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RESEARCH ARTICLE

FACTORS ASSOCIATED WITH LOW UTILIZATION OF POSTNATALCARE (PNC) AT WARDAK AND LAGHMAN PROVINCIAL HOSPITALS OF AFGHANISTAN.

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I hope this research will contribute to the enhancement of quality of health service delivery in Afghanistan specifically in these two provinces.

Acronyms:-

Tier only mist	
ANC	Ante Natal Care
BPHS	Basic Package of Health Services
CHC	Comprehensive Health Center
DHS	Demographic and Health Survey
EPHS	Essential Package Of Hospital Services
FGD	Focus Group Discussions
IRB	Institutional Review Board
JSPH	Jodhpur School of Public Health
MCH	Maternal and Child Health
MOPH	Ministry of Public Health
NGO	Non-government Organization
PNC	Post Natal Care

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SCA	Swedish Committee for Afghanistan
UNFPA	United Nation Fund Population Activity
WHO	World Health Organization
WFP	World Food Program

Research Abstract/Summary:-

Rational: The ultimate goal of health sector is to provide quality services and reduce maternal and infant mortality rates. Afghanistan has been recognized as one of the highest levels of maternal mortality in the neighboring countries. It has been estimated that 40% to 50% of women's deaths during the childbearing years are related to complications during pregnancy and childbirth¹.

Objective: The study objectives was to identify factors associated with low utilization of postnatal care (PNC) among mothers in Wardak and Laghman provincial hospitals

Method: A cross sectional qualitative and quantitative study design was chosen in order to give a detailed description of factors that influence women to attend or not attend postnatal care services. Quantitative data was obtained from maternal and child registers. The qualitative data was collected through individual interviews of mothers and focus group discussions (FGDs). Total six FDGs and twenty individual' interviews with mothers (3 FDGs in 10 interview in each hospital) were conducted in two provinces.

Population: Target population were mothers delivered at two provincial hospitals in Laghman and Wardak

Time Frame: The data has been collected between Feb to May 2017.

Results: The quantitative data indicated that first postnatal care coverage received within first six hours of delivery was 98 % at Laghman Provincial Hospital and 89 % at Wardak Provincial Hospital. While the PNC 2 visit recorded at two hospitals were between 2 % to 11 % and PNC coverage 3 and PNC 4 were between 0 % to 1 %. The qualitative data showed that low community awareness, lower level of education among pregnant mothers, unavailability of transport facilities, socio- economic disparities, fragile insecurity situation, poor hospital staff behavior, wrong traditional practices, lack of empowerment and limited autonomy of women in decision making and poor medical records and record keeping standards were major factors behind low utilization of PNC services.

Conclusion and Recommendation:-

The study highlighted that the prevalence of the postnatal care coverage at two provincial hospitals are extremely low especially PNC 2, PNC 3 and PNC 4. In order to increase the PNC coverage, reduce pregnancy related mortalities and improve mother and child health, the policy makers and health care providers need to come up with a sustainable and long term policies and measures to improve overall maternal and child health care and develop a framework that will aid in improving postnatal care coverage in Afghanistan.

Rationale and Background:-

Pregnancy is a major life event in any women's life. It brings a lot of joy in the family as well as many changes in the woman's physical, psychological and emotional status. Pregnancy has three main periods, which include antennal, delivery, and postnatal care. A postnatal period is the period beginning immediately after the birth of a child and extending for about six weeks.

The World Health Organization (WHO) describes the postnatal period as the most critical and yet the most neglected phase in the lives of mothers and babies; most deaths occur during the postnatal period.

The postnatal period covers a critical transitional time for a woman, her newborn, and her family, on a physiological, emotional, and social level. It is a very special phase in the life of a woman and her newborn. For women experiencing childbirth for the first time, it marks probably the most significant and life-changing event they have yet lived. It is marked by strong emotions, dramatic physical changes, new and altered relationships, and the assumption of and adjustment to new roles. The words "postpartum" and "postnatal" are sometimes used interchangeably. The most frequently reported postpartum problems are: infections, bladder problems, including urinary incontinence, fistulae and stress incontinence, backache, frequent headaches, pelvic pain, hemorrhoids, constipation, depression, anxiety, perineal pain, breast problems, including engorgement; sore, cracked, bleeding or

inverted nipples, and rarely mastitis, anemia, dyspareunia. In addition to above mentioned problems, depression after childbirth is a major problem affecting 10-22% of all mothers it is found that 13% of the women studied showed high postnatal depressive symptomatology, which is very similar to rates of prevalence of postnatal depression in the first year after the birth of the child reported in other western world studiesⁱⁱⁱ. Feeling anxious during pregnancy is a strong predictor of high symptoms of depression at 6-8 weeks after delivery.

Regardless of where the delivery took place, WHO has recommended at least four postnatal visits in the first 6 weeks: (1) within the first 24 hours, (2) 3 days after birth, (3) between 1 and 2 weeks (Days 3–14) after birth, and (4) 6 weeks after birth

UNFPA estimated that 289,000 women died of pregnancy or childbirth related causes in 2013 and about 99% of these deaths occur in developing countries. The first hours, days and weeks after childbirth are the most dangerous time period for both the mother and newborn. Women die as a result of complications during pregnancy and childbirth. Most of these complications develop during pregnancy and most are preventable or treatable. Other complications may exist before pregnancy but are worsened during pregnancy, especially if not managed as part of the woman's care. The major complications that account for nearly 75% of all maternal deaths are: 1) severe bleeding (mostly bleeding after childbirth) 2) Infections (usually after childbirth), 3) High blood pressure during pregnancy (pre-eclampsia and eclampsia), 4) Unsafe abortion.

As per WHO over 60% of death occurring during first 48 hour. It has been estimated that if routine PNC and curative care in the postnatal period reached 90% of mothers and babies and 10-27% newborn deaths could be saved vi.

As per Maternal Mortality fact sheet updated in November 2016 (WHO), every day 830 women die from preventable causes of pregnancy and childbirth. Almost 99% of these deaths occurring in developing and low-income countries and poor communities. Young women are even highly prone to the risk of complication comparing to the other women. From 1990 to 2015 maternal mortality has been dropped by 44% worldwide and based on this it has been projected in sustainable development goals between 2016-2030 to reduce the maternal mortality ration to less than 70/100,000 live births. vii

In 2015 it was estimated that roughly 303,000 women died during pregnancies and child birth and of which most of these deaths incurred in low income countries and poor communities which is mainly due to inequities in access to health services and the differences between rich and poor. Furthermore, the Maternal Mortality ratio in developing countries in 2015 was 239/100000 live birth against 12/100000 live births in developed countries. It seems that there are large differences between countries to countries and women to women in terms of income and access to health services, level of education and age. viii

After looking into the statistics and importance of PNC services in obstetrics health care it has been revealed that still PNC services are a matter of concerns in reproductive and child health period in low-income countries.

Recent reviews and assessments of reproductive health situation in Afghanistan have highlighted the unmet needs in this area, including newborn care. Half of the childbearing age women, who die in Afghanistan, die from complication of pregnancy and childbirth, which in the most cases are preventable. Causes of maternal deaths in Afghanistan are consistent with those reported globally, such as, hemorrhage, obstructed labor, pregnancy-induced hypertension (Pre-Eclampsia and Eclampsia) and sepsis. The national health resources assessment has shown that availability of basic reproductive health services are extremely limited – contraceptive prevalence rate is only 21 % and births with skilled attendant is 40% at country level^{ix}. Although 82% of all existing health facilities in Afghanistan claim to provide some kind of postpartum care services, only half of them may provide the basic standard set of postpartum care as defined by Basic Package of Health services (BPHS). Only 20% of health facilities distribute vitamin supplements during postpartum period and 28% of them reports routinely checking the anemia status of mothers. There is also a significant difference between provinces with respect to postpartum care. ^x In this study, efforts have been made to identify factors influencing the under-utilization of postnatal care service among rural women in Wardak and Laghman provinces of Afghanistan

Literature Review:-

One of the countries where it is most dangerous to give birth is Afghanistan. There are an estimated 1,291 maternal deaths for every 100,000 live births in Afghanistan^{xi}. This level of pregnancy-related mortality is higher than comparable estimates for surrounding countries, including Bangladesh, where the pregnancy related mortality ratio was estimated at 194 deaths per 100,000 live births. Based on the 2010 Bangladesh Demographic and Health Survey (DHS) ^{xii}, where the ratio was estimated at 276 deaths per 100,000 live births ^{xiii} and India maternal mortality rate is 174/100000 live birth (WHO 2016) and it means every hour 5 women are dying during child birth in India.

The Demographical and Health, survey Afghanistan 2015 shows that overall 40% of mothers received postnatal care within 24 hours after delivery and 56% did not receive any postnatal care checkup. The survey also highlights that those women who delivered in the health facilities are more likely to receive PNC services comparing to those who delivered at homes (63% and 18% respectively). Eighty percent of mothers with more than a secondary education received timely PNC checkups as compared to 35% of non-educated mothers. Women from wealthiest households were almost twice as likely to receive timely postnatal care as women from women from the lowest wealth quintile (58% versus 31%).. The survey also pointed out the difference between provinces in terms of receiving PNC care within 24hrs after delivery. Herat counted as the highest percentage of PNC care checkup (78%), followed by Faryab 66%, Panjshir 64%, Urzgan 5% ad Nuristan 1%.

As per WHO postnatal care services for newborn should start as soon as possible after birth. Because many neonatal deaths occurring during first 48 hours of life^{xv}. In Afghanistan only 9% of last –born infant in the 2 years preceding the survey received PNC care in the first 2 days of life. The infant postnatal care checkup is more likely twice in infant delivered in the hospital comparing to the infant shelved outside the hospital. Likewise the services higher in urban set up comparing to rural areas 13% and 6% respectively)^{xvi}

In Kenya less than 20% of women experiencing postnatal services xvii. In Pakistan 30% of women experiencing PNC visits in and in Bangladesh 33.5% of women experiencing PNC visits in 2014 WHO recommended that, mother and child should receive postnatal care within 24 hours of birth following with three more visits. In Afghanistan only 40% of the deliveries attended by the skilled birth attendants, which would likely prevent many of the maternal deaths. Overall, 9 in 10 rural women deliver babies at home, without skilled birth assistance. Afghanistan has one of the highest fertility rates in the region with an average birth rate of 5.33 children per woman xxi. As per the maternal health care trends report 2013, nationally, 60% of women in Afghanistan received antenatal care from skilled health provider. 18% of women received all three maternal services (ANC, PNC and delivery). xxiii Looking to the statistic of the postnatal care seems that the service is very low and even neglected in all neighboring countries including Afghanistan.

Objectives:-

The overall purpose of this study was to determine factors associated with low utilization of post-natal care at two provincial hospitals in Laghman and Wardak

A- Main objective

• To identify factors associated with low utilization of postnatal care (PNC) among mothers at Wardak and Laghman provincial hospitals.

B- Specific objectives

- To determine the prevalence of postnatal care service utilization among mothers who delivered in Laghman and Wardak provincial hospitals
- To identify factors that influence the decision of a mothers and her family whether to attend or not to attend postnatal care service
- To determine cultural barriers responsible for low utilization of PNC service.

Research Question/Hypothesis:-

The research question/ hypothesis developed for this study was 1) The extent to which women are making use of the postnatal services and find out why many women do not use these services 2) To identify what are the challenges faced by care providers in the provision of quality postnatal care.

Study Design:-

A cross sectional qualitative and quantitative study design was chosen for this research. Quantitative data abstracted from Maternal and Child Health (MCH)registers and PNC cards of all pregnant mothers who delivered at two provincial hospitals during 2016. The data analyzed using excel spread sheet to find out the total percentage of women delivered a baby in a health facility and the percentage of first, second, third and fourth postnatal service utilization. The qualitative study design comprised of. (a) Individual interviews with mothers with up to one-yearold child presented at vaccination department of the two Provincial Hospitals. These mothers have had their last delivery at the provincial hospitals. 20 mothers were interviewed in two provinces. (b) Focus Group Discussions (FGDs) consisted of three groups (each group consisted of 8-10 participants) was conducted in each two provinces. Group A consisted of health professionals (head of health facility, nurse, midwife etc.), Group B included key stakeholders from Provincial Public Health Directorate like Provincial Health Director, Provincial Reproductive Officer, Head of Community Midwifery School, BPHS and EPHS management and (c) Group C consisted of community hospital board. Six Focus Group Discussions were held in total. Thematic analytical method was used for qualitative data analysis. In order to maintain quality of the data, data collectors and supervisors were trained. The principal investigator himself led the focus group discussion The FDGs were led by the moderator and was supported by an assistant. Note keeper was assigned to record and write down the participants responses to each question. Consent letter was signed before the start of each FGDs. In order to ensure accuracy and reliability of the information, the questionnaire was first prepared in English and later on translated into local languages (Dari and Pashto). Before the actual data collection, the questionnaire was piloted in field for validity and reliability. Possible adjustments or modifications were made to the tool. The collected data was reviewed and checked for completeness and consistency by the principal investigator on a daily basis throughout the data collection process.

Research Methodology:-

This study was planned to identify factors associated with low utilization of PNC care at two provincial hospitals in Wardak and Laghman provinces of Afghanistan. Swedish Committee for Afghanistan (SCA) is executing Essential Package of Hospital Services (EPHS) at these two hospitals on behalf of Ministry of Public Health Afghanistan. A cross sectional qualitative and quantitative study design was chosen in order to give a detailed description of factors that influence women to attend or not attend postnatal care services.

Quantitative data was obtained from maternal and child registers maintained by obstetric and gynecological care department at each of the two provincial hospitals. The qualitative data obtained from individual interviews of mothers and focus group discussions with health professionals, hospital community board and provincial public health directorate and Basic Package of Health services (BPHS) and Essential Packages of Hospital Services (EPHS) implementers. A total of 6 FDGs and 20 individuals interviews with mothers (3 FDGs in 10 interview in each hospital) were conducted. Pre developed questionnaires were used for FGDs and individual interviews. The data was collected, screened and analyzed.

Interview members were mothers who presented at vaccination department with under one year child delivered in the same hospital. The exclusion criterial was mothers who did not deliver at the provincial hospital. While Focus group discussions were consisting of hospital community board members, health professionals, hospital management and provincial health directorate's staff of both hospitals. The focus group participants of community board included a cross-section of members of social structures in the community, including influential community and religious members, representatives of local community health committees (shura-e-sehi), other community members but unfortunate it does not have any women representation, which was mainly due to insecurity and cultural restrictions. Three teams of investigators collected the in-depth interviews and carried out focus group discussions. Each team was consisting of two members. The interview of mothers was conducted by two female health staff, The FDGs were led by the primary investigator with the help of two other assistants. Selection of team of investigators was done carefully. Ten pairs of investigators were trained for two days and field-testing was carried out before the actual field research was kicked off. The questionnaire for the focus groups and interview are included in this report as annexures. In each province, the Provincial Health Director and hospital management staff were informed of the purpose of this research study.

Data Analysis:-

The quantitative data was collected from MCH registers and PNC cards at each two provincial hospitals. Data was analyzed using excel spread sheet to find out the total percentage of institutional deliveries attended in the hospital, total pregnant women who received postnatal care with breakdown in first, second, third and fourth visits.

The qualitative data was obtained from individual interviews and FDGs using thematic analytical method for the data analysis. The collected data was reviewed and checked for completeness and consistency by the principal investigator on a daily basis during the data collection phase. The moderator with the help of an assistant moderator and note keeper led the FDGs.

Ethical Consideration:-

As this study cannot be representative of all Afghanistan, therefore it did not require MOPH Institutional Review Board (IRB) approval. However, ethical approval from Jodhpur School of Public Health, Maulana Azad University was obtained. Furthermore, a written approval was taken from Swedish Committee for Afghanistan (SCA), which is responsible to implement BPHS and EPHS projects in Laghman and Wardak on behalf of Ministry of Public Health. Likewise, an informed consent was obtained from each respondents of the individual interviewees and focus group participants. Participants were given the flexibility to withdraw themselves from the study if they do not want to be the voluntary. Questionnaires were coded as identification and hence, confidentiality was assured throughout the study.

Limitations of the study:-

The limitations of the study are the following:

- 1- Financial constraint limited the study in to two provinces that will not represent the real picture of the whole country
- 2- During the data collection, it was noted that some of the participants in individual interview refused to take part in the research.
- 3- Despite the fact that those mothers who gave birth in the last 12 months are included in the study, there might be a recall bias. The cross-sectional nature of the study does not confirm the definitive cause and effect relationship.
- 4- No female participation in hospital community board to represent the real nature of the problems at community level.

Results with Tables and Figures:-

For this research, we went through Maternal and Child Health (MCH) registers and Postnatal Care (PNCs) cards and analyzed the data for a period of one year (from January 1, 2016 to December 31,2016) to find out how many pregnant women opted to come to the provincial hospital for delivery and what percentage of them completed their postnatal visits.

The below table shows that 9,454 deliveries occurred at Laghman Provincial Hospitals while 9,800 women came for the postnatal follow up including some of those who delivered at other nearby clinics. The first postnatal visit (PNC 1) was 9,564 that is 98 % of the total postnatal care visits. The reason for this high percentage is that almost all pregnant mother who deliver at the provincial hospital are regarded as PNC 1 irrespective of the amount of time they stay at the hospital and the level of PNC services they receive. Similarly, only 2 % of the total women who delivered at the hospital came for the second postnatal visit (PNC 2) while PNC 3 and PNC 4 recorded were 1 % and 0 % respectively.

	Laghman Provincial Hospital						Wardak Provincial Hospital					
Descript	Total	Total Postnatal Care visits in 2016					Total	Total Postnatal Care visits in 2016				
ion	Deliver	(PNCs)					Deliver	(PNCs)				
	ies in	PNC	PNC	PNC	PNC	Total	ies in	PNC	PNC	PNC	PNC	Total
	2016	1	2	3	4	PNC	2016	1	2	3	4	PNC
Number	9,456	9,56	158	78	0	9,800	3,426	3,79	481	0	0	4,273
		4						2				
Percenta		98	2 %	1 %	0 %	100 %		89	11	0 %	0 %	100 %
ge		%						%	%			

Table 1:- Total deliveries and postnatal visits recorded at two provincial hospitals between January 1 - December 31, 2016

The same is the scenario at Wardak Provincial Hospital. Total deliveries occurred was 3,426 while total visits were 4,273. It means some of those mothers who delivered either at the nearby BPHS clinics also opted to go to the provincial hospital for the postnatal follow up because of the availability of qualified female doctors and other

medical facilities in comparison to the BPHS clinics. The total recorded PNC 1, PNC 2, PNC 3 and PNC 4 in 2016 were 89 %., 11 %, 0 % and 0 % respectively.

In a nutshell, the quality data of 2016 obtained from two provincial hospitals show that the percentage of PNC 1 is quite high (between 89 % to 98 %). However, it is not yet clear for how long the pregnant mothers are retained at the hospital soon after the delivery. According to MOPH Afghanistan's Reproductive Health guidelines, a pregnant mother should be monitored up to 6 hours after delivery. It means only those pregnant mothers will be labelled as PNC 1 who had been under observation at least 6 hours. However, our observations show that a majority of pregnant mothers prefers to go home immediately after delivery and hence the hospital staff still label them "PNC 1". The hospital team needs to follow the reproductive health guidelines and make use of the correct definition of PNC 1. Similarly, the PNC 2 visit at two hospitals was between 2 % to 11 %. The PNC 3 and PNC 4 were between 0 % to 1 %.

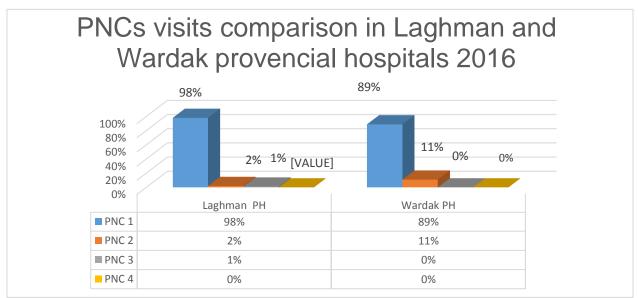


Figure 1:- shows comparison of postnatal care PNC visits in Laghman and Wardak provincial hospital (PH)

The qualitative part of the study conducted at Laghman and Wardak provincial hospitals, which was consisting of individual interviews and Focus Group Discussion (FGDs).

Total six-focused group discussions (FDGs) were conducted in two provinces with relevant MCH staff, hospital community board members and provincial public health directorate team members. Furthermore, twenty mothers who delivered at Laghman and Wardak provincial hospitals and presented at immunization department with less than 12 months child for routine vaccination were also interviewed. All discussions were held based on some pre prepared and pre tested questionnaires to identify factors associated with low utilization of PNC visits.

Members of the hospitals community board were asked when and how frequent a mother should visit a health facility for seeking PNC services. Interestingly most of them responded that until and unless they face any medical issue, they should not visit a health facility after delivery. However, when we interviewed some mothers at the provincial hospitals we found that they almost had the same opinion. A 31 years old mother of three at Wardak Provincial Hospital said,

"A mother after delivery should visit the hospital only to get the child vaccinated or when she is seriously ill. In our Afghan society, husband and the mother in laws are the decision makers. They will not allow us to go to the hospital until we face any major health issue. Let me give you my own example, I delivered three babies but never ever went to a hospital after delivery as we did not consider it an important".

Another 28 years old mother who delivered her first baby at Wardak Provincial Hospital nine months ago said

"I delivered a healthy baby at Wardak Provincial hospital almost 9 months ago. Everything went well. I spent the night there and upon my discharge, I was asked to come back if I get bleeding or my child faces any major health issue. But they did not tell me to come to the hospital for normal routine checkups"

A Health professional at Laghman said, "Pregnant mothers give more importance to ANC visits than PNC visits. Mothers believe that delivery is the final phase of pregnancy. No one knows that post-delivery follow up is also an equally important".

When participants were asked, "in your view, why postnatal care coverage is so low and what could be major reasons that prevent mothers from coming to health facilities for PNC services "the FGD participants brought to light cultural barriers, customs, literacy, lack of awareness, economical issues, , attitude of hospital staff, insecurity etc. Some health professionals also talked about poor data recording system.

One of the study participant who was a mother of 8 months old child at the time of interview said, "Mothers who come from far flank villages to deliver at the hospital always complain that the hospital staff do not treat them well and hence they are reluctant to visit the hospital after delivery."

A 31 years old mother of five said, "There are many reasons. For example, we are not fully aware of postnatal care, as the hospital staff also do not educate us on this. Economic issue is also another obstacle that prevent us going to the hospital after delivery. We do not have enough money to bear the transportation cost and go to the hospital for routine follow up exams". She also mentioned that husbands and mother in laws should also receive education and awareness about ANC and PNC and its importance in a mother's life.

A community member in Wardak added, "For the first time, I am hearing about the PNC. I was not aware of it before. I believed that everything gets finished after delivery but today, I came to know that there is also one more phase after delivery that also needs to be followed".

A male member of the Laghman hospital community board said, "People are still less aware of the maternal health. Most of them still believe women should not go out of their homes until chila – 42 days. During this period, women are usually discouraged to go out and work or even they cannot take shower etc."

Insecurity is another obstacle towards low utilization of PNCs and other health services. Hospital Community Board members, hospital staff and other professionals were categorically of the opinion that current security situation is major obstacle behind low service utilization. One of the study participants in Wardak said, "In August 2016, the ambulance driver of Dasht e Toop CHC+ was kidnapped by unknown people when he bringing a patient to the Provincial Hospital. The driver was later on released after two days after a long mediation and negotiation of community health shura members"

The provincial hospital management team and Provincial Public Health Director of Laghman are also of the opinion that insecurity is a major reason for low service utilization. One of the focus group member at Laghman Provincial Hospital said, "In October 2016, Farashghan CHC ambulance was attacked by Taliban in Alishang district when the driver was transferring a female patient to the provincial hospital. One of SCA staff was also in the ambulance at the time of attack. As a result, a bullet hit the neck of the female patient but luckily, she survived. The ambulance driver and SCA staff member also remained unhurt. Under such insecure circumstances, it is always hard to provide better quality health care to the patient".

In response to a question, "Based on your experience, what percentage of women obtain postnatal care services at your hospital" a large majority of health professionals (Doctors, Nurses, Midwives in Laghman and Wardak provinces mentioned that "almost 15-20% women come for the 2nd postnatal care, and 5-10% come for the 3rd postnatal visit while PNC 4 is almost zero.". They also added that due to shortage of staff and lack of proper record system, postnatal visits are not recorded properly. One of the Midwife in Wardak said, "Mothers who deliver at the provincial hospital receive some food commodities from WFP. There is a lack of coordination among different medical units. The PNC coverage will go up if you make rule that only those mothers will get WFP food commodities who regularly come to attend ANC and PNC follow up visits"

In response to the question of what are NGOs, community, religious and government responsibilities towards proper utilization of the health services including PNCs. A good majority of community hospital board members said,

"All these three entities have a vital role to play. For instance, an NGO can provide quality services to the community in accordance with the national policy guidelines, increase community awareness through mass media and ensure availability of medicines and equipment. The government can strengthen the health system, improve security, increase community awareness through different means, and allocate enough funds for the health sector. Community/religious can also play a vital role in increasing community awareness, disseminating of health information and supporting NGOS and government in an implementation of the health projects".

Physical accessibility also have the direct impact on level of health care services including PNC visits. The physical accessibility includes place of residence, distance to the nearby health facility and availability of transport to get to the hospital. Residents in rural, mountainous and insecure areas especially in the winter where roads are closed up to six months due to heavy snow result in low utilization of health services. Improved physical access may further improve indicators related to ANCs, institutional deliveries and postnatal care services. Some participants in the focus group complaint that they need to walk up to 2 hours to get to the nearest health center. Road infrastructure, distribution and location of the facility and transportation costs are main factors, which hold back women in coming to the health facility. A 27 years old mother at Wardak Provincial Hospital narrated her experience in following words, "

"Wardak Hospital is providing better ANC, delivery and PNC services to women but we are not benefiting from those services. My own house is far away from the hospital. My husband and in laws are the prime decision makers at home and they are reluctant to let me go to the hospital on my own until I get sick"

Most women during interview complained about limited availability of health services in the remote areas (equipment, drugs female medical doctors). A 30 year-old mother in Laghman said, "We do not see a doctor at our clinic after 12 PM and that's why I preferred to come to this hospital"

Level of education is another major factor that has a huge impact on PNC services. For example a large majority of the study participants in two provinces said," *Educated mothers are more likely to attend PNC than the non-educated mothers as they know its importance*". Lack of knowledge of the recognition of danger signs and complications and less perceived severity of problems are among the factors that can extend the time to make decision in seeking health care.

Likewise, economic accessibility, which comprises of household socioeconomic status, husband and wife's occupation, family income and cost of facility delivery, transportation and opportunity costs of travel time have direct impact on PNC and other health eservices utilization. In focus group discussion with hospital management and provincial public health directorate team, it was noted that in Wardak and Laghman, poor and none educated women are more dependent to their husband for money. Therefore, they need to obtain permission from their husband to seek care. They also highlighted that mothers who are employed and have income are more likely to be economically independent and consequently have access to services, and utilize the services when they need or as recommended by their health workers".

Limited decision-making power to go to the health facility is another obstacle facing women in delay to seek care. In Wardak and Laghman, women do not have decision-making power in matters concerning their reproductive roles including utilization of reproductive health. The decision made by husband/ mother in-laws and very few they make decision together said by majority of mothers we interviewed. They also mentioned that men have control over resources and influence over utilization of health services. Women need permission from their husband concerning their reproductive health as well as to seek care to go to the health facility even during an emergency obstetric condition.

Psychosocial, cultural factors and believes play also a significant role in influencing the perception of women's health care seeking decisions whether or not seek PNC services. A 23-year-old mother of three in Laghman hospital said, "The wrong believe that mothers should not go out of their homes up to 42 days of pregnancy, not eating specific kinds of food and not taking bath during this period still exit in our society". She further added, "My mother in law did not allow me to go to the clinic for checkup after my first delivery. I wanted to go but I could not convince her. One day I got a serious problem of low blood pressure and became unconscious. Because of that, she got

scared and asked her son (my husband) to take me to the hospital. I was under treatment at the hospital for three days. At that time, doctors and midwives educated me and my mother in law on danger signs of pregnancy (especially after delivery) and because of it, my mother in law got convinced. Today she is totally changed. She always tells me to go to hospital when I am not feeling well".

During focus group discussions and individuals interviews, participants pinpointed that some health workers are rude and harsh towards patients. Some complained that the waiting time is unbelievably high. One of the study participants in uttered, "Many mothers experience abusive behavior from their caregivers. Refusal to be given services or proper assistance and lack of kindness during labor and delivery keep back women from coming to the hospital. They would rather prefer to go to a private clinic where health workers are friendly and polite" Some FGD participants said, "Women with high socioeconomic status are treated nicely then with low socioeconomic status".

Discussion:-

This cross sectional study, which is supplemented by the qualitative and qualitative methods tried to identify postnatal care utilization in Wardak and Laghman Provincial hospitals and to find out factors that influenced postnatal utilization on these provinces.

The quantitative data collected from the MCH (mother and child Health) registers and PNC cards revealed that the first postnatal care which is received within first six hours of delivery is high at two hospitals. While the 2n, 3rd and 4th visits which are comparatively very low or even zero which is a matter of concern and needs to be focused on, because this is the time that when mothers retuned back to their family they might again experience their old traditional customs and norms which are dangerous for the mothers and child health.

The quality data of 2016 obtained from two provincial hospitals show that the percentage of PNC 1 is quite high (between 89 % to 98 %). However, it is not yet clear for how long the pregnant mothers are being retained at the hospital soon after the delivery and what PNC services provided. According to MOPH Afghanistan's Reproductive Health guidelines, a pregnant mother should be monitored up to 6 hours after delivery. It means only those pregnant mothers will be labelled as PNC 1 who had been under observation at least 6 hours. However, our observations show that a majority of pregnant mothers prefers to go home immediately after delivery and hence the hospital staff still label them "PNC 1". The hospital team needs to follow the reproductive health guidelines and use the correct definition of PNC 1. Similarly, the PNC 2 visits at two hospitals were between 2 % to 11 %. The PNC 3 and PNC 4 were between 0 % to 1 %.

The FDGs and individual interviews with mothers who delivered at two hospitals have notified some important and valuable factors that lead to low utilization of PNC services especially PNC 2, PNC3 and PNC 4.

Low community awareness on the importance of the PNC services after delivery is an important and strong associated factor for low utilization of the PNC services. Educated mothers are most likely to receive PNC services comparing to the illiterate mothers who do not know the importance of the services for both mothers and children. Lack of transportation facilities, socio- economic disparities, fragile insecurity situation, poor hospital staff behavior, wrong traditional practices, lack of empowerment and limited autonomy of women in decision-making and poor medical records and record keeping standards at hospital were major factors behind low utilization of PNC services. The result might be different from province to province and region to region due to level of education, level of awareness, rural to urban and different ethnical groups. The study finding is even not comparable with the neighboring countries because the context of Afghanistan is different from other countries like Pakistan, India, and Bangladesh. For instance if we just look at the security situation, in Afghanistan women are hardly able to move to the health facilities especially during the night while this is not the case in Pakistan, India and Bangladesh. The same is level of education and economical status. Such research studies had never been conducted previously in the region and that is why it is hard to compare this study findings with the ones happened before. This could be an important and interesting area of focus for the government and specifically for the Swedish Committee for Afghanistan as a direct implementer of the basic and comprehensive health services.

Conclusion/Recommendations:-

The study highlighted that the prevalence of the postnatal care coverage at two provincial hospitals are extremely low especially PNC 2, PNC 3 and PNC 4. In order to increase the PNC coverage, reduce pregnancy related

mortalities and improve mother and child health, the policy makers and health care providers need to come up with a sustainable and long term policies and measures to improve overall maternal and child health care and develop a framework that will aid in improving postnatal care coverage in Afghanistan. Key recommendations are below

- 1- The Hospital record keeping system should be strengthened through capacitating hospital staff and regular and close follow up.
- 2- Community awareness raising especially mother's in-law on the importance of the postnatal care should be the priority for the government as well as for the BPHS and EPHS implementer organization. This could be done through mass media. Local community health Shuras, community health workers, Mulas, mosques, schools,
- 3- Security: Though it is out of our control, but again some mitigation strategies should be in place on how to increase the services especially in those areas which are under the direct control of insurgents
- 4- Staff behavior should be changed through behavior change communication training, regular supervision and monitoring.
- 5- Follow up of PNCs at community through community health works, Community health workers should be trained and oriented on how to provide PNC services and when to refer to the nearest health facility.

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Appendixes:-

Annex A- CONCEINT LETTER
Annex B- QUALITATIVE INTERVIEW AND FGD QUESTIONS
ANNEX-C. LIST OF INTERVIEEWS AND FDG PARTICIPONATS