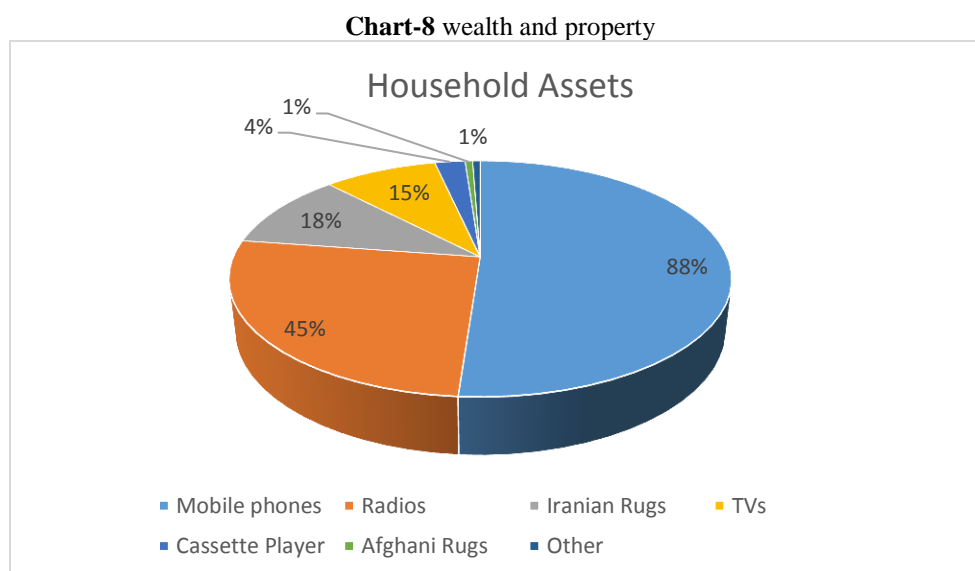


Though the rate of education level for women in the NRVA 2102 (National Risk and Vulnerability Assessment) was <25% we have seen worse rates due to high insecurity, local tradition and unavailability of schools for women. Our finding on education could be well compared with other provinces like Urozgan where there is deteriorated security. AHDS 2015 described level of uneducated women 96% and men 79% in Urozgan province. Urban areas and wealthiest families are more likely to have educated people with completion of secondary and high schools compared to rural vicinities. The main reasons for not attending the schools are understood as uneducated heads of families, use of children for earning money and supporting families, insecurity and distance and unavailability of schools.

Wealth/Property:-

Most of the people living in the survey areas have their own property. Out of all surveyed houses, 88% (618/702 HHs) of the communities had mobile phone in their houses, since this item is cheaper in Afghanistan most of the people can afford it, 45% (316 /702 HHs) households have radios, 18% (126 /702 HHs) have Iranian rugs, 15% (105 /702 HHs) had TVs, 4% (28/702 HHs) had cassette player and 1% (7 /702 HHs) had Afghani rugs while the rest of 1% (7/702 HHs) had other household assets in their houses.

The cost of radio, Iranian rug and TVs are cheaper items which generally most family can afford but these are still just a small percentage in our survey which allows us to believe that many are not able to pay for even cheaper basic needs of their families. Chart-8 describes the types of property owned by households.



In contrast to low ownership of household items, most households are owned by respondents and their ownership is much higher compared to the urban areas. Out of total respondent, 98 % (688 /702 HHs) of the respondents who have their own houses, 1 % (7/702 HHs) have mortgages while the rest of 1% (7 /702 HHs) have home because of their jobs. Since in rural areas most of people use local resources for constructing houses and have their own land therefore the high number of household owned houses could be justified.

Major Study Findings:-

The following is an outline of the study findings. The indicators were tracked under 6 themes namely (1) Community Health; (2) Health Education and Awareness; (3) Community Participation and Decision Making; (4) Child Health (Child Birth, Pregnancy and Post Natal Care); (5) Birth Spacing; (6) Nutrition.

Community Health:

Key findings:

Presence of illnesses: 78% have ill person in last 30 days, more than 80% bought medicines directly from pharmacies.

Disability: 3% presence of disability cases in HHs
Presence of chronic diseases: 8% of HHs have chronic diseases
Mortality: 3% have death in last 12 months
Patients' referral: 74% of HHs patients are not referred

Illness Episodes:-

Out of total surveyed houses, 78 % (548 /702 HHs) of their family members or they themselves had experienced illness during the last 30 days. Out of all households, 12 % (84/702 HHs) responded two episodes, 5 % (35/702 HHs) responded they had three episodes and 4 % (28 /702 HHs) of them responded four episodes and the rest of 1% (7/702 HHs) of households responded more than four episodes in the last 30 days.

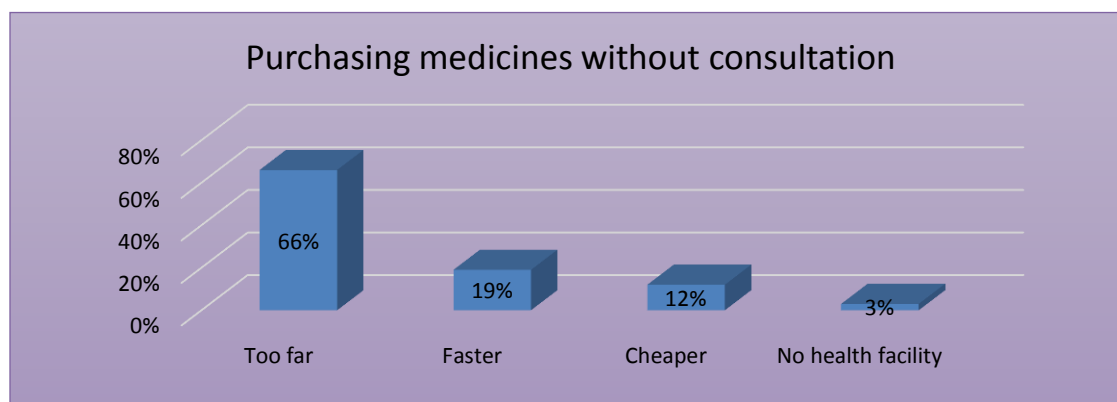
Looking at the hygiene practices regarding hand washing, dealing with human and animal waste and other personal and environmental practices of those households surveyed the high number of disease morbidity could be well justified. In addition to this, low access to safe drinking water/sanitary latrines, low literacy rate of households, poverty and low access to health services are other contributors for increased morbidity in surveyed areas.

Healthcare Seeking:-

Out of all cases/episodes in the past month (30 days), 46%(313 /702 HHs) bought medicine one time directly from pharmacy without consultation, 27%(190/702 HHs) bought it twice, 16%(112 /702 HHs) bought it three times and 8%(56 /702 HHs) bought it four times while the rest of 3%(21 /702 HHs) bought medicine more than four times during the last 30 days without consultation. In addition to seeking treatment directly at pharmacies, they also went to Imams, shrines and traditional healers for treatment of their ill members of families.

Reasons for why they go directly to pharmacies was given that, 66% (463/702 HHs) responded that the government health facility is too far from them which is why they preferred to buy medicines directly without consultation, 19%(133 /702 HHs) say it's faster to get medicines privately without consultation, 12%(84 /702 HHs) responded that it is cheaper to buy medicines directly while the rest of 3%(21 /702 HHs) shared that since there is no health facility in their area they have no other option but to buy medicines directly from the drug store without consultation. Chart-9 describes the reasons for buying medicines directly from pharmacies.

Chart-9 the reasons for buying medicines directly from pharmacies.



Direct buying medicine from pharmacy is not only a practice in rural areas, it is also common in urban zones, the reason in urban areas might be similar given by people in this survey. The main reason is the distance and absence of health facilities with poor awareness which is why we see further validation for the establishment of health facilities and raising awareness on the risks of such health seeking behaviors to their health.

Patient Referral:-

To understand the referral mechanism and community behaviors in respect to referral of patients' we surveyed households on their experience with diseases. We found that 74% (519/702 HHs) had never been referred to any health facility while the rest of 26% (183/702 HHs) have been referred for further treatment of the ill members of families. Out of those who were referred, 10% (20/ 183 HHs) were referred from the pharmacy, 17% (32 /183 HHs)

were referred by a family member, .5 % (1 /183 HHs) were referred by the local healers while the rest of them were referred either by Community Health worker, doctor or nurse.

Out of total referral cases, 10 % (19 /183 Cases) cases were referred to hospital, 5.4(10 /183 cases) were referred to midwives, 2.7% (5/183 cases) were referred to clinics while the rest of 10% (20 /183 HHs) were either referred to private doctors, nurses or traditional healers. Out of these referred cases, only 3.8% (7 /183 cases) of the referred people went to where they were being referred while the rest didn't go. Out of total that did not follow-up on their referral, 88% said it was due to the long distances, 8% didn't go due to financial issues while the rest of 4% didn't share the reason why. Table-5 demonstrates % of people who bought medicines directly from pharmacies without doctor consultation.

Tbale-5, % age of medicines frequencies directly bought from bazar

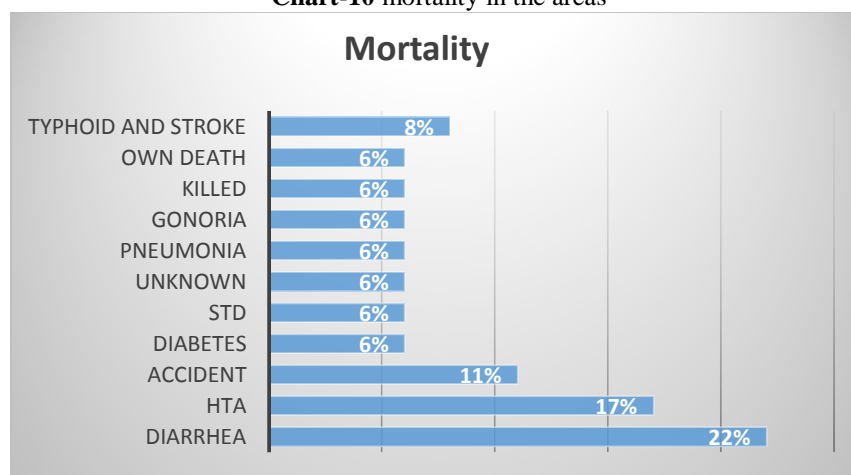
Self-medication	Once	Twice	Thrice	Four times	More than Four times
	46%	27%	16%	8%	3%

It has been identified in survey that most of the ill members of community are referred to health facilities by families, traditional healers and pharmacies. As such we infer that in order to strengthen the referral system we should establish a communication network with families, traditional healers and pharmacies which this could be strengthened via establishment of health posts in surrounding areas. Additionally, the survey result describes that even the people were referred to health facilities they did not go and attend the facilities. The reasons why people are not going are distanced locations of health facilities, unavailability of required medicines and lack of awareness in community. It is recommended to increase awareness raising sessions and ensure that staff and supplies are available in health facilities.

Mortality:-

It was discovered that out of all households surveyed, 3% (24/702 HHs) of them had deaths in their families, during the last 12 months. All of these families had at least one family member died during the last 12 months. Out of total death, 22% (5/24 HHs) of them were died due to diarrhea, 17% (4/24 HHs) died due to Hypertension, 11% (3/24 HHs) died due to accident and 8% (2/24 HHs) said their family members died due to typhoid fever and stroke while 6%(1/21 HHs) died due to diabetes, unknown, pneumonia, renal diseases and old age/own death. Chart-10 describes the mortality rate in the areas

Chart-10 mortality in the areas



Deaths are caused both by communicable and non-communicable disease. The data describes more deaths are due to infectious diseases that poor hygiene/sanitation, less access to safe drinking water, lack of awareness and low literacy rate of women are the main determinates for highs prevalence of infectious diseases. Similar to infectious diseases, non-communicable disease are also common in surveyed areas which life styles and individual behaviors, lack of awareness, unemployment, poverty, big family are the reasons for increased morbidity of NCD (Non Communicable Diseases).

Other Chronic Disease:-

Out of all households surveyed, 8% (56/702 HHs) responded that they had a family member in their households with a chronic diseases. Out of these cases, 92% (52/56 HHs) of them had one family member while 8 % (4/56 HHs) of them had two family members in their households with chronic disease. Out of all cases, 48% (27/56 HHs) had hypertension and heart diseases, 15% (8/56 HHs) had Jaundice/Hepatitis, 13% (8/56 HHs) had persons physically handicapped, 8% (5/56 HHs) suffered from diabetes, 6% (3/56 HHs) had tuberculosis and 6% (3/56 HHs) had other chronic diseases while the rest of 4% (2/56 HHs) had a blind family member.

Out of all cases, 60% (34/56 HHs) are receiving treatment, 34% (19/56 HHs) are not doing any treatment while the rest of 6% (3/56 HHs) are doing treatment infrequently. Out of those who are not doing treatment or doing it infrequently, 71% (16/22 HHs) of say that it is not for lack of treatment but for lack of the money to pay for treatment. 24% (5/22 HHs) say there is no treatment available while 5 % (1/22 HHs) say there is no cure for their disease.

Looking at the disease morbidity and chronicity of the cases, it provide us an idea that there is high burden of diseases in the surveyed communities, means both communicable and non- communicable diseases are prevalent in the areas. Though most of people suffered from chronic diseases are seeking health care services but a huge number is still lacking access to health care services. Most of the cases are remained either untreated or partially treated due to poverty lack of awareness and unavailability of services to them.

Disability:-

Out of all households surveyed, 3% (21/702 HHs) of the respondents had persons with disability in their households. Out of total disabled, 55% (12/21 HHs) of them are going for treatment to provincial hospital of Laghman, 30% (6/21 HHs) of them are going to Nangarhar regional hospital for treatment while the rest of 15% (3/21 HHs) are going to Pakistan for treatment.

It was found that high number of disabled persons from surveyed households are getting treatment from some type of health facilities. Majority of people go to Laghman provincial hospital which is easily accessible to them and provide free services. Nangarhar regional hospital is another place where people has been taking their disabled family members for treatment. The reasons for high treatment rate is free service delivery provided by some NGOs in the provinces. In addition to provision of the medical treatment these centers provide rehabilitation and vocational services also. People those are going to Pakistan are numbers of families have potentials to pay for private services

Health Education and Awareness:-**Key findings:**

Health Education sessions: 11% attended health educations sessions, out of them, 93% attended session in mosques.

Knowledge on use of condom: 7 % heard on condom, 9 % said its use is important and 91% said it is not important.

Knowledge on HIV/AIDS: 29% of HHs heard on HIV/AIDS, 89% said it could be prevented by protected sex.

Awareness on malaria: 93% heard on malaria, out of this, 69% said it is mosquito born disease

Use of bed nets: 51 % of HHs use bed nets

Awareness on STD: 30% shared they heard about STD, 1% said STD is common in their community

Awareness on nutrition: 8% heard about nutrition

Knowledge on gender and father roles: 8% heard on gender/father roles

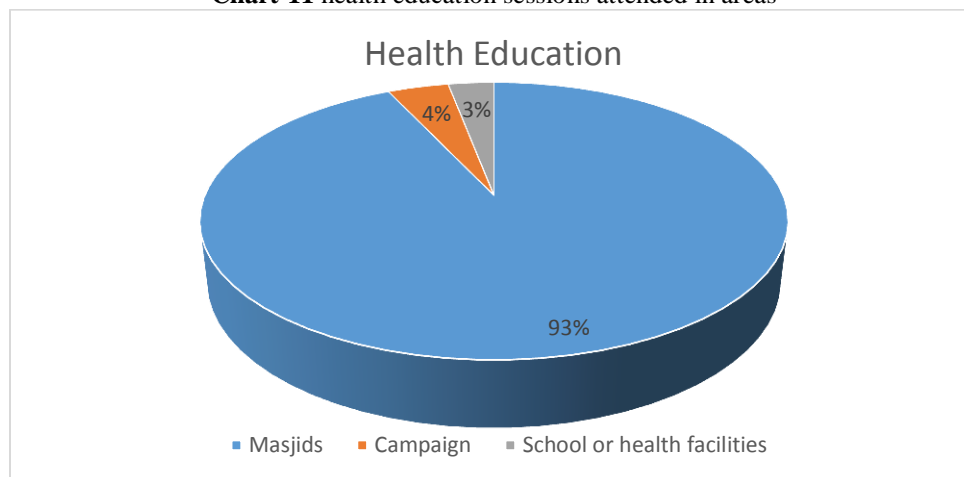
Knowledge on Personal and Environmental Hygiene: 13% heard about hygiene

Knowledge on benefit of use of latrine: 12% heard on benefit of use of latrine

Health education Sessions:- Out of total households surveyed, only 11% (77/702 HHs) of the respondents have attended health education session during the last six months. Out of total attended, 93 % (72/77 HHs) of them have attended the session in mosques, 4 % (3/77 HHs) have attended it during a campaign and the rest of 3 % (2/77 HHs) attended it at school or from health posts. Data describes that a limited number of families have received health education session. Those have received health related messaging, it did not come from health facilities, and this in turn tell us low access of people to health facilities in rural areas. Since health education is very effective means of changing health seeking behaviors and un healthy habits thus should be on top priorities of provision of health care services. Looking to the data most of the people got messages from mosques it indicates that people mostly trust

religious leaders and listen to them carefully, therefore, it is recommended to engage Imams (religious leaders) while planning health education session. Chart-11 describes health education sessions attended in areas.

Chart-11 health education sessions attended in areas



It has been identified that most of the health education sessions are attended in mosques where people believe what is heard from religious leader, this should be considered while health education session are planned at community. From this we infer that if messages are delivered from Mullah and mosques they tend to be more respected and accepted which it is why it is vital to have buy in from religious leaders.

Knowledge on use of condom:-

Out of total households surveyed, only 7 % (49 /702 HHs) of the respondents had heard about condoms, out of these 49 HH, only 9 % (4/49 HHs) of them responded that use of condom is important, while the rest of 91% (45/49 HHs) saying its usage is not important. Those who are considering as it is not important are saying that it favors unfaithful behaviors. Those who considered its use important say that it helps prevent diseases and helps in avoiding pregnancy.

Overall related knowledge to condom use is poor. The reason mostly mentioned by community member is that religious sensitivity in rural areas which says that condom use should not be discussed by the community, some male respondent also mentioned the less joy of intercourse by using the condoms. Though discussing use of condom is somehow sensitive issue but should be on the schedule of health education session conducted by health facilities it is also recommended to discuss it carefully in low sensitive way.

Knowledge on HIV/AIDS:-

Out of total household's surveyed, 29% (204/702 HHs) of the respondents have heard about HIV/AIDS. The messages are mostly heard from friends, family members and media. Out of those who have heard about HIV/AIDS, 89% (181/204 HHs) of them said that preventive measures for HIV/AIDS are to avoid unprotected sex, 6% (12/204 HHs) says to avoid untested blood transfusion and 4%(8/204 HHs) don't know about the preventive measures while the rest of 1%(7/204 HHs) say using condoms could prevent HIV/AIDS.

The data on knowledge on HIV/AIDS seems to be higher compared to the AHDS 2015 finding which indicate 1% knowledge in women and 6 % in men. If the data described by AHDS is concerned to the health facilities than is closer to what is found in this survey which is zero from health facilities. Look at to the survey finding, none of the households heard HIV/AIDS related messages form health facilities which this is another proof of less access of people to health facilities and services. Health education on this should be also in priority of health facilities and Imam are the most influential to disseminate messages through them.

Awareness on Malaria:-

Malaria is an endemic disease in eastern part of Afghanistan that has high morbidity and can lead to death. Out of the total households surveyed, 93% (653/702 HHs) of the respondents have knowledge on about malaria. Out of

total have knowledge, 69% (451/653 HHs) responded that one can get malaria due to mosquitoes and 4% (26/653 HHs) think it is transmitted by eating certain foods, 18% (118/653) don't know how people get malaria and 9% respond it transmitted through humans.

Out of households who knew about malaria disease, 68% (444/653 HHs) of them said that malaria can be prevented by using mosquito nets, 13% (85/653 HHs) say malaria can be prevented by keeping water drainage safe, 12% (78/653 HHs) say that the prevention is not possible while the rest of 5% (52/653 HHs) say that by cleaning the bushes, 2% (13/653 HHs) said that they don't know how it can be prevented.

It was found that most of the people know the causes and means of prevention of malaria which this is due to presence of high endemic cases in the areas and presence of number of NGOs working for prevention and treatment of malaria. The problem which is continued to be existing is behavior of people which they still do not follow the preventive measures which we see will require IEC/BCC session for influencing people behaviors.

Knowledge on use of bed nets:-

Out of total households 66% (463/702 HHs) of the respondents know about the bed nets while the rest of 34% (239/702 HHs) do not. Out of all, 51% (358/702 HHs) of the respondents use bed nets for prevention of malaria while the rest of families do not. Out of total households, 32% (225/702 HHs) have no idea about the importance of bed nets, 47% (330/702 HHs) consider it importance as it helps protect against malaria, 20% (140/702 HHs) say it helps protect against insects while the rest of 1% (7/702 HHs) say that bed nets are not useful at all.

It was identified that people's knowledge of bed nets is higher most likely due to a campaign of LLINs (Long Lasting Insecticides Nets) distribution by HealthNet TPO (Dutch based international NGO) working in the area. Though most of the people know and have the bed nets but they are still not using them. The main reason for not using them was described as it is hot to use and hard to install. Therefore we will focus on increasing awareness not only of the bed nets utility but on installation as well.

Awareness on STDs:-

Similar to other Asian countries, STD's are a secreted and confidential issue that people might not share it. However, it was found that 30% (211/702 HHs) responded had heard about STDs. Out of those who know about it, 65% (137/211 HHs) shared that one can get it through several means while the remainder 45% (95/211 HHs) shared that unprotected sex is the only cause.

25% (53/211 HHs) shared multiple preventative measures while 30% (63/211 HHs) said it can only be prevented by safe sex. Out of all households only 1% (7/702) of them said that STDs are common in their communities and had such cases in their families. Out of all 7 cases, 4 of them were reported men and 3 were reported women. The age of affected people is between 18-35 years old.

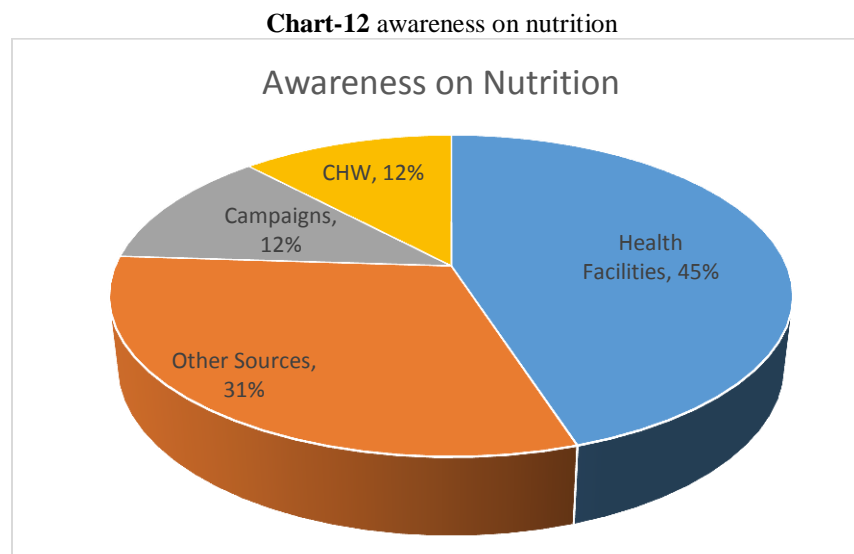
Out of total respondents 17% (119/702 HHs) said women could decide for themselves to go to health facilities for treatment while 83% (583/702) households responded it is the male members of the households who should decide on this. This shows that men predominately make the reproductive health decisions for the female members of households. Out of total respondent, 51% (358/702 HHs) shared that there are many reasons why women do not decide to go for the treatment of STDs, 35% (246/702 HHs) shared it is not women's decision to get treatment it and that it is the decision of the head of the households and another set, 14% (98/702 HHs) shared that it's not culturally appropriate to get treatment.

This is a vital piece of information for awareness raising sessions. It means since men are the most decision making bodies, therefore, they should be involved in STD and SRH sessions. Addition to this people are shying to share such information because of a stigmatized issues, therefore, health education sessions should be conducted to reduce the stigma and encourage the people to share the problems for on time treatment and prevention measurements.

Awareness on Nutrition:-

Out of total households surveyed, only 8% (56/702 HHs) of the respondents said that they have heard of nutrition while the rest of 92% (646/702 HHs) have not heard about it. Out of those 8% who had heard of nutrition, 45% (25/56 HHs) had heard of it from the health facilities, 31% (17/56 HHs) heard of it from other sources, 12% (7/56

HHs) heard it from campaigns while the rest of 12% (7/56 HHs) had heard it from Community Health Workers. Chart-12 describes knowledge on nutrition.



The number of people who received nutrition information from health facilities and health worker is higher compared to the other sources. This is in conflict with other topics which were not received from health facilities. We assume this comes from those who were in refugee camps in Pakistan and did not come from in health facilities in their areas.

Training/knowledge on Gender and Father's role:-

Of total households, 8% (56/702 HHs) of the respondents have attended a training on gender and father role. Out of those who have attended training sessions, 20% (11/56 HHs) heard of it from Community Health Workers, 10% (6/56 HHs) heard of it from health facilities, 65% (36/56 HHs) heard it from other sources while 5% (3/56 HHs) heard it sessions from different health campaigns.

Knowledge on gender and father's role is very low in surveyed communities and needs more attention and a higher priority within health programming. One of the way to increase this knowledge is to share these issue with the Imam who is respected/accepted by people in the province and whole country. We assume even the knowledge mentioned in survey is not acquired from health facilities, it might be mostly received from Imams and elders. Therefore, while disseminating such messages should engage and focus on community leaders and Imams.

Knowledge on Personal and Environmental Hygiene:-

Out of total surveyed households only a limited number of them responded that they have heard about personal and environmental hygiene. Out of all HHs, only 13% (91/702 HHs) heard about it personal and environmental hygiene. Out of those heard about it, 62% (56/91 HHs) learned about it from Community health workers, 14% (13/91 HHs) learned about it from health facilities, 34% (31/91 HHs) learned about it from different campaigns while the rest of 52% (47/91HHs) learned about it from different sources like Mullah, friends and others.

Similar like other indicators, knowledge on hygiene is also very limited and this is a central reasons for high morbidity of infectious diseases. The people claiming they heard on hygiene might reflected their knowledge from other health facilities out of their areas, like one could be Pakistan when they were migrants where there were lots of health education activities in refugees camps/clinics. The most viable way to influence people behavior on hygiene is to conduct health education session via health facilities and community events with the buy-in from the Imam of mosques.

Knowledge on benefits of using Latrines:-

The survey found that limited people have a sanitary latrine or know about the benefit of using hygienic latrines. Out of total households surveyed, only 12% (84/702 HHs) of the respondents have ever heard about the benefits of using

latrine, out of those 17% (14/84 HHs) learned about it from community health workers, 23% (19/84 HHs) learned about it from different campaigns, 14% (12/84 HHs) learned about it from health facilities while the rest of 46% (39/84 HHs) learned about it from different other sources.

Even the data given here might not be from those health facilities located in their surroundings, this is also assuming that the knowledge received by HHs will be from outside like Pakistan and others. However, it is very important to put messages on house of hygienic latrines of the top priority of health education provided by health facilities,

Community Participation and Decision Making:-

Key findings:

Presence of community based councils (Suhra): 18% local Shura, 53% youth Shura, 45% Uloma Shura (religious), 1% health committee.

Presence of vital statistics system: Zero %

Decision making by Women: 74% women do not have right to decide to go to health facilities

Decision making role of adolescent girls and boys: 24% HHs said they have right to decide

Presence of Community based counsels (Shuras):-

It was found that there is number of community Shuras in the surveyed areas, this is similar to other parts of the country. People mostly solve their daily issues, conflict etc. through local Shura. Addition to Shuras structured by community, some CBOs (Community Based organizations)/ also established by NGOs in the rural areas. It was found in survey that local Shura is existing in 18% (126/702) of the responded communities. 53%(67/126) of these Shuras are Youth Shura, 45% (57/126) are Ulema (religious leaders)/NSP Shura, and 1% (2/126)of the rest are the health committee Shuras.

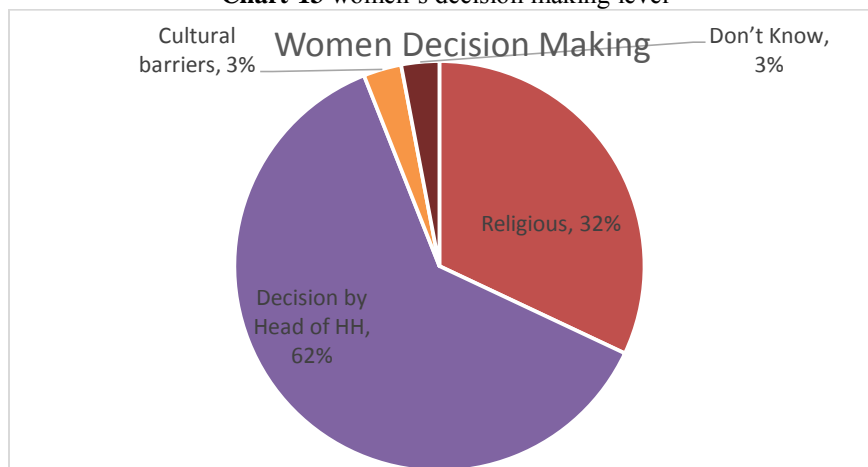
Youth Shura are mostly a sort of official counsels which is supported by provincial youth directorate. The youth Shura is coordinating the youth related issues in the community while Uloma Shura is constructed of religious leaders mainly focusing/discussing on religious related topics. NSP Shura are those one which are established by national Solidarity programs in the community, the aims of theses Shura was involvement of community in NSP program which the main agendas for discussions in these Shuras are agriculture, development and rehabilitation activities in concerned communities. Numbers of respondents described that they have health Shuras in their community which is assumed the answers might be obtained from those HHs which are closer to some health facilities in the areas. It is found that some members are engaged in all Shuras except the youth ones.

Presences of Vital statistics system:-

It was found that no one in the surveyed community is trained on collecting vital statistics, they were neither trained nor known on the vital statistics. Though this issue is focused on CSO (central Statistical Office) in recent years, which they have distributed some standard formats to health facilities and others which aiming the data collection on vital statistics, but still it is not much practiced. To summarize there is no data collection system on vital statistics which need to be focused and prioritized when establishing health facilities. Collection of vital statistics data will help to know the health status in the concerned communities.

Decision making by Women:-

Out of total households surveyed, 74%(519/702) responded that women do not decide themselves to go to the health facilities. Out of those 32%(166/519) have shared that it is due to the religious binding, 62%(322/519) shared that it is the decision of the head of the households(male), 3%(16/519) shared that there are cultural barriers in it and 3%(16/519) responded they don't know the reason that why men make all decisions. Chart-13 describes women decision making pattern in the areas.

Chart-13 women's decision making level

Afghanistan is a men dominated society where most of the decisions are made by men members of families. The decisions making power by men is similar in both urban and rural areas. Decision making power by men has contributed in a high number of female health issues, high morbidity and mortality rate. Such problems are early marriage, domestic violence, and high numbers of births, unsafe births, malnutrition, mental disorders and many others. In order to empower women in decision making and increase their right on having access health care services the health education sessions with men and community leaders are recommended to be conducted and be on the priorities of health facilities.

Decision making role of adolescent girls and boys:-

It was found that out of 519 HH of 24 % (125/519) shared that girls and adolescents should have the right to decide on sexual and reproductive health services. Out of those in favor, 21% (26/125) shared that they should be able to make decisions on their marriages, 21 % (26/125) shared that they should be able to make decisions on pregnancy while the rest of 58 % (73/125) shared that they should be able to make decision themselves to go health facilities.

The data on this is mostly obtained from the head of households (males) and only touched on the right to go to go to health facilities. We assume that if questions are directly asked from adolescent and regarding other issues like engagement, marriage etc have would have yielded much lower results. It is well evidenced that if older women have limited decision making freedoms so we also surmise that this should be much limited by youth as well. It was also found that this is a sensitive issue to and we must be delicate with talking within rural communities. It is recommended to discuss the adolescent health and right in concerned communities with considering culture and environmentally sensitivities.

Mother Health:-

Pregnancy care:-

Key findings:

ANC visit: 35 % attended first ANC visit

TT vaccine for CBAs: 37% received 1st TT vaccine

Ferrous Sulphate intake: 33 % pregnant mother received ferrous sulphate tablets

Presence of pregnant mothers: 22% HHs have pregnant mothers

Birth preference places: 54% prefer homes for delivery, 24% prefer hospitals, 17 % prefer HFs (BHCs, CHCs, SHCs)

ANC visits:-

It was found that 65% of pregnant women do not attend any ANC visit. 35% (95/272 HHs) of the pregnant women did attended ANC visits but had to leave the catchment area to do so. Furthermore, This 35% who attended ANC visits went without a referral by a health care professional. So although women did receive ANC and show a will and desire for ANC services we consider the means through which they avail the services as not viable as indicated by the 65% who presented their reasons for not attending ANC.

The reasons for those who have not have an ANC visits were the following: 50% (89/178 HHs) of them say that these services are not accessible (too far), 27 % (48/178 HHs) had no any money for such services to be availed while the rest of 23 % (41/178 HHs) said that these services are not necessary.

Since those who did go to ANC had to leave the catchment area and went without a referral we do not consider this to be an indication of a strong link between ANC services and the women who receive them. Furthermore, as indicated by the 65% of women who did not avail themselves of the service there is a problem with access of health facilities and lack of awareness of the purpose and importance of ANC in the surveyed areas. 35% of women received an ANC visits which is lower from AHDS survey reported for rural areas (55%), however, the coverage is differ from province to province like if look to Balkh and Parwan ANC visits are more than 80% but this coverage is lower in Laghman neighbor provinces, like Nuristan reported 11% and Kunar reported 16 % ANC visits in AHDS 2015. We assume that Laghman could be the same range with other eastern provinces.

TT vaccine:-

It was also found that out of total CBAs (child bearing age) women, 37% (565/1489) CBA women received first TT vaccine, 30% (447/1489) received second dose and 23%(357/1489) received the third dose, while only 14%(223/1489) received all doses.

TT coverage is very low in the surveyed areas the reason again might be the distanced health facilities and ignorance which need awareness session to women and men in the communities.

Ferrous sulphate intake:-

It was identified in the survey that out of total pregnant mothers, 33% (90/272) of the pregnant women received ferrous sulphate tablets for prevention of anemia. This is very close to the number of ANC visits attended by pregnant mother which they might receive the ferrous sulphate from a type of health facilities, however, it is recommended to discuss ferrous sulphate intake and its importance during the ANC visits.

Presence of pregnant mothers:-

Out of total households surveyed, 22% (154/702) of the households have pregnant women at the time of survey. 7% (11/154) household had three or less than three months of pregnancy, 54% (83/154) household had more than three and less than six months of pregnancy while the rest of 38% (59/154) household had more than 6 months of pregnancy.

Birth preference places:-

Out of all pregnant mothers existing in households, 24% (168/702) household prefer their delivery in hospitals, 54% (379/702) household prefer their delivery at home, 17 % (119/702) household prefer to have their delivery at BHC/CHS while the rest of 5% (35/702) household prefer to have it at private clinics.

It means even if there is health facilities available around their villages they still do not prefer to attend their delivery at them, therefore it is something lack of awareness, culture, decision of head of households and behaviors of people that need to be educated on safe motherhood and safe birth attendance. Awareness raising sessions and community events are recommended for more utilization of delivery services provided by health facilities.

However, the survey findings pointed out some reasons for birth attendance preferred places. Out of those who prefer to have their deliveries at home, 63% (239/379) of them shared that the reason why is that the health facility is too far, 24%(91/379) household shared that it's not necessary while the rest of 13%(49/379) household shared that there is no privacy in the health facilities and therefore they would prefer to have their child delivered at home. Of the pregnant mothers in households 35% of them had ANC visits. We included all ANC visits even if they were out of catchment area or to private clinics other health problems which do not reflect the exact ANC visits. It also does not reflect the number of visits, it just shows that they have rendered the ANC service. Looking to the ANC data by AHDS to other eastern provinces like Nuristan 11% and Kunar 16 %, we assume that 35% ANC visits could be higher in rural areas of Laghman.

Delivery Care (Child Birth):-**Key findings:****Birth attendance:** 17% attended at health facilities**Reasons for selected places for birth:** 48 % distanced health facilities

Result of births: 96% normal and alive delivery

Birth attendance:-It was found that out of total households surveyed, 49%(344/702 HHs) had given birth during the last one year. Out of all birth, 16 % (55/344) of them had given birth to the children in private hospitals, 17 % (58/344) of them attended health facilities (PH/BHC/SHC) for their birth and had skilled birth attendance, while the rest of 67% (231/344) deliveries by unskilled people at their houses. Skilled birth attendance in this survey means those which have been attended at health facilities by trained nurse or health practitioner. The AHDS 2015 has reported that 48% of deliveries in rural areas are attended at health facilities which a bit higher than our data, the reasons might be low coverage of unsecured areas by AHDS.

It is much clear that most of the births are happened at houses by non-trained women which indicates lower access to health facilities and high numbers of birth attendance by unskilled women. Birth attendance by unskilled women might has contributed to high maternal mortality rate in rural areas. AHDS 2016 reported 1291 MMR in 100000 live births, this could be even more in unsecured areas where women have less access to MCH services. It is recommended to provide health education sessions on RH and SRH to mobiles women for utilization of MCH services provided by health facilities the main focus should be attempted on utilization of delivery rooms.

Reasons for selected birth places:-Out of all births taken place at family houses, 48%(111/231 HHs) of them shared this was because the health facility is too far to get to 7%(16/231 HHs) say that they don't trust the quality of service, 23%(53/231 HHs) say that it's not necessary to have the delivery in health facility, 18%(42/231 HHs) had no any idea about why they did not choose a health facility for the delivery while the rest of 4%(9/231 HHs) shared various reasons such as health facilities are not clean, there is no privacy and they are lacking good staff.

To summarize most of the households are not satisfied in location, quality and services of health facilities therefore they do not prefer them for attending deliveries, which is a signal for a need for improvement of existing health facilities. It is also found that people have less awareness on safe motherhood and safe delivery which call a need for conducting health education sessions with both men and women of the community.

Those who selected the health facilities for the child birth, 34% (38/113HHs) have had their child birth in Provincial Hospital of Laghman, 49%(55/113 HHs) had their child birth in private facilities, 11% (12/113 HHs) gave birth in CHC, 6% (7/133 HHs) gave birth in BHC while the rest of 1% (1/113 HHs) gave birth in the Regional hospital.

Different reasons for selecting certain health facilities for deliveries were given by households, out of total, 25% (28/113 HHs) selected the health facility because they are familiar with it, 22%(25/113 HHs) had no any idea they why had they selected the health facility for their child's birth, 18%(20/113 HHs) selected it due to its good quality of services, 15%(17/113 HHs) selected it due to its good reputation, 11%(12/113 HHs) selected it because it was decision of the head of the household 9%(10/113 HHs) selected it was convenient.

To analyze most of the households preferred Mehterlam provincial hospital for their deliveries which the reasons are quality, existence of qualified staff, people trust and access. High numbers of household preferred private clinic for attending their delivery, private here is assumed to by local un trained women give births in rural areas. Private clinic cannot be justified in such rural and unsecured vicinities.

Result of births:-

It was found that most of the deliveries occurred are normal, out of all deliveries, 96%(108/113 HHs) of the respondents had normal delivery in the health facilities while the rest of 3%(3/113 HHs) had assisted delivery. All the deliveries were completed with no complication to both mother and children. This data describes only normal delivery which there was no complication and death reported, however, since most of the deliveries are preferred to be attended by un trained women at houses, therefore, MMR should be higher in such communities.

Post Natal Care:-

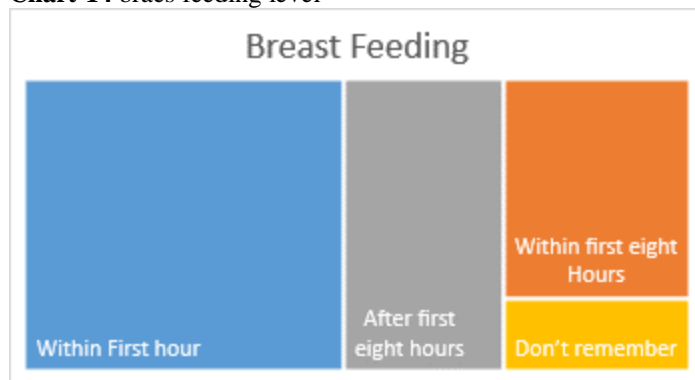
Key findings:**First PNC visits:** 12% attended**Breast feeding :** 49%**Breast feeding in 1st hour** 48%**PNC visits:-**

It was found that out of all mothers delivered only 12% (41/344) of them received a PNC visit. It was no clear whether they receive them at health facilities or private clinics. Since most of the births are occurred at private houses therefore, the %age of PNC visits are lower, it is assumed that it should be lower than what data is reflected here.

Breast Feeding:-

It was found in survey that out total households, 49% (344/702 HHs) of the respondents' breastfeed their children. Out of those mothers that breastfeed their babies, 48 % (165/344 HHs) started breastfeeding within first hour of the delivery, 21% (72/344 HHs) started it within first eight hours and 24 % (83/344 HHs) started it after first eight hours while the rest of 7% (24/344 HHs) didn't remember.

This means that only 48% of newborns are receiving colostrum which is something lower practice. This may be due to certain local myths most of the families think that first day milk is dirty and not good for the babies, A positive numbers of families responded that they are giving breast feed at the first hours of baby life which exhibits changing positive behavior. However, more efforts should be made on the benefit of colostrum to the babies. The breast feeding here does not reflect the overall breast feeding habits/data in surveyed communities, this is the data means that during the survey 49% of them had breast feed babies at their houses during the survey time. The overall rate of breast feeding might be much higher than this data. As reported by AHDS more than 90 % of babies are breast feed by mothers. Chart 14 describes breast feeding level in the areas

Chart-14 braes feeding level**Birth Spacing:-****Key findings:****Awareness on FP:** 15% heard on FP**Birth spacing perceptions:** 14% shared it is important to use FP methods**Channels of family planning awareness:** 20% heard from health facilities**Methods of family planning used:** 13% modern method are used**Decision on use of FP:** 87 % husband decided, 2% wives and 11% both wives and husband decided.**Satisfaction on family planning:** 2% are satisfied of used FP methods

It was found that out of total households, 15 % (105/702 HHs) of the households heard about birth spacing while the rest of 85% (597/702 HHs) had no any knowledge about it Out of those who have heard about birth spacing, 55% (58 /105 HHs) consider birth spacing as important while the rest of 45 % (47/105 HHs) do not consider it important. It means that even though they heard about contraception the do not believe in its benefit and importance. This means more efforts for family planning sessions to convince mother for contraception is needed.

Those who have heard (15% of total households) about birth spacing and do not consider it important, 50%(53 /105 HHs) says it's due to religious reasons, 27%(28/105 HHs) say that they are afraid of the side effects, 14% (5/105 HHs) says that their family is not yet completed so they are not considering it while the rest of 2%(2/105 HHs) had issues like having no husband or wife and due to menopause.

Though other survey like AHDS describes the knowledge of men and women in Afghanistan is more than 90% but areas where this survey is conducted might be lower rate is the truth. Most of people blame religion as preventing their use of contraception which is not helpful or true as religions are not against birth spacing. This is lack of awareness which needs to be address as well as clarification and buy-in from community leaders and roles and use Imams while delivering providing family planning messages in the community.

Birth spacing perceptions:-

Out of all households, 14% (98 /702 HHs) shared that it will be useful to know a method in order to not become pregnant. Out of those, who consider birth spacing important, 77%(46/98 HHs) respond that this is because it is better for the mother and child, 18% (18 /98 HHs)say it is better for the child and 5% (5 /98 HHs)say it allows for better for education of children. Most of the mothers know that it is better for their health but they still do not have space between births. This is due to a myriad of factors such as conservative cultural, religions, male dominate households, and a lack of knowledge which we will need to tackle in our gender training and awareness sessions.

Channels of family planning:-

People who heard about birth spacing respond that they learned through different channels. 20 %(140/702 HHs) heard it from HF, 35 %(246/702 HHs) heard it from the radio and TV, while the remainder 45 %(315 /702 HHs) had heard of it from their friends or relatives. It is found that people do not learn do this practice from Imams (religious leaders) who are the most influential channels. Considering this we see one of the largest barriers as being religious, whether implicit or explicit. As such we are looking towards promoting health education sessions on contraception with Imam's buy-in.

Methods of family planning:-

In terms of family planning methods 58% of families (407 /702 HHs) use only modern methods, 13%(91 /702 HHs) use modern methods included condoms, 19%(133 /702 HHs) are use both modern methods and natural methods while the rest of 10%(70 /702 HHs) are using all the three methods which includes modern, natural and condoms.

Using pills are the most common method used by the women, the reason for this is described that they are well tolerated than injection. The use of injection is reported less than pills because of fears of bleeding with injectable contraceptive (Depo Provera). Use of condom is also rarely reported that most of the HHs were shying to share it, the reason for less use of condom was given less enjoyment by some respondent.

Decision on use of FP:-

Out of all households surveyed, 87 %(611/702 HHs) of them responded that husbands decided about the family planning method, in 2 %(14/702 HHs) cases its wife who decides while the rest of 11 %(77/702 HHs) cases, it is being decided by both husband and wife.

It is very clear in this survey that the men are decision maker on the birth spacing despite the fact that most health care providers conduct family planning session to the women. The reason why there are poor rates of family planning is that the focus is on women who have little rights over their bodies. Based on this survey, men/husband need to be better involved in discussions surrounding FP and Sexual Reproductive Health/Rights. Though experience shows that mostly the client for family planning in health facilities are women which the services to them are provided by midwives, however, the men clients should be also involved by men health workers in family planning sessions. Since the decision makers on use of family planning are men therefore would help us to increase the use of family planning by men involvement.

Satisfaction on family planning:-

It was found that of all family planning methods used, only 2%(14/702 HHs) of the respondents are satisfied with the family planning methods. Out of those 2% (14/ 702HHs) who are satisfied with the family planning methods they are using, 67%(9 /14 HHs) of them were using condoms while the rest of 33%(5 /14 HHs) taking the pill. The reasons for dissatisfaction was not directly asked however, some reasons presented were discomfort of the condom

and side effects i.e bleeding, high blood pressure, headache, dizziness, bloating and weight gain from the pills. High rate of dissatisfaction here is reflection on use of high rate of condom use, though condom use in this survey is higher but could be justified due to the side effects experienced by other modern method. The satisfaction and use for pills might be higher in other surveys.

Child Health:-

Key findings:

vaccination: 49% HHs said they received vaccination for their children

Fully immunized: 15%

Vit A intake: 25% received Vit A for their children

Deworming: 18% received deworming for their children

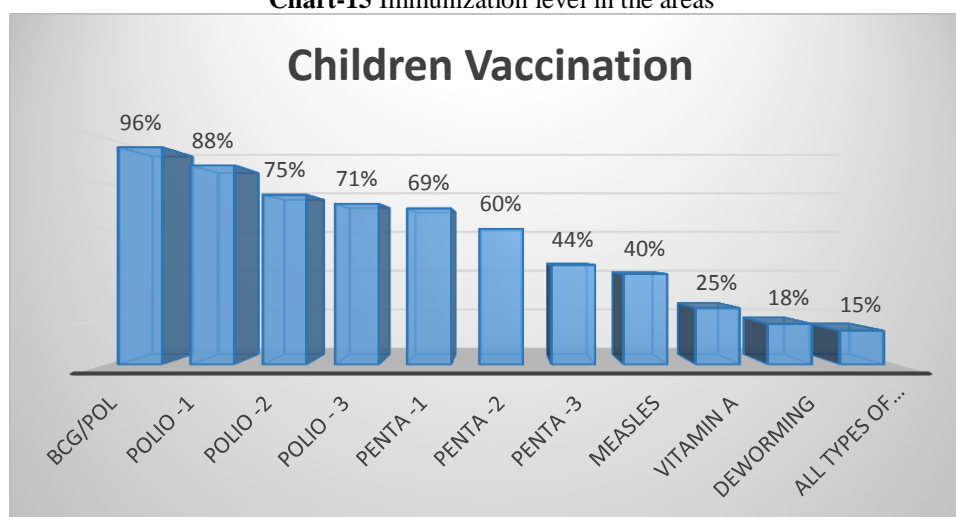
<5 children screening: 1 % households taken their children for screening

Vaccination:-

Out of all households surveyed, 49 % (344/702 HHs) of the respondents claimed that their children received vaccination. Answer is received only for if they have vaccinated their children which does not describes the type and dose of vaccination. 68% (234/344 HHs) of them have received it through outreach campaign while the rest of 32 % (110/344 HHs) received it from the health facilities. Out of all not vaccinated, 11% (39/358 HHs) of households said that their children and women in the HHs are not vaccinated. 11% of this group said their reasons for not doing vaccinations were as follows: it is not useful at all, it negatively affect fertility, abnormal growth of children and etc. Another reason was the distance with 52% (186/358 HHs) who said that the health facility was too far from them while the rest of 37 % (133/358 HHs) has shared no any reason for not being vaccinating their children.

Out of all those vaccinated, 98% (337/344 HHs) of households responded that they had the vaccination card of vaccinated children. This rate is much higher compared the other surveys done in the country (56% by AHDS 2015). The reason for this could be that we did not actually check to see the cards and only asked verbally if they had them. It was found that 96% (330/344 HHs) had done BCG/POL, 69%(237/344 HHs) had done penta-1, 60%(206/344 HHs) had done penta-2, 44%(151/344 HHs) had done penta-3, 40%(138/344 HHs) had done vaccination for measles, 25%(86/344 HHs) had received vitamin A, 18%(62/344 HHs) done deworming. 15 % (52/344 HHs) of considered fully immunized. Chart-15 immunization levels in study areas.

Chart-15 Immunization level in the areas



Looking to the result of other survey done in rural areas and compare this indicator with previous ones the charts shows high rate of vaccination particularly DPT/pentavalent which we assume that the respondent have provided the NIDs data rather than the routine vaccination. In Afghanistan polio is not eradicated yet, therefore, there is number of NIDs campaign conducted in the country. Huge number of NIDs has resulted a confusion that most of people in rural people think their children are regularly vaccinated which they cannot differentiate vaccination of NIDs with routine vaccines.

Children screening:-

It was found that a very limited number of families take their <5 children for screening. Out of all households surveyed, only 1% (7/702 HHs) of the respondents take their children less than 5 years of age to the health facilities for screening. Most of them are taking their children to private clinics. Out of the 99% (695/702 HHs) who do not take their children for screening, 33% (229 /695 HHs) say that there is no health facility in their area while the remaining 67% (466/695 HHs) gave no reason. The reason people have not shared reasons could be lack of awareness, which is why we will incorporate awareness raising sessions on <5 child screening in the MNCH projects.

Nutrition:-**Key findings:**

Nutrition awareness: 10% oh HHs shared nutrition awareness

Malnutrition prevalence: 22 % HHs shared have cases at their houses

Pregnant/lactating mother screening: 4%

Nutrition awareness:-It was identified that out of all households surveyed, only 10% (70/702 HHs) of the respondents had heard about a balanced diet or nutritional health, while the remaining 90% were unaware. Out of all those who heard about nutrition, 24% (168/702 HHs) of them had learned from the clinics, 48% (337/702 HHs) had learned from other sources (media, people, friends, relative, private clinics), 15% (105/702 HHs) had learned through different campaigns while the remaining 13% (91/702 HHs) had learned from hospitals and Community Health Workers.

Similar to other indicators which are identified lower, poor knowledge on nutrition is one of them in the survey areas. Poor knowledge on nutrition means either people have no or less access, or even if they have access nutrition education is not discussed by health facilities. Though a limited numbers of respondent reported that they heard on nutrition but cannot be justified that they heard it from nearby health facilities.

Malnutrition prevalence:-

Out of all surveyed households, 22% (154/702 HHs) of the respondents have malnourished children in their houses. Out of those households with malnourished children, 36% (55/154 HHs) have taken them for treatment while the remaining 64% (99/154 HHs) have not had treatment. The cases are mainly taken to Nangarhar regional hospital, Laghman provincial hospital and Pakistan. The reasons why they preferred Laghman and Nangarhar hospital is that they have TFUs (Therapeutic Feeding Centers) supported by UNICEF and have good reputation.

The arte of malnutrition prevalence is assumed to be higher, the cases reflected here are only severe cases which could be easily identified by families, this is will verified by taking their children to the to the hospitals because people take their sever cases to the hospital only. There might by high prevalence rate for mild/moderate cases in the rural communities.

Pregnant/lactating mothers screening:-

Out of all households, only 4% (28/702 HHs) of the respondents take pregnant/lactating mothers for screening at the health facilities. Out of those, 79% (22/28 HHs) go to Clinics, 13% (4/28 HHs) go to hospitals and the remaining of 8% (2/28 HHs) go to different facilities like traditional birth attendants, etc. Out of those who are not screened, 37% (260 /702 HHs) responded that this is due to an absence of health facilities in their area and the rest of 63% (442/702 HHs) did not know why. The main reason for this could be a lack of female ownership over their bodies and lack of awareness that will be considered when we are promoting and providing MNCH services.

Discussion:-

The study show that 86 % of the households live in mud constructed houses, this data is similar to other rural areas of Afghanistan and is paradox to urban areas where people live in break constructed houses mostly. Since mud made house are constructed from local available materials and people do not to spend more money on that, therefore, it is cheaper and feasible to them. Survey has identified that 93% of households are monogamous which this is very closer to AHDS 2015 (Afghanistan Health and Demography Survey) which has reported 6% of men with second

wives reported by women. The main source of income is agriculture which 62% of household's income is from agriculture and farming in the surveyed areas which is similar to finding of other surveys done in rural areas.

It was found that 67 % of HHs used solar boards for generating electricity and the rest use other sources like generators, gas, lantern, lamp and other local materials for lighting. Though AHDS 2015 reported 64% of HHs having electricity in rural areas this is evidenced due to the differences between provinces and districts. In areas where our survey is conducted NSP programs has freely distributed solar boards therefore most of people have access to solar electricity, the other reason is the cheapest cost of solar compare to other sources.

Survey shows that 74% of the HHs are using public transportation for their travelling, this means limited people have their own transportation, the public transportation here means the private which people pay for them. Those family mentioned had their own transportation are: car, motorbikes, bicycles and Iran and local made Rakshasa. Since most of the people use public transportation which they have to pay the some cost, therefore, most of them do not take their patients to the health facilities which are distanced from their villages. As NRVA 2010 survey reported cost of two sides travelling for HHs with 2 hours distance is 150 Afgs which is something higher for rural people.

It has been identified that limited people in surveyed areas use safe sources for drinking water. As 34% of HHs reported they are using safe source of drinking water, safe means here, tap water, improved well, hand pump, pipe scheme. This data is a bit different from AHDS 2015 which has reported 58% of HHs access to safe sources. In places our survey is conducted included unsecured areas which other surveys included AHDS might not have covered them. Reasons for using un safe water in rural areas are un availability of safe sources, river water is believed a clean and digestive and lack of awareness.

Our survey identified that only 3 % of HHs use sanitary latrines in surveyed areas. Sanitary latrines means here as VIP latrines, pit latrines with slab and other local latrines with slab and no drainage of its waste to the public. This finding is much different with AHDS 2015 which described 75 % of HHs with unimproved latrines and 25 % with improved. The reason could be again that such areas might not be covered by AHDS because before AHDS 2015 some other survey show 8% of HHs access to improved sanitation facilities.

This survey shows that 66 % of men and 98% of women heads of HHs are illiterate in surveyed areas. In this data level of education is not mentioned, here it means just they are literate or illiterate. High rate of alliterated mothers has contributed to poor child and infant health indicators in the areas which should be focused by programs implementation in the areas. Health education should be on the top priority of health facilities/projects.

To understand the wealth of people a few indicators are assessed and that give a view of properties and wealth in some extend. As it was found that more majority of HHs have their own houses and 88% of them have mobile phones and 18% have Iranian rugs which is cheaper in Afghanistan and most of them have Radios and TVs.

Survey showed that 78% of HHs had a patient in their houses during the last 30 days which means there is high disease prevalence in the areas. This is well justified because of lack of awareness, less access to health facilities, poverty, less access/use to safe drinking water and sanitation. It was found that out of all ill cases 80 % of them went directly to pharmacies and got medicines without doctors' consultation which this is also a risky behavior causes more morbidity and mortality. 3% of HHs reported presence of disabled cases in their houses which more than 80% of them followed treatment, the reasons for high treatment rate of disabled people are found as free services availability at provincial and region level provided by INGOs. Addition to the disability, 8% other chronic diseases like hypertension, heart problems, diabetes, renal diseases and others were also reported by HHs, this means both communicable and non-communicable disease are prevalent in the areas which describes a burden of diseases.

Survey showed that 3% of HHs had death in the last 12 months in their families. Main cases for the death were reported as hypertension/CVA, heart diseases, renal diseases, diarrheal disease, and pneumonia. It was found that 74% of cases were not referred to the health facilities which poverty and lack of awareness contributed to the deaths. The reasons for not referred were given distanced health facilities, no money and do not know.

Survey identified that only 11% of HHs attended health education sessions, among them 93% reported they heard messages from Imam in mosques. This means Imams and mosques are more influential, respected and effective sources for disseminating health messages that all health should programs consider them as an important sources.

Lower attendance in health education sessions means that people have less access to health facility or even if they have access there is no proper health education system existing at health facilities. This should be top priorities of health project when establish health facilities.

It was found that only 7% of HHs heard about condom which this data does not means the overall knowledge on modern contraceptive which might be higher. As it is reported that more than 90% of people know about a method of modern contraceptive but it reported this rate is less about 23 % in Nuristan. In places where we surveyed is also the areas which could be compared with Nuristan and other remote are in Afghanistan. The reason for lower rate on condoms is sensitivity even if people know they might not share it due to sensitivity and shying.

It was found that 29% of HHs heard on HIV which out of them 89% said it could be prevented by protected sex. The knowledge on HIV by AHDS 2015 is reported 58 % for both ages with lower rate for women. The lower rate for knowledge in our survey could be insecurity and remoteness of the areas which might not be covered by other surveys. The sources from where messages are heard were reported as Imams, radios and friend, none of them mentioned health facilities which could be a sign of distances, absence of health facilities or poor health education provided by existed health facilities.

Survey found that 93 % of HHs heard on malaria which 69% of them could defined it as it is a mosquito's born disease. Since malaria is an endemic disease in Afghanistan which 34 province out of 36 are at risk strata of malaria, MoPH and numbers of INGOs have been trying preventive and curative efforts to control the disease. Because of that there is lots of awareness sessions provided by Medias and programs on malaria prevention so the knowledge on the disease is higher. It is found that 51% of HHs use bed nets for prevention of malaria, tough this data is a bit higher than other survey report on usage of ITN, however, since LLINS (Long Lasting, Impregnated Nets) are freely distributed by INGOs in the areas, therefore, its use rate could be higher in surveyed areas.

It was shared by HHs that they heard 30% on STD where 1% of them said STD is common in their community. The data is closer to other survey like AHDS reported 2% of cases in community which the reason for differences could be the geographical variance, awareness and culture, however, the cases might be a bit higher but due to sensitivity of the issue people might do not shared.

The survey showed that 8% of HHs heard about nutrition which mostly said they heard it from health facilities. It was not evidenced that they have heard such messages from health facilities in their villages, it is assumed them might heard it from other health facilities like in Pakistan, provincial hospital or CHCs/BHCs of their villages. Since mal nutrition is high prevalence in Afghanistan and in the province, therefore, all health projects should give this priority to conduct awareness and food demonstration sessions at their health facilities.

Survey showed that 13% of HHs heard on personal and environmental hygiene which has resulted poor hygienic behaviors and high morbidity of infectious diseases in the areas. Addition to this it was found that 12% of HHs heard on benefit of use of hygienic latrines which this has in turn resulted poor sanitation facilities in the areas and has also predisposed to high morbidity of infectious diseases.

It was found in survey that there is some sort of community councils in the areas that highs rate was reported for youth (53%) and Uloma/religious (45%) councils in the areas. Only 1% reported existence of health committees in the areas which describes less access of people to health facilities. NSP and other local Shuras (councils) were also reported by HHs. Mostly people discuss and solve their problem through Shura, therefore, it should be considered to use community councils for health promotion activities and involve theses committees for provision of health care services in the areas.

It was found there is zero system on collection of vital statistics data in the areas, though CSO has distributed numbers of formats for data collection on vital statistics but here the report is zero which this has also indicated less/no access of people to health facilities.

Survey shows that 74 % of women do not have rights to decide to go to health facilities and take decisions on other issues like engagement, marriage etc. 24% of HHs said that adolescent have rights to decide on going to health facilities and take decisions on other issues like marriage and etc., since this is the responses of heads of HHs so looks a bit higher, if we ask directly the his from adolescents it could be lower.

ANC first visits by pregnant mothers in the areas is found to be 35 % which is higher rate compared the AHDS 2015 (27%). AHDS described ANC first as a mother attended first visit in first trimester specifically but our survey describes the first visits attended regardless to the trimester. Looking to other behaviors and distanced of health facilities in the areas 35 % is still something higher but the HHs might mixed up the visits attended at health facilities and private ones which has added to increase the percentages. We assume the first ANC visits should be lower than what is reported. Mothers in surveyed areas reported that 33% of them reported ferrous sulphate tablets for prevention of anemia. Since tablets are freely distributed in health facilities so mothers might have got them during their ANC visits. Addition to the health facilities doctors provide these tablets at their private clinic also, the tablets are cheaper item in bazaar that people could afford it.

Survey reported that 37 % of CBAs have received TT 1st vaccine in the areas which means the rest doses should be lower than this one and indicates that most of the mothers/neonates are not protected against tetanus toxoid. Though AHDS and AMICS show this data higher as 53% and 41% respectively which the reasons is contrast in surveyed areas like they also showed very low rate in Nuristan rural areas.

Survey showed that 22% of HHs have pregnant mothers at their houses which out of them 54% prefer homes for their births and only 17 % prefer BHCs, CHCs and SHCs for their delivery. Higher percentage expressed preferring homes for their deliveries which is indication of : poor awareness, lack of female staff and distanced health facilities.

Survey also describes that 17% of births attended at health facilities, this data is lower than what is reported by AHDS 2015 (43%). The reason why people did not attended health facilities are identified as distanced health facilities and homes are easier to them. Lack of awareness and absence of midwives at health facilities are other reasons assumed by the survey. It was found 96 % of the deliveries are normal with alive babies.

Survey showed that 49 % of HHs had breast feed babies in surveyed HHs that 48 % of them started breast feeding at first hours of birth. Over all AHDS 2015 reported that 98% of mothers breast feed their babies in Afghanistan which could be similar in our survey areas also. Only 12% of HHs reported that mothers attended PNC first visits. The AHDS 2015 describes 38% PNC first visits which is higher than data described in our survey which could be reasoned as areas covered by AHDS might not be similar to the areas covered by this survey.

Survey showed that 15% of HHs heard about family planning which indicate lack of awareness and services provided in the areas. This percentage does not mean the knowledge on family planning it means that they have ever heard about FP (Family Planning) in health education or counselling session. The level of knowledge might be higher as described more than 90 % in AHDS 2015 but not touched in our survey. Out of them heard only 14 % said it is important to use Family planning. People those heard about family planning mostly described health facilities as source and channels.

Survey found that 13% of HHs used a kind of modern family planning method, the most used method is pills reported by families. Though this rate is 20% reported by AHDS but the lower rate in our survey could be justified for the remoteness of the surveyed villages. It was found that 87% of husband have the right to decide on use of family planning method which is similar to finding of other survey conducted in neighbor provinces. Out of all family planning only 2% of them were satisfied of their usages. Lack of enjoyment for the condom and side effects for other methods were reasons described by women.

It was found that 49% of HHs received vaccination for their children, this means they have vaccinated which do not clearly differentiate between NIDs and routine vaccines. Only 15% of HHs reported that their children are fully immunized but, the data is very closer to AMICS conducted in 2010 (18%) we assume the lower data in our survey could be due to the different characteristics of the vicinities.

The survey describes that 25% Vit A and 18% deworming tablets for their children, these services are provided through NIDs in the areas which most of the people should have access but still the data is lower than insecurity which has caused the lower coverages. Only 1% of HHs reported they have taken their under five children to health facilities for screening. This demonstrate lack of knowledge and absence of nutrition/screening services in the areas. It was found that 10% of HHs heard about nutrition, this means HHs attendance in nutrition education session on nutritious food, IYCF etc, the lower rate again means either distanced health facilities are poor provision of such

services provided by health facilities. Malnutrition prevalence was reported 22%, this could be even higher, the data reported is those which are mostly severe and taken to hospitals, the HHs cannot recognize the mild and moderate cases which are hidden and not included in this finding.

Similar to under five children screening, screening of PLW (Pregnant Lactating Women) is also lower as reported 4%. This is also an indication of lack of services in the areas which need to be focused while establishing health facilities.

Conclusions/recommendations:-

1. Most of the poor health indicators are due to either absence of or prohibitive distance to health facilities. To increase the access of people to health care services, the number of health facilities should be established in surveyed areas and other BPHS uncovered areas.
2. There are a number of health facilities that exist in certain areas but people do not utilize them. This means that availability and construction of more health facilities does not necessarily mean people will use them. As such, promotion and raising awareness about the importance of health screening and the services offered at health facilities will be vital for the success of this project.
3. It was also found that unsafe drinking water, poor sanitation, poor hygiene and poor education have contributed to high prevalence of diseases. It is recommended to have inter-sectoral coordination and collaboration for provision of these services.
4. It was found that due to a lack of awareness, many diseases are prevalent in the community. Therefore, it is recommended to have clinical and community based health education sessions, with an increase in participation from religious groups as their advice is highly respected and accepted.
5. It was found that due to lack of awareness, most of the households buy medicine for their ill family members directly from markets, without a doctor's consultation. It is recommended to have an increased number of awareness sessions on proper diagnostics and the dangers of using un prescribed medicine.
6. It was found that people have low awareness of safe motherhood, family planning, safe birth, HIV/AIDS, STDs, hygiene, vaccines, nutrition, father roles, SRH, referral of cases and others. As such, it is recommended to have health education a top priority of health services provision.
7. It was found that most mothers deliver at home, attended by unskilled birth attendants, which leads to a high risk for MMR. It is recommended to increase mothers' knowledge on the risks of having home births and be given information on how to access and properly utilize MNCH health facilities for safe births to take place. To increase utilization of health facilities, the midwives are recommended to be placed in MNCH health facilities for their availability around the clock.
8. ANC, PNC, FP and TT coverage is also poor in surveyed areas. It is recommended to have home visits, community events, health education and awareness sessions for improving these indicators.
9. Screening of <5 and pregnant/lactating mother is another concern identified in the survey. It is recommended to do regular screening of these groups at MNCH health facilities and to promote these services in the villages.
10. Decision making by women and adolescent boys and girls is something that needs to be improved. Currently, most of the decisions are made by the male head of household. It is recommended to increase women and adolescent decision-making power by conducting awareness sessions with community leaders, Imams, fathers and other influential figures.
11. It is recommended to give priority in health education sessions on breast feeding, weaning and early start of breast-feeding and its continuation for at least 2 years.
12. Vaccine-related indicators are also low, and as such vaccination services are recommended to be available at MNCH health facilities and health education sessions are recommended. Imams of the mosques are found most effective and should be used for disseminating messages.
13. Due to a lack of awareness, the numbers of chronic diseases remain at houses without treatment. It is recommended to establish a referral system and follow the cases for referring them to health facilities.
14. Data on vital statistics are not collected at all. It is recommended to establish a system to implement regular data collection which involvement of community Health Workers (CHWs) is recommended in data collection/reporting process.

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