



Save the Children

National Report

**Formative Research on Neonatal Sepsis,
Low Birth Weight and Birth Asphyxia**





Save the Children

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Dr. Amanullah Khan
Deputy Director Health

Acronyms

AAA	Arjumand And Associates
ANC	Antenatal Care
BPCR	Birth Preparedness and Complications Readiness
DTL	Deputy Team Leader
FGDs	Focus Group Discussions
FROs	Field Research Officers
FS	Field Supervisor
HCP	Health Care Provider
IDI	Indepth Interviews
IV	Intravenous
LBW	Low Birth Weight
LHVs	Lady Health Visitors
LHWs	Lady Health Workers
MIL	Mother-In-Law
NWFP	North West Frontier Province
PM	Project Manager
SCF	Save the Children Fund
SNL	Saving Newborn Lives
STIs	Sexually Transmitted Infections
TL	Team Leader
TT	Tetanus Toxoid
UC	Union Councils

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Background and Objectives of the Study

Save the Children/US under its Saving Newborn Lives 2 (SNL -2) commissioned this Formative Research on Neonatal Sepsis, Low Birth Weight and Birth Asphyxia in selected districts of Pakistan. The districts included:

- Khuzdar and Pishin in Balochistan
- Haripur, Charsadda and Lakki Marwat in NWFP
- Jhelum and Dera Ghazi Khan in Punjab
- Dadu and Sukkur in Sindh

In addition, research on Childhood Pneumonia was conducted in Haripur district.

The specific objectives of the assignment were to assess:

- The current knowledge of mothers, household decision makers and community members about Neonatal Sepsis, Low Birth Weight and Birth Asphyxia (also Childhood Pneumonia in Haripur)
- The perceptions about the above conditions and the terminology which is commonly used to identify these illnesses
- The understanding about treatments, care-seeking preferences, role of behavioral, social, and cultural factors in selecting a provider
- The attitude towards LHWs and government health services and use of antibiotics and harmful drugs.

Findings of the research would be utilized to inform the development/ notification of newborn interventions and for the development of a communication plan, and communication and training materials.

Arjumand And Associates (AAA), a local consulting firm was selected through a bidding process to carry out the assignment.



Study Methodology and Work Plan

2.1 The Team for the Study

The study team consisted of experienced and qualified public health specialist, anthropologists, development study specialists and sociologists.

2.2 Inception Meeting

The AAA core team met the SCF team to discuss the assignment threadbare. The purpose of this meeting was to have detailed insights about the work to be carried out, precisely understand the expectations of the SCF/US, and reach a common understanding about the outputs.

2.3 Study Design and Methodology

The formative research was carried out through review of literature, Key Informant interviews, in-depth interviews, 8 case-studies and FGDs in the districts with the selected personnel as follows:

Table 1: Study Tools

Participants	FGDs	In-depth Interviews	Case Studies
Key Informants	X	45	X
Mothers	45	90	8
Decision Makers	x	90	X

The process for the study was as follows:

Guiding Document's Review: The AAA core team obtained relevant document from the SCF/US and from other sources to compile and assess information about the study topics.

Development of Study Tools: Four study tools (FGD and in-depth interview guidelines) were prepared:

- Tool 1: Guidelines for FGD with Mothers
- Tool 2: Guidelines for In-depth Interview with Mothers
- Tool 3: Guidelines for In-depth Interview with Key Informants

Tool 4: Guidelines for In-depth Interview with Decision Makers

The tools were shared and discussed with the SCF/US team.

Training of Field Research Officers: Training of the Field Research Officers (FROs) was carried out in Islamabad. During the training, the field researchers were informed about the purpose of the study and tools were discussed in depth. The techniques of FGDs and in-depth interviews were also discussed to refresh the do’s and don’ts of the data collection.

Translation of Tools and Pre-testing: While reviewing and discussing the tools, FROs translated the tools in Urdu.

The tools and methodology of the study was thoroughly pre-tested around Islamabad and Rawalpindi at Usman Khattar, Panjar, UC # 52/2 (Gujjar Khan City) and Mohra Noori. Following pre-testing, the tools were finalized and shared with the SCF/US team.

Fieldwork: In each district, study was carried out in 5 selected Union Councils (UCs), 2 in urban areas and 3 in rural areas, as proposed and agreed with SCF.

Table 2: Plan for work in a UC	
Day 1	Travel to the UC, meet the resource person(s), identify participants for FGDs, key informant and decision makers, select venue for FGDs
Day 2	Conduct FGDs with mothers + in-depth interview with mother+ KI interview+ Case Study Begin transcription
Day 3	decision maker interview + Complete transcription

Day 1: The research team consisted of one male and three female FROs visited the district Nazim Office. They carried a copy of the letter sent by SCF/US to the Nazim explaining the study and seeking his cooperation. The team met with the Nazim or in his absence with another relevant staff in Nazim’s office. Request was made to identify those UCs that provide variations in terms of population characteristics but were also accessible and safe. Map of the district was reviewed with him and 5 UCs were selected with his help to cover variations in the population.

In each district, the Nazim or the staff called all the Nazims

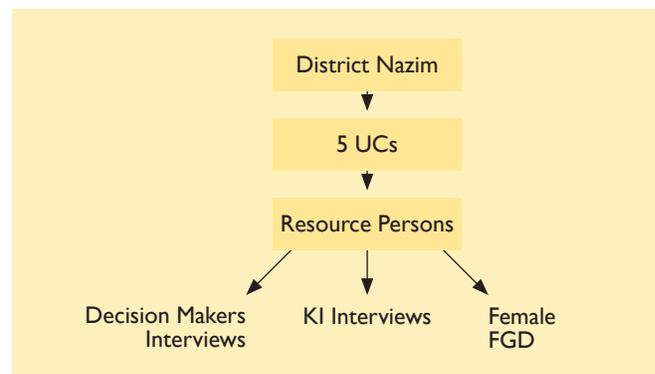
of the selected UCs and informed them about the team’s visit and requested for their support.

After this meeting, fieldwork was conducted according to the following plan in each of the 5 Union Councils in each district.

On the same day (Day 1) team visited the closest UC and met the UC Nazim, who either assisted himself or directed the team to meet a Lady Councillor or any other resource person. The female team members often visited house to house with the resource person to identify and invite mothers with children less than 1 year of age for FGDs on the next day.

Almost similar methodology was used in all UCs. In case where UC Nazim was not available due to some prior commitment, then his family members (both males and females) assisted the team.

UC Nazims, female councillors and Nazim’s Secretaries served as the Resource Persons (RPs) and not only assisted the team in identifying mothers for FGDs, but also Key Informants. Mothers for in-depth interviews (IDIs) were mostly selected from FGDs, while decision makers were mostly selected with the assistance of participants of FGDs.



Day 2: The team consisting of 3 female FROs with 1 male FRO reached the designated venue for the FGD a little before the decided time. In some UCs they found the women at the venue, while in others they again went out to invite the identified women. The **venue** selected for FGD in each UC was a convenient place where participants were able to share their views without distraction and disturbances.

The female FROs (1 facilitator and 1 note taker) conducted the FGD. They introduced the team, explained the purpose of the study and obtained verbal consent of the participant

to initiate discussion. It was ensured that during the FGD that local language, vocabulary, terminology and common expressions were used for framing questions. The facilitators and note takers actively avoided exhibiting any judgmental attitude, either verbally or through body language.

Tape recording of the FGDs was done, wherever allowed, and transcriptions were prepared earliest possible. Besides this, notes were also taken.

About 12-14 participants were invited for each FGD, but not all attended. The attendance varied from 7 – 13 individuals in each group. Total participation in 45 FGDs was of 404 mothers of children under 2 years of age.

During the FGD, one participant was identified for the in-depth interview with mother, and it was conducted following the FGD or at the same time by the third interviewer.

Meanwhile, the third female FRO or the male FRO conducted the interview of the key informant depending on her/his gender. One of them also collected case-study data. A total of 10 In-depth Interviews with mothers (two in each UC), 10 In-depth interviews with decision maker (two in each UC with Husband/Mother-in-law/Father-in-law in selected households), and 5 interviews with Key informants (one in each UC with Lady Doctor/LHV/LHW/Dai) were also conducted in each district

Transcriptions of FGDs and interviews were started immediately after their completion.

Day 3: The facilitator and note taker of the FGD completed the transcription while the third female FRO and Male FRO conducted the interviews of 2 decision makers and did the transcription.

The above sequence was repeated in each of the 5 UCs in all districts. Hence, 15 working days were spent in each district to complete the assignment, except in Sindh where 20 days were spent in one district as one team member was asked to leave because of non cooperation with other members.

Respondents' Characteristics

In each of the 9 districts, 5 FGDs were conducted with the mothers of children less than 2 years of age in 5 different union councils (UCs). Three of these UCs were rural and two were urban. Each FGD was conducted by a trained female facilitator and she was also assisted by a note taker. The discussion was also recorded after obtaining informed consent of the participants. Ten In-depth Interviews (IDI) with mothers (two in each UC), ten IDIs with decision makers (two in each UC with Husband/Mother-in-law in selected households), and five interviews with Key informants (LHVLHW/Dai) were also conducted.

Characteristics of Mothers who participated in FGDs

Total 404 mothers of the children with the age of less than 2 years participated in 45 FGDs in nine districts (preference was given to include mothers with children less than one year age). Number of participants of each FGDs in the selected UCs in all districts are given below:

District	UC	Name of Area	No of Participants	
Charsadda	MC4	Quaidabad (U)	9	
		Umer Zai	Farij Kheil (U)	8
	U:17	Utman Zai	Umer Zai (R)	9
	R:28	Turlanda	Turlanda (R)	9
	T:45	Nissata	Nissata (R)	10
Lakki Marwat		Lakki I	Lakki I (U)	9
		Sarai Naurang	Sarai Naurang (U)	13
	U:22	Landawah	Landiwah (R)	9
	R:30	Marmandi Azim	Marmandi Azim (R)	12
	T:52	Pezu	Pezu (R)	9
Huripur		Ali Khan	Ali Khan (R)	8
		Darvesh	Mohalla Pangoron Wala (R)	9
	U:18	Sarai Saleh	Mohalla Pathan Wale (R)	9
	R:26	Wasti	Mohalla Eid Gah (U)	10

T:44	Janobi	Noor Colony (U)	8
Pichin	City One	Babu Mohallah (U)	8
	Killi Machan	Killi Machan (U)	8
	U:16	Batezai	Batezai (R)
R:26	Faizabad	Faizabad (R)	7
T:42	Huramzai	Huramzai (R)	11
Khuzdar	Ghazgi	Ghazgi (U)	7
	Faizabad	Civil Colony (U)	8
	U:15	Ferozabad	Zehri (R)
R:21	Karakh	Karakh (R)	7
T:36	Zeedi	Zeedi (R)	7
Sukhar	UC 8	Shamshar Shah Colony (U)	8
	Badal Bakus	New Yard Rohri (U)	8
	U:16	Arain	Arain (R)
R:26	Saleh Pat	Bargah Aashiq Hussain Shah (R)	8
T:42	Hangoro	Hangoro (R)	9
Dadu	Thallo	Thallo (R)	9
	Bali Shah	Bacho Wahan (R)	9
	U:19	Pipri	Pipri (R)
R:26	UC 4	Bilawal Zounr (U)	10
T:45	Johi	Babar Mohalla ward No.2 (U)	9
Jehlum	UC 14/3	Paras Mohallah (U)	8
	PD Khan (City)	Shah Alam Mohallah (U)	13
	U:21	Janjeel	Janjeel (R)
R:30	Pind Matey Khan	Dhok Chaudrian (R)	10
T:51	Golpur	Golpur (R)	10
DG Khan	Sokar	Sokar (R)	11
	Sakhi Sarwar	Mohalla Gous Bakhsh (R)	9
	U:16	Shadan Lund	Hamdani (R)
R:31	UC No.7	Shakir Town (U)	7
T:47	Taunsa Sharif	Mohalla Shaikhan Wala (U)	9
Total			404

The age of the mothers ranged from 16 to 45 years with a median of 26 years.

The total living children of these mothers ranged from 1-13 (median 3.0 and Mean 3.5). The number of daughters ranged from 0-7 (mean 1.7). The number of sons ranged from 0-11 (mean 1.7).

The age of the youngest child ranged from less than a month to 18 months with a median of 8 months. Three fourth of all participating mothers had their youngest child less than one year old.

More than sixty percent of the mothers were illiterate. Only 8 percent had 10 or more years of education

A variety of occupations were reported for the spouses of participants. Most of these included laborers, farmers, shopkeepers, watchmen, teachers, businessmen, working abroad, tailor, driver, government servant, carpenter and mason. Majority of mothers belonged to joint and extended families. Greater number of mothers in urban areas tended to belong to nuclear families.

Characteristic of Mothers for In-depth Interviews

A total of ninety mothers (10 from each district) were selected for in-depth interviews. Out of the ten from each district, 4 were from urban and 6 from rural areas. Majority of them belonged to extended families. The age of mothers ranged from 18 to 40 years with a median of 26 years. Number of living children for these mothers varied 1 to 11 (mean 3.5 and median 3.0).

Number of sons varied from 0-8 (mean 1.85) and the number of daughters varied from 0-7 (mean 1.6). The ages of youngest child ranged from few days to 18 months with a median of 6.5 months. Half of these mothers were illiterate while only 18 percent had ten or more years of education. More than 90 percent of the mothers were housewives, others reported doing embroidery, running small shops and teaching. Mostly the occupations of their spouses were of low income.

Characteristics of Decision Makers

A total of 90 household decision makers were interviewed. These comprised mother-in-law, father-in-law and husbands of the mothers with less than 2 years old youngest child. Two household decision makers were selected from each UC thus making the total number of 10 decision makers from each district. The decision makers were selected keeping in mind their availability and willingness to give interview. Majority of them were husbands, followed by mothers-in-law and fathers-in-law.

The ages of mothers-in-law fall in the range of 35-75 years with a median of 60 years, the ages of husbands were from 26-43 years with a median of 35 years. The ages of fathers-in-law ranged from 46 to 75 years with a median of 59 years. Seventy eight percent of the mothers-in-law were illiterate. Among the husbands three were FA and two were Matric. Twenty five percent of the husbands were illiterate and an equal number had 10 or more years of education. Only 3 among the fathers-in-law had ever attended a school. Majority of the male decision makers were either farmers or labourers or had small businesses.

Characteristics of Key informants

The key informants comprised of *daiyan*, LHV, LHW. At least five key informants were interviewed in each district (one from each UC). The type of key informant selected in a UC depended on the availability and willingness of the respondent to give interview. Majority of these were, however, *daiyan* and LHWs. The ages of key informants ranged from 21 to 80 years with a median of 45 years. Majority of *Daiyan* were illiterate whereas the LHWs had

upto 10 years of education.

2.4 Monitoring Plan

The fieldwork was very closely monitored by the TL and DTL. They technically monitored the progress through telephone daily and the team members read out the entire transcription and got the feedback.

Each team also reported daily to PM about the day's activities and progress, through phone and the PM ensure that the work is carried out on schedule and resolved all logistic problems in field. She also ensured that the transcripts are forwarded to AAA Office regularly.

2.5 Quality Assurance

The quality was assured through

- Hiring of experienced staff
- Training of FROs by core team members
- Thorough pretest of the study tools
- Daily reporting of fieldwork and narration of transcription on phone to TL and/or DTL from all field sites.

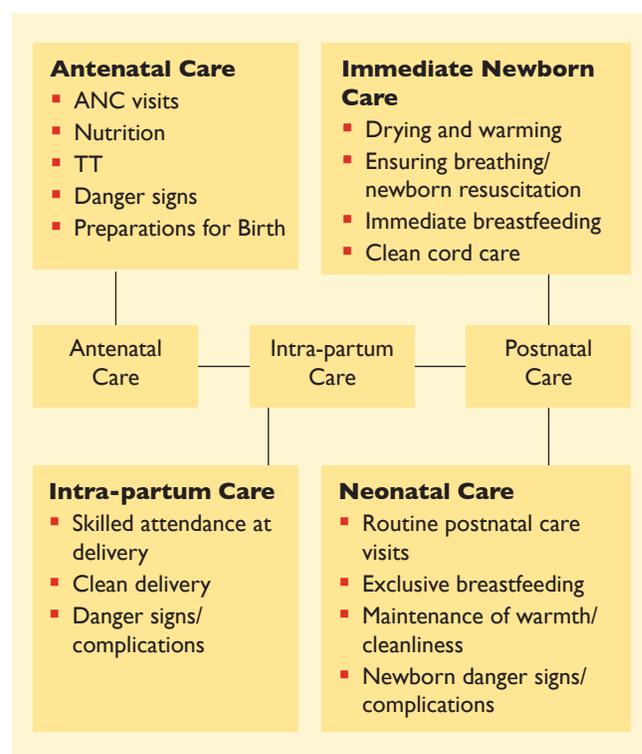
2.6 Data Analysis and Final Report of Findings

The data analysis was done manually by going through the transcripts and seeking inputs from the FROs to have more clarity of the information. The "Saving newborn lives – Tools for Newborn Health: Qualitative research to Improve Newborn Practices by Ronald P. Parlato, Garry, L. Darmstadt, and Anne Tinker" was used to guide the analysis of the data.



Findings

The assessment has focused on three important periods of essential newborn care, i.e., antenatal, intra-partum (during labor and delivery), and post natal as indicated in the diagram below:



Modified from: Ronald P Parlato, Gary L. Darmstadt and Anne Tinker. 2004 Saving Newborns Lives - Tools for Newborn Health, Qualitative Research to Improve Newborn Care Practices. Save The Children. Washington, USA.

Theme 1 - Antenatal Care to Prevent Problems in Newborn (LBW and Neonatal Infections)

Newborn care starts before birth in pregnancy as a mother needs to be given adequate nourishment, kept free from infections, monitored for emergence of complications. For these, preventive measures are advised or prompt treatment is given. Effective care in pregnancy is the first step towards newborn care. For example, the following actions are taken to prevent newborn problems.

Antenatal Care Actions	Newborn Problem It May Prevent
Maternal immunization with tetanus toxoid	Neonatal tetanus
Screening and management of under nutrition	LBW
Screening and treatment for anemia	LBW
Micronutrient supplementation	LBW
Screening and treatment of STIs	Gonococcal or Chlamydia eye infections, sepsis, abortion, still birth, congenital syphilis
Malaria prevention	LBW, prematurity, abortion

Discussions were held with mothers in FGD's and IDI's and with decision makers and key informants about certain measures in pregnancy that has effect on LBW and neonatal infections, including neonatal tetanus. These include:

- Pattern of seeking antenatal care
- Reasons for seeking or not seeking antenatal care
- Dietary changes during pregnancy
- Changes in workload
- Maternal immunization for tetanus toxoid (discussed in section 3)

1.1 Pattern of Seeking Antenatal Care (ANC) Jhelum (in Punjab) and Charsadda and Haripur (in NWFP) are the 3 district where majority of mothers mentioned that they usually go to doctors or LHVs for ANC, however, the frequency of visits depends on two considerations: (a) availability of money, and (b) illness. For some it was once every month and for majority it was at least 3-4 times during pregnancy.

“Even if we do not have money, we borrow from others to go for check up during pregnancy. It is a must to go” (Mo-Golpur, Jhelum)

“Mothers do not go to any dai for check up but go to doctors” (FGD-Utman Zai, Charsadda)

Hospitals, doctors, private clinics and LHVs were mentioned for seeking ANC.

Seeking ANC follows the affordability by individuals and most cannot afford it, therefore, do not seek it unless there is illness or problem in pregnancy. Hence, it becomes clear that women do not give much value to the advice, iron tablet and TT immunization given by LHVs. For them, ANC is check up by doctor and getting ultrasound done.

In the other 6 out of 9 districts, women are mostly not seeking ANC, and those who are seeking, belong to the urban areas.

“In the past people did not have much knowledge about check ups during pregnancy, but now LHW goes to every one's house and they have gained a lot of knowledge from her. She advises to go for regular check-ups during pregnancy” (FGD- Faizabad, an urban area in Khuzdar).

The main reasons for the contrast in rural and urban areas regarding seeking ANC appears to be lack of facilities and relative poverty in rural areas.

A number of participants could not think of visiting a health care provider (HCP) if everything was proceeding normally.

“We do not care about minor illnesses and we only go to hospital when it becomes intolerable like fever does not stop for 4 -5 days” (FGD-Johi, Dadu).

“If there is some problem like, pain in ribs, high or low blood pressure, blood deficiency, only then we go for check ups.” (FGD-Darvesh, Haripur).

The problems during pregnancy for which ANC is sought were reported to be the following

- Giddiness
- Loss of appetite, indigestion, vomiting
- Turning pale or yellow
- Weight gain or swelling of body
- High blood pressure
- Bleeding

- Pain in the Uterus
- IV infusion for gaining strength (*taqat*) and overcoming weakness

Many mothers said that they if they go to a doctor in case of any problem, the doctors tell them to take iron tablets. Usually doctors advise for bringing change in the diet of women to include items that can overcome the deficiency of iron, vitamin and calcium. Along with, the doctors also prescribe medicines for gaining strength. In one **rural** FGD (Arain, Sukkur) mothers reported that the LHW also advise them to take iron and calcium tablets. However, it is not always possible for the mothers to buy medicines due to poverty and they do not take those regularly or at all.

Other women reported issue of accessibility or cultural restrictions for not seeking ANC:

“Most people do not go for check up or ANC in our village because there is no facility in the village and the government hospital is also very much far away. The rich people also go only in case of some problem” (FGD- Landiwah, Lakki Marwat).

“We do not take any ANC throughout the pregnancy because our men say that it is something shameful that women do” (FGD-Pezu, Lakki Marwat).

“I didn’t go for check up at all. Our husbands are very strict. In case of any problem, treatment is done by herbs and we never go out.” (IDI, Mo- Zeedi, Khuzdar).

“We cannot go outside for any check up during pregnancy. Since we are a Pathan family, this is not the culture. Our husbands are very strict and so are our fathers-in-law and mothers-in-law. Dai is called at home but she doesn’t know much. When the woman is about to die only then they take women to a health facility but only if the husband can arrange for transport. There is a doctor nearby but she charges a lot of money and poor can’t go there” (IDI, Mo- Huramzai, Pishin)

In one district (Lakki Marwat) many mothers hesitate to tell about their pregnancy to other family members because of shyness, thus limiting their chances themselves for seeking ANC.

“Here men come to know about pregnancy after 3, 4 or 7 months that the woman is pregnant. It is a matter of shyness that is why we do not tell them” (IDI, Mo- Marmandi Azim).

“I came to know about the pregnancy of my wife after four months” (IDI, Husband-Marmandi Azim)

Even if the pregnancy is known to the family members, some women feel very shy in sharing about the problems that they may be suffering from during pregnancy.

“I used to have vomiting and pain in uterus throughout nine months but I did not tell to any body because of shyness” (IDI, Mo-Landiwah)

In one area in Sukkur, women reported that they do not go to any health care provider at all even in case of a problem.

“Here nobody goes to a doctor no matter what happens, even if the woman dies.” (FGD-Hangoro, Sukkur).

Those who seek ANC in these 9 districts, mostly go for any of the following 4 reasons:

1. Want to be sure about the position and condition of the fetus for determining whether they can deliver at home or not. It was stated that it is important for mothers to know the position/condition of fetus so that they can assess whether the delivery will be normal and could it take place at home or the mother will have to be taken to facility.

“How would a mother know whether the fetus is upright or upside down if she does not go for a check up” (FGD-Shakir Town, DG Khan)

2. To know if pregnancy is progressing normally

“I went for antenatal check up because the baby was motionless. Sometimes he used to move very fast sometime he was static. Then the LHV advise me to visit a doctor for check up” (IDI, Mo-PDI, Jhelum)

3. To seek treatment if they suffer from some problem

“I went to the doctor in seventh month when I had pain in the uterus and bleeding.” (IDI, Mo-Arain, Sukkur)

4. To overcome weakness and improve their health for improving health (birth weight) of the newborn. Mothers mentioned that if the mother is weak the fetus can die in her abdomen.

Some *daiyan*¹ reported that women also come to them for check ups and to know about the position of the baby especially in 8th month. Some advise women to go for an ultrasound and those who can afford act upon their advice.

“I advise mothers to go for check up in the last month to check the position of the baby” (IDI, Dai-Pezu, Lakki Marwat)

Lady health workers said that they advise women to go to the doctor for ANC during pregnancy but again only those who can afford go to the doctor.

In both rural and urban areas, some women stated having a role in decision making about ANC, but they also emphasized that actions are taken with the permission of mothers-in-law in joint families and husbands in nuclear families.

“In those households where mothers-in-law live with the couple the decision is made by the mother-in-law and in other households husbands take that decision” (FGD-Sarai Saleh, Haripur).

Very few mothers spoke of family support from their husbands and mothers-in-law for seeking ANC, and they were mostly from urban areas or belonging to relatively well off families.

“My husband and MIL decided for the check up. They were in favor of the check up” (IDI, Mo-Lakki 1, Lakki Marwat)

In contrast to mothers’ opinion, some of the mothers-in-law and husbands reported that they take the mothers for ANC; however, it appears that they take this action for the well-being of the fetus rather than for mother.

“We took her to a doctor twice during pregnancy to see whether the baby was alright” (IDI, FIL-Pezu, Lakki Marwat)

Care seeking largely depends on availability of money, education and support of the family members, and problems/illness during pregnancy. These factors will be discussed further in Section 7 dealing with “Seeking Care from Outside Home”.

1.2 Dietary Changes in Pregnancy

Very encouragingly, **most participants in all FGDs**

expressed that there is relationship between the diet of mother and the health of newborn; however, there was variation among this perceived relationship. Majority believed that both mother and fetus benefit from better diet and mentioned that if the mother is weak, it has a bad impact on the health of the fetus.

“There are some areas where the fetus/newborn dies; these people have nothing to eat. The fetus turns very weak and the mother suffers and she cannot give birth. All this depends on diet. If she eats healthy diet everything will be alright.” (FGD- Shakir Town, DG Khan).

“Women increase their diets because both woman and fetus cannot live on the normal diet. In pregnancy women feel hungrier and elders say that we should eat whenever we feel hungry because if we stay hungry then the fetus is affected badly.” (FGD- Zeedi, Khuzdar).

Only a few women denied any relationship between the diet of the mother and the health of the baby.

“Health is given by God and does not depend on diet of the mother.” (FGD-Badal Bakus, Sukkur)

Besides health in terms of size and normal shape of newborn, the **diet of the mother was also related with the beauty of the newborn** and relative ease in delivery.

*“We eat more so that the fetus is healthy and is delivered easily. The diet is also changed so that the baby **becomes fair**. For example, if a mother takes one apple and milk regularly her baby will have a fair complexion and is very healthy (Tagra)” (FGD-Wasti, Haripur)*

However, the **change in diet was more in urban areas** as compared to rural areas.

“We change the diet so that the baby gets strength” (FGD-MC4, Charsadda)

“We bring change in our diets and it is a must” (FGD-Ghazgi, Khuzdar)

The change in diet is according to affordability, and mostly **poor in rural areas do not make any change** because they cannot afford.

1. *Daiyan* = plural of *dai* (not *dais* as mentioned in several text)

“I did not bring any change. It all depends on money and poverty is quite prevalent” (IDI, Mo-Bali Shah, Dadu).

“It is on the financial conditions. Not every one can afford to bring any changes. If they can afford they include milk and fruits such as apples and bananas” (FGD-Faizabad, Pishin).

“I was very weak but I did not bring any change in my diet because of poverty. Many people advised me to eat healthy food such as milk, meat, fish and fruits but I could not buy anything. If I bought those by any chance, I used to give it all to my children.” (IDI, Mo-Hangoro, Sukkur)

“We give even our share to our children because we do not want our children to stay hungry” (FGD-Arain, Sukkur).

“I did not advise her to change her diet. Though I wished but we do not have any resources for that” (IDI, Husband –Janjeel, Jhelum)

LHWs interviewed in depth stated that people in **rural** areas usually cannot afford to include whatever they desire in their diet as they get two times meal with difficulty, however, they still advise them to increase their diet in whatever way they can.

“I always advise women to double their diets at least and if they cannot eat more fruits then take green leafed vegetables. Milk is good for the bones of mother and the baby.” (IDI, LHW- Ghazgi, Khuzdar)

Certain food items such as milk and fruits are considered good for the pregnant woman but poverty hinders their acquisition.

“Here people cultivate vegetables. I tell women to eat more vegetables during pregnancy and people have goats, so they can drink their milk. At time of delivery woman can endure labor pains if she eats good food during pregnancy.” (IDI, Dai- Karakh, Khuzdar)

“They say that milk is good for health but how can we buy it. We cannot afford it” (FGD-Saleh Pat, Sukkur).

“We do not take milk or fruits because we are poor and cannot afford it. We are poor and why should we bother our men so much” (FGD-Arain, Sukkur).

It was reported in one district (DG Khan) that **some women smoke huqqa (hubble bubble) and eat clay** but this was considered as a bad practice by the participants and it was argued that only the illiterate women of the mazaray (cultivators) do that.

In some districts (Sukkur, DG Khan, Jhelum, Haripur, Lakki Marwat), in both or either in urban and rural UCs, **doctor’s advice was mentioned to be a reason to bring any change in the diet of the pregnant woman** though many women said that they usually cannot act upon doctor’s advice due to poverty.

“Doctors advise us for bringing change in our diet and to take medicines for gaining strength but we do not do anything because of poverty” (FGD- Hangoro, Sukkur)

“Doctor advised my wife to take milk and fruits such as banana and apples. She included these in diet in the third month. The doctor also advised to lessen spices or anything that is hard to digest” (IDI, Husband-Badal Bakus, Sukkur)

“I have started to drink milk this time because earlier I have experienced two abortions. Doctor has asked me strictly to drink milk this time.” (IDI, Mo- Sakhi Sarwar, DG Khan)

“I used to eat meat, but during this pregnancy the doctor advised me to stop eating meat as I was growing fat” (IDI, Mo-I 4/3, Jhelum).

“Doctor says that mothers should take more diet as it is a source of strength for both baby and the mother” (FGD-Landiwah)

Some mothers in districts Jhelum, DGK and Sukkur, Lakki Marwat reported even **decreasing the food intake** for various reasons:

“I decrease my diet during pregnancy because I felt nauseated and I did not feel like eating anything.” (IDI, Mo-Gol Pu, Jhelum).

“Mothers should not eat more than optimal so that the fetus does not get too healthy that he cannot be delivered. So, one has to be careful not to eat too much” (IDI, Mo- Shakir Town, DG Khan)

“Women eat less so that the fetus does not become too healthy and becomes difficult to deliver because

then they have to go for an operation and spend money for it” (FGD- Arain, Sukkur)

“Mothers should not take much diet as the baby becomes healthy and it is difficult to deliver” (FGD-Landiwah, Lakki Marwat)

Mothers at an urban FGD (Ghazgi, Khuzdar) said that they decrease their diets during pregnancy because they believe that more food can cause *Leeter ki bemari* (small *daney* in womb) that can harm both mother and the baby.

Some mothers and family members either did not see any relationship between the diet of the mother and the health of the newborn or they had some misperceptions in this regard. Many mothers and mothers-in-law reported that hot foods such as eggs and chicken are avoided by a pregnant woman. Hot foods are considered to cause bleeding and abortion of the fetus.

“Mother’s diet has no influence over the health of the babies. Mothers take this diet for their own health only” (FGD-Sarai Naurang, Lakki Marwat).

“Elder women advise us not to eat hot foods during pregnancy. For instance, honey, eggs, desi ghee, fish and dates... Hot foods can cause high blood pressure and might result in spontaneous abortion.” (FGD-Darvesh, Haripur).

“From 2nd month mothers avoid chicken, egg, pulses, coconut, cauliflower, and potato, because they are hot and can cause the baby to turn blue and chest problems (*chati karab ho jati hai*)” (FGD-UC4, Dadu).

“I advised my daughter-in-law to avoid hot foods because these can harm the baby. Hot foods can cause bleeding.” (IDI, MIL- Faizabad, Khuzdar).

Cultural traditions and lack of moral support were also reported as reasons for not taking proper diet during pregnancy in districts of NWFP.

“In our areas, it is considered as a matter of shame if a mother takes care of her diet during pregnancy” (FGD-Sarai Naurang, Lakki Marwat).

“The in-laws talk bad things about the diet of the mothers (if she eats more) so the mothers do not eat more” (FGD-Pezu, Lakki Marwat)

“Mothers-in-law say everybody gives birth there is nothing new about you that you should feel weakness” (FGD-I 4/3, Jhelum)

“It depends on in-laws that how much they give to eat” (FGD-Janjeel, Jhelum)

On the contrary the **mothers-in-law and husbands in their interviews were very supportive** in encouraging the mothers to increase their food intake. Some mothers-in-law also reported preparing special food (*halwa* and *panjeeri*—believed to be highly nutritious) for their pregnant daughters-in-law.

Daiyan and LHWs generally reported that they advise women to eat full meal and include fruits (such as apples and banana), fish, meat and green leafy vegetables in their diet to overcome iron, vitamin and calcium deficiency. *Daiyan* and LHWs said that most women cannot bring such changes because of poverty so they **advise them to at least double their diets and also take medicines for gaining strength** such as iron supplements, including folic acid. LHWs in Pishin and Khuzdar also mentioned distributing iron tablets. One *dai* (Hangoro) said that she prohibits women to take these medicines in 9th month as the baby can become too healthy and is difficult to deliver.

Hence, it could be concluded that **most mothers do perceive the importance of good diet to have a healthy baby but they are not clear about the quantity and quality of diet that makes it a good diet. Also majority of them are constrained to increase or change the diet due to non affordability.**

1.3 Work Related Changes in Pregnancy

Bringing **changes in routine work during pregnancy was not reported** as a common practice by most women in all districts. **On one hand women are not able to increase the intake, and on other they are not able to decrease the workload on them to conserve energy.** A known factor for LBW is hard physical work for many hours with no rest by pregnant woman.

According to the participants, changes in daily routine are most of the times associated with the problems/ illness related to pregnancy. Pregnancy itself is not considered something that should stop a woman from carrying out her normal roles and responsibilities.

Neither the pregnant woman expects that her

responsibilities would be taken over by some other family member, nor the family members expect her to quit her normal roles. However it is different if some problem is recognized by the family itself or diagnosed by a healthcare provider and the pregnant woman is labeled as suffering from illness. Thus pregnancy does not require readjustment in roles concerning the performance of household chores.

“This (pregnancy) is a routine matter here, what precautions should one take? Deliveries take place by God’s will and the babies grow up by themselves. Women are pregnant every other day, what changes should they bring about?” (FGD-Sakhi Sarwar, DG Khan).

“All the chores have to be done by the woman. No matter how much pain one has to suffer, the chores have to be finished on time.” (FGD-Saleh Pat, Sukkur).

*“We do not bring any changes. In fact, **we increase our work load** during eighth and ninth month, such as washing clothes, so that the baby is delivered easily” (FGD-Wasti, Haripur).*

Most women usually carry out all chores by themselves and **only avoid certain work for a few hours or days in case of any severe problem** as bleeding, ache in back or limbs, giddiness and vomiting. Some of her role may be shifted but even then she has to bear the brunt of unfair talk about her.

“If there is some problem such as back ache, pain in uterus, giddiness or vomiting during the first three months then work routine is changed for some days. After that the woman goes back to her normal routine. If there is no problem then the woman works from the first month till the birth of the baby.” (FGD- Hangoro, Sukkur).

Lack of support from the family in changing work routine was reported by most women in rural areas and a few in urban areas as well. Even most husbands and mothers-in-law interviewed in-depth in **rural** areas said that they did not advise or help out pregnant women in household chores.

“My daughter-in-law kept on doing her routine work as there is no one else to do anything. A woman is made to do household work. I’ve also borne thirteen children and did all the household chores. No woman dies of

doing any household chores.” (IDI, MIL- Batezai, Pishin).

There were some misperceptions also as some mothers did not see any relationship between work and diet during pregnancy with health of the mother and the newborn.

“I did not bring any change in work because it is a custom in our family that we (women) have to do a lot of heavy work but this heavy work did not affect any of my pregnancies” (IDI, Mo-Landiwah, Lakki Marwat).

Majority of mothers, however, emphasized that they try to avoid heavy work and take some rest but they also said that they **were helpless in the face of circumstances.**

“One should not do heavy work like picking up a filled bucket. One should also not do those works which require bending like washing clothes, as these are also included in heavy work” (FDG-Sokar, DG Khan)

“Heavy work causes a lot of pain in the back but one has to do it as there is no other option” (FGD-Pezu).

“I am very well aware that one should not do heavy work in pregnancy but I have no option” (IDI, Mo-Turlanda, Charsadda).

“I kept on doing all sorts of work except the heavy work such as picking up heavy things because it can cause abortion” (IDI, Mo-Arain, Sukkur).

“One mother died a week ago in our villages in her 8th month of pregnancy due to heavy work. She fetched water from a well and started bleeding. By the time vehicle was arranged for her, she was dead” (FGD-Marmandi Azim, Lakki Marwat).

“Elders say that work does not affect pregnancy. And if the baby gets aborted because of work, they (elder women) say it is not a big deal you will be pregnant again. For them woman is a child-producing machine” (IDI, Mo-Turlanda, Charsadda).

On the contrary to what mothers reported, **most decision makers interviewed in-depth, said that they advise their wives and daughters-in-law to stop picking up heavy things** such as bundles of grass and working in the fields, specifically in the 8th and 9th month of pregnancy. They also advise them to do only those work which can be done in sitting position like washing

dishes. Climbing stairs is also reported to be avoided by women during pregnancy.

“I stopped her from doing heavy work because if the babies get aborted. Due to this the people will say that the mother-in-law is very cruel and makes her daughter-in-law do such difficult work in pregnancy” (IDI, MIL-Pind Matey Khan, Jhelum).

“I did not let my daughter-in-law to do any work during pregnancy because by doing heavy work the baby gets aborted. One woman I know washed clothes in pregnancy and her baby was aborted” (IDI, MIL-Utman Zai, Charsadda).

“My daughter-in-law was very weak so I told her to take rest and do not get tired because exhaustion causes the baby to grow weak” (IDI, MIL- Faizabad, Khuzdar).

“I told my wife not to go to cut wood and pick heavy things because I feared that she would grow weak and then the baby would be born weak.” (IDI, Husband-Faizabad, Khuzdar).

Doctor’s advice is a motive to avoid heavy work by some.

“Doctors advise not to do heavy work such as picking up heavy things as it can affect the fetus badly. These changes are brought about by the woman who is weak, while healthy women do not bring any changes” (FGD-Badal Bakus, Sukkur).

Doing any work in bending position or heavy work was termed dangerous by the *daiyan* and LHWs as it can cause abortion of the fetus. *Daiyan* said that it can also result in premature birth of the baby.

In extended families, other women in the family including mothers-in-law and sisters-in-law may perform the heavy work instead of the pregnant woman.

*“Those who do not have mothers-in-law have to do all the household chores. However, those who have **mother-in-law or sister-in-law** do not do it.” (FGD-UC 8, Sukkur).*

“I do not do heavy work during pregnancy. My mother-in-law and sisters-in-law do most of the heavy work and divide work with me.” (FGD- Ghazgi, Khuzdar)

Number of pregnancies also affects the behavior of the family members in assisting the pregnant woman in household chores.

“At the time of first baby everyone takes great care and they are also hoping that it may be a boy” (FGD-UC 8, Sukkur)

“During the first pregnancy everyone is very concerned and take better care of the woman. However, in later pregnancies everyone says that everything is fine and this is nothing new” (IDI, LHW-Arain, Sukkur).

LHWs said that they advise women to take rest and lessen their workload during pregnancy

but only those who have the favorable circumstances act upon their advice. LHWs said that in villages it is a custom to have early marriages and women also work outside home such as cutting wood. Women have large number of children and birth spacing is not practiced which is why it is not possible for women to take care of themselves or lessen their work load.

“Women are advised to take rest but many do not take much care. If a woman is too young like 18 years old and has three babies already then how can she take care of herself?” (IDI, LHW- City One, Pishin)

“Women usually have 12 to 13 children. It is not possible for them to take care of themselves and bring any changes in their work routine.” (IDI, LHW- Batezai, Pishin)

Conclusions and Summary

Factors	Findings
Economic	<ul style="list-style-type: none"> ▪ Poverty is a distinctive factor that hinders any antenatal care seeking and bringing any desired change in diet and daily work routine. ▪ Some women do not seek ANC even in case of illness or problem due to poverty.
Informational	<ul style="list-style-type: none"> ▪ Many mothers are not seeking any ANC even during illness and problems. ▪ Most mothers do not understand the benefits of ANC for themselves and the fetus. ▪ Most women do not understand the proper care required in ANC. ▪ Not all mothers realize that there is relationship between the diet of mother and the health of newborn. Some even decrease the diet to have smaller baby and easier delivery. ▪ Certain food items such as milk and fruits are considered to be healthy for the mother and the fetus and are included in the diet. However, due to poverty it is not possible to consume them regularly. ▪ There are misconceptions about the affects of different food items as they are considered harmful for the fetus. Many of these items contain proteins and vitamins. Hence, even those who can afford are avoiding them. Moreover, the quantity of intake is also very less.
Socio-Cultural	<ul style="list-style-type: none"> ▪ In Lakki Marwat, most mothers feel shy to inform others, even husbands, about pregnancy and they may learn it in 7th month. This hinders women from seeking ANC. ▪ Presence of illness/problem plays a facilitating role in visiting health care providers and taking rest, only if one can afford to do so. ▪ Lack of support and criticism from family members is also a reason for not increasing diet during pregnancy. ▪ A few mothers eat less to have smaller size babies and easy delivery. ▪ Family structure and type also influence the shifting of roles during pregnancy. Mothers in extended family do get support from other females. ▪ More attention may be given to the first pregnancy as compared to the following ones. ▪ Work routine is often not changed as pregnancy is considered a routine matter. Decrease in workload in normal pregnancy is not well accepted by the family. ▪ Some women smoke hubble bubble and eat clay in a few districts. ▪ Men seem to place ANC very low on the scale of priorities.
Supply	<ul style="list-style-type: none"> ▪ LHWs are distributing iron tablets in Pishin and Khuzdar, while in some other districts mothers stated that they do not take iron as they cannot afford it indicating that iron is not being distributed to all pregnant women by LHWs.

Theme 2 – Low Birth Weight

Almost all participants reported that “appearance of the newborn” is used as a criterion for judging the health of the newborn.

Mother herself, *daiyan* or elder women in the family can tell whether newborn is healthy or not by having a look at him/her. If the newborn appears to be **chubby** the newborn is termed as healthy. **Activeness, good sleep, crying, normal breathing and suckling**, were also reported as indicators of newborn’s health. On the other hand if a newborn has yellow skin, disturbed sleep and is very weak in appearance then s/he is perceived to be a weak baby.

“Healthy newborn is heavy and thick/chubby and one assess from his round wrist that the newborn is healthy” (FGD-Sokar, DG Khan).

“If the baby is chubby (motta) and his/her color is good we call her/him healthy and if s/he does not show proper activity we say that the baby is weak” (FGD-Turlanda, Charsadda).

“If the stomach of the newborn is chubby it shows that the baby is healthy. If it is small and thin I recognize the baby as a weak one” (IDI, Dai- Johi, Dadu).

“If she does not drink milk and keeps crying then his/her health is not good and s/he is weak” (FGD- PDI, Jhelum).

“I judge by appearance of the baby and by picking her/him up. If the baby cries and breathes normally then s/he is healthy. If the baby is smaller than usual babies then we consider them weak. People do not weigh babies here so we get to know only by guessing.” (IDI, Dai-Karakh, Khuzdar).

The LHWs and the *daiyan* largely echoed what mothers and the family members had said about the criteria for judging the health of the baby i.e. appearance viz. chubby, red faced, no wrinkles and holding the baby. However, importantly, most LHWs said that they weigh the newborns and the normal weight for a newborn is 2.5 kg. One LHW also said that the weak baby does not cry. They associated weakness in newborns with blood deficiency in mothers and deficiency in food intake during pregnancy.

In contrast, weighing the newborn as a routine practice was reported only in 7 areas out of 45 where FGDs were conducted (2 in Sukkur - one urban (UC 8) and one rural (Arain) area, both urban areas

in Khuzdar (Faizabad and Ghazgi), and both urban (Killi Machan and Babu Mohallah) and one rural area (Faizabad) in Pishin.

In both urban areas of Khuzdar and rural area of Pishin and Sukkur, weighing is done by LHW. While in urban Pishin it is by LHW, LHV or a health facility; and in urban Sukkur most of the deliveries take place at hospitals where the babies are weighed.

“The LHW weighs our babies. The whole village goes to her to get their babies weighed.” (FGD-Arain, Sukkur)

In some other areas babies are only weighed if they are taken to the doctor for immunization or in case of any illness.

“If the newborn is taken to a doctor only then s/he is weighed otherwise we do not go for checking the weight of the newborn.” (IDI, Mo-Hangoro, Sukkur)

In one district (Charsadda), **some mothers thought that weighing was unnecessary.** They reported that they do not let their babies get weighed because they are created by God no matter weak or healthy. One mother said;

“We do not weigh the baby because God has created her/him weak or healthy” (FGD-MC4)

Certain superstitions were also reported with regards to weighing of the newborns

“Some people do not allow weighing the baby because they fear that the baby might catch evil eye” (FGD-Utman Zai, Charsadda).

“Mostly the mothers-in-law do not allow weighing the baby they say that by doing this weight of the baby will stop increasing” (FGD- Nissata, Charsadda).

Most mothers and decision makers had no idea of how much a baby should weigh at the time of birth in 5 out of 9 districts.

“I do not know about the normal weight but my daughter was weak and small. She was of full nine months.” (IDI, Mo-Sarai Naurang)

“We do not have any facility to weigh the baby so we do not know about the weight of the baby.” (IDI, Husband- Batezai, Pishin)

“The newborn is weighed in a balance and equivalent meat is given to the poor. This is how we get to know how much the baby weighs.” (IDI, Husband- Faizabad, Pishin).

While in 4 districts (Pishin and Khuzdar in Balochistan, Haripur in NWFP, and Jhelum in Punjab) many participants, both from urban and rural areas, mentioned that the normal weight of the newborn is 2.5 to 3 or 4 kg or 6.5 to 8 lbs.

“A newborn is healthy if s/he weighs 2.5 to 3 kg and has red skin.” (FGD-Arain, Sukkur).

“LHW comes to weigh the baby and tells us that the newborn is healthy or not. 8 pounds is the normal weight of a newborn” (FGD- Faizabad, Khuzdar)

Most Participants related LBW with mother’s diet during pregnancy. They said that the newborns are weak because the mothers do not take care of their own diet and cannot go for checkups.

“If a mother does not take medicines for gaining strength and does not take good diet then the newborn is weak...if a mother vomits what she eats during pregnancy then the newborn is weak” (FGD-Arain, Sukkur).

Various other reasons were also mentioned for LBW in different areas. These include:

- Blood deficiency in mother
- Mother suffers from some illness during pregnancy
- Early marriage
- TT is not sought during pregnancy
- Tensions
- No birth spacing (husband)
- God’s Will
- Parchanwa (shadow - meaning negative influence) of a possessed woman
- Parchanwa of a women who had a baby aborted before

“If the woman has some illness or suffers from any other problem during pregnancy then their babies are not healthy.” (IDI, Mo-Janjeel, Jhelum).

“If a girl is married at the age of 18 or less, then her babies are born weak” (FGD-Johi, Dadu).

“If TT immunization is not sought during pregnancy then the newborn is not healthy.” (IDI, Mo- Pind Dadan Khan, Jhelum).

“If the dai touches inside the vagina with hand during pregnancy the newborn is weak” (IDI, Mo- Shadan Lund, DG Khan).

“A baby is born of low weight because of the illness of mother. Mothers may suffer from TB or Yarqan (jaundice). For instance, in our village, one woman suffered from TB and her newborn was weak” (IDI, Husband-Ali Khan, Haripur)

“One reason is that there are **conflicts in the family** between husband and wife and with the mother-in-law. If the mother is in tension the baby is born pre-mature or LBW” (IDI, Mo-Umer Zai, Charsadda).

“One of the reasons for LBW is mothers’ diet and tensions and disconcert in the family” (IDI, FIL- Shadan Lund, DG Khan).

“The babies are weak because the parents do not give spacing between them. That is to say that one baby is still very small and on breast and the next baby is born” (IDI, Husband-Pind Matey Khan, Jhelum).

“Sometimes the mother eats well but the baby is still weak. Whatever the mother eats it doesn’t affect the baby. That is because of evil spirits (Bhari Uzar)” (FGD-Batezai, Pishin).

“It is upon God’s will. Sometimes the mother takes great care of her diet and eats well but her baby is very weak and has yellow or blue skin” (IDI, Mo-Gol Pur, Jhelum)

“The weak babies are like that because of the will of God” (FGD- Landiwah, Lakki Marwat)

“If the mother is weak and suffers from blood deficiency then the newborn will also be weak. If a woman picks up heavy things such as bundles of grass she will be weak. Babies are born of low birth weight because of heavy work that a mother does during pregnancy” (IDI, FIL-Badal Bakus, Sukkur)

Some mothers and decision makers from **rural** areas also related low birth weight of a newborn with evil spirits and measures are taken accordingly to ward off the spirits.

2.1 Local Terms for LBW

The local terminologies for LBW baby are different in each area and are presented in **Appendix I**.

2.2 Management of LBW

Two most common measures mentioned for management of LBW were **frequent breastfeeding** and **keeping an LBW baby warm**. However, frequent breastfeeding was not mentioned in 3 districts Khuzdar in Balochistan, and DG Khan and Jhelum in Punjab.

“We breastfeed an LBW baby frequently and keep her/him wrapped in warm clothes” (FGD-UC 8, Sukkur).

“If the baby is born weak the mother breastfeeds frequently and keeps her/him warm by wrapping in a blanket or quilt so that s/he does not get flu or fever due to cold” (FGD-Pezu, Lakki Marwat).

“My daughter was born very weak. I kept her warm, especially her chest by wrapping cotton on it.” (IDI, Mo-Huramzai, Pishin)

In addition, **newborn is given other items** to increase his/her weight:

Pishin

- Anis seed and *harrir* are boiled in water and that water is given to the newborn
- Cow milk is given with carom seeds mixed in it
- Local herbs are boiled in water and *ghutti* of this water is given so that the baby gains weight and his/her stomach stays well
- Honey mixed in green tea so that the baby stays warm from the inside

Khuzdar

- Anis seed and *harrir* are boiled in water and that water is given to the newborn
- Goat's milk is given till the time newborn starts to eat other food
- Local herbs are boiled in water and this water is given so that the baby gains weight and his/her stomach stays well

Haripur

- Egg yolk in black tea three to four spoon in the cold season
- Honey and mint in black tea
- If the newborn is premature mother does not have breast milk hence BFA (powdered milk) is given (FGD-Janobi)

Charsadda

- LBW is also given buffalo, cow or goat milk

DG Khan

- Half teaspoon of *Nonehal ghutti* mixed in milk is also given once a day
- LBW babies are also given food like, *misry* (sugar crystals), cardamom; *chandi key warq* (silver paper); *meetha soda* (baking powder) mixed with mother's milk; *desi ghee* mixed with sugar and water; anis seed, *ajwain* (carom seeds). Anis seeds, sugar and carom seeds are cooked in ghee and then given one teaspoon three times for first 3 days. One teaspoon of baking powder is mixed with mother's milk and then given every night for 40 days.

Jhelum

- Sugar salt solutions

Sukkur

- Buffalo milk
- Butter with *misri* (sugar crystals)

Other local practices for the management of LBW baby included:

- Oil massage of the baby (DG Khan,
- In FGD Taunsa (DG Khan), skin to skin contact was reported as practice for low weight baby. The participants reported that a traditional practice is that the mother takes off her shirt and places the baby at her breast for some time so that s/he gets warm. This practice, they said was however losing popularity.

“In past there was a practice that mother would take off her shirt and bring the newborn in contact with her body so that if s/he had caught cold, s/he might get warmth from mother. But now a days they go to doctors and do not do that anymore..... the elder women say that the(young generation) do not act on their advice and do not do that now (FGD-Taunsa Sharif)

- Recovery from low weight was associated by some participants with the diet of the mother. Mothers are thus given hot food including egg mixed with milk, *tarang* (a mixture of zeera, milk, ghee, cardamom, almond and flour), *yakhni* of *desi chooza* (chicken soup), ghee and dry fruits. They are made to drink more milk. It seems as if it is believed that the properties of food are transferred to the baby through mother's milk. (DG Khan, Jhelum). Intake of milk and tea is increased, and cow meat, *ojhri* (intestines), *desi ghee*, *oghra* (desi ghee and raw sugar cooked together) and *yakhni* (chicken soup) are given (Pishin).
- Mother should keep herself warm before and during

breastfeeding an LBW neonate as she believed that if the mother is cold the coldness transfers to the baby through her milk (DG Khan).

- Newborn is not taken out of the house for forty days to avoid evil eye and evil spirits (Haripur, Khuzdar, Pishin, DG Khan)
- LBW is not taken outside as s/he can get cold and may also get injured as s/he is considered very weak (Pishin).
- Mothers along with neonates are advised not to go under the trees or in the dark to avoid evil spirits (Haripur)
- Newborn is taken to a shrine for *dum* (spiritual healing) (Haripur, Lakki Marwat) or bath consecutively for one week (Charsadda).
- LBW is taken to a *mulla* for faith healing or a *maulvi* is called home to treat the baby (*IDI, husband, Zeedi, Khuzdar*).

Some other interesting practices came out for dealing with the LBW babies:

Haripur:

- Mothers reported that they had learned from their elders that the LBW **baby should be made to eat a live housefly** every Sunday for seven Sundays and the weak baby recovers. They thought that housefly is a cure for LBW (*Darvesh, Haripur*).
- An LBW is **weighed in a balance with shoes** every Sunday and the number of shoes is increased every time. This results in baby getting more weight (*Darvesh, Haripur*).

DG Khan:

- One participant mentioned that elderly women says that the newborn should be placed inside *ojhri* (intestines of cow or goats) after removing its content as *ojhri* sucks out the *bala* (evil) from her/him.

Sukkur:

In one rural FGD (Saleh Pat) interesting measures were described to ward off evil spirits from the newborn as s/he is considered to be weak because of that:

- gold is washed in water and the newborn is bathed with that water.
- a stick of size of the baby is placed on the roof to ward off the evil spirits.
- In another rural area (Arain) following home management practices for an LBW baby were reported:
- Wheat sack made of cotton is washed with coal ashes and water and spread on newborn's bed. Every Sunday the newborn is slept on that sack till his/her weight

increases.

- On a Sunday the mother of the baby, hovers cow dung over newborn's head seven times and places it on a green tree. As the dung dries the newborn becomes healthy. If the dung dries completely and the newborn doesn't get better then s/he dies.
- The newborn is taken to Shikarpur where *Samad* flowers grow. Petals of the *Samad* flower are put on newborn's head and then the newborn is given a bath.
- The baby is laid on the *Losan* grass that is very green in color. The mother turns her back to the baby. Another woman loudly says that the baby has become green, i.e., has become healthy. This practice is repeated till the newborn gains weight.
- On a Sunday, the newborn is passed seven times under the roots of an old tree.

All these practices are believed to help the baby gain weight and become healthy.

Most of the LHWs interviewed in-depth reported that they advise mothers to breastfeed an LBW baby more frequently than a normal newborn. Exclusive breastfeeding for 4 to 6 months is also advocated by them. *Daiyan* and LHWs also said that they tell the mothers to keep an LBW baby warm as s/he can catch cold and diseases easily.

"I advise the women to take an LBW baby to the doctor. In winters especially, I tell them to protect the newborn from cold and wrap in cotton and warm clothes." (IDI, Dai- Hangoro)

Few mothers in 3 districts (DG Khan, Haripur and Lakki Marwat) believed that LBW babies can only be treated by doctors.

"The low weight newborn cannot be treated at home at all. They have to be taken to a doctor" (FGD – Sokar, DG Khan).

"If the newborn is low weight, a doctor should be consulted because only he can do something" (IDI, MIL- Janobi, Haripur)

"We take such baby to a doctor and the doctor prescribes formula milk for her/him" (FGD-Lakki I, Lakki Marwat).

Conclusions and Summary

Factors	Findings
Informational	<ul style="list-style-type: none">▪ Weighing of newborn is practiced by mothers in only a few districts.▪ Majority of mothers relate weight of the newborn to diet of the mother but most do not know that how much should a baby weigh at birth▪ Appearance is the common criterion to judge whether a newborn is normal or not, hence the perception of normal weight is very subjective and visual.▪ Most participants were aware that the newborns at health facility are weighed.▪ Very few mothers consider less than normal weight as a condition for which a health care provider needs to be visited.▪ Frequent breastfeeding and keeping an LBW baby warm were reported as key home management practice in many districts.▪ Supplemental feeding with buffalo, cow or goat milk, butter, sugar crystals, honey, herbs, etc. reported.▪ Diet of a breastfeeding mother of an LBW baby is also considered important and it was reported to be improved in some districts.▪ None of the mothers are applying skin-to-skin contact.▪ Reasons given for LBW are both medical and superstition. Medical reasons mainly include insufficient diet and heavy workload, while a few also mentioned illness of mother, early marriage, frequent pregnancies. God's will and spirit possession were the core superstitious reasons.▪ Misconceptions about the reason for LBW also exists, such as not getting TT vaccination.
Socio-Cultural	<ul style="list-style-type: none">▪ Although majority of the mothers related diet and medicines for gaining strength during pregnancy with the health/weight of the newborn but they said they could not use those. LBW baby is considered to be possessed by evil eye or evil spirits.▪ In some districts many practices carried out to increase the weight of the newborn are based on traditional beliefs and knowledge and do not relate in any way with the diet or warmth of the newborn.▪ Visiting shrines for LBWs and seeking spiritual healing is a common practice in some districts.▪ Some socio-cultural practices for LBWs can harm the baby, such as the practice of feeding fly, or bathing daily at the shrine.

Theme 3 - Neonatal Sepsis

3.1 Maternal Immunization with Tetanus Toxoid

Mothers are immunized to prevent them from tetanus and also the newborn from neonatal tetanus, which is significantly common in Pakistan and is included among the contributors of neonatal mortality.

Mothers **in 4 districts** (DG Khan, Jhelum, Charsadda and Haripur), both in urban and rural areas reported that **TT immunization is sought by most women**, while **in other 4 districts** (Khuzdar, Pishin, Lakki Marwat and Sukkur) mostly **women in urban areas reported to go for it. In Dadu, very few women reported seeking TT** both in urban and rural areas.

“All the women we know have had TT injection during pregnancy.....there is now no one here who does not go for a TT injections.All of them do” (FGD- Janjeel, Jhelum)

“T.T injections are given at home by the LHW or we get those from Civil Hospital but almost all women go for T.T injections.” (FGD- Faizabad, Khuzdar).

The LHW and immunization teams were also reported to go to administer TT injections at home. In some districts (DG Khan, Jhelum, Lakki Marwat, Khuzdar), government hospitals and LHV were also reported as the source for acquiring TT.

“All women go for TT immunization. Either the LHW makes cards and they go to the hospital or the team from the hospital comes to provide immunization.” (FGD-Arain, Sukkur).

“We go at the government facility where they give TT injections” (FGD- I 4/3, Jhelum)

The **participants were not sure about the appropriate time for TT** immunization and it varied from 3rd to 9th but **most mothers mentioned that 2 injections of TT are to be taken in a pregnancy.**

“Mostly women go in 7th, 8th and 9th month because T.T injections are given in 7th and 8th month” (FGD- Lakki I, Lakki Marwat).

“All mothers go for TT injection during pregnancy in 4th and 5th month” (FGD-Utman Zai, Charsadda).

“All mothers take TT injections.Two injections are received during pregnancy i.e. one at the end of 3rd month and the other at the end of 4th month.” (FGD- Nissata, Charsadda).

Participants mentioned that this immunization is sought in pregnancy to protect the newborn from

- *Jhatkey/dorey (Convulsions), Gardan tor bukhar (meningitis or encephalitis), polio, any disability at the time of birth (Sukkur).*
- *jhatkey (tetanus), yarqan (jaundice), falij (paralysis), polio, cord problems among the newborns (Dadu).*
- *Yarqan (jaundice), (Jhatkey/Jhatkon ki bemari).*

Although the word *tashanuj* (tetanus) was not used by the participants, however, it is assumed that *jhatkon ki bemari, dorey, jhatkey* and *gardan tor bukhar* here mean tetanus.

Reasons mentioned for not acquiring TT immunization were:

- **Inability to afford** the cost of injections and transport fare to the hospital (mentioned in Sindh), and **lack of supply**

“TT immunization is not sought here because hospital is far away and it is not easy to get the transport. Also it costs too much to go to the hospital” (FGD-Saleh Pat, Sukkur).

“If LHW provides immunization for free then it is alright otherwise we do not get it on our own by spending money” (FGD-Hangoro, Sukkur) .

“I went to the hospital but the TT injections had finished and have not come as yet” (FGD-Umer Zai, Charsadda).

- Some women in Sukkur and many in Khuzdar and Pishin believed that **these are family planning injections**, which is why they were avoided.

“We do not get T.T injections because men do not allow us.They say that these are family planning injections” (FGD- Ferozabad, Khuzdar).

“Men do not allow us to go for T.T injections as they believe that we won't be able to bear more babies” (FGD-Batezai, Pishin).

- **Restriction by family members** (mentioned in NWFP)

“I did not receive any TT injection because my family did not allow. Everybody does not know how important they are” (FGD-Wasti, Haripur).

“I never went for TT injection because my family members are very strict and do not allow me for this” (FGD- Utman Zai, Charsadda)

▪ **Fear of injections**

“I do not get TT vaccine in any of my pregnancies because I am scared of injection. The needle causes pain” (FGD-Darvesh, Haripur)

▪ **Lack of time**

“I do not go for TT injections because of the household chores I cannot get time and the family members also do not allow” (FGD-Umer Zai)

▪ **Misconceptions about side effects (NWFP)**

“I did not get TT vaccine during the first two pregnancies. This time I went for immunization and now my baby has hundreds of diseases. He has asthma; his liver doesn't form blood and many others. The first two children are perfectly alright and they do not have any disease.” (FGD-Wasti, Haripur)

“If the mother goes for TT injections during pregnancy then all the diseases from the mother's womb are transferred to the baby” (IDI, Mo-Ali Khan, Haripur)

▪ **Culturally not practiced (NWFP)**

“In our village there is no tradition of taking T.T injections, or taking any blood test and taking any nutritional supplements” (FGD-Landiwah, Lakki Marwat)

3.2 Birth Attendants and Their Practices

Most of the deliveries take place at home and are conducted by daiyan (Punjab and Sindh and Balochistan urban), by a family member (mostly in NWFP districts and Balochistan rural) or by the women themselves (few reported this in). Only in few urban areas in Sukkur, DG Khan, Pishin it was mentioned that delivery takes place in a health facility.

“Everybody delivers with daiyan here and if the need be she takes the mother to a hospital” (FGD-Janjeel, Jhelum).

“If someone can afford then dai is called for delivery. Otherwise deliveries are conducted at home by mother-in-law or sister-in-law.” (FGD- Faizabad)

“Deliveries are conducted at home because it costs very less money. Dai does not charge much.” (IDI, Husband- Faizabad)

“I delivered all three kids with my mother-in-law” (FGD-Sarai Saleh, Haripur).

“There is an elder relative who conducts deliveries, there is no dai in the village and all the babies are delivered with her” (FGD-Tulanda, Charsadda).

“We help each other in delivering the babies; husbands' sisters and wives of brothers” (FGD-Tulanda, Charsadda).

“Most of the time a woman in the family like mother-in-law and sisters-in-law, whoever is present at home, assist in delivering the baby but in some households dai is also called” (FDG-Landiwah, Lakki Marwat).

“My baby was born at home. We did not call any doctor or dai nor did the women in the house help me with delivery. I did all the work whole day and in the evening I went in the room for something, suddenly pain started, and the baby came out. I held her in my hand and when the placenta came out I detached it. After that I called my sister-in-law and handed her the baby. She took care of the baby and cut her cord” (IDI, Mo-Landiwah, Lakki Marwat)

“Deliveries at hospital are a matter of shame. At home everything happens in purdah but at hospital it is a matter of shame.” (IDI, Husband- Ghazgi, Khuzdar)

“Many people now do not have deliveries at homes, they deliver at hospital” (FGD- Shakir Town, DG Khan)

Those who go to the health facilities for deliveries do not trust a dai and question her ability to take care of the newborn if s/he has a problem at the time of birth. They also believe that a dai does not conduct the delivery with cleanliness.

“If some problem occurs then what can a dai do? In hospitals there are doctors and nurses. Dai does not know but the doctors can understand the problems” (FGD UC-8, Sukkur)

“Daiyan do not have any sense of cleanliness, they are dirty and newborns die. They do not take care of the mother and newborn.” (IDI, Husband-UC 8, Sukkur).

“Dai only conducts delivery and do not take care of anything else. She doesn’t wash hands and touches the mother and the newborn with dirty hands. Dai only cleans her hands with a cloth. She touches the baby with dirty hands. Instruments are not boiled and not cleaned.” (FGD- Zeedi, Khuzdar).

Those who respected *daiyan* and invited them to conduct deliveries had several things to report in their favour.

“She is very wise and she asks the mother to lie down and then she listen with her ear. She is so experienced that she can know whether the baby inside is alright or not” (FGD-Janjeel, Jhelum).

“Our daiyan are very nice, they provide us comfort. They take care of us, massage us and are as affectionate as mothers. They assist us in drinking milk or juices, if we need any, and take care of us in every possible way.” (FGD- Sakhi Sarwar, DG Khan).

“Dai takes care of cleanliness and boils the instruments. Mothers-in-law and sisters-in-law say that they know what they are doing and do not take care of anything...As soon as the woman feels labor pains, elder women send the men outside and lay the woman on dirty old clothes to conduct the delivery” (FGD- Faizabad, Pishin).

“Our dai is very wise, she takes great care of cleanliness. She brings her gloves and instruments. We use new things and wash the clothes and cloth pieces. Most deliveries are conducted by dai” (FGD- Faizabad, Khuzdar).

“The dai checks the mother before delivery and assesses whether the delivery can take place at home and if it is not possible at home she accompanies the mother to some clinic or hospital” (FGD-Sarai Naurang, Lakki Marwat).

“The dai if considers that the case is not normal then she advises to take the woman to doctor” (IDI, Husband-Hangoro, Sukkur).

In 3 districts (Pishin, Charsadda and Lakki Marwat) women in urban area informed that those who can afford call the LHV or lady doctor at home.

Some LHWs were appreciative of the practices of *daiyan* and reported that *daiyan* ensure cleanliness for delivery and boils instruments or wash them with dettol before using. They said that the *daiyan* also advises family members to arrange clean items and a proper source of light before delivery.

Preparations made for the delivery at home include:

- cleaning the place of delivery
- arranging items like cotton, clean cloth pieces, scissors, blade, thread, mustard oil, towels, powder, dettol, warm water, soap etc.
- Herbs or medicines for increasing intensity of pains

These items are either newly bought or are washed before use. Old rugs are washed to spread on the floor where delivery is to be conducted. A new or washed plastic sheet is spread over the rugs. The *dai* asks family members to arrange for these things and also tells them to buy medicines and injections that are to be used at the time of delivery.

“Some people boil the new blade but the dai says that the packed one is clean and should not boil but the nurses ask to boil we do not know why” (FGD-Bali Shah, Dadu).

“Our mother-in-law has brought some medicine from a Hakim and when our pains start she gives us that medicine, this is our family tradition. This medicine is for increasing the intensity of pains and facilitates an early delivery” (FGD-Landiwah, Lakki Marwat)

Some **harmful practices of *daiyan*** became apparent during discussions. Mothers in some districts (Jhelum) reported that some *daiyan* apply ghee or glycerine or place a tablet inside the mothers vagina to ease the delivery. Similarly cotton dipped in warm desi ghee and glycerin are also placed inside.

“They use ghee and oil to apply inside vagina here. The ghee is warmed and applied inside so that the baby is born early. Some daiyan also place tablets inside. Tablets are made by mixing cloves, jayfal, turmeric powder and sesame oil” (FGD- I 4/3, Jhelum)

“If the case is very complicated only then she applies glycerin otherwise she does not apply anything” (FGD-Janjeel, Jhelum).

“Dai tries to pull the baby by clutching her/him but we

have never seen misses (LHVs/Lady doctor) clutching or pulling the baby. Daiyan do not even wash their hands” (FGD-Taunsa Sharif, DG Khan).

“The dai at home treats like animals. My younger sister (while delivering with dai) got her uterus ruptured and her placenta was not coming out and the dai pulled it out by putting her hands inside and my sister died because the poison spread inside. The dai’s hands are not clean. So these are the problems of delivering at home” (FGD-Taunsa Sharif, DG Khan).

“They do not see whether the scissor is clean or not they just pick it up and cut the cord” (Utman Zai, Charsadda).

An LHW in Jhelum refuted the practice of applying oils in birth canal by daiyan and said:

“Daiyan used to take measures for easing delivery if the birth is delayed such as put ghee into vagina, but now they take the woman to hospital immediately” (IDI, LHW- Janjeel)

In some districts (Lakki Marwat, Khuzdar, Pishin), some mothers and LHWs reported that **no arrangements are made for delivery and no care is taken for cleanliness.**

“Those involved in assisting in delivery do not do any preparation and keep sitting besides the mother. The only thing they do is that they give one bowl of warm milk and ghee and ask the mother to apply force and the baby will come out. They do not take any care for cleanliness and watch the fun from a distance. Sometimes they give oil massage on our arms and legs so that the body remains soft” (FDG-Landiwah).

“Dai only conducts delivery and do not take care of anything else. She doesn’t wash hands and touches the mother and the newborn with dirty hands. Dai only cleans her hands with a cloth. She touches the baby with dirty hands. Instruments are not boiled and not cleaned.” (FGD- Zeedi, Khuzdar)

“Some people use the old blades that are at home and are used by men. They also do not use any washed or new items and clothes.” (FGD- Ghazgi, Khuzdar)

“Dirty cloths are purposely spread on the floor for conducting delivery on it because then the cloths have to be discarded.” (FGD- Karakh, Khuzdar)

“Mothers-in-law usually conduct deliveries and they do not take care of cleanliness. They do not even listen to us and use dirty old clothes and sheets at the time of delivery. If they ask me to come I tell them to boil the instruments and use clean items.” (IDI, LHW- Batezai, Pishin).

3.3 Infections of cord, eye and skin

Mothers discussed problems that can occur with skin, eye and cord of the neonate:

Infections of cord

In cord, the identified problems were swelling, wetness, pus, water discharge and open cord.

Local terminologies for cord problems were mentioned in each district and they are given in Appendix 2.

Reasons for cord problems: Following were reported as the reasons for cord problems, which are related to improper cutting, unhygienic practices, effect of water, undesirable practices of mother and dai:

- The cord was not cut properly (Khuzdar, Pishin, DG Khan, Jhelum, Dadu, Sukkur).
- The blade or scissor with which the cord is cut is unclean (Charsadda, Haripur, Sukkur).
- Dai or doctor has tied the cord wrongly/ clip is tied wrongly (Jhelum, Sukkur).
- Thread with which the cord is tied is dirty (Sukkur).
- If the mother doesn’t clean the newborn with care and her hand or a cloth touches the cord (Khuzdar, Pishin).
- If someone touches the cord with dirty hands and germs go in (Pishin).
- Water goes in the cord during bathing (Jhelum, Dadu, Sukkur).
- Mothers make their babies wear dirty clothes (Haripur).
- Cord gets infected if it is stretched (Haripur)
- If spirit is not applied on the cord it gets stretched and spoiled (Haripur)
- The abdomen is pressed too hard by dai during delivery (DG Khan).
- If the baby cries with force, the cord swells (Jhelum).
- Mother eats fish and the affect is transferred to the baby through breast milk and the cord starts watering (Dadu)
- Mother has eaten coriander or rice during the first forty days after delivery (Sukkur).
- If mother goes out and performs any activity during lunar eclipse

Household management practices for cord problems:

Following were reported to be the household management practices for cord problems, and some of these are harmful for the newborn as they can cause or exacerbate infections:

- A pinch of turmeric powder is applied on the cord 2-3 times a day. If it doesn't recover in a week then the newborn is taken to a doctor (Charsadda, Lakki Marwat, Sukkur).
- Ghee, oil and *surma* are applied (Khuzdar, DG Khan, Jhelum, Charsadda, Sukkur).
- Garlic is heated in *ghee*, ginger and onion are heated in *ghee* and applied (Khuzdar, Jhelum).
- Mustard oil is applied (Pishin, Haripur, Lakki Marwat).
- Burned carom seeds, grinded or burnt onion, grinded cloves are applied (Jhelum).
- onion is heated in oil and applied
- Spirit or dettol is applied (Pishin, DG Khan, Jhelum, Haripur, Sukkur).
- Piodine is applied (Pishin).
- Ashes of wood are applied (Khuzdar).
- *Henna* is applied (Khuzdar).
- *Heeng* is applied (DG Khan).
- *Phitkari* (alum) is applied (DG Khan)
- A five rupee coin is stick on the cord for a week if the cord is swelled (Jhelum, Sukkur).
- Polyfax is applied (Pishin, Jhelum, Sukkur).
- Penicillin (DG Khan)
- A powder available at medical stores (most probably Cicatrin) is bought from the market and applied (Jhelum, Haripur, Lakki Marwat).
- Hurbo (a herbal medicines) is brought from market and baby is made to eat it (Dadu).
- Some mothers however, prefer to leave it as it is and wait for it to recover by itself. If the cord infection does not recover only then a doctor is visited.

LHWs advise to put Cicatrin (antibiotic) powder (Sukkur) and spirit (Haripur) on cord for any problem.

Infections of eyes

For eyes participants mentioned watering of eyes, difficulty in opening eyes, filth and pus discharge from eyes.

Local terminologies for eye problems are given in Appendix 3.

Reasons for eye problems: Following were reported as the reasons for eye problems. As evident, many are medical reasons while others are misconceptions:

- If *dai* touches the newborn with dirty hands (Sukkur) or mother's finger or *dai's* finger, nail or instrument

hits the eye during delivery (Khuzdar, Jhelum).

- Filthy water from mother's womb enters baby's eyes during delivery (Dadu, Khuzdar, Charsadda, Sukkur), or placenta's water gets in the eyes of the newborn (Sukkur).
- Cord touches the eye during delivery (DG Khan) or newborn's hands touches the eye (Pishin), dirty cloth is touched with baby's eyes (Khuzdar, Pishin) or mother cleans the baby with carelessness (Pishin).
- Baby is not kept clean (Jhelum) or dirt sticks in eyes (Jhelum).
- Dust enters baby's eyes (Charsadda) or flies and filth around the baby causes it (DG Khan).
- *Surma* stick hits the baby's eye (Jhelum) or baby gets allergy to *surma* (Pishin)
- Water or soap enters the eyes during bathing (Dadu, Jhelum) or mother's milk gets into the eyes of baby (Charsadda).
- Burning the straw causes the eyes to be affected (Jhelum).
- Epidemic of eye disease (Jhelum).
- Mother eats sweet or bitter things (Jhelum).
- Some bad woman had carried the baby and cast evil eye (Jhelum).
- If mother performs any activity during lunar eclipse it affects the fetus (Jhelum).
- Eyes are spoiled because of hot weather or if baby is wrapped too much during summers (Sukkur), or if baby suffers from fever (Dadu).
- Baby does not sleep properly (Dadu).
- If the baby is weak his/her eyes water and do not open (Sukkur).
- Problems are by birth or are hereditary (Pishin, Sukkur).

A number of home management practices for eye problems were reported by the participants. In case the eyes do not recover with home remedies the neonate is taken to a doctor. The reported home remedies are as follows:

- Cotton is dipped in oil and kept in water for about 12 hours. Then the eyes of the newborn are massaged with it (Dadu, Jhelum, Sukkur).
- Cotton is dipped in water and eyes are cleaned (Khuzdar, Pishin, Jhelum, Haripur)
- Rose water is put in the eyes, twice or thrice a day (Dadu, Khuzdar, Jhelum, Haripur, Lakki Marwat, Sukkur, Haripur).
- Penicillin ointment is applied on eyes (Sukkur).
- Stop applying *surma* in eyes (Sukkur). In contrast, *surma* is applied in other districts (Pishin, DG Khan, Jhelum, Lakki Marwat).
- Cord that comes off is dipped in water and that water is

- put in newborn's eyes for three days (Khuzdar, Pishin).
- If eye is watering then the nose is massaged and surma is applied in eyes so that the water runs from nose rather than eyes (Sukkur).
- Doctors prescribe a tube and drops that is applied on the eyes twice or thrice a day till it recovers (Sukkur).
- drops of milk are put in the eyes every night (DG Khan, Dadu). Mother's milk is put in the eyes (Khuzdar).
- Honey is applied in eyes (Lakki Marwat).
- Betnovate cream (a steroid) is applied on the eyes (Dadu).
- Polyfax (antibiotic) is applied thrice a day till eyes recover (Pishin, Charsadda, Haripur, Lakki Marwat).
- Apply one or two drops of solution (do not know the name) (Dadu).
- The mother mixes one drop of mustard oil and one drop of water on her palm and applies on the surface of newborn's eyes and massages the shoulders (Haripur).
- The detached cord when dried is grinded and the powder is sprinkled in the neonates eyes (Haripur).
- One unique household management practice was reported by mothers for pus and water discharge from baby's eyes: the mother seeks advice from the father of the baby immediately on his return from work in the evening. It is believed that whatever spontaneously comes in the mind of the father should be acted upon by the mother and the baby gets well soon. (Lakki Marwat, Charsadda).
- Spiritual healing for eye problems was reported by a number of mothers in Lakki Marwat. It can take two forms, either the *maulvi* does *dum* directly on the baby (blow air in baby's face after reciting some verses), or *dum* is done on *surma*, which is then applied in the eyes of the baby.

Infections of skin

With skin participants stated that it can turn yellow, develop allergies, become dry or get pustules and *daney*.

Local terminologies for skin problems are mentioned in Appendix 4.

Reasons for skin problems: Following were reported as the reasons for skin problems:

- Heat in mother's womb is a reason for pustules or marks on the skin (Sukkur).
- If the baby is not cleaned properly, especially with soap, then the baby gets skin diseases (Sukkur).
- If some one pours water on stove to put out the fire then the baby gets *Pani Watra*. The fire is, thus, left lit in a house where there is a newborn (Sukkur).
- Black marks on skin are due to cold (Sukkur).

- Heat from baby's body radiates out (Pishin, Charsadda, Haripur, Lakki Marwat, Dadu,)
- Heat in mother's womb (Pishin, Dadu, Khuzdar)
- Wood fire or smoke in the house causes it (Lakki Marwat).
- If the baby is massaged with mustard oil in summers then the baby gets red *daney*. If the newborn's skin is massaged with oil and s/he is allergic to it (Pishin).
- Mother had eaten chicken or egg during pregnancy which causes the spots on the baby's skin or if mother eats lady finger and fresh beans or spinach during breastfeeding, the baby is at risk of catching skin disease (Khuzdar, Dadu). If the mother takes lots of beef, chillies, and drink black tea during pregnancy then newborn gets skin problems (Charsadda).
- Mother eats hot foods (like *panjeeri*) in forty days (*chila*). The hot effect is transferred to babies through breast milk (Charsadda, Haripur).
- Mother's filth at the time of birth remains with the baby.
- If the baby is not cleaned properly or not bathed regularly (Pishin).
- Mother might have done something forbidden at the time of lunar eclipse (Dadu).

"If a newborn has spots on his/her skin it is because of the lunar eclipse. If during the lunar eclipse the mother does something it affects the fetus. Elders stop pregnant women from doing anything during the lunar eclipse" (IDI, Husband- UC 4)

- Till forty days after birth the newborn can acquire many diseases due to evil eye (Sukkur).

"Till 40 days the newborn can have many diseases. We do not take our newborns outside and do not let anyone see them because then they can catch evil eye and fall ill. Especially a pregnant woman is not allowed to come near a newborn." (IDI, FIL-Arain).

- *Danay* are contagious and babies catch them from other babies (Haripur).
- The skin diseases are by birth and recover by themselves (Pishin).

Many women, however, said that they did not know the reasons for skin problems.

Household management practices for skin diseases of neonates are reported to be the following:

- Goat's milk is mixed in water and newborn is bathed with that water (Sukkur).

- Talcum or prickly heat powder is applied on the skin (Dadu, Sukkur).
- Apply Septran (antibiotic) powder by grinding a quarter tablet.
- Sprinkling of turmeric powder (Lakki Marwat).
- Creams and tubes available at home are applied (DG Khan)
- Neonate is also given oil massage (DG Khan).
- Oil or desi ghee massage is given (Jhelum, Pishin). Mustard oil massage (Khuzdar, Pishin, Lakki Marwat).
- A medicine obtained from a Hakim is mixed with butter and applied for three days on the whole skin (DG Khan). Home made medicine made from herbs is applied (Khuzdar).
- Ginger and *heeng* are grinded and applied on pustules and pus goes away (Jhelum). *Sindoor* is applied on pustules (Khuzdar).
- Newborn is bathed in spring water (Khuzdar).
- Exposed to *dhuni* (smoke) of carom seeds (Jhelum).
- For treating black marks on skin the baby is wrapped in warm clothes to protect from cold (Sukkur).
- Mother is given cold food (Jhelum). Mother is asked to stop eating hot foods (Khuzdar).
- Mothers reported that if a child has pustules (*thudrey*), mother accompanied by another woman takes the baby to the field where a herb *gandgha* grows. The other woman asks the mother seven times if she wants to cut the herb and she replies in affirmative. They cut the herb and turn their back on it. Then they pick it up without looking and bring it home. This ritual is done for three days and the baby recovers (Sukkur).
- For *Chitti*, fish eggs are strung and put around the neck of the newborn (Sukkur).
- Bath the baby twice a day (LHW in Dadu)
- *Taweez* and *dam darood* is done (DG Khan, Jhelum, Khuzdar, Pishin, Lakki Marwat). Faith healer rubs holy stones and salt on the skin (Pishin). Given bath at shrine (Lakki Marwat).

“Many diseases of a newborn are due to chirak ki bemari. It is a kind of an evil spirit who affects the fetus in the womb. The mulla makes signs on the walls of the newborn’s room and the newborn is kept in that room to protect her/him from the evil spirit. He also gives taweez.” (IDI, Husband – Ghazgi, Khuzdar).

- Skin diseases are by birth and babies recover themselves, if they do not then it is left to God. (Khuzdar).

Newborn is usually not taken out of home for at least 40 days after birth. Majority of the participants reported that

treatment for these symptoms is done at home and only in case the problem gets severe the neonate is taken out to a doctor for treatment.

“We do not take the babies out in the chilla (40 days) so we do not take the baby to a doctor or hospital for treatment” (FGD-Pezu, Lakki Marwat)

Same item may be used for skin, eye and cord problem or any two of these simultaneously. Moreover, a combination of items may be used at a single time for a given problem. Similarly mothers may do home remedies and seek care outside home at the same time. LHWs seem to endorse some of the actions for home management of eye, skin and cord problems. These include applying polyfax on eyes and polyfax and spirit on cord, placing in the sun for yellow skin and using cotton to wipe the watering eyes. They also reported that they advise mothers to take such neonates to doctors.

Most LHWs reported that for all the problems of eyes, cord and skin they advise the parents to take the newborns to doctors. In many areas, especially in urban, it was mentioned that if the newborn does not improve with home management, then is taken to a doctor.

“We do not treat our babies at home for any illness rather we go to private specialist doctor” (FGD-Janobi, Haripur).

“We do not treat these illnesses at home and take to a doctor, a specialist immediately” (FGD-MC4, Charsadda).

“It is God’s will. What can we do at home? We take such babies to the doctor” (FGD-Badal Bakus, Sukkur)

However, in few districts (Khuzdar, Pishin, Lakki Marwat) some women mentioned that they do not take the newborn anywhere and leave it to God.

“We do not take the babies anywhere for treatment” (FGD-Marmandi Azim, Lakki Marwat)

“We do not take the newborn out of the house to a facility for any of these diseases as there is no health facility and transport can’t be arranged. Moreover, we don’t have any money” (FGD-Faizabad, Pishin)

“At times some people who can afford take the newborn to Civil Hospital in the city for treatment if s/he doesn’t recover by practices at home and faith healing” (FGD- Karakh, Khuzdar).

Conclusions and Summary

Factors	Findings
Informational	<ul style="list-style-type: none"> ▪ Only some women consider TT immunization to be important in 7 out of 9 districts and understand its benefits but most are not sure about the number and timing. ▪ The knowledge about benefits of TT is not correct as it is believed that TT protects the newborns from tetanus, meningitis, polio and disabilities, etc. ▪ Various misconceptions about T.T injections exists, such as it is required in only first pregnancy, these are family planning injections, they cause spontaneous abortions. ▪ Some women do not go for immunization because their families do not allow them. ▪ Deliveries are mostly conducted at home by <i>daiyan</i> or family members and a few without any assistance. ▪ <i>Daiyan</i> are preferred because of their personal relations with the mothers and their families. ▪ <i>Daiyan</i> and family members appear to be concerned about clean delivery in 6 districts (Sukkur, Dadu, Jhelum, Haripur, Lakki marwat and Khuzdar) and they take measures for it. But some of them lack understanding of what is clean and safe. ▪ Several items including new blade, thread, soap, dettol, cotton is arranged for deliveries. But new blade is often washed with dettol or boiled, which is unnecessary and could lead to its decontamination. ▪ Few husbands also showed concerns about maintaining cleanliness during pregnancy in a few districts, but they were not aware of the specific measures. ▪ Some women understand that infections of skin, eye and cord can occur due to transmission of germs but the cause is not known to many. However, the concept of dirt or filth causing it does exist. ▪ Information regarding these infections is also built on traditional knowledge and beliefs, such as heat in mother's womb, mothers diet, <i>nazar</i>, radiation of heat from newborn's body etc., and measures are taken accordingly to treat them. ▪ Home remedy is done because of tradition and because most of these problems are not thought to be dangerous. Neonates are taken to an HCP only when the problem becomes severe in most of the cases. However, in few districts, they are not taken to HCP even in severe condition.
Socio-Cultural	<ul style="list-style-type: none"> ▪ Cleanliness is not ensured during delivery or for cutting and tying of cord and blade or thread in some districts, especially in rural areas (Khuzdar, Pishin, Haripur) . ▪ Harmful practices of <i>Daiyan</i> were reported in some districts such as putting oil or cotton in vagina or inducing vomiting to ease delivery. ▪ Tablets and IV infusions along with some home remedies are given in case of prolonged labor. ▪ Female doctors or LHVs are called for home deliveries by those who can afford, especially in urban areas, in districts of NWFP (Charsadda, Haripur). ▪ Application of ghee or its mixture, dettol, spirit, surma, etc is a common practice in all districts. ▪ Home management practices for cord, eye and skin problems are derived both from tradition and medical science. ▪ Spiritual healing is also done for all types of problems of the neonates. It may or may not involve taking the neonate to the healer. ▪ Certain superstitions exist such as lunar eclipse causes skin and eye infection in some districts. ▪ Newborn is avoided to be taken outside home in first forty days in almost all districts, which affects health care seeking.

Economic

- Neonates suffering from cord, eye and skin problems are taken to a doctor when the problem gets severe otherwise the cure is done with the items like ghee, oil and antibiotic applications which are either commonly available at home or can be easily bought from market at cheap prices.
- In some **rural** areas where there are no facilities T.T immunization is avoided as it costs to acquire injections and transport fare to the hospitals.
- Hospitals and clinics are not approached for deliveries as they are considered expensive.

Supply

- It is common to acquire T.T immunization in areas where government hospitals, immunization teams and LHWs provide it. However, it is evident that these are not reaching to all the target population.
- LHWs are advising *daiyan* to wash hands before conducting delivery in a few districts.
- Some *daiyan* are receiving safe birth kits in Jhelum.
- It was reported in Charsadda that a doctor advised mother against TT immunization, as she received injections in earlier pregnancy, indicating incorrect knowledge of HCPs.

Theme 4 - Asphyxia

About 5-10% of all newborns suffer from asphyxia and need resuscitation at birth. Asphyxia is the condition when the baby does not begin or sustain adequate breathing at birth and they need help to start or continue breathing, referred to as resuscitation. The birth attendant(s) has a major role in providing resuscitation.

4.1 Normal Labor Duration

Prolong labor can lead to asphyxia. The knowledge of participants about the duration of normal labor was assessed.

The duration of labor pains was reported by the mothers to be in the range of few minutes to 24 hours.

“Half hour is normal. If the mother is weak the duration increases” (FGD- Bali Shah, Dadu)

“24 hours is the normal duration of labor. If they increase then the baby and the mother both are affected.” (IDI, Mo- Ghazgi, Khuzdar)

In Lakki Marwat, participants distinguished between mild pains and intense pains.

“A whole night is spent in mild pains and then there are very intense pains for 2-3 hours and the baby is delivered” (IDI, Mo-Marmandi Azim, Lakki Marwat).

In 2 districts (Dadu and Pishin), mothers categorized pregnancy related pains into two types i.e. **Sachee dardain** (true pains) and **jothi dardain** (fake pains). **Sachee dardain** leads to delivery of the baby and are labor pains while the later are not labor pains. They stated that mothers can experience fake pains throughout delivery.

Most mothers said that the prolonged duration is not good. Almost all women said that **prolonged labor can cause the death of baby and the mother** and if the baby is born alive s/he is **unconscious**. One *dai* (Hangoro) said that if labor duration is prolonged then baby can become mentally retarded and his/her brain can be affected.

“If the delivery is delayed there is danger to mother’s life. She can die and if she dies the baby also dies” (IDI, Mo-Sarai Saleh, Hariipur).

“Child can become unconscious. God forbid there is also risk of mother and newborn’s death. This is all I

know” (IDI, Mo –Taunsa Sharif, DG Khan).

The most common reasons for prolonged labor given by mothers, *daiyan* and LHWs were

- Weakness of the mother
- Blood deficiency in mother
- Improper diet during pregnancy as well as non availability of medicines for gaining strength
- Numerous pregnancies
- Abnormal position of fetus in the womb
- Baby is healthy that makes delivery difficult
- Mother might be ill or might have suffered from some illness during pregnancy
- Women who work excessively, especially in villages, have more pains.

“If a woman works all day without eating anything, she will obviously become weak. She will have prolonged labor pains and can die. The fetus can also die along with her” (IDI, Mo- Arain)

“Since we do not get medicines and injections for gaining strength here, the labor prolongs and the baby is born after a delay. Both the mother and the baby can die if the labor duration prolongs too much” (IDI, Mo- Arain)

Mothers-in-law mentioned weakness of baby, healthy baby, eating *thandain cheizein* (cold foods) by mother, less activity during last days and God’s will as the reasons for prolonged labour, while husbands and father-in-laws said that they did not know about the normal duration of labor pains. They said that prolonged labor does affect the health of the newborn but they did not know what that affect can be.

Daiyan said that the normal labor duration does not exceed 3-10 hours, while the LHWs termed 8-24 hours as the normal labor duration. LHWs were of the view that if the duration of pains increases than normal, the mother should immediately be sent to a hospital. They thought that due to increased duration the position of the baby goes wrong and it has bad impact on his/her health. The baby gathers inside and shrinks, his/her heartbeat can stop, s/he gets unconscious, the mother starts bleeding and the baby and the mother can die.

4.2 Knowledge and Practices about First Cry and Checking for Breathing

Participants in both **rural** and **urban** areas said the newborn should cry immediately after the birth. No cry or delayed cry was regarded by all participants as something to be worried about.

“If the newborn doesn’t cry then it is a matter of worry that the newborn may be unconscious” (FGD-Badal Bakus, Sukkur).

“Such babies do not survive who do not cry and if they survive they remain ill” (IDI, Dai-UC4, Dadu).

“The newborn should cry immediately after birth because his lung works properly only if he cries” (FGD-Sokar, DG Khan).

“The baby can die if s/he doesn’t cry immediately... If the baby doesn’t cry then it means s/he is not breathing either.” (FGD- Faizabad, Khuzdar).

“If the baby cries that means s/he is breathing normally, and if not, then s/he is not breathing normally” (FGD-Marmandi Azim, Lakki Marwat).

Reasons for not crying: Some mothers said that they do not know why a newborn does not cry while some gave the following reasons:

- If the mother drinks water during labor pains then the water goes in the mouth and nose of the fetus which is why the baby when born doesn’t cry (Haripur, Dadu). If the water/filth from mother’s womb goes in the mouth and nose of the fetus (Khuzdar, Pishin, Charsadda, Haripur, Jhelum).
- The newborn has pain in stomach or cord (Khuzdar, Haripur, Dadu).
- When the newborn suffers from convulsions at birth s/he doesn’t cry (Haripur).
- Difficult or Prolonged labor can cause the baby to be born unconscious (Haripur, DG Khan, Jhelum). Due to prolong labor the baby is scared and is unconscious (Pishin, Khuzdar). Babies are unconscious or deaf and mute (Charsadda, Haripur, Jhelum).
- Newborn does not cry because s/he is tired and sleeping (Charsadda).
- Newborns do not cry if they are suffering from *Saramakha* (turns blue) (Charsadda).
- Baby was pushed during delivery (Charsadda).
- Chest is affected (*seena kharabpa daiy*), (Pishin, Charsadda).
- Baby has a hole in his/her heart (Charsadda) or newborn’s heart is not beating (Khuzdar), has abnormal heart beats (DG Khan).
- Some other unknown illness (Charsadda, Dadu).
- The newborn is weak and does not have the strength to cry (Khuzdar, Pishin, DG Khan, Jhelum, Dadu). Newborn has vitamin deficiency (Lakki Marwat).
- Baby is immature (Jhelum).

- Brain of the newborn is smaller or s/he is mentally retarded (DG Khan, Khuzdar).
- If *dai* puts extra pressure on the baby to pull her/him out the baby is born unconscious. This is called *palag* (Khuzdar).
- Baby is suffering from some psychological problem (*nafsiati masla*) (Jhelum).
- Blood pressure of the baby is high (Jhelum).
- The baby is born with *lappar* (small red *daney* on skin) (Khuzdar).
- The newborn can be in possession of evil spirits (Khuzdar).
- *Mossbian* (a condition when a the newborn does not cry because a worm gets hold of his heart and sucks away all the blood) (DG Khan).
- Newborn got cold or pneumonia (Dadu).
- Breath of the baby is trapped and such baby is *budhal* (Dadu). Breath is trapped in placenta (Lakki Marwat). Newborn do not cry because the placenta gets pressed (Dadu).
- Mother has had injection and IV infusions hence the newborn is lethargic under their influence (Dadu).
- Mothers during pregnancy do not go for injections which were suggested by doctors. Mothers did not have TT injections during pregnancy (Lakki Marwat).
- If the newborn does not cry it is because the mother had collided with something hard like wall, bed, or door during pregnancy (Charsadda).
- Newborn cannot understand whether to cry or not to cry.

Male decision makers had poor knowledge about first cry.

“If s/he does not cry that means s/he is healthy and if s/he cries it is because s/he is ill or hungry or has mucous in her/his throat.” (IDI, FIL-Wasti, Haripur)

“My last baby cried after 10 minutes. In my opinion the baby should cry immediately. If s/he does not, even then it not a big deal and there is nothing to be worried about” (IDI, Husband-Ali Khan, Haripur)

“The newborn should cry within 5-6 minutes and not less than that. If s/he cries later even then there is nothing to be worried about” (IDI, Husband-Sarah Saleh, Haripur)

For one husband, in an **urban** area of Lakki marwat, the absence of crying was not something to be worried about, rather a sign of relief that the baby is ‘noble’. He thought that the babies who cry a lot are actually troublesome.

“If the baby does not cry it is not a matter of worry. If the baby is noble (sharif) s/he may not cry for even up to 3 days and if s/he is trouble-maker (mast) s/he cries a lot. It is not necessary for a newborn to cry” (IDI- Husband, Sarai-Naurang, Lakki Marwat).

LHWs were of the opinion that the first cry of the newborn is an indication that s/he is breathing normally. According to them, if the newborns do not cry at birth it can be because;

- the baby has caught cold
- newborn suffers from some illness
- baby is of low weight
- heart valve is closed

“The baby should cry immediately. If the cry is delayed that means there is deficiency of oxygen or the baby has got cold” (IDI, LHW-Janjeel, Jhelum).

“The baby cries late because s/he is weak, suffers from some illness or is low weight” (IDI, LHW-Gol Pur, Jhelum).

Local terminologies used for a newborn who does not cry at birth mentioned in Appendix 5

Measures taken to make the baby cry were:

- Patting on the back of the newborn by holding him/her upside down (Khuzdar, Pishin, DG Khan, Jhelum, Dadu, Charsadda, Haripur, Lakki Marwat, Sukkur).
- *dai* or elder women give breathing by mouth after putting a *mulmal* cloth on the newborn’s mouth (Khuzdar, Pishin, Jhelum, Dadu, Charsadda, Lakki Marwat, Sukkur) or blows air in by using *huqqa narri* (smoke pipe of hubble bubble) in DG Khan.

“My baby did not cry because he was weak then the dai blew air in the nostrils, applied honey on tongue, then blew air using pipe of the hubble bubble in his nose he cried” (FGD - Shadan Lund, DG Khan).

- Baby’s throat is cleaned with finger. A strip from the delivery kit is placed on finger and throat is cleaned with its help (Pishin, Jhelum, Lakki Marwat). Nose is cleaned with a clean piece of cloth or finger (Jhelum).
- Glucose water is given to the baby (Jhelum). Drops of *Naunehal* are administered (DG Khan). *Ghutti*, *qehwa* or *desi ghee* is given (Haripur). Black tea and carom seeds are given (Charsadda).
- Various stimuli are given: rubbing hands, feet and chest of newborn (Khuzdar, Jhelum, Dadu, Sukkur), throwing water on baby (Dadu), tickling and pinching

under newborn’s feet (Khuzdar), onion is held near the baby’s nose so that s/he cries (Khuzdar, Sukkur), *surkh niswar* is put in baby’s nose so that s/he sneezes and starts crying (Khuzdar), cotton dipped in spirit is held near the nose of the newborn for a minute (Sukkur), placenta is put in cold water in summers and on burning coals during winters (Dadu), heating up placenta (Charsadda, Lakki Marwat), putting baby in cold water (Khuzdar).

“If the newborn is not breathing we rub his/her hands and feet for 10 minutes. If the baby is cold we burn fire and try to warm her/him. If s/he does not breathe even after that then we take him/her to a doctor (IDI, Mo-Pipri, Dadu).

“If the birth takes place in summer and does not cry immediately then water is dropped on the chest of the baby. By this the baby is frightened and starts crying and if s/he does not cry then s/he is taken to a doctor” (IDI, Dai-Pipri, Dadu).

“I have experience and I know it. I watch for breathing right after birth. In summers, if the newborn does not breathe I put the placenta in chill cold water. As the placenta is attached with the baby, I keep it in cold water for half an hour and then the baby starts breathing. In Winters, I put the placenta on burning coals and as the placenta heats up and bursts the baby starts breathing” (IDI, Dai-Johi, Dadu).

“We put the baby in cold water if s/he doesn’t cry at all. If s/he still doesn’t cry then we leave it to Allah.” (IDI, MIL- Zeedi, Khuzdar)

- Water given by a faith-healer after *dam* is sprinkled on newborn’s face (Khuzdar).
- *dai* puts honey or sugar on the tongue of the baby so that s/he starts crying. This is usually done if water from mother’s womb has entered baby’s mouth and nose (Sukkur).
- Baby’s chest is lightly pressed to open the air path (Khuzdar). Rubbing chest (Lakki Marwat).
- Squeezing the nose of the newborn (Lakki Marwat)
- *dai* gives Decadron (steroid) injections to the newborn if s/he doesn’t cry (Sukkur).
- Warming up the newborn in warm clothing (Haripur, Lakki Marwat).
- *Dum Darood* (Lakki Marwat).

“If the baby does not cry even after holding her/him upside down and patting on the back, the people in the

area say that the baby is possessed by some evil spirit and they call a *maulvi* for *dam*” (FGD-Marmandi Azim, Lakki Marwat).

“if the baby is not breathing well s/he is taken to a *maulvi* who heats up a rod and touches it on her/his head and takes 50 rupees” (FGD- Utman Zai, Charsadda).

These practices are tried for sometime and if the newborn doesn't cry then s/he is taken to a doctor in most areas.

In all FGDs mothers said that it is the *dai* and elder women who checks breathing of the newborn. Most of the participants related absence of cry with absence of breathing and said that if a baby does not cry it is an indicator of newborn not breathing. One *dai* (in Sukkur) said that she recognizes normal breathing by the color of the newborn. If s/he is blue this means that s/he is not breathing.

LHWs said that the newborn should breathe 60 times in one minute and more or less than that can be dangerous (Jhelum). One LHW (Jhelum) said that practice of patting the newborn by holding him/her upside down is a dangerous practice and *daiyan* shouldn't do it. She said that the baby should only be turned around on the hand, wrapped and taken to a doctor who can give oxygen.

In most areas, all participants reported that if the newborn doesn't cry by taking the above measures then s/he is taken to a doctor immediately.

4.3 Terminologies for the newborn turning blue

Lack of breathing or inadequate breathing leads to deficient oxygen in the body tissues (hypoxia) and the baby turns blue during or after birth.

If a baby turns blue s/he is called:

Sob Masoney, Neel Masoney, Hazan Masoney and Kharon Masoney (Khuzdar).

Shinsho, shindai, shantar and parchawan (Pishin).

Saramakha (Charsadda).

Hasba, Hasba Shrishna (Haripur).

Balla, daiy bandy balla raghlyday, mashoom sarawaqia da, tormakha, marjai (Lakki Marwat).

'Neela' and 'Kala-Neela' (these are literal equivalents of 'blue')

and 'black-blue'). 'Neela-Tanawal' is another term reported by the participants. The other two terms used for same symptoms are 'Balawi or Bal Balawi' and 'parchanwa' (DG Khan).

Mali chandri ho gai hai, mali hai, badi hai, chan bla, chamla, saey wala bacha, parchai (Jhelum).

Sheemak (Dadu).

Karikamat and Lagat (Sukkur).

Various reasons were given for newborn turning blue. Also, management according to the cause was also reported.

Most mothers did not know why a newborn turns blue. However, some mothers gave different reasons:

- newborn turns blue if s/he gets cold and is then kept warm by wrapping in blanket and or heating up the room (Pishin, DG Khan, Jhelum, Sukkur), also mother is given hot foods (DG Khan).
- given decadron (steroid) injection (Khuzdar),
- It can also be a result of pneumonia and convulsions at birth. The newborn is then wrapped in warm clothes.
- Reason for blue baby is a disease that s/he has caught in mother's womb or the placenta's water goes in the mouth of the fetus (Charsadda, Haripur, Sukkur).
- Mothers from Sukkur mentioned that a blue baby is considered to be blue because of jaundice and is given Cecon (vit C) medicine for 40 days. A blue-baby is also laid in sunlight till s/he gets better.
- It happens because of prolong labour (Khuzdar, Haripur). In Haripur, taken to a doctor.
- Newborn is born blue if a mother does excessive work and picks heavy things during pregnancy, if mother suffers from blood deficiency and has taken improper diet, if mother had fallen during pregnancy and baby has acquired some injury as a result, or if the mother had suffered from stomach aches during pregnancy (Pishin); if mother had eaten sour things (Haripur).
- It happens if the cord is cracked (Haripur).
- **Mothers also related blue-baby with evil spirits/evil-eye and reported to seek only faith healing as a treatment (Khuzdar, Pishin, Lakki Marwat, DG Khan, Jhelum, Sukkur).**

“We believe that the newborn is in the possession of evil spirits if s/he is born blue. The baby is taken to the mulla and s/he is given taweez and *dam*. The baby recovers. If s/he doesn't recover then we leave the matter as it is” (FGD- Batezai, Pishin).

“This problem is not a disease it is rather *saya* (possession) and we call it *Balla*” (FGD-Landiwah, Lakki Marwat).

ziarhlarggy. These are grinded and given to the baby by mixing a pinch with mothers milk till one year even after s/ he recovers (Charsadda). Given carom seeds, anis seeds, heeng (Jhelum), etc.

Newborn is taken for *Dum Durood* or given herbs like *Arirah, sakhko, kala zera, pakhpi, kacha arirah, ghatta arirah,*

Conclusions and Summary

Factors	Findings
Informational	<ul style="list-style-type: none"> ▪ Mothers as well as <i>daiyan</i> do not have clear idea about the normal duration of labor pains. ▪ Prolong labor is considered harmful. ▪ Immediate cry of the baby is considered important by women but not by males. ▪ Breathing is checked by <i>dai</i> or elders in the family. ▪ Holding the newborn upside down and patting on the back is a prevalent practice even among <i>daiyan</i> to deal with absence of breath/cry. However, an LHW considered it to be an incorrect practice. ▪ Most mothers do not know why a baby turns blue at the time of birth. ▪ Immediate health care seeking for ‘blue baby’ is not mentioned by any participant, rather practice like faith healing was reported to deal with blue-baby.
Socio-Cultural	<ul style="list-style-type: none"> ▪ Misconceptions about the reason for blue baby are commonly present. Effect of evil spirit or evil-eye are commonly believed causes. ▪ Wrapping to keep warm and seeking faith healing for absence of breath and blue-baby are common practices of management. However, in few areas the newborn is not taken to a doctor in any condition. ▪ Breath is checked by feeling the pulse and heart beat, color of the newborn and is also determined by the first cry. ▪ Use of smoke pipe to administer artificial breath could be dangerous.

Theme 5 - Other Essential Newborn Care

5.1 Drying and warming of the Newborn at Delivery

Keeping a newborn warm saves the baby's energy for breathing; hence it is important that a newborn is kept warm immediately after delivery.

Mixed practices were reported. In some districts, many participants reported that usual practice is to wrap or cover the newborn with a piece of cloth right after s/he is delivered and set aside without cutting the cord. *Dai* then waits for the placenta to be delivered. As soon as the placenta is delivered the cord is cut and the newborn is cleaned with cotton dipped in mustard oil and wrapped again in a clean towel or cloth.

"Right after the baby is born s/he is dried with a towel and wrapped to protect from cold" (FGD- Batezai, Pishin)

"The baby was wrapped immediately. Dai gave the baby to me and she got busy with the delivery of placenta. I wrapped the baby because s/he might get cold" (IDI, MIL- Zeedi)

"Baby is immediately wrapped in cloth because s/he is naked" (IDI, Mo-Marmandi Azim, Lakki Marwat).

"The newborn is wrapped because before birth the child is protected in mother's womb and when s/he comes out s/he is scared so s/he is wrapped. If s/he is not wrapped s/he may be scared" (FGD-Darvesh, Hariipur)

Other participants, both from rural and urban areas, reported that wrapping a newborn right after birth is not a practice. Mothers, mothers-in-law and LHWs said that *daiyan* do not wrap the baby and put the baby aside just like that. They only pick up the baby to clean her/him after placenta is delivered.

"The newborn is not wrapped before placenta is delivered. The newborn is bathed and after that the baby is wrapped and put in a crib." (FGD- Huramzai, Pishin)

"When the baby was born, his eyes and face were cleaned and put aside. After 10 minutes when the placenta delivered then the cord was cut, the baby was dried and wrapped" (IDI, MIL- Faizabad, Khuzdar)

"After placenta is delivered only then the cord is cut and the newborn is wrapped." (IDI, LHW- Ghazgi, Khuzdar).

"The baby is never wrapped before the placenta is delivered. S/he instead, keeps lying as s/he is. She cuts the cord after the placenta is delivered. Only then she cleans the baby" (FGD-Sakhi Sarwar, DG Khan).

Mothers who delivered their last baby at a health facility reported that as soon as the baby is born the cord is cut and the newborn is dried, cleaned and wrapped. However, many women said that they do not remember.

Most mothers, decisions makers, *daiyan* and LHWs reported that the newborn is wrapped to avoid cold which can result in pneumonia, convulsions, and distortion of limbs.

"A newborn when delivered is hot and is wrapped to protect from cold." (FGD- Hangoro, Sukkur).

Majority of the mothers in some districts (Pishin, Charsadda, Sukkur) reported that the cord is cut with blade which is new and packed and a thread or clip is used to tie the cord. While others (in Khuzdar) said that cleanliness of blade is not ensured and the cord may be cut with a blade that is being used at home. Scissors or knives are rarely used.

Some *daiyan* said that although a new thread is used to tie the cord, they still keep it in warm water mixed with dettol so that it is cleaned from germs. Clips were reported to be used in hospitals for tying the cord. Some mothers, however, said that they do not know how the doctors and *daiyan* keep the instruments clean.

Desi ghee, mustard oil, turmeric powder, surma, spirit and dettol are the most commonly applied items on the cord. Sepran, penicillin and cicatrin were also reported to be in use. These items are usually applied twice or thrice a day till the cord comes off.

5.2 First Breastfeed, breastfeeding in first 3 days and use of other supplements

First Breast feeding

Early breastfeeding is a general practice in both urban and rural areas in 8 out of 9 districts of study, except DG Khan. Most participants said that the mothers breastfeed the newborn within few minutes

to an hour after delivery. The **first three days milk is considered to be healthy** for the newborn.

“In the past it was said that the mother should breastfeed the newborn after three days but now the doctors advise us to give the first three days milk” (FGD- Badal Bakus)

In DG Khan, the practice of wasting the “first milk” i.e. first three days milk of mother is prevalent noticeably. The reason given for this practice was that mother’s milk for first three days is yellow and polluted and that first milk causes constipation in newborn.

“Those mothers who deliver their babies at the hospitals immediately feed their milk to the newborn, however those who deliver at home do not feed their newborn with their own milk” (FGD-Sakhi Sarwar)

“Narra (first milk) harms the newborn, that’s why it is wasted as it causes constipation to the newborn” (FGD Sakhi Sarwar)

“As the mothers blood is lost in large quantity (during delivery) that she doesn’t not have milk, 3 days she eats and gets nourished and then feeds the newborn” (FGD-Sokar).

Some women in a rural area (Sarai Saleh) in Haripur said that they do not give first three days milk because after the delivery **mother is given “Cheerh”** (secretion of **phalai** plant cooked with milk and egg) and if the baby is breastfed the hot affect of *cheerh* also gets transferred to the baby. Mother’s **milk gets congested** in the breath path (bronchitis/*sans ki nali*) of the baby which is harmful.

Some women in Pishin, both from **urban** and **rural** areas said that they or their elders consider the first three days’ milk to be filthy and harmful for the newborn due to which it is wasted. Instead, the newborn is given other supplements such as goat’s milk, desi ghee or herbal medicines.

“We give the milk after three days because the first three days milk is dirty and shouldn’t be given” (FGD-Faizabad)

“My MIL says that first three days milk is dirty and filthy and can harm the baby, which is why we give the milk after three days” (IDI, Mo- Batezai)

All LHWs and some *daiyan* reported that they advise for

giving the milk as early as 10 minutes to half an hour after delivery as this milk is the most beneficial and increases the immunity in the newborn.

“Mother’s milk should be given within 10 minutes of delivery. It is very good for the health of the newborn. This milk has a lot of strength and nourishment for the newborn” (IDI, Dai-Saleh Pat, Sukkur)

While some *daiyan* advise mothers to discard first 2-3 days milk (Dadu).

Exclusive breastfeeding, however, is not a general practice and was reported by a very few. The newborn is given other items:

- *Ghutti* of honey is given to the newborn to keep her/him warm and protected from cold. Honey is also mixed in egg yolk and given to the newborn for the same purpose
- One tea spoon of desi ghee with sugar mixed in it is given twice or thrice a day to the newborn so that s/he sleeps calmly and his/her stomach is cleaned
- Water of anis seeds with cardamom mixed in it is given so that the newborn can digest mother’s milk
- Till mother has milk to feed the baby, cow’s milk with anis seeds and cardamom mixed in it are given to the newborn.
- One teaspoon of goat’s milk is given 4 or 5 times a day
- A herbal medicine *bartang* is given for pain in stomach and constipation. Gripe water is also given for pain in stomach
- Black tea is given for the first three days
- *Daiyan* advise for giving water to the newborn along with mother’s milk
- Butter exclusively or mixed with sugar crystals is given right after birth to clean newborn’s stomach. Butter is also given for 40 days to provide strength to the newborn
- One tablespoon of *phakki* (mixture of grinded herbs) is given with warm water to make the baby gain weight
- Water with salt and sugar mixed in it is given every morning and in the evening
- One husband interviewed in-depth in a **rural** area (Faizabad) said that the newborn is given olive oil as the first feed to clean his stomach. Later it is given with mother’s milk so that his/her stomach stays well
- Honey exclusively or mixed in *qehwa* is given to the newborn if s/he has mucous in chest
- Herbs are boiled in water and that water is given to the newborn for keeping his/her stomach well
- *Sutti* (a local herb) is given to the newborn so that s/he is intoxicated and sleeps well at night

- *Hamdard ghutti* and gripe water are given to the newborn
- The newborn is also given *asli ghee* to make him/her healthy. 1/2 teaspoon of home made butter is also given every morning and evening for the same purpose
- *Zam Zam* (Holy water) and water given by the faith-healer after dam are also given to the newborn
- *Chuchu*, a home-made medicine prepared with egg yolk and water is given to the newborn so that s/he becomes healthy and chubby
- Goat's, cow's and buffalo's milk is given in addition to or before giving mother's milk.

Only in Jhelum and Dadu, mothers insisted that they give only breast milk for 1, 2, 4 or 6 months and nothing else. Some of them, however, also included water and *ghutti* in exclusive breastfeeding.

"We give only mother's milk for four months and nothing else. The mother's milk also quenches the thirst of the baby so we also do not give water" (FGD-Janjeel, Jhelum).

"Some mothers start giving gripe water from second month after 40 days but they do not give anything except mother's milk in the 40 days period" (FGD-Janjeel, Jhelum).

"I gave nothing but my milk for first three months" (IDI, Mo- Johi, Dadu).

"I gave only breast milk in the first month and nothing else" (IDI, Mo- Thallo, Dadu).

All LHWs interviewed in-depth said that they advise mothers to only breastfeed their babies as mother's milk has all the nourishment that the newborn requires. They also tell mothers to increase their diets so that newborn gets nourishment from their milk.

"We tell mothers to give first three days milk and nothing else as this milk has everything in it and they do not need to give any ghutti or other milk. Other milk can make the baby's stomach upset. We also tell women to increase their own diet and also have nourishing food so that the newborn can get nourishment through their milk" (IDI, LHW- Killi Machan, Pishin).

5.3 First Bath

Most participants in 7 out of 9 districts reported that the **newborn is given the first bath immediately**

within few minutes to 2 hours. Those mothers and decision makers whose babies are born at a health facility reported that they bathe the baby as soon as they come home from the hospital. The reason for bathing the newborn early is to clean her/him so that *azan* can be recited in his/her ear to initiate the newborn into muslimhood.

"The newborn is bathed immediately to cleanse him/ her and so that azan can be recited in his/her ear and s/he can be initiated into muslimhood." (FGD-Badal Bakus)

In general, if the newborn is born at night the family waits for sun to come up before bathing the newborn as the general practice is to bathe the baby in sun. During winters water is moderately heated and the newborn is bathed in a room heated with coals or wood-fire. In summers, however, water is not warmed and the newborn is bathed in the yard with normal water from hand pump or tap but only when the sun is out as it is considered that the newborn will get warmth from the sunshine. Usually in winters the baby is given a bath only once in a day while in summers the frequency is twice or thrice a day. One father-in-law from a **rural** area (Hangoro, Sukkur) said that the baby is bathed frequently in summers as this can cure any diseases that the newborn might have.

"The baby is bathed twice or thrice a day in summers so that whatever diseases s/he has, can be treated. The water is warmed and the baby is massaged with oil so that the baby gets warmth." (IDI, FIL-Hangoro)

In a **rural** area (Saleh Pat, Sukkur) one father-in-law reported that the newborn is given gripe water or rose water before bathing and his/her body is massaged with oil, cream, lotion butter or *multani* mud. Another practice is to knead wheat flour in oil and massage the baby with it at night and given a bath in the morning. It is believed that the baby gets tired at the end of the day and by doing this s/he is relaxed. One father-in-law from a **rural** area (Arain, Sukkur) said that water is heated so that it can kill all germs from baby's body. A few *neem* leaves are put in the water to protect from evil eye.

In districts Charsadda and Lakki Marwat, the first bath is usually not given early.

"If the baby is given immediate bath s/he can be paralyzed or become blind, deaf and mute or crippled" (IDI, MIL-MC4, Charsadda)

“In past the babies were given immediate bath but now this does not happen because s/he has come from a hot place and suffered from a lot of pain. We do not give immediate bath so that s/he does not catch cold; we give bath on the 2nd day” (FGD-Utman Zai, Charsadda).

“We delayed bath because the baby is hot so that s/he may not catch fever or flu” (FGD-Umer Zai, Charsadda).

“It is a tradition over here that the baby is given bath on the 7th day as the baby comes from a very hot place. Meanwhile the baby is cleaned and is tied in a sezany” (FGD-Landiwah, Lakki Marwat).

“It is a custom in our area that baby is given bath on the 7th day and hair is cut” (IDI, Mo-Pezu, Lakki Marwat).

“In past people used to give bath immediately but now they delay it for 3-4 hours” (FGD-Lakki 1).

5.4 Keeping the baby warm in neonatal period

Blanket, sweaters, caps, socks, warm clothes, warm bedding, turning off the fan, keeping doors and windows closed and using heaters were mentioned for keeping the newborn warm. During winters, the room is warmed by heaters, coals or wood-fire and by closing the door and windows and rugs are spread under the newborn if s/he is laid on the floor.

In Charsadda, keeping the **room ‘too warm’ is avoided.**

“People used to keep the rooms more warm in the past but now a days the doctors say that more warmth is not good as the baby can also get yarqan from it” (FGD-MC4)

In Haripur, an interesting practice is to **wrap the neonate and tie with a rope** and the rationale is that the neonate feels like s/he is still in mother’s womb. The mothers said that if the neonate is not tied with a rope s/he feels like s/he is falling down and if tied s/he is comfortable and sleeps well thinking that s/he is in her/his mother’s womb or lap.

In Lakki Marwat, mothers mentioned the use of *seasonay* (keeping the baby wrapped in cloth strips) as a practice that ensures that the baby remains warm.

In Jhelum, according to some participants the mother does not come in contact with cold water or eat cold things so that the baby does not get cold. They believed that because the mother breastfeeds, if she eats cold thing the baby will catch cold. Among other practices the neonates are given honey, *heeng* given in winter, and neonate is kept close to mother.

In Dadu, an interesting practice reported in one **rural** area (Bali Shah) was wrapping grinded carom seeds and ginger mixed in oil on the hands and feet of the neonates to keep them warm.

Nothing special is done in summers and mothers said that they use light (*mulmal*) clothes for the neonate in summers as they believe the newborn feels hot in that season.

No skin contact beside breastfeeding was reported in either rural or urban areas in any district, except DG Khan. The usual practice is to place the newborn on a separate or same bed with mother after bathing. Skin contact is not thought to be important. However, in DG Khan, some mothers did associate skin contact with keeping the newborn warm and the source of their knowledge was both doctors/health professionals and family elders. It can also be assessed from the interviews of LHWs and LHV that they were aware of the importance of skin contact with mothers to keep the neonate warm.

“I brought the newborn in contact with my skin even before breastfeeding. Our elder women tell us that we should place the newborn at our breasts for 10-15 minutes.” (IDI, Mo-Taunsa)

“My newborn was suffering from hiccups and had difficulty in breathing, the doctor told us that I should give her skin contact and she may get alright” (IDI, Mo-Shakir Town)

“The child was born at 11 at night and kept lying on my arm till morning and then he was bathed. After that he was laid near me.” (IDI, Mo-Sakhi Sarwar)

An important practice reported by mothers (in Jhelum) and decision makers in Lakki Marwat and Dadu was giving oil massage to the babies.

*“Mothers give **oil massage** before bathing. Some mothers also give ghee massage saying that oil massages cause the baby to turn tan. Some mothers also give lotion massage before bathing”* (FGD-Janjeel, Charsadda)

“We give oil massage to the babies” (IDI, FIL-Pezu)

“The mustard oil is moderately warmed and the baby is given massage with it” (IDI, Husband-Lakki I)

5.5 Cleanliness of Care Taker

Measures taken for personal cleanliness by care takers varied. **In some districts** (Khuzdar, Pishin, Dadu), **only a few mothers in urban areas mentioned that they take care of their cleanliness and wash hands** especially before breastfeeding and after changing baby’s diapers. Most mothers said that they cannot wash hands every time they pick up the babies as they are usually busy in household chores and breastfeed while doing these chores. They usually clean their hands with a cloth. Use of soap for washing hands was mentioned rarely.

In other districts (Charsadda, Lakki Marwat, Haripur, Jhelum, DG Khan, Sukkur), **majority of mothers reported practice of washing hands before breastfeeding, changing his/her clothes and cleaning the neonate.** Mothers said that they wash their hands if they are dirty in mud, dung, filth or by any other household chore before picking up the newborn.

“We wash our hands before breastfeeding or changing the clothes of the baby because the hands are unclean and dirty” (FGD- Umer Zai, Charsadda).

In DG Khan, mothers said that they try their best to wash their hands before touching the newborn and keep them clean but they cannot make others to do the same. If they ask the grand-mothers or other such relatives of the newborn to wash their hands before picking them up, they do not listen to them and hence mothers cannot help it. Similarly, the sweepers and housemaids also pick the newborn out of affection and mothers thought that these people are also not clean but they say they cannot stop someone from showing affection to the baby.

One practice among some mothers in DG Khan is that they hide their newborns from strangers or unrelated people. They believe they might cast an evil eye but it indirectly also serves to increase the probability of the newborn not coming in contact with unclean persons.

5.6 Gender Differences in taking care of the Newborn

Discrimination on the basis of gender varied in district. In some districts (Khuzdar, Pishin DG Khan, Jhelum, Lakki Marwat) it was reported in all areas. The mother and newborn are taken care of according to the preference

of gender by the family members. In Pathans birth of a girl is celebrated as later the parents receive bridal money in exchange of their daughter and in other castes a son is preferred over a daughter.

“The woman is cursed when she bears a girl and at the time of the birth of a boy family members celebrate and are very happy.” (FGD- Ghazgi, Khuzdar).

“Neither mother nor father takes care of the baby girl. At the time of birth both parents are sad. When the boy is born sweets are distributed and shots are fired in the air ” (FGD- Ferozabad, Khuzdar).

“Sons are given more attention and care than daughters. People are not happy at the birth of a daughter. My brothers asked me to put my daughters for adoption” (FGD- Batezai, Pishin)

“If a baby boy is born every body is happy and if a baby girl is born every body is sad and wish that a baby boy had been born instead” (FGD-Marmandi Azim, Lakki Marwat).

“Even the dai is not excited at the birth of a daughter thinking that she will not get a reward. On the contrary, she shows a lot of excitement on the birth of a son” (FGD-Sakhi Sarwar, DG Khan)

*“If a girl child suffers from an illness like fever, **yarqan** they say she will be ok. If it is a son they take him immediately to a doctor” (FGD- Taunsa Sharif, DG Khan).*

Mixed response was received in Charsadda and Haripur, while in Sukkur and Dadu most participants reported that they **consider their sons and daughters to be equal** and do not discriminate in taking care of any of them. However, some mothers, both in **urban** and **rural** areas, said that other family members prefer sons as they are going to grow up to be the earners of the family while girls have to go away after getting married.

Conclusions and Summary

Factors	Findings
Informational	<ul style="list-style-type: none">▪ Mothers and other participants understand the importance of wrapping the newborn immediately after birth.▪ First three days milk is considered healthy by most of the participants, however, some women are still not feeding it to the newborns in all districts and most are not feeding it DG Khan.▪ Exclusive breastfeeding is considered important by only a very few women.▪ Some <i>daiyan</i> also advise to give other milk/fluids with breast milk or not to give first three days milk.
Socio-cultural	<ul style="list-style-type: none">▪ Immediate wrapping of the baby before the delivery of placenta is generally practiced in household deliveries by <i>daiyan</i>.▪ Mustard oil, ghee, turmeric powder, <i>surma</i>, spirit, antibiotics are applied on the cord.▪ Generally mothers/care takers try to keep the newborn warm.▪ The first bath is given as early as possible and is not considered to harm the newborn in all districts, except DG Khan.▪ Moderately warm water is used for bathing during winters only.▪ Generally the newborn is bathed outside in the yard during summers as it is considered that the newborn will get warmth from the sunshine.▪ Mothers in some districts realize the importance of keeping clean.▪ Gender differences in taking care of the newborn are reported in several districts in both urban and rural areas.

Theme 6 - Danger Signs related to Asphyxia, Neonatal Sepsis and Other Severe Diseases

The presence of danger signs in a newborn suggests serious illness. The life of a newborn could only be saved by recognizing and responding to them immediately and availing emergency care.

The danger signs reported by the participants in districts are presented in Appendix 6.

Various reasons, both medical and non medical were stated for the danger signs in newborn.

“Jhatkey (fits) happens because the fever reaches the head” (FGD-Utman Zai, Charsadda).

“Dorey or jhatkay (fits) happen to a baby whose shoulder bone is weak or who is under spirit possession. Such baby is taken to a pir baba” (FGD-Landiwah)

“If the baby does not drink mother’s milk then it is because of evil eye” (IDI, husband, Hangoro, Sukkur) .

*“If baby’s face turns blue that means s/he is suffering from **Tormakha**. The babies do not survive in this disease but even then we take them to some maulvi for dam” (FGD-Pezu)*

“In the first month, besides flu and cough if jinn possess the baby there are no chances of survival” (IDI, Mo-Pezu)

*“Some babies are black and blue. They are in fact suffering from **Kokhi saya** i.e. spirit possession from mother’s womb and the baby does not grow. Such babies are taken to pirs and fakirs. If they cannot be treated by them they surely die. Doctors don’t have any treatment for them” (IDI, MIL-PDI, Jhelum).*

“jhatkey ki bemari occurs because the mother does not go for injections” (FGD-Pipri, Dadu).

“If the baby turns blue, it means s/he has oxygen deficiency.....and if the tongue lips and skin turn blue that means s/he has caught cold” (IDI, LHW-Janjeel, Jhelum).

Faith healing, treatment by local herbs and other home management are common measures even for these danger signs in some districts (Khuzdar, Pishin, Haripur, Lakki Marwat). In these districts, mostly participants in **urban** areas reported taking a newborn to doctor if s/he does not get better by home management practices and faith healing.

“If we can treat a disease at home then we do not take the baby to the doctor. We only take her/him in case of sever disease” (IDI, Mo- Faizabad).

“The rich take their babies to the doctor even for hiccups, but the poor like me wait for 4-5 days for the baby to get better by himself or they go for dam” (FGD-Darvesh, Haripur).

In other districts, (DG Khan, Jhelum, Dadu, Sukkur, Charsadda) majority of the mothers reported that the health care is sought for the newborn suffering from any of the perceived danger signs and most of them reported that care is sought from a doctor. Most participants reported that the newborn is taken to a doctor by the male members of the family.

“If the baby has loose motions, convulsions or has pain in stomach then the baby’s life is threatened by it. We do not do anything for these at home and male members of the family take the baby to a doctor” (FGD-UC 8, Sukkur).

Conclusions and Summary

Factors	Findings
Informational	<ul style="list-style-type: none"> A number of symptoms were mentioned by mothers as danger sings but many of the danger sings of asphyxia and sepsis were not mentioned.
Socio-cultural	<ul style="list-style-type: none"> In 5 districts newborns are taken to a health care provider if s/he suffers from any perceived life threatening disease. While in the remaining 4, the newborn is only treated at home or by faith healers or taken very late to a health facility.

Theme 7 - Care Seeking Outside Home

7.1 During Pregnancy

In all districts, poverty stands out distinctively to be the main reason for not seeking antenatal care as it is not easy to pay the transport fare, doctors' fee and prescribed medicines.

"If I earn one rupee and spend five then how will I run the house. There is so much poverty here. We don't have enough money to spend on the doctors. Very few women go to doctors and only if it is a must." (FGD-Badal Bakus, Sukkur).

"Lack of money is the reason for not going for ANC.....poverty is the main reason" (FGD- 14/3, Jhelum).

"The rich people can arrange special vehicle and go for check up in the hospital but the poor people visit the maulvis for treatment" (FGD-Landiwah, Lakki Marwat).

"Only those people who have facilities and money go to Khuzdar Civil Hospital. Poor people are checked by me. There are no facilities in the village and there is no transport. It costs a lot to go to the city. I go to check the women at home during pregnancy." (IDI, Dai-Ferozabad, Khuzdar).

Another important reason is **non availability of health facilities in the rural area**. To seek health care, women said, they have to visit health facilities in the city and for that the families have to arrange special vehicles which cost a lot of money. Moreover, they said that if they somehow manage to visit the hospitals in cities they have to spend a lot of time and face many difficulties in accessing a doctor.

"There are no facilities of health in our villages hence women do not go for ANC as one has to arrange a special vehicle to visit the hospital in city. One has to wait for her turn in line from morning to evening and when the turn comes the doctor's consultation hours end" (FGD-Marmandi Azim, Lakki Marwat).

"I didn't take my wife for check up because we do not have a doctor nearby and in Pishin the doctors are very expensive but not able. They take so much money and do not treat the patient right. We have to hire a taxi for Quetta which costs a lot" (IDI, Husband – Killi Machan, Pishin).

"There is no facility in the village. There is one hospital

of misses (Family Welfare Center), they do not have any proper hospital and they take money. They do not have ultrasound machines and there are no proper injections and medicines" (FGD-Gol Pur).

Mothers from low income families also reported that they cannot go for ANC as they are **not allowed by their husbands and in-laws**.

"I do not go for ANC because my mother-in-law does not allow me. She says that she also gave birth to babies (with out seeking ANC) and that the mothers now-a-days only make fake excuses" (FGD-Utman Zai, Charsadda).

"The customs and traditions in our area are such that the men in our area consider it very bad that their women should step out of the house during pregnancy to seek care. The men of the area say that it is obscene and shameful" (FGD-Pezu, Lakki Marwat).

"My husband and in-laws stop me from going to a health practitioner. They say that I should do household chores and will get fine by myself. Also I don't have the money to go on my own" (FGD-Sarai Saleh, Haripur).

"If the parents-in-law are not good they say our so much money is being spent. They are irritated" (FGD-Taunsa Sharif, DG Khan).

"Family members say that there is no use of going to a doctor without a problem as it costs a lot of money" (FGD-UC 8, Sukkur).

"Some illiterate people say that the doctors can't do anything as everything is in God's hands. Some people are bound by tradition, which is why they don't let the women go out" (FGD- City One, Pishin)

Some participants, especially males in Balochistan and NWFP, reported that a woman is not taken to a doctor during pregnancy as **it is considered to be a matter of shame**.

"We do not take women outside for check ups during pregnancy. This is not our custom here and it is not considered good. If the woman is in extreme pain, that is she cannot work and cannot walk then we take her to the doctor but in purdah. We take women for other illnesses like if she has pain in bones, but not for pregnancy" (IDI, Husband – Huramzai, Pishin)

“We do not take a woman outside with us because it is a matter of shame to take our pregnant wife along with us.” (IDI, Husband- Ferozabad, Khuzdar).

“Women are not allowed to go for check ups. This is a matter of great shame that they should be taken to a doctor for check up. This is a principle of our society that there are two places for a woman; home or grave. We take them to a hospital only when they are near death otherwise a dai comes home to attend to her” (IDI, Husband-Turlanda, Charsadda).

In Sindh, only in Dadu a woman stated that she did not go for check up during pregnancy because her **in-laws and husband stopped her from going as the check up is conducted by a male doctor.**

“There are male doctors in the hospital and they touch the abdomen to check the mother and the fetus. This is why my family members and husband stopped me from going to the hospital” (IDI, Mo- UC 4)

In Punjab, in DG Khan, some women reported that **no one spares time to accompany them to a health facility** and it also difficult for them to take out time from busy household routine for this. While in Jhelum, one mother-in-law spoke about her **Pir (spiritual patron) who had advised them for abstaining from ANC for her daughter-in-law.**

“We did not go for any check up because our pir had stopped us from that and told us to have trust in God and keep it to Him only. We did not go for any check up or ultrasound” (IDI, MIL-Gol Pur)

Lack of proper care in available health facility was also reported as a factor. Moreover, **malpractices at government health facility** were a reason for not going to the doctor.

“There is a Civil Hospital here but the treatment that they provide is not effective and they do not provide any medicines either” (FGD-Hangoro, Sukkur).

“If we go to the government hospital the doctor takes 5 kg of rice and then gives one glucose drip and charges 30 rupees for that” (IDI, Mo-Arain, Sukkur).

The attitude of family members is reported to differ with the number of pregnancies. At the time of first pregnancy the family takes better care of the woman but afterwards they do not care much.

“At the time of first baby everyone takes great care but later no one cares and mothers-in-law say that they also had babies and it is nothing new or unique. They do not let them go to the doctor even if the women die bearing babies at home” (FGD- UC 8, Sukkur)

In contrast to the above, in some urban or rural areas of 6 districts (Pishin, Khuzdar, Haripur, Lakki Marwat, Jhelum, Dadu) **few women reported that not only their opinion mattered but also they decide on their own where and when to go for ANC.** Decision makers, husbands and mothers-in-law, interviewed in-depth in in some urban and rural areas also reported that they advise and accompany women to go to a health care provider for ANC visits.

“I advised for check up myself so that we get to know whether the newborn is in the right position or not and also wanted to check whether the mother has any problem or not.” (IDI, MIL- Killi Machan, Pishin).

“Going for check-ups was my own decision. I went twice for check-ups, in 7th and 9th month and in other months I didn't need to go. My family supports me for check-ups” (IDI, Mo-City One, Pishin).

“We tell our husbands about a problem then they decide where to go. Mothers-in-law and husbands usually decide on these matters, but they do not oppose check-ups” (FGD- Faizabad, Khuzdar).

“She goes for check ups during pregnancy. These women, you know, consult each other on these matters. Then she used to ask me and I used to take her for check ups” (IDI, Husband-Ali Khan, Haripur).

“Most mothers visit the hospitals in pregnancy in our area” (FGD-Sarai Naurang, Lakki Marwat).

“In our village everybody goes for regular check up even if they have to take loan but some people are also careless and think that it is not necessary” (FGD-Pind Matey Khan, Jhelum).

“I take money from my husband but it is in my hands to decide whether I have to go to a doctor or not” (IDI, Mo-Thallo, Dadu).

In Pishin and Khuzdar, those who go to the doctors **prefer private over government health facilities.** Lack of adequate health facilities at the government hospital, malpractices, attitude and availability of the staff were reported as reasons to avoid government hospitals.

“In civil hospital no body listens to us. Those who come with a reference to the hospital get better attention” (FGD- Faizabad, Khuzdar).

“Some doctors at government hospital say that they’ll check us at their clinic and not in the hospital” (FGD- Faizabad, Khuzdar).

“In Civil Hospital doctors are not there all the time and then we have to go to private doctors, but they charge a lot of money” (FGD- Faizabad, Pishin)

7.2 For Neonates

Normal newborns are not taken to a health facility for a routine check up, except for immunization in some areas.

“People do not even take their babies to the doctors for immunization. Women are not allowed to go outside and men go to work in the morning and come home at night. Sometimes we take the babies with women for immunization but that is not a common practice” (IDI, LHW-Batezai, Pishin)

In case of illness, the **pattern for seeking health care varies in districts**. In districts of Balochistan (Khuzdar and Pishin), **Faith healing and home management for diseases is generally preferred** both in urban and rural areas. Unless the newborn suffers from a severe illness or pain s/he is not taken to a doctor. LHWs and *daiyan* also provide care at home for the newborn. Mothers said that LHWs and *daiyan* usually have medicines for minor illnesses such as fever, flu, and cough. In case of more severe diseases such as jaundice and loose motions the newborn is first taken to a faith-healer, and if does not recover then to a doctor.

“We usually try to treat the baby with herbs but if the disease is severe only then we take the newborn to a doctor.” (IDI, Husband- Killi Machan, Pishin).

“My husband took our baby to the mulla because he was suffering from loose motions. If a baby is in sever pain and he has less chances of survival only then s/he is taken to a doctor.” (IDI, Mo- City One, Pishin).

“People usually try to manage the illness of a newborn at home or they go to mulla and dai but in extreme illness they go to the Civil Hospital.” (FGD- Ghazgi, Khuzdar).

“We just take the baby to the dai who gives herbal

medicines. In case of jaundice we take the baby to mulla. If he can’t treat the baby only then we go to doctors.” (IDI, Husband- Zeedi, Khuzdar).

In NWFP, different pattern is seen in the 3 study districts. In Lakki Marwat, people usually take the sick newborn for dum durood; in Charsadda, newborns are taken to paramedics or government hospital; while in Haripur the pattern is to seek health care from private doctors.

“We take babies to compounders. We are poor and he takes Rs. 20 for injection which cures breakha (pneumonia). While in hospital one has buy injection for Rs. 50 as well as pay for the slip. The doctors also prescribe very expensive medicine.” (FGD-Umer Zai, Charsadda).

“Most people take the babies to government hospital because we are poor and cannot afford private doctors” (FGD-Utman Zai, Charsadda).

“We take our babies immediately to a private doctor or a private hospital” (FGD-Janobi, Haripur).

In Punjab, in both DG Khan and Jhelum many people preferred to visit private doctors in their own area or in city, though more sought help from private practitioners in Jhelum as compared to DG Khan.

“Most women go to specialist doctors in Jhelum and the babies recover only with treatment of these doctors” (FGD-Janjeel, Jhelum).

“It is obvious that everybody loves their children. If the life of a baby is in danger, even the poorest can somehow manage to take loan and certainly seek care from outside” (FGD-Sokar, DG Khan).

In Sindh, In both Dadu and Sukkur, the attempt is made to seek help from private doctor for the sick newborn.

“We visit private doctors because their treatment works” (FGD-Pipri, Dadu).

“The only hindrance is money but if the newborn is ill then it is a must to take him/her to the doctor.” (IDI, Mo-UC 8, Sukkur).

Distance of health facilities from their villages and high transport fares hinder care seeking for newborns in several rural areas. Participants reported that they have to rely only on the local *dai* and *mulla* as not even LHWs works in some areas.

“Transport is a major problem. If we cannot arrange for the transport to take the newborn to a doctor then we leave it to Allah.” (Karakh, Khuzdar)

“Our elder women make herbal medicines at home and we use them first. If it doesn’t work then we go to dai or mulla. In severe cases we take the baby to a doctor but only if we can arrange for transport.” (Husband- Ferozabad, Khuzdar).

“Usually people take their babies to the mulla. There are no doctors, no medicines and no trained health care providers here except for the LHW who comes home and gives advice or some medicines which are not enough. There is no transport and women and children die here and we just see” (IDI, MIL- Huramzai, Pishin).

“There are no facilities here. If the newborns do not breathe or if oxygen is required for premature babies then there is no facility. They are to be taken to Quetta city and babies die halfway as no transport is available” (IDI, LHW- Killi Machan, Pishin).

“Transport is the main problem which hinders people from taking their newborns to doctors in time” (IDI, LHW- Faizabad, Pishin).

“There is no facility here as such and mostly we take our babies for dum darood. We cannot go to the city because the city is at a distance of 2 hours and there is no regular transport as well. One has to hire a vehicle for 1,200 rupees. Moreover, one has to pay doctors fee at the hospital. We cannot afford this” (FGD-Landiwah, Lakki Marwat).

“We do not have any facility here. The patients are taken to the city on a donkey cart, whether they are saved or die halfway” (IDI, Dai-Saleh Pat, Sukkur).

“When we go to the hospital the patient dies in midway because the hospital is very far and at night we cannot even find a rickshaw” (IDI, Husband- Badal Bakus, Sukkur).

It becomes apparent that in all districts, **money is the most relevant factor for the family while making a decision on whether or not to take the neonate to a health facility** and while selecting the facility among those available to them.

“It depends on money, if one has more s/he can afford

to go out.if the poor has money s/he also goes for treatment.” (FGD –Taunsa, DG Khan).

Mostly, the idea of need for care seeking for neonates is initiated by mother and the final decision is taken by husband or mother-in-law.

The opinion of mother is given some importance in this regard.

“Mother-in-law and husband take decisions. Mother’s opinion is taken but her opinion is not as important as that of the father” (IDI, Mo - Shakir Town, DG Khan).

“Mother is the most worried person. She tells her husband or father-in-law and then they give money and she takes the baby to a health facility” (FGD-I 4/3, Jhelum).

“Men decide everything. Sometimes women tell their husbands or they tell their mothers-in-law. The custom is not to decide on our own.” (FGD- Zeedi, Khuzdar).

“My husband decides about everything and asks for my opinion as well. No one in our family opposes to take the newborn for care” (IDI, Mo- City One, Pishin).

“We tell our mothers-in-law and then they accompany us. Nobody stops us now-a-days because people have become aware now and they are educated. The poor also know that if the treatment is not sought in early stages the disease deteriorates and it costs more” (FGD- Sarai Narung, Lakki Marwat).

“The mother tells the husband if the newborn has some problem. The newborn is taken to a doctor only if the problem is severe. Husband decides where to take the newborn for treatment.” (FGD- Saleh Pat)

Going to faith-healers for warding off evil eye is a common practice in both **urban** and **rural** areas as most of the people take their newborns with or without a disease to a faith-healer.

Conclusions and Summary

Factors	Findings
Informational	<ul style="list-style-type: none">▪ Newborns are not taken to health care providers for regular check up, except for immunization.
Socio-cultural	<ul style="list-style-type: none">▪ Decisions for antenatal and neonatal care seeking are made by husbands, mothers-in-law or in few places by fathers-in-law.▪ Mothers are the ones who initiate the idea that neonate need health care and should be taken for treatment, however, decision to seek care and from where is taken by father, mothers-in-law or by fathers-in-law.▪ Lack of adequate support from the family hampers ANC seeking.▪ Faith healing for evil eye in new born is a general practice.
Economic	<ul style="list-style-type: none">▪ Lack of money was mentioned as the main reason for not seeking antenatal care.▪ Money is one of the important factor in seeking treatment for neonates, however, people prefer to go to private doctors as they are not satisfied with government health facilities.
Transport	<ul style="list-style-type: none">▪ Distance and non availability of transport negatively affect care seeking for ANC as well for neonates.
Supply	<ul style="list-style-type: none">▪ Lack of access to health facilities, non-availability of adequate health facilities, attitude of staff and malpractices in government facilities, were reported as reasons for not seeking care from them.

Theme 8 - LHWs

8.1 Service availed from LHWs

Following were reported as the services received by mothers from LHWs:

- Polio drops (Khuzdar, Pishin, Charsadda, Haripur, DG Khan, Jhelum, Dadu, Sukkur).
- TT injections for women (Khuzdar, Pishin, DG Khan, Jhelum, Dadu, Sukkur).
- Maintaining cards for immunization of women (Pishin, Jhelum).
- Medicines for pregnant women (Khuzdar, Sukkur, Pishin, Haripur).
- Flu, fever and cough medicines for newborn (Pishin, Haripur, Charsadda, Lakki Marwat, DG Khan, Jhelum, Dadu, Sukkur), ORS (Haripur, Lakki Marwat, DG Khan, Dadu), lotion for itching (Sukkur), polyfax (Charsadda, Haripur), antiworm medicines (Charsadda).
- Nutritional supplements (Charsadda, Haripur, Lakki Marwat, Jhelum, Dadu).
- Weighing the newborns at home (Khuzdar, Pishin, DG Khan, Dadu).
- Advice for diet about pregnant mother (Khuzdar, Pishin, Lakki Marwat, DG Khan) and workload (Lakki Marwat).
- Advice about diet of the baby (Sukkur).
- Advice on breastfeeding and care of newborn (Pishin, Lakki Marwat, Dadu).
- Registration of newborn (Pishin, Lakki Marwat).
- Advice on cleanliness of mother (Pishin), on cleanliness of baby (Charsadda, Lakki Marwat).
- Advice to use boiled water for newborn (Charsadda).
- Advice for family planning (Khuzdar, Pishin, Haripur, Lakki Marwat, DG Khan, Jhelum, Dadu, Sukkur), contraceptives tablets (Charsadda), condoms (Lakki Marwat, DG Khan, DG Khan, Jhelum, Dadu).
- Check the newborn to see if s/he is alright (Kuzdar, Haripur).
- Accompany women to go to a doctor (Khuzdar, Jhelum)

It becomes evident from above that LHWs are providing only limited service and not the range of activities that is expected from them. Also, many participants, especially from rural areas, reported that the **LHW never or seldom comes to visit them** and even if the LHWs come in some areas they usually give polio drops only and do not visit in between.

“We have never seen an LHW. She never visits us..... she never comes to see the newborns. She doesn't even come to give polio drops” (FGD-Badal Bakus, Sukkur).

“The LHWs never visit. They just take their salaries and sit at home. We see them only at the time of giving polio drops.” (IDI, Dai- Saleh Pat, Sukkur)

Many mothers and mothers-in-law thought of LHWs as providers of polio drops and family planning services.

“People of the area say that they (LHW) are there only to administer polio drops, and that is their only job” (IDI, MIL-Taunsa Sharif, DG Khan).

“No, we have never benefited from them; they only administer polio drops because they get 100 rupees for this” (FGD- Sokar, DG Khan).

Many mothers and mothers-in-law mentioned that various **negative concepts prevail about the LHWs and their services**. They are believed to provide low cost, expired and low quality medicines and only provide good medicines to their relatives and acquaintances. It is also believed that medicines that LHWs provide have family planning medicines/contraceptives mixed in them. Some women also opined that the LHWs are literate women and have a bad character.

“Women think that the medicines given by LHWs are family planning medicines, which is why they do not take it” (FGD-Sakhi Sarwar, DG Khan).

“They deceive us by saying that they do not have any medicine but they give medicine to those with whom they have personal relations” (FGD-Sokar, DG Khan).

“Once an LHW came to our home and she was Matric fail. She made a visit list while sitting in my home and went away after taking tea” (FGD-Nissata, Charsadda).

“She visits homes, gives polio drops and ORS to children, and tablets to mother if they are suffering from fever. All other medicines are sold at medical stores.” (IDI, MIL-Sarai Saleh, Haripur).

“The LHW here does no work. Even the polio drops are given by her brother. She comes only once in two months and gives Nimkol or cough medicine. This is all she does” (FGD-Landiwah, Lakki Marwat).

“We have never seen an LHW. She never visits us..... she never comes to see the newborns. She doesn't even come to give polio drops” (FGD-Badal Bakus, Sukkur).

In contrast to above, **LHWs services were praised in many areas of 4 districts** (Khuzdar, Pishin, Sukkur and Jhelum). Some even sympathized with them by saying that these poor women have to visit each and every house and that they should get more medicine from the government.

“LHW helps us a lot and she is very good. We take our newborns to them for weighing and they also provide us with advice on family planning and medicines. During pregnancy they come to provide us T.T injections” (FGD- Killi Machan, Pishin).

“She goes house to house to give medicines and takes women to hospitals, checks pregnant women and also gives T.T immunization. (IDI, Mo- City One, Pishin).

“The LHW advises on taking care of the newborn and tells us about the diseases of the newborn” (Husband, Batezai, Pishin).

“We are very happy with the LHW in our area. She goes house to house to give polio drops and medicines whatever she has. We also ask her to accompany us to the doctor” (FGD- Faizabad, Khuzdar).

“The LHW is very nice and goes house to house to give polio drops and immunization to women. She also advises on family planning and accompanies the woman to hospital if she has any problem... Everyone here appreciates LHW because she provides everything for free” (FGD- Ghazgi, Khuzdar).

“When my baby was born, LHW came and weighed the baby. The baby was weak; she advised me to breastfeed the baby and also gave me nutritional supplements including iron supplement syrup. She advised me to eat fruits and drink milk” (IDI, Mo- Pind Matey Khan, Jhelum).

“Everyone considers them good. They have brought a lot of awareness and all women take their opinion” (FGD- Gol Pur, Jhelum).

“The LHW takes good care of us and visits the pregnant woman to give T.T. immunization so that newborn does not get convulsions/fits at the time of birth” (FGD- Hangro, Sukkur).

8.2 Attitude towards allowing LHWs to be present at the time of delivery

Almost all participants in 40 out of 45 urban and rural UCs of the study mentioned that that

they will allow the LHW to be present at the time of delivery to take care of the newborn.

“We will allow the LHW to be present at the time of delivery to take care of the newborn because this will provide us relief as we cannot go out if the newborn has any problem and there are no facilities.” (FGD- Karakh, Khuzdar).

“(If present at the time of delivery) LHW will take care of the newborn and the dai will attend the mother” (FGD- Darvesh, Haripur).

“Why would we not allow them? They should assist the dai by providing advices. She will give immunization. If something goes wrong she can advise and can also visit us later” (FGD- Sakhi Sarwar, DG Khan).

“She can advise the mother to take proper care of the newborn and will tell about the right medicine to be bought. We do not know because we are illiterate” (IDI, Mo- Arain, Sukkur).

A few proposed a condition that they will **only allow the LHW to be present at the time of delivery if she doesn't charge any money.**

“If she doesn't charge anything then we will allow her” (FGD- Saleh Pat, Sukkur).

The 5 UCs in which participants were not ready to allow LHW to be present at the time of delivery were UC 8 in Sukkur, MC 4 and Nissata in Charsadda, and Wasti and Darvesh in Haripur.

“People do not consider LHW as a good profession. Maybe 10-15 families will allow but the rest will not allow because the mothers-in-law say that they have also delivered babies and the babies are to be delivered by mother's own force, what is the need of gathering other women” (FGD- Nissata)

“This village is very backward and people here will not allow” (FGD- Nissata)

“We will not allow the LHW to be present at the time of delivery because it is a matter of shame. We ask even the mother-in-law to leave the room and allow only the dai to remain with us inside at the time of delivery. The LHW will break our purdah outside and tell others the stories about how our babies were born. We will never allow the LHWs” (FGD- MC4)

Participants from UC 8, Sukkur, mentioned that they will not allow LHW because they all have their deliveries at health facilities. While in Wasti and Darvesh in Haripur participants suggested that it is better to provide the same training to the *daiyan*. The reason for not allowing was that they do not believe in LHWs and that LHWs do not have good attitude towards people.

A few LHWs said that they will agree to take care of the newborns at birth only if their salaries are raised, while the others had no objection.

“If our salary will be increased we will go to take care of the newborns at the time of delivery. We already have so many things to do and go to so many houses in a day. Our salary is very less.” (IDI, LHW-UC 8)

Daiyan interviewed in-depth had mixed opinion. Many said that they will have no objection to let LHWs come along for taking care of the newborn, while few *daiyan* said that they will not allow the LHWs as they cannot learn to take care of the newborn even after training.

Conclusions and Summary

Factors	Findings
Informational	<ul style="list-style-type: none"> Participants in most areas mentioned polio drops for children as the major service provided by LHWs. Respondents in some areas acknowledged that the LHWs provide advice for both mother and the babies.
Socio-cultural	<ul style="list-style-type: none"> Only in few areas participants appreciated LHWs role and mentioned that they use the services provided by her. Participants in other UCs mentioned that they seldom or never see an LHW visit their area. Participants in only 5 out of 45 UCs said that that they will not allow LHW to be present at the time of delivery. Some participants conditioned that they will allow the LHW only if she doesn't charge any money. Some <i>daiyan</i> seemed to have no objection in allowing LHW to be present at the time of delivery while a few did not believe that the LHW will learn to take care of the newborn even after training. LHWs had no objection to attend to the newborn at the time of delivery; however, few LHWs said that she will do it only if their salary is raised.



Recommendations

The Project should:

1. Inform men about the importance of ANC, safe delivery and PNC in improving health and saving lives of mothers and newborns and advocate for acquiring these services.
2. Work to change the custom that seeking ANC is shameful and strengthen knowledge of mothers and families (especially rural) about the benefits of ANC and the minimum visits that should be made to a health care provider for check up even if the pregnancy is perceived to be progressing normally.
3. Build on the knowledge of the mothers that there is direct relationship between the food intake of mother and the weight of the newborn and train health care providers to conduct nutrition counseling based on the National Nutrition Curriculum prepared by the Pakistan Child Survival Project in 1990s.
4. Promote intake of iron and other micronutrients.
5. Educate mothers and families about the impact of prolong work hours without rest on the weight of the fetus and encourage husbands and mother-in-laws to find ways for decreasing workload of their pregnant wives/daughter-in-laws.
6. Advise mothers and families about the importance of tetanus toxoid injections during pregnancy and overcome the misperception that it has long term contraceptive effect.
7. Inform mothers, families and *daiyan* about LBW and its consequences, and they should be encouraged to get the newborn immediately weighed after the delivery by LHWs. (LHWs may require refresher training for weighing the newborns).
8. Work to increase acceptance of LHWs in the community and propagate their profession as a respectable and beneficial service for women, children and families.
9. Support LHWs through innovative methods to increase their mobility in communities and gain access to household.
10. Motivate LHWs to perform their duties regularly and work to remove barriers in their acceptability in the community

11. Encourage LHWs to discuss birth preparedness and complication readiness (BPCR) with mothers, mother-in-laws and *daiyan*, including timely actions for prolong labor.
12. Discourage *daiyan* from harmful practices during delivery such as placing cotton in vagina
13. Persuade *daiyan* to immediately wrap the newborns as soon as they are born and even before cutting of the cord.
14. Make use of the understanding of the mothers and families that the newborn should cry immediately and clarify their concepts about what is meant by immediate.
15. Draw attention that checking breathing and color of the newborn is an important action, which should be done promptly at birth
16. Tell the mothers and families that blue baby is a danger sign that needs immediate medical care in hospital, which should not be delayed.
17. Update the knowledge of the mothers, families and *daiyan*, about the danger signs of newborn and encourage them to seek immediate medical care in hospital if such symptoms and signs appear.
18. Convince the rural mothers and families that first 3 days milk is not harmful but very useful for the baby and should be given to the newborn.
19. Promote exclusive breastfeeding, which is not being practiced. Clarify that exclusive breastfeeding means not even giving water.
20. Advise mothers to delay the first bath for at least 24 hours allowing the newborn to adjust to the new environment.
21. Train LHWs to provide immediate care to the newborn at birth, including wrapping to keep warm, assess crying and breathing, noting color of the skin and carrying out resuscitation, if required. Also weighing the baby on day 1.
22. Draw attention of the community women towards different micro credit programs for generating income and subsequently some empowerment.

Appendix – 1: Terminologies for LBW Babies, Premature Babies and Healthy Babies

Balochistan: Khuzdar

The local terminologies for LBW baby are the following

- *Laghir/ Laghir chuna*
- *Sookha*
- *Sati*
- *Badloo*
- *Barooka chuna*
- *Chat*
- *Hanga Chuna*
- *Sob Asey*

Premature baby of seventh month is called *Athora*, *haft maheena*, *haftagi*, *Dakha wala bacha*, *neemtama*, *nameeda* and that of eighth month is known as *heeshrik*, *hashtagi*.

Balochistan: Pishin

Following terminologies were used for a newborn that is weak and has low weight:

- *Wach*
- *Dangar/ Dangar Dai*
- *Kamzor*
- *Manda Kachnan*
- *Sim a dye*
- *Beeran*
- *Teran di*
- *Sokray ki bemari*
- *Sokra*
- *Mitrar*

A Pre-mature baby is called *Sat maya* and *manda*.

Punjab: DG Khan

The local term used for a newborn with normal weight (as perceived by the participants) is '*changi sehat*' (good health) and those for less than normal weight are:

- *Sokra* (weak in appearance)
- *Sookha kathi* (weak as a skeleton; emphasizing the severity of weakness)
- *Chiller* (very weak; literally fruit/vegetable skin)
- *Hola* (light weight)
- *Patla* (thin)
- *Muka hoa* (close to dead)

The term for premature baby is '*kacha baal*' and '*satwasa*'.

Punjab: Jhelum

The local terminologies for LBW babies are the following

- *Sokha* (thin)
- *Sokra* (thin)
- *Sookha-patla* (very thin)

- *Hola* (light weight)
- *Hola-phulka* (very light weight)
- *Sokh gia hai* (has dried)
- *Chichra* (piece of flesh)
- *Lissa* (weak)
- *Nikko* (small)

The premature baby is termed as **Sat Maya** (seven month's) or **kam umri bacha** (baby of less age) whereas a healthy newborn is termed as **bharri** (heavy), **sohna** (beautiful). If the newborn is healthy and is a boy he may be termed as **gabru** and a healthy female newborn may be termed as **goal matol** (round shaped), **gobi ke phul vergi** (resembling cauliflower).

NWFP: Charsadda

Following were reported as the local terminologies for the weak babies:

- *Najora*
- *Narray*
- *Be-mar*
- *Kamzoor*
- *Tupp*
- *Manda*
- *Ooch*
- *Patla*
- *Chippa*

A healthy baby is called **ghutt** and **sehatmand**, **daboski**, **kheeraza**, **soorb**. Premature baby is called "**kaama miachda da paidaiyanh chavy daiy**" and "**kame naitay da**"

NWFP: Haripur

The local terminologies for LBW baby are as follows;

- *Sookha*
- *Sookha Sarra*
- *Marra*
- *Lissa*
- *Teelay ki tarah patla*
- *Sokrey ki bemari*
- *Parchanwa parra hoa hai*

Pre-mature baby of seven months is called **satwyan** and that of eight months is called as **athwayan**. Another term for a premature baby is **Ghirran dina da bacha** (Darvesh). Yet another term is **ghattan mahiniyan da** (Sarai Saleh) or **ghattan dina da** (Ali Khan). Participant in one **urban** FGD (Janobi) suggested that a **satwyan** may survive but an **athwayan** has no chances of survival.

NWFP: Lakki Marwat

Following were reported as terminologies for LBWs

- *Manda*
- *Gooch-weak*

- *Daangra*
- *Uch shamtay mashoom daiy*

The terminologies for a healthy baby are;

- *Tagraa*
- *sehatmand*
- *Ghut*
- *Sorb*
- *Daboski*
- *Rooghdaiy*
- *Sahee roogh bacha daiy*

A premature baby is termed as **Mashoom Kumie Muday Da** (baby of less duration), **Neem garrah paiyda shavay daiy** and **baay mudday daiy. chammaey paida shavey daiy.**

Sindh: Dadu

Following terminologies and expression were used for weak newborns

- *Dhubroo* (weak)
- *Heenro/Heenrra* (weak)
- *Dooba hoa* (unconscious)
- *Sanhro* (thin)
- *Lanjho* (low birth weight)
- *Jidhro* (weak newborn)

The healthy newborn is called as **Sagroo/Sogrra/changa Bhala, sotthoo/ghahro**. Premature babies are called **kachro, satrio** (seven month baby) and **Athrrio** (eight month baby).

Sindh: Sukkur

The local terminologies for LBW baby are the following

- *Kamzor / Laghir*
- *Lasaro*
- *Sanhro*
- *Dabro*
- *Kangi*
- *Sakkul*
- *Heetu*
- *Sookha*
- *Patroo* (Fragile)

Premature baby is called *kachro, satro and kachoo par.*

Appendix – 2 : Terminologies for Cord Problems

Balochistan: Khuzdar

1	<i>Naaf kharab ho jaye</i>	Cord is affected
2	<i>Naaf se khoon aye</i>	Cord is bleeding
3	<i>Narro se pani aye</i>	Water discharge from cord
4	<i>Narro sooj jaye</i>	Cord is swollen

Balochistan: Pishin (apart from point 2 the rest is in urdu instead of English)

1	<i>Naaf se khoon ata hey</i>	Cord is bleeding
2	<i>Naaf Najoril No kharab shaway de</i>	Cord is affected
3	<i>Narro se peep nikley</i>	Pus discharge from cord
4	<i>Narro surkh ho</i>	Cord is reddened
5	<i>Narro sooj jaye</i>	Cord is swelled

Punjab: DG Khan

	<i>Narra sojha hoa hai, malla</i>	Swelled cord
	<i>Duni Barh gai hai</i>	Enlargement of cord
	<i>Duni pak gai hai, Narro pakka hai</i>	Pus in cord
	<i>Narro kachha gir gia hai</i>	Cord detached prematurely

Punjab: Jhelum

1	<i>Duni kharab ho gai</i>	Cord goes bad
2	<i>Narro sojh jati hai</i>	Cord is swelled
3	<i>Narro surkh ho jati hai</i>	Cord is reddened
4	<i>Narro pak gai hai</i>	Cord is inflamed
5	<i>Duni kharab/pak gai hai</i>	Cord is inflamed
6	<i>Narro/naf mien peep par gai hai</i>	Pus in cord
7	<i>Chanwla</i>	Cord is affected

NWFP: Charsadda

1	<i>Numme kharab shavaydaiy</i>	Cord goes bad
2	<i>Numme zakhmi shavadaiy</i>	Cord is injured

NWFP: Haripur

1	<i>Naro kharab ho gaya hay</i>	Cord has gone bad
2	<i>Narro sojh gia hai</i>	Cord is swollen
3	<i>Narro soot gia hai</i>	Cord is reddened
4	<i>Narro surkh ho gia hai</i>	Cord is reddened
5	<i>Narro lal ho gia hai</i>	Cord is reddened
6	<i>Dhuni dukh gai</i>	Cord is aching
7	<i>Nomekharab shoe thay</i>	Cord has gone bad
8	<i>Naroo kala ho jata hai aur badboo atti hai</i>	Cord turns black and stinks
9	<i>Naaf moti ho jati hai</i>	The cord thickens
10	<i>Naaf khinch jati hai</i>	The cord is over stretched

NWFP: Lakki Marwat

Noom kharaab shaveydey - this generic term meaning "cord has been affected" was used for all types of cord problems

Sindh: Dadu

1		<i>Naaf ke gird surkhi</i>	Reddening around the cord
2		<i>Naaf ke gird sojan</i>	Swelling around the cord
3	Kacch	<i>Naaf se peep kharij ho</i>	Pus discharge from cord
4		<i>Naaf se ghand bahe</i>	Pus discharge from cord
5		<i>Naaf se pani bahe</i>	Water discharge from cord
6		<i>Narro/ Naff sujh gia</i>	Cord is swelled
7		<i>Narro Pak jai</i>	Cord is infected/injured
8		<i>Narro Lal ho jai</i>	Cord is reddened
9		<i>Naaf ne pakrez kia</i>	Cord is infected/injured
10		<i>Naaf Surkh ho gai hai</i>	Cord is reddened
11		<i>Narro peeley rang ka ho khoon ki kami ki waja sey</i>	Cord is turned yellow due to deficiency of blood

Sindh: Sukkur

1	<i>Nara kharab ho gaya hey/ Pichi Payo Aa</i>	Cord is spoiled
2	<i>Narro sooj gaya hey</i>	Cord is swelled
3	<i>Narro se hara ya safaid pani behta hey</i>	Green or white discharge from cord
4	<i>Narro khula hota hey</i>	Cord is open
5	<i>Narro geela hota hey</i>	Cord is wet
6	<i>Pakrez/ Narro pak gaya hey</i>	Pus discharge from Cord
7	<i>Wao</i>	Cord is Swelled
8	<i>Narey mein daney</i>	Cord has <i>daney</i>
9	<i>Naroo lal ya peela hota hey</i>	Cord is red or yellow

Appendix 3: Terminologies for Eye Problems

Balochistan: Khuzdar (again its urdu instead of Baluchi or Brahvi)

1	<i>Aankh se pani</i>	Watering of eyes
2	<i>Aankh na khuley</i>	Eyes do not open
3	<i>Ankh mein gand</i>	Discharge from eyes
4	<i>Aankh surkh ho</i>	Eyes are reddened
5	<i>Ankh se peep nikley</i>	Pus discharge from eyes

Balochistan: Pishin (urdu used instead of Pushto)

1	<i>Sooji Surkh Aankhein</i>	Red swollen eyes
2	<i>Aankhon se peep nikley</i>	Pus discharge from eyes
3	<i>Satargey na jori</i>	Eyes are affected
4	<i>Aankh se gand nikley</i>	Filth discharge from eyes
5	<i>Aankh se pani nikley</i>	Water discharge from eyes
6	<i>Aankh nahin khulti</i>	Eyes do not open

Punjab: DG Khan

<i>Ankh dukhti hai</i>	Pain in eye
<i>Jhao ka pani beh rah hai, Ankh se pani atta hai, kujee di arri</i>	Watering eye
<i>Anrri, Ankhoo main jhamb hai, Ankhoo main Katter hai, Ankh ai hoi, Ankh much gai, Aankh jhar gaye hey</i>	Injury/swelling of eye
<i>Kukree aa gae hain</i>	Reddening eye

Punjab: Jhelum

1	<i>Akhian aa ga'een</i>	Eyes are affected
2	<i>Bhajhe</i>	Eyes are affected
3	<i>Chorri nikal gai hai</i>	Eyes are affected
4	<i>Pilan aa gai hai</i>	Yellowness in eye
6	<i>Ankh surkh ho jai</i>	Eyes redden
7	<i>Ankh mien see pani ai</i>	Watering eye
8	<i>Ankh dukh rahi rahi</i>	Eye is aching

9	<i>Jharra ho gia hai</i>	Watering eye
10	<i>Chobh lag gai hai hai</i>	Watering eye
11	<i>Ankho ki allergy</i>	Allergy in eye
12	<i>Ankho see khoon</i>	Blood from eyes

NWFP: Charsadda

1	<i>Astargay daiy kharaby shawaydaiy</i>	eye has been affected
2	<i>Leechiy Khataliy daiy</i>	The babies shoulders are down, eyes are bad

NWFP: Haripur

1	<i>Ankh kharab ho gae hay</i>	Eye has gone bad
2	<i>Ankh dukhti hay</i>	Eye aches
3	<i>Satargay kharab shoe day</i>	Eye has gone bad
4	<i>Ankh se gand nikalta hai</i>	Pus discharges from eye
5	<i>Ankh surkh ho gai</i>	Eye is red
6	<i>Ankh ki allergy hai</i>	Allergy in eye
7	<i>Ankhien jurri hoi hoti hai</i>	Eyes are closed

NWFP: Lakki Marwat

1	<i>Stergi khoog shevayday</i>	eye has been affected
2	<i>ankhein zakhmi thee</i>	Eyes are injured

Sindh: Dadu

1	<i>Ankhein lal ho jaien/ Ankh surkh ho jaye</i>	Reddening of eyes
2	<i>Ankhon se gand nikley</i>	Pus discharge from eyes
3	<i>Uthan Ankhon sey pani bahey</i>	Water discharge from eyes
4	<i>Ankhon mein peep/ Aankhon mein gand</i>	Pus in eyes
5		
6	<i>Chepiyon Ankhon se pani behna</i>	Water discharge from eyes

Sindh: Sukkur

1	<i>Aankhon se peep behti hey</i>	Pus discharge from eyes
2	<i>Aankh lal ho jati hey</i>	Eyes are reddened
3	<i>Aankh se gand nikalta hey</i>	Filth discharge from eyes
4	<i>Aankh se pani behta hey</i>	Water discharge from eyes
5	<i>Aankh khulti nahin hey/ Aankh ak gaye hey</i>	Eyes do not open
6	<i>Aankh Aai Paye/Aankh uth gaye hey/ Aankhon mein keecher ho gaya hey/ chepiyon</i>	Filth in eyes

Appendix 4: Terminologies for Skin Problems

Balochistan: Khuzdar

1	<i>Jild ashan gekh/ lal daney</i>	Red daney
2	<i>Soorak/ khasra</i>	Measles
3	<i>Lappar</i>	Small red daney
4	<i>Kharish</i>	Itching
5	<i>Peep ke daney</i>	Pustules

Balochistan: Pishin

1	<i>Uspinar</i>	<i>Daney</i>
2	<i>Peep ke daney</i>	Pustules
3	<i>Chamrey najori</i>	Skin is spoiled
4	<i>Surkh dhabey</i>	Red spots
5	<i>Garmans</i>	Small daney
6	<i>Badan Gar Malish Di</i>	<i>Daney</i>
7	<i>Surkh daney</i>	Red daney

Punjab: DG Khan

Local terminologies used for skin problems were *Khall ka masla, Sorakh, Mai rani, Pani Phulawa*

Punjab: Jhelum

1	<i>Jild kharab ho jati ahi</i>	Skin is affected
2	<i>Danay nikal aatey hain</i>	Macules, papules or pustules
3	<i>Khal per kharish ke danay</i>	Rash on skin
4	<i>Allergy</i>	Allergy
5	<i>Sobrra nikal aya hai</i>	Pustules
6	<i>Danay</i>	Small red macules
7	<i>Chaat nikal ai hai</i>	<i>Danay</i>
8	<i>Charo</i>	<i>Danay</i>
9	<i>Kakra</i>	<i>Danay</i>
10	<i>Phorey</i>	Blisters
11	<i>Phunsian</i>	Pustules
12	<i>Kharish</i>	Rash

14	<i>Safaid khushki</i>	White dryness
16	<i>Phoola</i>	water blister on head at the time of birth
17	<i>Boor</i>	Small red Daney
18	<i>Kaskasas</i>	

NWFP: Charsadda

1	<i>Sarmana kharab shavadaiy</i>	Skin has been affected
2	<i>Taoadry Ziatt Daiy</i>	There is more heat in the baby and hence <i>danay</i> on the skin
3	<i>Kharak lagi da lay</i>	Allergy
4	<i>Sponrry</i>	Skin is affected
5	<i>Tormaka</i>	Baby turns black, something wrong with heart

NWFP: Haripur

1	<i>Lakra kakra</i>	Macular/papular eruptions
2	<i>Dani pe rakhtee de</i>	Pustules
3	<i>Chamri kharab ho gai hai</i>	Skin is affected
4	<i>Dharus</i>	Pustules
5	<i>Khaal kharab hai</i>	Skin is affected
6	<i>Pitt</i>	Small red macules
7	<i>Jild tarak gai hai</i>	Small watery papules on the skin
8	<i>Thandian aa rahi hai</i>	Pustules

NWFP: Lakki Marwat

1	<i>Danay rakhataiy daiy</i>	<i>Danay</i> on skin
2	<i>Sarmana kharab shavey dai</i>	Skin has been affected
3	<i>Naanna kaiy</i>	Skin is affected
4	<i>Khushki</i>	Skin is dry
5	<i>Surkh danay</i>	Red <i>danay</i>
6	<i>Gurmaish dee</i>	Pustules on skin

Sindh: Dadu

1		<i>Barrey barey peep waley daney</i>	Big pustules
2	<i>Udrri</i>	<i>Chotey daney pani sey bharey huey</i>	Small blisters
3		<i>Chotey Chotey lal ya safaid daney</i>	Small red or white pustules
4		<i>Kaley ya safed dagh</i>	Black or white marks
5		<i>Kharish waley daney</i>	Daney which cause itching
6	<i>Kosai</i>	<i>Patley chotey daney garmi dano ki tarah surkh</i>	Small red prickly heat
7		<i>Garma</i>	Big pustules
8	<i>Faookna</i>	<i>Chaley/Garmi Daney</i>	Prickly heat

Sindh: Sukkur

1		<i>Chotay lal daney/ garmaish nikli hey/ kosai nikli hey/ Khachli</i>	Small red macules (daney)
2		<i>Milol harey rang ke daney</i>	Green daney
3		<i>Malloo</i>	Small daney
4		<i>Pit</i>	Black daney
5		<i>Phurry</i>	Black marks on skin
6		<i>Lakhro</i>	Daney
7		<i>Pani watra</i>	Pustules
8		<i>Thudrey</i>	Pustules
9		<i>Chitti</i>	White daney
10		<i>Pani waley daney</i>	Blisters

Appendix 5: Local Terminologies for Newborns Who Does Not Cry

Balochistan: Khuzdar

- *Ughnak puck (not crying)*
- *Dam Kashi (not breathing)*

Balochistan: Pishin

- *Salandi*
- *Saans ka mareez*
- *Saa sam na akhai*

NWFP: Charsadda

If the baby does not breathe well it is called “*mashoom sahi saa na akhli*”.

Sindh: Dadu

Budhal

Sindh: Sukkur

- *Manjheyal*
- *Damkayl*
- *Dooba hua*

Appendix 6: Danger Signs in Neonates

Balochistan: Khuzdar		
Condition of the neonate	Local Terminology	Home management practices
Small red <i>daney</i>	<i>Chotey surkh daney/ lappar</i>	<ul style="list-style-type: none"> Faith-healing is sought. The <i>maulvi</i> gives oil after <i>dam</i> that is massaged on baby's skin <i>Toso</i> (a local herb) is boiled in water and newborn is given this water twice a day for 10 days
Loose motions/vomiting	<i>Dast/ ultian</i>	<ul style="list-style-type: none"> Local herbs are boiled and their water is given to the newborn thrice a day till the baby recovers
Jaundice Eyes and skin turn yellow	<i>Yarqan/ zardoil kanwall/ peelia</i>	<ul style="list-style-type: none"> Onion is strung and put in newborn's neck so that it sucks out the jaundice Oil is moderately heated and put in a plate. It is then hovered around the head of the newborn A yellow thread is tied around the hand of the newborn
Unconscious	<i>Badloo</i>	
Weak cry	<i>Soban</i>	
Blue baby	<i>Neela/ sob</i>	
Abnormal Breathing	<i>Dam kashi</i>	
Fever/ high temperature	<i>lil/ bukhar</i>	<ul style="list-style-type: none"> <i>Lojar</i> (a local herb) is massaged on baby's body so that his/ her body temperature becomes normal A medicine is made at home with a few local herbs and given to the newborn
Mucous in chest	<i>Seena kharab ho jaye</i>	<ul style="list-style-type: none"> Local herbs are boiled and the water is given to the newborn once a day for a week Honey mixed in <i>qehwa</i> is given to the newborn
Measles	<i>Khasral/ sorak</i>	<ul style="list-style-type: none"> Water of local herbs is given to the newborn Turtle eggs are strung and put around newborn's neck Egg yolk mixed in <i>qehwa</i> is given thrice a day till the newborn recovers
Cough and the baby gets cold	<i>Khansi (Jhuka) aur sardi lag jaye</i>	<ul style="list-style-type: none"> <i>Bartang</i> (a herbal medicine) is cooked in water and a teaspoon of rose water mixed in it and given twice or thrice a day to the newborn Egg yolk mixed in <i>qehwa</i> is given thrice a day till the baby recovers Honey mixed in <i>qehwa</i> is given to the newborn
Pneumonia	<i>Basoo seth</i>	<ul style="list-style-type: none"> The baby is massaged with Vaseline and wrapped in blanket to be kept warm
Difficult breathing	<i>Saans leney mein mushkil</i>	
Convulsions	<i>Jhatkey parnal/ sob</i>	
Chest in-drawing	<i>Kanooll/ Pasli chalna</i>	<ul style="list-style-type: none"> Onion is strung and put around newborn's neck and a yellow thread is tied in his/her wrist after <i>dam</i> by <i>maulvi</i>

	<i>Swelled abdomen</i>	<ul style="list-style-type: none"> Flour is kneaded into small dough and is put on the baby's belly
White small daney on baby's skin after high fever	<i>Mubarki ki bemari</i>	<ul style="list-style-type: none"> The newborn is put isolated in a room and no one is allowed to go to his/her room. The newborn recovers by him/herself
Pertusis	<i>Kali khansi/ khara tit</i>	

Balochistan: Pishin

Condition of the neonate	Local Terminology	Home management practices
Weakness	<i>Sokray ki Bemari</i>	
Vomiting	<i>Ultian</i>	<ul style="list-style-type: none"> ORS is given to the newborn
Loose motions	<i>Dast/ Amnoona</i>	<ul style="list-style-type: none"> Half cup ORS a day is given to the newborn Cumin seeds are warmed, grinded, mixed in water and given to the newborn
Skin or eye is yellow	<i>Peela parna/ Asardail/ yarqan/ Zarai</i>	<ul style="list-style-type: none"> The newborn is laid in sunshine covered with a yellow cloth The newborn is taken to a faith-healer who gives an onion after <i>dam</i>. The onion is tied with the crib of the baby. The baby gets better as the onion turns yellow The newborn is covered with a yellow cloth so it absorbs the yellow color of the baby
Convulsions	<i>Jhatkey/dorey</i>	
Swelling of abdomen	<i>Pait phoolna</i>	
Breathing problem	<i>Saans ki takleef</i>	
Cold Temperature	<i>Sakarey</i>	
High fever	<i>Tez bukhar/ taba</i>	
Mucous in chest	<i>Seena kharab/ Zigar Kharab De</i>	<ul style="list-style-type: none"> Anis seeds are boiled in black tea and one tea spoon is given to the newborn in the morning and evening <i>Hararr</i> and anis seed are boiled in water and given to the newborn for 4-6 days Black tea mixed with <i>bartang</i> (a herbal medicine) is given to the newborn
Grunting with cough	<i>Khansi (Tukhaie De)</i>	<ul style="list-style-type: none"> Egg yolk mixed in black tea is given three teaspoons in a day
Bleeding from cord	<i>Naaf se khoon bahey</i>	
Unconscious	<i>Lagharien/ Lashaoori/ Dangar</i>	
Cannot digest milk	<i>Ghara/ Doodh hazam na ho</i>	

Bulged fontanelle	<i>Taloo girna/ Taloo gozar soo</i>	<ul style="list-style-type: none"> A paper is cut in a round shape and two holes are made in between. A thread is passed through them and it is pasted with glue on newborn's head. The thread is pulled upwards every morning and the fontanelle recovers
Big pustules on skin	<i>Shir ki bemari</i>	<ul style="list-style-type: none"> The newborn is kept clean and in a clean room. Oily foods are avoided to eat around the newborn as it is considered to worsen the disease The elder in the family cuts the pustules with blade and takes the filthy blood out. Pustules are treated this way but the marks stay
Black marks and daney on skin	<i>Kawi ki Bemari</i>	
Pertusis	<i>Kali Khansi</i>	
	<i>Pneumonia/surkar</i>	
Blue baby	<i>Shantar/ neela</i>	
No activity	<i>Bilkul harkat na kareyl/ manda</i>	
Tetanus	<i>Tashannuj/ Mardi</i>	

NWFP: Charsadda

Condition of the neonate	Local Terminology	Home management practices
Jaundice Turns yellow	<i>Taiz zarray</i> <i>Vinay zarray/khon ka yarqan</i> <i>Torr zarray/kala yarqan</i>	
Grunting Catches cold Chest infection Fever Flu Marks below ribs Grunting Difficulty in breastfeeding The body is cold	<i>Breakha</i> <i>Double Pneumonia</i>	
Fever Body and hands and feet are hot Body is either very cold or very hot Cannot breastfeed properly	<i>Taaba</i>	<ul style="list-style-type: none"> Medicine form medical store Give paracetamol Red flower syrup from shop Cough syrup

Blue baby Unconscious and dies after few days Some babies cry a lot and other do not cry at all Blue tongue, lips and skin	<i>Saramakha</i>	<ul style="list-style-type: none"> ▪ Mix carom seeds in milk and give to the baby and baby recovers ▪ Take to a shrine for spiritual healing (dam)
Difficult breath	<i>Dama</i>	
Mucus Chest Grunting Enlarging of nostrils	<i>Yakhnepa pozia wokhalidaiy</i>	
Bulging fontenell Baby cannot eat or drink anything	<i>Jabai</i>	
Fits	<i>Jhatkey</i>	
Malaria	<i>Malaria</i>	
Difficult breathing Irregular breathing	<i>Sa bandi</i>	
Whistling Grunting	<i>Da shapilay awaz razi</i>	
Nose is closed and breath is difficult	<i>Sapaygmaye daiy band daiy</i>	
Pustules on the skin	<i>Opaasaarmun dany rakhaty daiy</i>	
Shoulder have slide down	<i>Laaychaay khataliy da</i>	
Motions	<i>Dast</i>	
Vomiting	<i>Qai</i>	
Chest problem	<i>Chatti kharab hai</i>	
Fever and red pustules on the whole body	<i>Sheriea</i>	
Measles	<i>Khasra</i>	
Pertusis	<i>Kali khansi</i>	

NWFP: Haripur

Condition of the neonate	Local Terminology	Home management practices
The newborn has yellow skin and eyes	<i>Yarqan/peelia</i>	<ul style="list-style-type: none"> The baby is placed under a tube light or in the sunlight for 10-20 minutes everyday Wait and see for ten days and baby recovers by himself/herself Avoid yellow clothes and bangles for neonate and mother Give glucose to the newborn One spoon rose water and anis seed water mixed with normal water is given to baby after applying <i>dam</i> Faith healing
Fever Fits Temperature Excessive crying 103 degree temperature Very cold	<i>Taiz Bukhar/barra bukhar/taap/typhoid</i>	
Newborn turns blue	<i>Hasba/sharishna</i>	<ul style="list-style-type: none"> Warmed up by wrapping
Inactive and weak, lethargic	<i>Sokha be-jan bachal/ghashil/zehnee bemari</i>	<ul style="list-style-type: none"> The neonate is given a live housefly every Sunday for 3 or 7 Sundays To remove spirit possession actions are taken at home Frequent breastfeeding Egg yolk in black tea is fed to the newborn Moderately warmed desi ghee or castor oil is used for massage of the inactive baby
Irregular breathing Chest in-drawing (<i>Jakrra hoa seena</i>) and flaring of nostrils	<i>Pneumonia</i>	<ul style="list-style-type: none"> <i>Qehwa</i> (Black Tea) is fed to the newborn Oil massage Faith healing
Flaring of nostrils	<i>Okhay saa</i>	
Grunting, chest problem, and flaring of nostrils	<i>Grain Grain</i>	
Irregular breathing Or fast breathing	<i>Be tarteebi sans</i>	
Newborn has a weak cry because of pain in chest which is because of mucous	<i>Chati main raisha</i>	<ul style="list-style-type: none"> Vicks is applied on the chest of the neonate
Newborn has difficulty in breathing	<i>Khansi/Seena Kharab</i>	<ul style="list-style-type: none"> The neonate is given half boiled egg
Difficulty in breathing and hence difficulty in breastfeeding	<i>Nak band hai doodh sahey Nahin pee raha</i>	

Papules on the skin	<i>Lakra Kakra/Thandian/Dharas</i>	
Swelling or reddening of cord	<i>Narro kharab ho gia hai</i>	<ul style="list-style-type: none"> Apply mustard oil
Pus in eyes	<i>Ankh Kharab ho gial/ Ankhiya dookh gian hail/ ankhoon main gandhak par gae</i>	<ul style="list-style-type: none"> The detached cord when dried is grinded and the powder is sprinkled in the neonates eyes Apply polyfax Apply Arq-e-Ghulab (rose water)
Small red pustules	<i>Khasra</i>	
Vomiting of mothers milk	<i>Ultian</i>	
Motions	<i>Paichish</i>	
Week cry	<i>Phepharoon ki Bemari</i>	
The abdomen swells because of either constipation or motions	<i>Pait phool gaya</i>	<ul style="list-style-type: none"> One drop of castor oil mixed with one spoon mother's milk once in a day is fed to the newborn

NWFP: Lakki Marwat

Condition of the neonate	Local Terminology	Home Management Practices
Jaundice, Turns yellow	<i>Taiz zarray</i> <i>Tor Zarray</i>	<ul style="list-style-type: none"> Place the newborn under tube light Place the newborn in the morning or evening light of the sun Visit <i>Pirs</i> for faith healing A thread is put around baby's neck and it grows longer every day. When the thread reaches the toes of the baby, s/ he recovers
Grunting Catches cold Chest infection Fever Flu Nostril enlargement suckling difficulty Spots under the ribs Abnormal breathing Difficult breathing Body is cold	<i>Pneumonia</i> <i>Double Pneumonia</i> <i>Breakh</i> <i>Seena Kharab</i>	<ul style="list-style-type: none"> The chest of the baby is tied with a cloth so that it remains warm Baby is kept warm in warm clothes Go to a <i>maulvi</i> for <i>dam</i> Green tea or black tea mixed with egg yolk is given to the baby and the s/he gets warmth from it
Fever Body, hands and feet are hot Body is either very cold or very hot Cannot suckle properly	<i>Bukhar</i>	<ul style="list-style-type: none"> Medicine from medical store is given to the newborn Give paracetamol Red flower syrup from shop is given to the newborn Cough syrup

Blue baby Stays Unconscious and dies after few days Some babies cry a lot and others do not cry at all Blue tongue, lips and skin	<i>Saramakha Bala Marjai Waqia Spina Bemari Tormakha</i>	▪ Baby is given bath for one week with water that is weighed with Quran
Epilepsy	<i>Mirgi ke dorey</i>	
Breathing problem	<i>Da mashoom saa sama na akhly</i>	▪ Green tea with egg yolk is fed to the newborn
Water like loose motions 4-5 times a day	<i>Pechish</i>	▪ <i>Nimkol</i> water is fed to the baby
Crippled	<i>Polio</i>	
Measles	<i>Khasra</i>	
Diphtheria	<i>Khunaq</i>	
Excessive Crying	<i>Baghyewal</i>	
6-7 times vomiting and motions in a day	<i>Haiza</i>	
Measles Fever <i>Daney</i>	<i>Sharay</i>	
Blue spots on the body	<i>Gazak</i>	

Punjab: DG Khan

Condition of the Neonate	Local terminologies
Breathing problem	<i>Damal/ Hokini</i>
Loss of breath	<i>Sans ka Ghutna/ Dam Ghutna</i>
TB	<i>Purana Bukhar</i>
Loose motions	<i>Pharey/ Dast/ Jalab</i>
In-drawing of chest	<i>Seena Jakra hoa</i>
Grunting	<i>Buskan hua/ Chati jakri hui</i>
Bulging fontanelle	<i>Talu ubhar ho/ Talu dhey gaya/ Talu tap raha hey, Sawwan</i>
Fits/convulsions	<i>Dorey/ Jhatkey parna</i>
Jaundice	<i>Safraiyarqan/peelia</i>
Fever	<i>Taap/ Kosa</i>
If the baby is cold	<i>Buskia hoa</i>
Allergy	Allergy
Pertusis	<i>Wadi Khang/ Kali Khansi</i>
Measles	<i>Khasra</i>

Turning blue	<i>Parchawan/ Balawil/ Neela Tanawal/ kala neela</i>
Unconscious	<i>Dooba hoal/ Laghir/ Ghashil/ Malaysh</i>
Less active	<i>Loth</i>
Weak cry	<i>Nakahat</i>
Mucous	<i>Balgham</i>
Difficulty in sucking	<i>Buska</i>
Distended abdomen	<i>Apphra honal/ gas/pait phool jana</i>
Vomiting	<i>Ultian</i>
Diarrhea	<i>Haizaa</i>
Yellow eyes	<i>Zeherbad/ Ankh ka much Jana</i>
low weight	<i>Sokray ki bemari</i>
Weak as a skeleton	<i>Malaash/ Sokha khathi</i>
Possessed by an evil spirit	<i>Bujha hota hai/ Saya hoa hai</i>
Skin Problem	<i>Chappak</i>
Foam in mouth	<i>Mun se jhag aana</i>
Blisters on skin	<i>Khal par Motey Motey Daney</i>
Eyes do not open	<i>Aankh Khulti Nahin</i>
Absence of Cry	<i>Bilkul Na Roye</i>
Excessive crying	<i>Bohat Zyada Roya</i>

Punjab: Jhelum

Condition of the neonate	Local Terminology	Home management practices
Unconscious, weak	<i>Kora Parchawan</i>	
Fits	<i>Dorra parra hai</i>	
Less than normal activity Weak cry	<i>Kamzor himat Lissa Rasha Ghash pai gai hai</i>	
Weak cry	<i>Kamzor hai taqat nahin hai</i>	<ul style="list-style-type: none"> ▪ Baby is made to wear <i>dour ghat</i> (sort of locket) ▪ <i>Dam darood</i>
Jaundice	<i>Bhosa khameer Kundi ho gai hai Peelia Yarqan</i>	<ul style="list-style-type: none"> ▪ Baby is laid in the sunlight ▪ Green tea one or two spoons ▪ Anis seed and carom seeds are mixed in tea and given ▪ Mother should be given cold items ▪ Onion locket is put around baby's neck for 4-5 months ▪ Mother is given such diet that her heat is lost and she is also forbidden to eat oily item ▪ Baby is given cold items and jaundice goes away

Gray-blue baby Chest problems Blue lips, tongue and skin color Grunting Mucous	<i>Pneumonia</i> <i>Dard nikalna</i>	<ul style="list-style-type: none"> ▪ Egg is given to baby ▪ Vicks is applied on the chest of the baby ▪ Boiled egg and honey is fed to the baby ▪ Boiled egg yolk and honey is given to the newborn because it is considered hot ▪ Mother is given <i>qehwa</i> (herbal tea)
Grunting Difficulty in breastfeeding Breathing problem	<i>Doa</i>	<ul style="list-style-type: none"> ▪ Carom seeds are given to the newborn ▪ Vicks is applied on the chest of the baby
Grunting	<i>Ghrokay brainda ai</i> <i>Kharkharahat</i> <i>Reesha</i>	
Chest problem Problem in suckling	<i>Chati baith gai hai</i> <i>Chati band ho gai hai</i>	
Difficult breathing	<i>Okhay okhay sa</i>	
Blue baby	<i>Chanbla</i> <i>Chamla</i> <i>Neela</i> <i>Kali hai</i>	
Gray-blue baby	<i>Mali chandri</i>	
Fever	<i>Kas char gai hai</i> <i>Taap</i>	<ul style="list-style-type: none"> ▪ Paracetamol is given at home
Bulging fontanelle	<i>Kandi par gai hi</i>	
Fits	<i>Jiniat ho gai hai</i> <i>Mirgi</i>	
Distended abdomen	<i>Wah pai gai hai</i> <i>Pani par gia hai</i> <i>Pait obhar gia hai</i> <i>Pait aapher gia</i>	
Measles	<i>Khasra</i> <i>Sobrra</i>	<ul style="list-style-type: none"> ▪ <i>Munaka</i> (dried grapes) is fed to the baby ▪ Hot foods are given to the baby ▪ Burned sugar is fed to the baby
Malaria	<i>Malaria</i>	
Whooping cough	<i>khang lagi hai</i> <i>Kali khansi</i> <i>Kharka</i>	<ul style="list-style-type: none"> ▪ Black <i>Tiddi</i> (flying insect) is tied to the arm of the baby.
Breathing problems	<i>Bharr</i> <i>Ghubar</i>	
Motions	<i>Ishal</i> <i>Dast</i> <i>Piyan</i> <i>Paichis</i>	
Vomiting of the milk	<i>Ulti</i> <i>Khunaq</i>	

Blood deficiency	<i>Khoon ki kami</i>	
Severe fever. It is so severe that the babies brain can burst	<i>Moma rakhi</i>	
Polio	<i>Polio</i>	
Loss of cry	<i>Na roey</i>	
Under spirit possession from mothers womb Baby turns black and yellow	<i>Kokhi Saya</i>	<ul style="list-style-type: none"> Take to spiritual healers

Sindh: Dadu

Condition of the neonate	Local Terminology	Home management practices
Tetanus	<i>Jhatkey ki bemari</i>	
Jaundice Baby turns yellow	<i>Sailyarqan</i>	
Grunting and irregular breathing	<i>Jaroo</i>	
Cold Irregular breathing Grunting	<i>Pneumonia</i>	<ul style="list-style-type: none"> Mixture of <i>Joshanda</i> of <i>miswak</i>, black pepper and raw sugar (<i>gurr</i>) are given to the newborn Honey is given for chest problems
	<i>Neela ho jata hai</i>	
Disturbed sleep with vomiting	<i>Chirk aur uli</i>	
Shivering and yawning	<i>Dharki, See</i>	<ul style="list-style-type: none"> Cardamom and mint are boiled in water and cooled down and then two spoons daily are given to the baby.
Problems of breath	<i>Sehko</i>	
Swelling of the abdomen	<i>Barthi</i>	
Vomiting	<i>Khud</i>	<ul style="list-style-type: none"> Cardamom and mint is powdered and mixed in mothers milk and given to the newborn daily in the morning
5-6 loose motions in a day	<i>5 to 6 dast aik din mein</i>	<ul style="list-style-type: none"> Gripe water, nonehal one spoon a day
Gray and blue baby	<i>Sheemak</i>	
Pustules on the skin	<i>Pakraiz</i>	
Irregular breath	<i>Budhal</i>	
Grunting, flu and fever for two to three days	<i>Jarraltaap</i>	
Fever	<i>Bukhar</i>	<ul style="list-style-type: none"> Two drops of Panadol syrup are given to the newborn
Irregular breathing	<i>Dam</i>	

Measles	<i>Urrikhasra/Bari Mai</i>
Loose Motions	<i>Julab</i>
Rash or macules	<i>Kharish</i>
Fits and convulsions	<i>Sarsam</i>
Loose motions	<i>Gumray</i>
Pain in ribs	<i>Paslion mien dard</i>

Sindh: Sukkur

Condition of the neonate	Local Terminology	Home management practices
Vomiting	<i>Ultian/ aenj/ Wai</i>	<ul style="list-style-type: none"> ▪ <i>Nonehal ghutti</i> is given to the newborn till the vomiting stops
Skin and eyes turn yellow	<i>Sailyarqan/ zehar bad</i>	<ul style="list-style-type: none"> ▪ The newborn is laid in sunlight everyday for 10 minutes
Abnormal breathing	<i>Sehko/Dama</i>	
Temperature Shiver Cold	<i>Luh ho gaya</i>	<ul style="list-style-type: none"> ▪ Baby's body is massaged with grinded carom seeds mixed in mustard oil ▪ Head of the newborn is massaged with grinded carom seeds mixed in mustard oil. Cotton is dipped in the same oil and put on baby's head and wrapped with a piece of cloth ▪ Grinded black cardamom mixed in honey is given twice a day to the newborn
The baby gets cold	<i>Thand Lagna</i>	<ul style="list-style-type: none"> ▪ Newborn's chest is massaged with liquor and a few drops are given mixed in honey
Convulsions	<i>Jhatkey/ Dorey/ Jhatkey ki Bemari/ Doru</i>	
Blue or green Lips turn black Excessive crying or Unconscious Body is hot	<i>Neela</i>	
High Temperature/fever	<i>Tez Bukhar</i>	
Weak baby and has a weak cry	<i>Lasaro</i>	
Grunting	<i>Chati band hey/ ghur Ghur ki awaz</i>	
Excessive crying	<i>Bohat zyada roye</i>	<ul style="list-style-type: none"> ▪ <i>Kaanwal</i> herbs are boiled in water with black cardamom and sugar crystals, and given to the baby so that s/he is intoxicated and sleeps
Pain in stomach	<i>Pait mein dard</i>	
Absence of cry	<i>Bilkul na roye</i>	<ul style="list-style-type: none"> ▪ Flour is kneaded in oil with which the baby is massaged for 10 -15 minutes

Breathing problems Mucous in chest	<i>Jarol Dam</i>	
Swelled abdomen	<i>Aaphri/ Barthi</i>	
Bulged Fontanelle	<i>Kakro</i>	
Pertusis	<i>Kali Khansi</i>	<ul style="list-style-type: none"> ▪ Sugar is mixed in water and Koran verses are read on it. The baby is given 1-2 teaspoons of this water twice or thrice a day
Loose motions	<i>Dast</i>	
Unconscious	<i>Sarro</i>	
Pneumonia	<i>Sukha/ Jamrol pneumonia</i>	
Tetanus	<i>Tashanuj</i>	
Measles	<i>Urri</i>	
Very fast breathing More than 60 or 70 per minute	<i>Bohat tez saans</i>	

Appendix – 7: Case Studies

Case Study 1: Negligence of Dai - Pishin

This case study is about the baby of Bibi Rabia who died because of the negligence of *dai*. Although Rabia had a healthy baby without any complications, but the *dai* did not give attention on wrapping the baby immediately after birth, which resulted in him getting cold and consequently his death. The events are narrated by the baby's mother.

Bibi Rabiya had three children before the last pregnancy and lives in a rural area (Huramzai) of Pishin District, Balochistan. All her babies were born at home by a local *dai*. During her last pregnancy a *dai* regularly came to check Rabia and her baby and told her that both were fine. Rabia also did not have any pain or problem during her pregnancy. At the time of delivery, this *dai* was not present in the village as she had to go somewhere in emergency. Rabia's mother-in-law called another *dai* to conduct the delivery.

Rabia did not have much difficulty in delivery and had a healthy and beautiful baby boy. However, the *dai* put the boy aside without drying or wrapping and laid him naked on the floor. The baby moved his limbs and cried for some time and then turned quiet.

No one gave any attention to the baby till placenta delivered. Even after the delivery of placenta, *dai* cut the cord and again laid the baby aside without covering him. After that, Rabia's mother-in-law and *dai* bathed the baby with warm water and her sister cleaned her up and laid her on the bed. When the baby was wrapped and brought to Rabia, his breathing had decreased and had become interrupted. When Rabia tried to breastfeed him, his lips were cold as ice. The baby had also turned blue and he started to cough during breathing. All night Rabia's family members tried to make his breathing normal by heating the room and keeping the baby warm, but at ten in the morning his condition worsened. Rabia's mother-in-law asked Rabia's husband to arrange for a vehicle so that they can take the newborn to the hospital in Pishin. It takes more than an hour to reach Pishin. Rabia's husband and mother-in-law took the baby to Pishin but brought back his dead body.

At the hospital, Doctor had put the baby on oxygen where the baby had only breathed twice or thrice and then died. The doctor had told Rabia's husband that the baby had caught very bad cold which has caused both of his lungs to freeze and resulted in baby's death.

Case Study 2: Asphyxia – Khuzdar

This case study is about a newborn who suffered from asphyxia at birth and died because of the negligence of family members. Although the baby otherwise appeared healthy but she did not breathe at the time of birth. When her condition worsened it was not thought important to take her to a health care provider by the family members. The events are narrated by the baby's mother Murad Khatoon.

Murad Khatoon's delivery was conducted by a local *dai* of the village and she had a healthy baby girl. However, the baby did not cry and breathe after birth. *Dai* held the baby upside down and patted her on the back. The baby started to breathe but she was taking long and interrupted breaths with difficulty. The *dai* gave the baby to Murad's mother-in-law and herself got busy in delivery of the placenta. Murad's mother-in-law massaged baby's back and chest to make her cry. After a while she cried but with difficulty as her breathing was still not normal. The baby also started to turn blue and did not take milk when Murad tried to breastfeed her.

She stayed like that for seven days. Murad's family members told her that there was no need to take the baby to a doctor and her breathing would become normal with time. However, as the time passed the baby's condition worsened. Murad's husband called the mulla twice for *dam*.

On the seventh day the baby was breathing with extreme difficulty. When Murad tried to pour a few drops of milk in the baby's mouth, milk got stuck in her throat. The mulla came again for *dam*, and Murad went away to wash baby's clothes. When she got back and picked up the baby to breastfeed her, she realized that the baby had died.

Murad said that it is not a custom of the area to take a baby or a woman to the doctor even in case of severe illness and if they die it is not considered to be a big thing. She said;

“Women and babies are not considered important by men here, because if a baby dies we will get them another baby and if a woman dies then they will get married again”

Case Study 3 (Haripur): Asphyxia

The case study is about a newborn in Darvesh who suffered from asphyxia. The information highlights the role of the *dai* in recognition and management of asphyxia at home and the lack of awareness of the family members and cultural barriers for delivering at a facility.

The mother said that she came to know about her pregnancy in the third month and went for the ultrasound in the fifth month because she suffered from pain in abdomen. The lady doctor told her that the baby was positioned above placenta which is abnormal. The doctor prescribed some medicine for 10 to 15 days and advised her to place the pillow under her feet instead of head so that the placenta goes back to normal position. The doctor also told her that if the placenta does not get back to its normal place she will have to have caesarian section at a health facility. She did not go for the ultrasound again rather she prayed for everything to become normal. She said she did not go to the hospital for delivery because she thought there is obscenity in the hospital and that she and her family were *Syeds* and could not tolerate that. Moreover she also argued that all the babies in her family were delivered at home so she found no reason to go to a facility for delivery.

In the eighth month the *dai* examined her by pressing her abdomen. The *dai* told her that the baby was in normal position and there was no need for caesarian section. Following this, the *dai* would come for a check up every 8th day. The mother said that she did not avoid any heavy works and kept on doing these (Carrying water buckets, washing clothes, and sweeping the house) till the last day.

On the day of delivery, she started to bleed early in the morning. The *dai* examined her and said the baby will be delivered that day but after some time. She gave an injection in the pulse and asked the mother to take a walk so the delivery is easy and went back.

When the *dai* came back latter in the day she applied moderately warmed desi ghee in the vaginal area and gave massage with a slightly warm cloth so the delivery becomes easier because of warmth. However, the mother was suffering from great pains and the baby was not delivered. After some time, the head of the baby was visible and the *dai* got hold of it and pulled the baby out. This is how the delivery took place.

Once the baby was delivered, the *dai* noticed that the cord had four loops around baby's neck and he was completely unconscious. The placenta was delivered immediately with the baby. The *dai* unfolded the loops, cut the cord, tied with clip and wrapped the newborn.

The newborn was not breathing. The *dai* cleaned the mouth of the baby and gave him breath by placing her *doppata* on

his mouth and only then the newborn had hiccup and started to breath. That hiccup (first breath) came as late as ½ hour but he was not crying even then. The *dai* held him upside down and patted on the back but the baby did not cry. Then the *dai* wrapped the newborn in a blanket and placed him in a quilt so that he becomes warm and starts crying.

After four hours of birth the baby started to cry and kept on crying strongly for at least an hour.

The *dai* said that the baby was not weak at all, he was rather healthy. She also said that the family was not worried at all about the absence of cry. She said it was rather her, who was more worried and placed him in the quilt after wrapping in a blanket so that he warms up and starts to cry. When the baby started to cry, family members showed concern about it and asked the *dai* why the baby was crying. She said that she told them to thank God that the baby had eventually started crying.

Case Study 4 (DG Khan): Asphyxia

Rani's baby suffered asphyxia due to wrong advice of *dai*, lack of information about detrimental affects of prolong labor among family members and mismanagement by LHV

Rani, a 27 year old resident of Sokar village, delivered her first baby 11 months back.

When she learnt about her pregnancy, **she started eating extra** that included 2 mangoes and 1 glass of milk daily, plus 1 extra roti with ghee and sugar in breakfast to have a healthy baby. She also **decreased her workload** by giving up heavy workload such as washing of clothes to avoid any complications. On the advice of her husband, Rani **got her ultrasound done twice in 5th and 7th month** from an LHV in Taunsa as she had some discomfort in abdomen, but she was told that pregnancy is progressing normally and was prescribed some medicines for strength (*taqat ki dawaiyan*).

In the 9th month of pregnancy, Rani started having mild labor pains around 9 pm and she immediately informed her mother-in-law (MIL), but she said that pains are weak and they will become strong by morning and *dai* will be called. The intensity of pains did not increase by morning, however, *dai* was called at 7 am to examine her. *Dai* informed the family that there is no problem and case is normal, which satisfied everybody.

With the passage of time, the pains did not increase and *dai* advised Rani to take bath, which according to her increases the pains. After the bath, Rani was given green tea with anis seed, *desi ghee* prepared by *dai*, but these measures had no effect and the day passed. **On the advice of *dai*, the family continued to wait** and the MIL also said that *dai* is intelligent (*sayani hai*) and she has conducted all the deliveries, and unless she advises, Rani will not be taken anywhere.

Next morning, at about 10 am, *dai* **did an internal examination by putting her hands inside the vagina** and informed the family that the head has descended, hence the delivery will take place shortly. After this, Rani was given *Karha* twice that day (*karha* is a mixture of ginger, anis seed, brown cardamom, ghee in hot water) but no progress was made and the night passed.

The next day, *dai*, MIL and husband discussed the situation and decided that it would be better that *dai* continue to make effort to deliver the baby rather than taking Rani to Taunsa. They felt that **travel to Taunsa would be a problem** in that condition, and also the **expenditures will be high**. However, around 11 am, MIL decided to take her to Taunsa to the same LHV who did the ultrasound twice.

LHV told the family that they should have come earlier and should not have waited so long. However, **instead of referring them for operation, she started her treatment** by placing a tablet inside vagina twice and giving IV infusion. She also applied lots of glycerin to lubricate birth canal, as she said that the water inside has dried up; hence the baby is not delivering. Finally, a baby girl delivered around 10 pm without operation.

At delivery, the newborn was not breathing normally, did not cry, and was unconscious. **LHV immediately advised to take her to a child specialist** – Dr. Chandia, and she was taken. The doctor hanged the baby upside down and slapped on her back and did suction, which made the baby cry and breath, but breathing was interrupted. **It took about 1 hour from birth till the baby began to breath.**

The baby remained in Dr Chandia's hospital for two days and was given oxygen during this period. On the first day she was fed powdered milk but on the second day mother's milk was fed through the tubes. She was discharged on third day.

In the first 3 months, baby suffered with mild fits, had lesser weight, and used to become unconscious while crying. The treatment was continued by Dr. Chandia, and also *dum durood* and *tonay totkay* were done. She was also given *gloa* (anis seed, cardamom, heeng, nishadar in warm water) 2 drops twice a day during the forty days of birth. Besides this, *Hamdard Naunehal* one drop daily was given with mothers milk. Besides this, people also said that the baby has effect of *saya* (spiritual possession or possession by jinn), hence for 40 days sweet balls were made and kept on the roof to overcome it. According to mother, these measures and medicines led to some recovery.

The **baby stopped having fits after 4 months of treatment by the doctor and the breathing became normal.** The baby is still has lesser weight, but people have told her that she will gain weight. Medicines have been stopped and care is being taken of her diet and **she is being given milk and sago dana.**

Rani believes that MIL is responsible for the suffering of her daughter, as this was her first pregnancy, but MIL was experienced and she took more than 2 days in deciding for taking her to health care provider. **If timely decision would have been taken for taking her to a hospital, then the baby would have delivered by operation.** Rani said, because of this delay "I am the one who is coping with the problem till today".

Case Study 5 (Dadu): Low Birth Weight

Hameeda's Baby had 1 kg weight at birth (LBW) but it was not a concern for the family

Hameeda's baby was born in the 9th month of pregnancy. The newborn was very weak and small. On the second day of the birth Hameeda's mother and husband took the baby to a hospital (Dr. Hamid) because the baby had cried for the whole night. The doctor weighed the baby and informed that he was only 1 kg. According to Hameeda, her newborn looked weaker and smaller than even the pre-mature babies of seven months. The doctor inquired from Hameeda's husband if she suffered from *yarqan* (jaundice) and he replied in affirmative. The doctor said that since the mother suffered from jaundice and the newborn was breastfed hence he has also acquired jaundice.

Though Hameeda knew that her baby was low weight but she did not worry about it. She said that the newborn was taken to a doctor because she had cried for the whole night and not because she was very small and low weight. She argued that all her babies are born weak and then they recover gradually.

The newborn was treated by Dr. Hamid for one month but his condition did not improve. Then somebody suggested to Hameeda's husband to visit Dr. Jokhio which he did. Later, Dr. Jokhio diagnosed that the lungs of the baby were damaged and needed treatment. They sought treatment from this doctor for two month and the baby's health did not improve. After that a third health care provider, who is a private doctor in Dadu was contacted. He told that the baby suffered from "*Chatri*". At the time of compiling this case study the treatment with this third doctor was ongoing for past one month.

Doctor Hamid had asked Hameeda not to breastfeed the baby so instead she gave 4 teaspoons of buffalo milk daily. Besides that she also gave two teaspoons of boiled rice with butter, *misri* and cardamom. For three months she fed the baby with buffalo milk, porridge (home made), butter, *misri* and cardamom.

The doctor had informed Hameeda that the jaundice was over and baby had recovered. The diagnosis that the baby had suffered from jaundice came as no surprise for Hameeda. She said that she herself was suffering from jaundice for a long time and it was diagnosed only when, after marriage, she visited a doctor for some illness. She said that all of her six children had suffered from jaundice and later recovered by themselves. But this time they had taken the baby to a doctor because he had cried a lot.

Hameeda concluded that for them there is nothing to worry about the newborn's weight and that they do not visit a doctor for that.

“The doctor also treated fever and jaundice and did not ask us to do anything. He gave two injections for strength (taqat ke injection) to the baby”

Hameeda said that she and her mother were worried and had asked for visiting a doctor as the baby had cried for whole night. She said that if her husband would not have agreed, they would have never taken the baby to a doctor. She said that she did not know about any reports of the baby and that her husband might know about it. She said

“We are illiterate and ignorant, how would we know about these things”

Case Study 6 (Sukkur): Low Birth Weight

This case study is about a baby who was born with low birth weight and also had convulsions. The case study shows that low birth weight is not a condition for which the newborn is taken to a doctor for seeking care. The family of the newborn was not concerned about the weight of the baby and only took him to the doctor when he suffered from convulsions.

Respondent is grandmother of the newborn who narrated the events as follows:

When the baby was born he was perfectly alright. His mother had convulsions four or five times on the day of delivery. For 9 days the baby was alright but on 10th day he also had convulsions just like his mothers had. Mother took the baby to a private doctor along with her husband and mother who practice in Sukkur city. He weighed the newborn and told that the baby is very weak and has very less weight of 1.5 kg only. The doctor asked them to admit the baby in hospital. He gave the baby blood and injections. He also gave him oxygen. He treated the baby at the Civil Hospital and we did not have to spend any money. Later he prescribed a course of injections to the baby. It cost us 700 to 800 hundred rupees. These injections were given by my husband's cousin. He is not literate but has learned by working at the Bhatti Hospital.

The newborn was very weak and had very less weight. Doctor's medicines affected the weight of the baby as well and he gained some weight. If the newborn was not ill we would have never taken him to the doctor just because he had less weight. None of the earlier babies were born so thin. Our babies are usually very healthy as if they are 5 months old. The doctor said the convulsions were due to pneumonia but we don't think that's what it was. It was just convulsions. The mother got injections only once during pregnancy. At the time of second injection she was at her mother's place and she did not take the card with her. We do not think that the convulsions were because of not taking those injections. Whatever was it, it had no relation with the convulsions.

Fifteen days before delivery I took my daughter-in-law to the BHU for headache. There they conducted ultrasound as well and said that the baby will be born after a whole month. However, he was born after only 15 days. The reason for early delivery was that the doctor at BHU gave capsules for gaining strength to the mother. Her blood pressure was already high and it increased even more because of those capsules. She was also given Cal-C. If she had not taken those medicines the delivery would not have taken place earlier.

Case Study 7 (Charsadda): Low Birth Weight

The case study is about an LBW newborn in Turlanda. It highlights the lack of awareness and support from family members during and after pregnancy. The mother believes that the baby was born with low weight and was denied proper care because of her own low status in the family. Moreover, the mother also related her diet and mental condition during pregnancy with the health of the newborn.

Zaibi said that her menses stopped in the second month after marriage. At that time she was not sure but she thought she might be pregnant. However, at first, she did not have the courage to discuss it with any one in the family since her in-laws were 'cruel' to her. One day she made up her mind and told her mother-in-law that she did not have menses for last two month. Though she was frightened to disclose it but was surprised that the mother-in-law 'had mercy' on her and took her to an LHV in a nearby 'falahi markaz'. The LHV recommended urine test. The next day, mother-in-law took Zaibi to the government hospital in Charsadda for urine test and it was confirmed that she was pregnant. This was her first and last visit to a health care provider during the whole pregnancy.

Though it was Zaibi's first pregnancy but her husband was not happy as they were married against his wishes. Her husband was interested in marrying another girl.

"When he came to know that I was pregnant, he used to beat me and fought on trivial things. Only I know how difficult those 9 months were for me. The other family members also had very strange attitude towards me. I suffered from mental agony and my diet was also not good"

On one hand Zaibi suffered from mental agony and on the other hand she could not manage to bring any changes in her diet though she realized that eating fruits and increasing food intake was necessary.

Zaibi said that she did all the household chores as usual throughout the 9 months of pregnancy and when the time of delivery approached, she was making bread. It was around 1:00 pm when intense pains and bleeding started. The mother-in-law called a *dai* at home and the baby was delivered around 3:30 pm. It was a son. The mother-in-law was happy but the rest of the family members were indifferent. The newborn was "small in size and weak like a 7th month baby and his legs and arms were as thin as a hand thumb". His eyes were joined and stuck and 'it seemed like he was sleeping'.

"The baby was not opening his eyes and was lying motionless. Otherwise it is said that the newborns cry and move their hands and feet but my baby was lying motionless and did not cry for 3-4 hours"

On seeing the condition of baby the *dai* showed concern by saying that on one hand the baby is very weak and small and on the other hand he does not cry. She said that she could not strike the baby to make him cry as the baby was too small like a 7th month newborn.

At 8:00 pm, the mother-in-law raised concern that the baby may die if he did not cry or open his eyes as before that she thought that the baby was sleeping. Zaibi's husband and mother-in-law took the baby to a government hospital in Turlanda, leaving Zaibi at home. Later the mother-in-law told Zaibi what had happened at the hospital.

"The doctor told that the baby was weak because the mother had not eaten proper diet in pregnancy. He moved and shook the baby, held him upside down and patted on the back. The baby started moving and cried after a while. This is how the baby cried for the first time after 4-5 hours from delivery. The doctor also cleaned the baby's eyes with cotton and applied some medicine"

Zaibi said that she was very much worried immediately after birth of the baby as one could not guess whether the baby was alive or dead. She said that the doctor had clearly told that the baby was in such condition because the mother did

not have good diet in pregnancy and had suffered from some worries. She strongly endorsed the doctor's assessment and narrated how worried she used to be in pregnancy and how her husband used to beat her.

The baby was now one and half year old but he still suffered from eye problem. Moreover, Zaibi said that the baby does not speak and remains inactive most of the time and is not growing in size like a normal baby. She thought all this was a continuation of the previous events.

During this one and half year, the baby was taken to a doctor only once. The doctor told that there was some affect on baby's brain and that his brain was small in size. The doctor told Zaibi and her family that though the baby was growing physically but his brain remained small. Zaibi reported this in a distress:

"Though he is one and half year old but looks like a 5-6 month old baby, his physique and brain are small. He still suffers from eye problems as his eyes are often affected and discharge pus, then I apply polyfax and he recovers for some time and then again the eyes are affected".

Case Study 8 (Lakki Marwat): Gender Difference in Care

This case study² sheds light on the gender factor in taking care of the newborns, level of participation of mothers in decision making for seeking care for neonates, and beliefs on *maulvis* for *dam darood* for healing.

A mother in Landiwah village stated that her daughter did not cry for three days after birth, which was very unusual, as normally the newborn's cry immediately. The mother said that since it was a daughter, nobody in the family paid any attention to the absence of crying and if it were a boy, things would have been different. She clarified that for a mother, sons and daughters are equal as they give birth to them with equal difficulty. Providing information about her pregnancy, she informed that because of poverty she could not make any changes in diet and work during this pregnancy. She added that, though it was her third daughter, she did not suffer from any problem during pregnancy except that she used to sleep a lot.

The mother said that people of the area generally say that if a baby does not cry that means s/he is asleep. Her daughter was born at 11:00 at night; the *dai* gave bath to newborn immediately and laid her with the mother. The mother did not breastfeed her till morning as she thought that the baby was asleep. According to the mother, the next morning baby was otherwise active and was moving her eyes but she did not cry. She waited for three days but after that she started to have some concern about it.

"It seemed very strange because a baby should cry some time or the other but three days passed and my daughter did not cry even once. If it were a boy, somebody in the family would have given importance to the matter. Since I am a mother I felt concerned".

The mother then shared her concern with her mother-in-law who was of the opinion that there was nothing worrisome and that things will get better by themselves. After that, the mother told the baby's father about the situation. The father also thought that it was not a big issue. He, however, called a *maulvi sahib* at home for *dam*. According to the mother, as soon as the *maulvi* gave *dam* to the baby, she started to cry and she cried a lot. The mother and the other family members believe that God had shown them a miracle of the powers of Quran. The researcher also interviewed the mother-in-law and she confirmed that the baby had not cried for three days otherwise she was normal and would move and shake and suckle. The mother-in-law, like the mother and other family members also believed that it was a miracle of God.

2. Researcher's Note: We faced many difficulties in collecting case study material in this district. We asked respondents about case study material in every union council but the participants would tell us that babies have small problems and then they recover. They said that they did not know any baby who had got severely ill during neonatal period. Finally we decided to record following as case study.



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