Baseline Household Survey

Rawalpindi

DISTRICT

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Population Council

PAIMAN
Pakistan Initiative for Mothers and Newborns

Pakistan Initiative for Mothers and Newborns
(PAIMAN)

Rawalpindi
Baseline Household Survey

Population Council

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Acknowledgements

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Chapter 1

Introduction

Background

The Pakistan Initiative for Mothers and Newborns (PAIMAN) is a five-year project funded by the United States Agency for International Development (USAID). PAIMAN is committed to assisting the Government of Pakistan (GoP) in its attempt to implement the full spectrum of interventions necessary to address maternal and neonatal health (MNH) issues.

The consortium is led by John Snow Incorporated (JSI), with partners from Pakistani and international organizations including Aga Khan University, Contech, Greenstar Social Marketing, Johns Hopkins University Center for Communication Program (JHU), PAVHNA, Population Council and Save the Children USA.

USAID has provided a grant to implement PAIMAN in 10 districts of Pakistan's four provinces. These districts are: Rawalpindi, Jhelum, Khanewal, and DG Khan in Punjab; Dadu and Sukkur in Sindh; Jafarabad and Lasbela in Balochistan; and Upper Dir and Bunner in the North West Frontier Province. The goal of the project is to reduce maternal, newborn and child mortality in Pakistan. The project is based on the "Pathway to Care and Survival" framework. The five major strategic objectives are to:

1) Increase awareness and promote positive maternal and neonatal health behaviors
2) Increase access (including essential obstetric care) to and community involvement in maternal and child health services, while ensuring that services are successfully delivered through health and ancillary health services
3) Improve service quality in both the public and private sectors, particularly related to the management of obstetrical complications
4) Increase the capacity of Maternal and Newborn Health (MNH) managers and care providers
5) Improve the management and integration of services at all levels

The PAIMAN Project will promote skilled attendants as the long-term goal for all deliveries in Pakistan, while acknowledging that maternal and neonatal health outcomes are influenced by factors other than health care. The PAIMAN Project calls for a multi-pronged and integrated strategic approach, combining individual health care with public health and community-based interventions.

To ensure that the success of PAIMAN is properly ascertained, and that the appropriate lessons are learned, PAIMAN has developed a Monitoring and Evaluation Plan. Included in this plan is the establishment of baseline measures for a set of indicators which will be used to evaluate the success of the project. This baseline report explores the level of knowledge of, as well as the attitudes and behaviors towards maternal and newborn health in the Rawalpindi district. The specific objectives of the baseline survey were as follows:

Objectives

- To measure the Intermediate Result 7 indicators necessary as part of PAIMAN's obligation to USAID.
- To measure PAIMAN indicators for which household survey data are appropriate for measurement, and for which sample sizes are feasible.
- To obtain information on maternal and neonatal health along with related issues, which may be of use to district Departments of Health for health management purposes.
- To obtain information needed for the detailed design of the PAIMAN project and, in particular, behavior change communication, public/private partnerships, and health systems strengthening.

Methodology

Study Population

PAIMAN is primarily a district-level project, intended to improve the health of all pregnant women, women with neonatal children, as well as all neonates of the district over the course of the project. To this end, the study covers community residents – notably mothers and prospective mothers – in order to understand and measure general knowledge and practice in relation to pregnancy, delivery, obstetric and neonatal emergencies etc.

Hence, the study population for the baseline includes all currently married women of reproductive age (15-49 years) living in the selected districts. More specifically, it includes women who have experienced a pregnancy during the last three years.

Sample Design

The sampling design adopted for the survey is a stratified, systematic sample of households. The universe consists of all urban and rural areas of the district. The number of blocks selected in urban areas, along with the number of villages selected in rural areas, are presented in table 1.1. The selection procedure is described below:

Table 1.1: Number of blocks/villages and households selected for the sample population

Area	Number of Sample	Number of Households
	Blocks/Villages	Selected
Urban	21	504
Rural	19	456
Total	40	960

Urban Sample

Keeping in view the heterogeneity of the city of Rawalpindi, the sampling procedure was carried out to capture the full range of the socio-economic conditions of the urban population. For this purpose, we utilized the literacy rate which was obtained from the 1998 Population Census as an indicator of the socio-economic status of each of the Census Enumeration Circles.

The "Enumeration Circle" was the smallest unit available in the 1998 Population District Census Reports as demarcated by the Population Census organizations. The required numbers of enumeration blocks were selected with probability proportional to size. The maps of these circles were obtained from the Population Census Organization.

The areas were already divided into blocks of approximately 250-300 households depending on the number of households in each circle. Later, blocks were randomly selected with probability proportional to size from the list of total blocks in that circle. The listing of each block was then updated by the enumeration teams before selecting the sampled households. A fixed number of 24 households have been drawn from each sample enumeration block by using systematic random technique.

Rural Sample

The 1998 Population Census list of villages was used as the sampling frame for the selection of the rural sample. Villages in rural areas have been treated as primary sampling units (PSU). Sample PSUs have been selected with probability proportional to size (number of households). Households within the sample PSUs were considered secondary sampling units. The enumeration teams then updated the listing of each village before selecting the sampled households. A fixed number of 24 households have been drawn from each sample enumeration village by the systematic random technique.

Questionnaire Design

The questionnaire has been developed by the Population Council based on a combination of current general Demographic and Health Survey methodologies, and the questionnaire developed by the Population Council for the Safe Motherhood Applied Research and Training (SMART) Project. The questionnaires contain data sufficient to estimate all PAIMAN indicators.

Information on the following is included in the questionnaire:

- Household information
- Socio-economic status of women
- Fertility, pregnancy history and reproductive intentions
- Attitude towards, as well as knowledge and practice of contraceptive methods
- Attitude towards pregnancy, delivery, and the postpartum period
- Current birth preparedness/complications readiness (BP/CR) and knowledge of newborn care
- Current birth practices
- Health seeking behaviors
- Future BP/CR intentions

- Personal beliefs regarding pregnancy, delivery and the postpartum period
- Common perceptions pertaining to women who are pregnant, delivering or in their postpartum period
- Facilities regarding BP/CR available in the community
- Factors that facilitate or hinder behaviors related to BP/CR
- Media habits

Pre-testing of Questionnaires

The questionnaires were reviewed by the PAIMAN's M&E thematic group as well as by other interested stakeholders, and were then pre-tested in non-PAIMAN districts. The main objective of pre-testing was to examine the suitability and effectiveness of questions in eliciting adequate responses, and to find out if there were any linguistic problems faced either by interviewers or by respondents.

Finally, the pre-testing also helped determine the approximate time required to complete a questionnaire. The pre-tests were carried out by the Population Council's female staff members, who recorded their experiences with regard to each question. These records were then used to revise and finalize the questionnaire.

Hiring of Interviewers and Supervisors

Since the respondents in the baseline were to be MWRA and married men, it was decided that female interviewers would be used to interview women and male interviewers for men. Based on the constitution of each team, the required number of female interviewers were hired by the National Institute of Population Studies (NIPS) according to its own internal procedures.

Training of Interviewers and Supervisors

The quality of training received by interviewers is reflected in the quality of data they record. In order to ensure that the training provided for interviewers was of a high and uniform quality, and that interviewers understood the definitions and concepts behind the language of the questions, training was conducted by the Population Council in collaboration with NIPS. The training took place in Islamabad over a two week period, and interviewers were trained regarding survey procedures. During the training, interviewers visited 3-4 households to conduct practice interviews in order to prepare for the actual interview process.

It was very important for the interviewers to thoroughly understand the methodology and statistical importance of the sampled households. Training regarding the importance of the criterion for the selection of primary sampling units, mapping and listing procedure, sample selection, field operation procedures, as well as the selection of the particular households and respondents was also provided by experts.

Data Entry and Edit Procedures

Data processing was started from the field level with the checking of the questionnaires. Each team leader completed on-the-spot checks and preliminary editing of questionnaires during the enumeration period. Editing instructions were provided to the team leaders, and emphasis was laid on the importance of completing each questionnaire, correctly identifying each eligible respondent, and the completeness of household composition.

Quality Assurance

To ensure the quality of the data, Population Council staff monitored the fieldwork accompanying the field teams. While supervising the fieldwork, the Population Council supervisory staff was also available to provide on-the-spot guidance to interviewers in the event that any part of the questionnaire was unclear to them. This ensured the completeness and accuracy of each questionnaire.

Chapter 2

Socioeconomic and Demographic Characteristics

This chapter presents the demographic and socioeconomic characteristics of the population in the survey households of Rawalpindi. Information was collected on some demographic and socioeconomic characteristics such as the condition of the households, including source of drinking water, sanitation facilities, building materials, and possession of household durable goods. This information on the characteristics of the households is essential for the interpretation of survey findings. The definition of the household used for the baseline survey was "a person or a group of persons, related or unrelated, who live together in the same dwelling unit and share a common source of food".

Urban/Rural Sample Population

Table 2.1 shows the number of households selected in both urban and rural areas of Rawalpindi, as well as the interview completion status. A total sample of 960 households was selected from Rawalpindi; this number included 456 households in rural Rawalpindi, along with 504 households in urban Rawalpindi.

Table 2.1 indicates the completion rate in urban and rural areas. Incomplete interviews may have been due to lack of knowledge on the part of respondents, or perhaps due to the fact that women were not willing or permitted to share sensitive information with interviewers. However, women from 937 of the households selected (slightly over 97 percent) participated in the interview, while only 2 percent of women from the chosen households refused to participate. The refusal rate was the same in both urban and rural Rawalpindi.

Table 2.1: Interview completion status

	Rural		Urban		Total	
Result	Percent	Number	Percent	Number	Percent	Number
Completed	97.4	444	97.8	493	97.6	937
Incomplete	0.4	2	0.2	1	0.3	3
Refused	2.2	10	2.0	10	2.1	20
Total	100.0	456	100.0	504	100.0	960

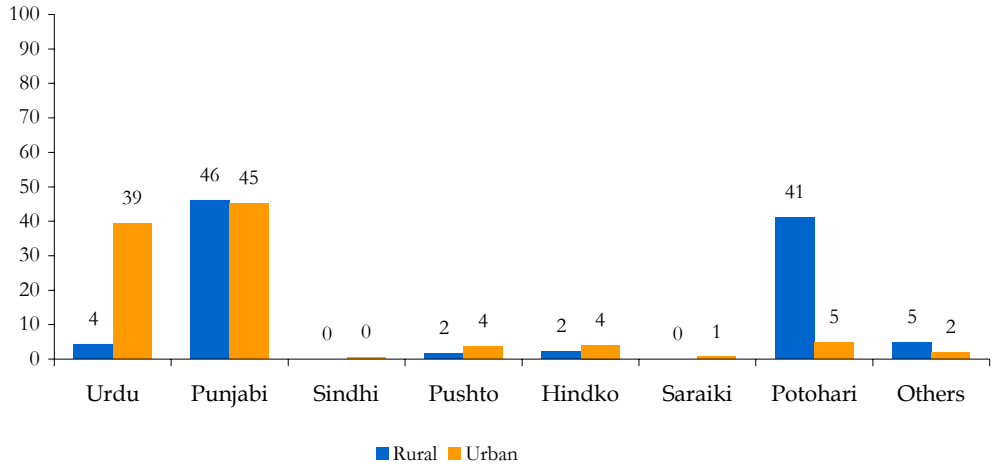
Languages Spoken

Table 2.2 outlines the languages mainly spoken in households in both urban and rural areas for the district of Rawalpindi. An overall picture of the ethnic and linguistic makeup of the district becomes clear by determining the languages spoken in the households.

Table 2.2: Language spoken in the households

Language	Rural		Urban		Total	
	Percent	Number	Percent	Number	Percent	Number
Urdu	4.3	19	39.4	194	22.8	213
Punjabi	46.0	204	45.2	223	45.6	427
Sindhi	0.0	0	0.4	2	0.2	2
Pushto	1.6	7	3.7	18	2.7	25
Hindko	2.3	10	4.1	20	3.2	30
Saraiki	0.0	0	0.6	3	0.3	3
Potohari	41.1	182	4.9	24	22.0	206
Others	4.7	21	1.8	9	3.2	30
Total	100.0	443	100.0	493	100.0	936

Figure 2.1: Languages spoken



In urban Rawalpindi, Punjabi is the most widely spoken language, followed closely by Urdu. In rural parts of the district however, the linguistic pattern is slightly different. The language most predominantly spoken after Punjabi is the local language Potohari. This trend suggests that the population of the urban areas varies more in its linguistic makeup, whereas rural areas are more indigenous. This in turn allows for a more varied sample population, which may call for the deployment of different strategies when it comes to delivering maternal and newborn health awareness messages in both rural and urban areas of Rawalpindi.

Population Composition

Table 2.3 shows the population in the baseline survey with age and sex composition. Age and sex are important demographic variables and are the primary basis of demographic analysis. They are also important variables in the study of reproductive health, mortality and fertility.

The overall age-sex distribution shows slightly more than fifty percent males compared to females. This distribution of the population shows a sex ratio of 103, which means that overall, there are 103 males per 100 females. The sex ratio obtained in the 1998 Population Census was 105 males to 100 females. This difference may be due to the improvement in the overall enumeration of the female population in individual households. Table 2.3 also shows almost one-third of the population is of less than 15 years of age due to a persistence of a high fertility rate in the recent past.

Table 2.3: Age-sex distribution of population

Age	Males		Females		Both Sexes	
Group	Number	Percent	Number	Percent	Number	Percent
<5	340	11.1	305	10.2	645	10.7
5-9	324	10.6	313	10.5	637	10.6
10-14	357	11.7	364	12.2	721	11.9
15-19	414	13.5	359	12.1	773	12.8
20-24	309	10.1	362	12.2	671	11.1
25-29	249	8.1	264	8.9	513	8.5
30-34	159	5.2	195	6.5	354	5.9
35-39	173	5.7	165	5.5	338	5.6
40-44	149	4.9	130	4.4	279	4.6
45-49	117	3.8	92	3.1	209	3.5
50-54	115	3.8	161	5.4	276	4.6
55-59	81	2.6	84	2.8	165	2.7
60-64	91	3.0	65	2.2	156	2.6
65 & older	181	5.9	119	4.0	300	5.0
Total	3059	100.0	2978	100.0	6037	100.0

Marital Status

The survey also collected information on the marital status of all household members over 15 years of age. Table 2.4 presents a comparison of the baseline results with the 1998 Population Census results to assess the quality of the data. This comparison clearly show that the overall results are similar to the 1998 Population Census results although marital status by age group varies slightly across the two enquiries. The results clearly demonstrate a delay in female marriages, which is an improvement in the status of women compared against the 1998 Population Census. However, women still tend to get married earlier than men. Also, a greater percentage of women show signs of early widowhood compared to men. This trend has not changed since the 1998 Population Census of Rawalpindi.

Table 2.4: Household population by age (15 years and above), sex and marital status

	Males			Females		
Age Group	Never Married	Currently Married	Widow/ Divorced	Never Married	Currently Married	Widow/ Divorced
PAIMAN Baseline 2005						
15-19	97.8	1.7	0.5	94.7	4.7	0.3
20-24	88.3	11.0	0.6	65.5	34	0.6
25-29	51.8	47.8	0.4	21.2	77.3	1.5
30-34	13.2	86.8	0.0	8.2	90.8	1.0
35-39	9.2	87.9	2.9	6.1	87.9	6.1
40-44	1.3	96.6	2.0	3.1	90.0	6.9
45-49	1.7	96.6	1.7	3.3	73.9	22.8
50-54	0.9	95.7	3.5	1.2	87.0	11.8
55-59	1.2	95.1	3.7	2.4	73.8	23.8
60-64	0.0	94.5	5.5	1.5	64.6	33.8
65 and older	1.7	75.1	23.2	0.8	39.5	59.7
Total	41.9	54.8	3.4	33.6	57.2	9.1
Population census 1998						
15-19	97.8	2.0	0.2	89.9	9.8	0.3
20-24	85.3	14.4	0.3	54.1	45.2	0.7
25-29	52.9	46.6	0.5	22.0	76.6	1.4
30-34	21.1	78.0	0.9	8.7	88.8	2.5
35-39	9.0	89.7	1.3	5.0	90.8	4.2
40-44	5.2	93.1	1.7	3.9	89.2	7.0
45-49	3.8	93.5	2.7	3.0	85.3	11.7
50-54	4.0	91.6	4.4	3.1	77.3	19.6
55-59	3.5	89.8	6.7	3.0	68.7	28.3
60-64	3.9	85.8	10.3	3.8	55.8	40.4
65 and older	4.8	70.7	24.5	3.9	45.9	50.2
Total	41.3	55.8	3	29.8	60.8	9.4

Education Attainment

In Rawalpindi, 9 percent of males (10 years and above) had never been to school compared to 25 percent of females. Although more women never went to school compared to men, the difference between men and women for more than 11 years of schooling is negligible; 21.9 percent for males and 19.7 percent for females. This trend would suggest that when females start going to school, a higher proportion complete their college education compared to males. While there are large differences in the levels of educational attainment between males and females in older ages, the gap in educational attainment is getting narrower for the youngest age groups. In recent years there has been a significant increase in the number of education institutions for women in the Rawalpindi district. The Rawalpindi education statistics show that there are 22 female degree colleges compared to 10 male degree colleges (Federal Bureau of Statistics, 2002).

Table 2.5:Household population by age (10 years and above), sex and educational level

Age Group	No Schooling	1-5 Years	6-10 Years	11 and More years	Total
Males					
10-14	3.4	57.1	39.5	0.0	357
15-19	3.4	9.7	72.9	14.0	414
20-24	5.2	8.4	49.8	36.6	309
25-29	5.2	8.4	52.2	34.1	249
30-34	6.9	11.3	43.4	38.4	159
35-39	9.8	11.0	51.4	27.7	173
40-44	15.4	8.7	53.0	22.8	149
45-49	10.3	11.1	52.1	26.5	117
50-54	13.9	11.3	41.7	33.0	115
55-59	14.8	18.5	40.7	25.9	81
60-64	16.5	9.9	53.8	19.8	91
65 & above	33.1	21.0	36.5	9.4	181
Total	9.2	17.9	51.0	21.9	2395
Females					
10-14	7.1	53.8	39.0	0.0	364
15-19	7.0	10.0	59.1	24.0	359
20-24	9.7	11.3	37.0	42.0	362
25-29	15.9	12.9	36.0	35.2	264
30-34	20.5	23.1	33.8	22.6	195
35-39	28.5	21.2	30.3	20.0	165
40-44	34.6	22.3	28.5	14.6	130
45-49	38.0	18.5	29.3	14.1	92
50-54	62.1	15.5	12.4	9.9	161
55-59	60.7	15.5	14.3	9.5	84
60-64	72.3	16.9	7.7	3.1	65
65 & above	84.0	7.6	8.4	0.0	119
Total	25.1	20.8	34.3	19.7	2360

Housing Characteristics

Source of Drinking Water

In order to obtain a clear understanding of the living conditions of the population, it was necessary to record the source of drinking water available to respondents and their families. The source of drinking water has a close bearing on the household's socio-economic status and hygiene levels. A quantitative analysis of the information in table 2.6 below indicates that in urban areas, two-thirds of households had access to tap water inside their homes, while only 29 percent in rural areas had the same privilege. Other respondents in rural areas cited motorized hand pumps and wells as their main source of drinking water. While the purity of tap water may be questionable, the risk of contracting water-borne diseases and/or infections is far greater when the water supply comes from an open source such as a well or hand pump.

Table 2.6: Main source of drinking water

	Rural		Urban		Total	
Source	Percent	Number	Percent	Number	Percent	Number
Govt. Supply (tap water inside)	29.1	129	66.9	330	49.0	459
Govt. supply (communal)	2.0	9	1.8	9	1.9	18
Motorized/hand pump (inside)	14.0	62	6.9	34	10.2	96
Motorized/hand pump (outside)	3.8	17	1.8	9	2.8	26
Well (inside)	21.8	97	14.8	73	18.1	170
Well (outside)	17.6	78	2.0	10	9.4	88
Tube-well	1.6	7	3.0	15	2.3	22
River/canal/stream	0.7	3	0.2	1	0.4	4
Others	9.5	42	2.4	12	5.8	54
Total	100.0	444	100.0	493	100.0	937

With regard to pregnancy and neonatal care, the source of drinking water can indicate the level of hygiene and comfort available to an expectant mother or a newborn child.

Toilet Facilities

Along with the source of drinking water, toilet facilities are a major indicator of a household's socio-economic status, and therefore the level of hygiene, sanitation and comfort available to an expectant or new mother and her newborn children. The type of toilet facility a household has access to directly reflects the quality of sanitation, which has a more direct effect on mortality than does socio-economic status (Martin *et al*, 1983). Households lacking hygienic toilet facilities have a higher risk of disease and infection, which in turn endangers the health of newborn children and their mothers.

Table 2.7: Type of toilet facility used by household members

Toilet facility	Rural		Urban		Total	
	Percent	Number	Percent	Number	Percent	Number
Flush to sewerage	30.0	133	57.8	285	44.6	418
Flush connected to septic tank	39.6	176	35.1	173	37.2	349
Flush connected to open drain	1.4	6	5.3	26	3.4	32
Raised latrine	0.7	3	0.4	2	0.5	5
Pit latrine	4.3	19	0.0	0	2.0	19
In fields	24.1	107	0.2	1	11.5	108
Others	0.0	0	1.2	6	0.6	6
Total	100.0	444	100.0	493	100.0	937

Table 2.7 indicates that in urban Rawalpindi, 58 percent of households have access to a flush to sewerage system; while this proportion is nearly half in rural areas (30 percent). Less than one percent of households in rural areas indicated that they had access to only raised latrines, while 4.3 percent indicated that the only toilet facility available to them included a pit latrine. In contrast, none of the households in urban Rawalpindi used pit latrines.

In rural Rawalpindi, 24 percent of the respondents indicated that they have no toilet facilities and instead use fields. The statistics are almost negligible in urban areas, where fields are not typically used as toilet facilities.

Fuel Used for Cooking

A question regarding the type of fuel being used in household kitchens was also asked in the baseline survey. There are substantial urban-rural differentials indicated by type of cooking fuel. Table 2.8 reveals that in rural areas, more than half of the households use firewood for cooking. In 96 percent of the households in urban Rawalpindi however, natural gas is the most popular source of fuel for cooking. In rural Rawalpindi, wood (53 percent) is followed by natural gas (25 percent) and gas cylinders (21 percent) as the most popular sources of fuel.

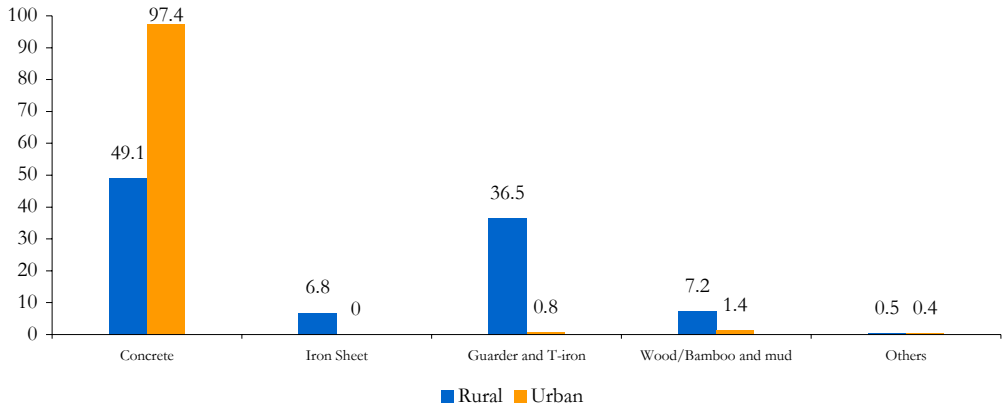
Table 2.8 : Main type of fuel used for cooking

Type of fuel	Rural		Urban		Total	
	Percent	Number	Percent	Number	Percent	Number
Fire wood	52.7	234	2.8	14	26.5	248
Kerosene oil	0.0	0	0.2	1	0.1	1
Gas cylinder	21.4	95	0.6	3	10.5	98
Natural gas (Sui gas)	24.8	110	96.3	475	62.4	585
Dry dung	1.1	5	0.0	0	0.5	5
Total	100.0	444	100.0	493	100.0	937

Materials used for the Roof

The materials used for the roof and walls of a household are major indicators of the socio-economic status of that household, as well as the living standards of the people residing in them. The more secure the materials, the higher the level of comfort and living standard for residents, and the lower the risk of disease and infection. According to figure 2.2, less than half (49.1 percent) of the households in rural areas had roofs made of concrete as opposed to 97.4 percent in urban areas. In rural areas, 36.5 percent of the population lived under girder and T-iron roofs, while only 0.8 percent of their counterparts in urban areas had roofs made of the same materials.

Figure 2.2: Material used for construction of roof



Number of Rooms for Sleeping

The number of separate rooms available for sleeping in each household is an important indicator of sanitation and hygiene levels. Overcrowding in households may lead to the spread of infection and disease, which puts the lives of expectant/young mothers and their newborn children at risk. The information presented in table 2.9 shows that the number of rooms available for sleeping in both urban and rural areas are approximately the same; however, the number of people in each household may differ greatly in urban and rural areas. Findings show that in urban areas 2.8 persons are living per room compared to 3.1 persons per room in rural areas.

Table 2.9: Number of rooms used for sleeping

	Rural		Urban		Total	
Number of rooms	Percent	Number	Percent	Number	Percent	Number
1	16.3	72	14.8	73	15.5	145
2	42.0	186	46.0	227	44.1	413
3	27.5	122	24.5	121	26.0	243
4	7.7	34	8.9	44	8.3	78
5+	6.5	29	5.7	28	6.1	57
Total	100.0	443	100.0	493	100.0	936

Household possessions

Household possessions are perhaps one of the most effective ways of determining the socio-economic level of a household. Often, it is easier to obtain information on household possessions than to ask for details about the household income, which respondents may be less willing to provide for various reasons.

Table 2.10: Ownership of household commodities/land

Household items	Rural	Urban	Total	
			Percent	Number
Electric iron	88.3	95.7	92.2	864
Electric fan	93.5	98.8	96.3	902
Sewing machine	72.1	85.6	79.2	742
Radio or cassette player	56.1	62.3	59.3	556
Chair/table	88.5	89.2	88.9	833
Television	69.8	87.6	79.2	742
Telephone	58.1	82.2	70.8	663
Watch/clock	93.0	93.9	93.5	876
VCR/VCP/VCD/CD Player	16.7	35.1	26.4	247
Refrigerator/deep freezer	53.6	74.6	64.7	606
Air cooler	9.9	34.9	23.1	216
Air conditioner	2.7	13.4	8.3	78
Computer	7.2	30.0	19.2	180
Bicycle	19.6	33.1	26.7	250
Motorcycle	9.5	29.6	20.1	188
Car/jeep	7.2	18.1	12.9	121
Tractor/truck	2.5	0.6	1.5	14
HH Owned any agriculture land	50.0	17.8	33.1	310
Agriculture major source of livelihood	18.5	3.2	10.5	98

The list of household possessions in Table 2.10 are setting-specific and will therefore be quite accurate in determining the socio-economic status of the households. The presence of durable goods in the household, such as radio, television, telephone, refrigerator, motorcycle, and private car is another indicator of the household's socioeconomic status. Moreover, particular goods have specific benefits; for example, the ownership of a radio or television is a measure of access to mass media and exposure to innovative ideas; telephone ownership measures access to an efficient means of communication; refrigerator ownership prolongs the wholesomeness of foods; and ownership of private transport allows greater access to many services away from the local area.

While many urban and rural households owned more common household possessions such as electric fans, irons and clocks etc.. Table 2.10 suggests that the possession of items such as televisions, VSR/VCP/VCD/CD players, refrigerators, air conditioners etc. is substantially higher in the urban areas of Rawalpindi. This suggests that the urban population in Rawalpindi has more spending power, a higher socio-economic status and a higher standard of living overall, which may have a positive effect on maternal, neonatal and infant health.

Table 2.10 also reveals that fifty percent of rural households own agricultural land, compared to 17.8 percent of the households in urban areas. According to the findings of the survey, agriculture is the main source of livelihood for 18 percent of the households in rural Rawalpindi, compared to only 3.2 percent of the households in urban areas.

Ownership of the House

Table 2.11 reflects the ownership of each of the households surveyed. Most of the rural respondents (89.4 percent) live in houses that they own compared to their urban counterparts (60.4 percent). In urban areas, 28.6 percent of the respondents live in rented houses compared to only 8.3 percent in rural areas. Of respondents surveyed, 6.6 percent live in rent-free accommodations.

Table 2.11: Status of ownership of house

	Rural		Urban		Total	
Status	Percent	Number	Percent	Number	Percent	Number
Owner occupied	89.4	397	60.4	298	74.2	695
Rented	8.3	37	28.6	141	19.0	178
Rent free	2.0	9	10.8	53	6.6	62
Others	0.2	1	0.2	1	0.2	2
Total	100.0	444	100.0	493	100.0	937

Chapter 3

Background Characteristics of Married Women of Reproductive Age

Information regarding the basic background characteristics of respondents is essential for the interpretation of survey findings. This chapter describes the basic background characteristics including age, education level, and place of residence of the respondents. It also describes detailed information on the educational status of respondents and their husbands, literacy levels, and exposure to mass media. Only currently married women aged 15-49 years were interviewed for this portion of the survey.

Women's Characteristics

Age Distribution of Married Women

Table 3.1 indicates the number of married women of reproductive age in each age group for the households surveyed. In both rural and urban areas, the largest proportion of women were in the 25 to 29 year age group, whereas the lowest proportions were in the 15 to 19 year age group. However, the percentage of married women aged 15 to 19 was considerably greater in the rural areas of Rawalpindi at about 3.4 percent, than in the urban centers where only 0.6 percent of married women were aged 15 to 19 years. Overall, the mean age of women of reproductive ages in Rawalpindi is estimated to be 34.1 years.

Figure 3.1 is a visual depiction of the comparison of age distribution amongst married women in rural and urban areas. The mean age at marriage in Rawalpindi is 19.2 years. It can be seen that up until the age of 25 to 29, the percentage of married women in urban areas is less than the percentage of married women in rural areas. This is due to the higher age at marriage in urban Pakistan, which is most likely related to higher literacy and an increase in employment opportunities.

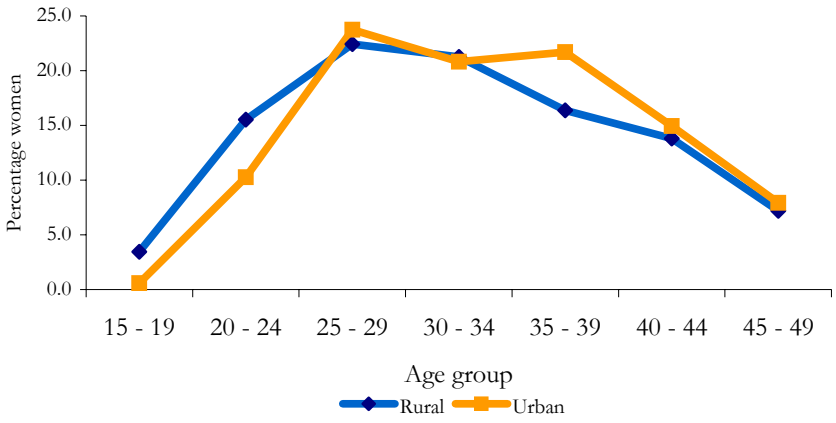
The majority of rural women (48 percent) were married before the age of 20, compared to 40 percent of urban women who were married at the same age. A lower age at marriage is associated with lower educational levels.

A combination of low or no education and early marriages means that many women may not have a solid understanding of birth preparedness and complication readiness.

Table 3.1: Current age and age at marriage

Background profile		Rural		Urban		Total	
		Percent	Number	Percent	Number	Percent	Number
Age of respondent	15 - 19	3.4	12	0.6	2	2.0	14
	20 - 24	15.5	54	10.3	35	12.9	89
	25 - 29	22.4	78	23.8	81	23.1	159
	30 - 34	21.3	74	20.8	71	21.0	145
	35 - 39	16.4	57	21.7	74	19.0	131
	40 - 44	13.8	48	15.0	51	14.4	99
	45 - 49	7.2	25	7.9	27	7.5	52
Age at marriage	< 15	6.3	22	7.0	24	6.7	46
	15 - 19	48.0	167	39.6	135	43.8	302
	20 - 24	34.8	121	39.9	136	37.3	257
	25 +	10.9	38	13.5	46	12.2	84

Figure 3.1: Age distribution



Education/Literacy level

The level of education obtained by a woman can be a good indicator of her status in society as well as the independent decision-making power available to her. It is presumed that the higher the level of education obtained by a woman, the more say she has in matters concerning her health and that of her children. With regard to maternal health, a higher literacy rate in women can result in an increased use of contraceptives, higher awareness of complications during and after pregnancy, a strong understanding of neonatal and newborn health, and finally, a more complete understanding of safe birth practices.

It has also been shown that the mortality rates among children with mothers who have six or more years of education are considerably lower than the mortality rates among children with uneducated mothers (Martin, 1983). Educated women are more likely to recognize signs of illness in their

children, actively seek assistance from a doctor, and administer the treatment in the manner required. Educated women are also more likely to return to a doctor in the event that the treatment administered failed to take effect. Therefore, the proactive nature of educated women with regard to the health of their children lowers the morbidity and mortality rates of infants and young children (Caldwell, 1986).

Table 3.2: Education level and literacy of married women and their husbands

Background profile		Rural		Urban		Total	
		Percent	Number	Percent	Number	Percent	Number
Level of education	No education	30.2	105	20.8	71	25.5	176
	Up to primary	28.2	98	11.7	40	20.0	138
	Up to middle	10.3	36	12.3	42	11.3	78
	Up to secondary	19.8	69	25.5	87	22.6	156
	Secondary +	11.5	40	29.6	101	20.5	141
Respondent's literacy	Literate	66.4	231	80.4	274	73.3	505
	Illiterate	33.6	117	19.6	67	26.7	184
Husband's Level of education	No education	12.4	43	8.5	29	10.4	72
	Up to primary	14.7	51	8.2	28	11.5	79
	Up to middle	17.8	62	12.3	42	15.1	104
	Up to secondary	37.9	132	29.3	100	33.7	232
	Secondary +	15.8	55	41.1	140	28.3	195
	Don't know	1.4	5	0.6	2	1.0	7
Husband's literacy	Literate	87.1	303	91.8	313	89.4	616
	Illiterate	12.9	45	8.2	28	10.6	73

The level of education of fathers also affects the mortality rates amongst children. This is partly an indication of socio-economic level, as typically the more education the father of a child has, the higher his socio-economic status and standard of living are likely to be. However, the effect educated fathers have on the mortality rates of children is lower than the effect educated mothers have. (Mahmood, 1992).

The ability to read is an important personal asset allowing women and their husbands increased access to various opportunities. By gathering information regarding the distribution of literacy of the respondents surveyed, maternal and newborn health communicators are better able to reach their target population with their messages. According to Table 3.2, two-thirds of the women surveyed in rural Rawalpindi were literate, compared to 87.1 percent of husbands. In urban Rawalpindi however, the disparity between male and female literacy rates was not as extreme. Here, 80.4 percent of the women interviewed were literate, and 91.8 percent of the husbands were literate. Slightly more than 30 percent of the women in rural Rawalpindi stated that they never received any formal education compared to 20.8 percent in urban areas. In the urban areas, almost 30 percent of the married women and 41 percent of their husbands received more than secondary level education, whereas in rural areas, only 11.5 percent of married women and 15.8 percent of their husbands were in the same position as their urban counterparts.

Children Ever Born and Living

Table 3.3 presents the distribution of married women by the number of children ever born (CEB). This table also shows the mean number of children ever born, and the mean number of living children for each five-year age group. It is observed that overall in Rawalpindi, women have on average 3.5 live births, and 3.2 surviving children. These results are comparable with the 1998 Population Census results. The overall average number of living children is exactly the same i.e. 3.2 per women in the baseline survey and the 1998 Population Census. However, a difference of 0.4 children (higher in 1998 Census) is observed in children ever born. This difference is apparent in almost all age groups except for the 15-19 and 45-49 year cohorts.

Table 3.3 also shows the comparison of the mean number of children ever born and surviving children among women above 40 years of age. Although married women aged 45-49 years on average have 5.5 children ever born, 13.5 percent of them did not have any children, 69 percent have more than 4 children, while just 5.8 percent have only two children.

Table 3.3: Percentage distribution of married women by number of children ever born, mean number of children ever born, living children and age group, compared to the 1998 Population census

	Number of Children Ever Born						Mean Number of Children			
Age Group	0	1-2	3-4	5 or more	Total	No. of Women	PAIMAN Baseline		1998 Population Census	
							Ever born	Living	Ever born	Living
15 - 19	50.0	35.7	7.1	7.1	100	14	1.3	0.9	1.6	0.6
20 - 24	30.3	51.7	14.6	3.4	100	89	1.6	1.5	2.0	1.2
25 - 29	12.6	45.3	38.4	3.8	100	159	2.4	2.2	2.8	2.2
30 - 34	5.5	29.0	42.8	22.8	100	145	3.4	3.2	3.8	3.2
35 - 39	4.6	12.2	43.5	39.7	100	131	4.4	4.0	4.7	4.0
40 - 44	1.0	7.1	40.4	51.5	100	99	5.0	4.5	5.4	4.5
45 - 49	13.5	5.8	11.5	69.2	100	52	5.5	5.1	5.4	4.5
Total	11.0	27.7	34.8	26.4	100	689	3.5	3.2	3.9	3.2

Preceding Birth Interval

The length of the preceding birth interval is very important as it directly affects the health and mortality of both mother and child. A mother with repeated pregnancies, especially at short intervals, does not have sufficient time for recovery both physically and nutritionally and is therefore more likely to have pregnancy losses and babies of a lower birth weight. Table 3.4 shows that almost 19.6 percent of the last births occurred at an interval of less than 19 months, 18 percent have 19-24 months and 24 percent have 25-36 months of interval between the last birth and the second last birth in Rawalpindi.

Table 3.4:Percentage distribution of married women by length of preceding birth interval

Length of Preceding Birth Interval	Number	Percent
Less than 12 Months	5	2.3
13-18 Months	38	17.3
19-24 Months	40	18.2
25-36 Months	53	24.1
More than 36 Months	84	38.2
Total	220	100.0

Access to Information

In the baseline survey, respondents were asked several questions regarding access and exposure to television, radio and newspapers. One of the main objectives of the baseline survey was to determine the knowledge of married women on different maternal and newborn health issues, and the source of that knowledge. This information is useful in determining which media channels should be employed in the dissemination of maternal and newborn health information to target audiences. Moreover, it is important to measure the likelihood of reaching target audiences, as well as to determine which media channels are most effective when it comes to reaching that target audience.

Access to Media (Television, Radio and Newspaper)

Mass media is regularly used to campaign various issues, including those related to the health of mothers and newborns. In the past, radio was the most popular form of communication (Syed, 1979). However, according to the survey findings, television seems to have become a more popular source of information.

Television

In figure 3.2, almost two-thirds of the respondents in rural Rawalpindi indicated that they watch television. This is in comparison to urban Rawalpindi, where 80.4 percent watch television. Once again, as with the table regarding household possessions, the availability of a television in a household is associated with socio-economic levels and standards of living.

Since rural areas are typically poorer than urban centers, the percentage of women who indicated that they do not watch television was much higher in rural settings. As depicted in table 3.5, from those women who do watch television, the percentage of whom watch it everyday is greater in urban areas (about 69 percent) than in rural areas (54 percent), while the percentage who watch "rarely" was greater in rural areas.

Figure 3.2: Percentage of women who watch television or listen to radio

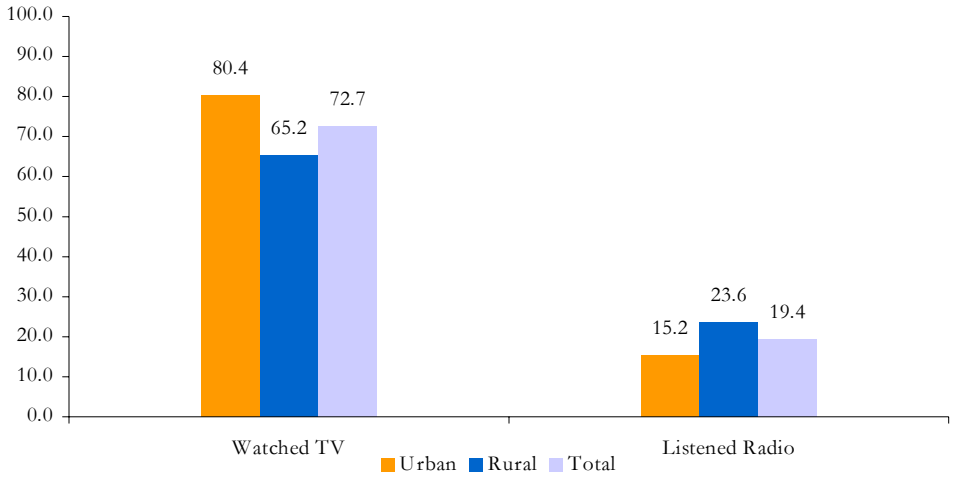


Table 3.5: Frequency of watching television

Frequency	Rural		Urban		Total	
		Number	Percentage	Number	Percentage	Number
Almost daily	54.6	124	69.0	189	62.5	313
At least once a week	10.6	24	9.9	27	10.2	51
At least once a month	0.0	0	1.5	4	0.8	4
Rarely	34.8	79	18.6	51	25.9	130
Others	0.0	0	1.1	3	0.6	3
Total	100.0	227	100.0	274	100.0	501

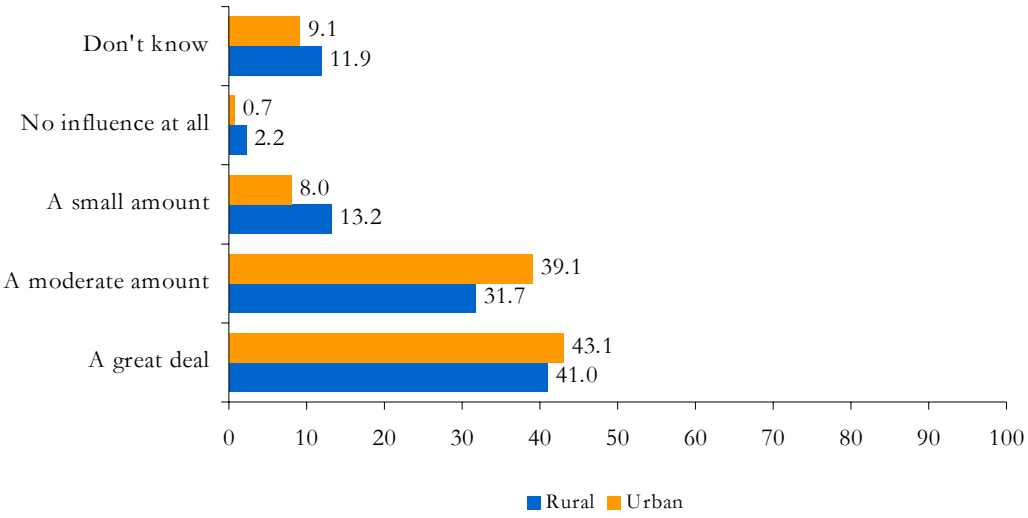
Since access to television is synonymous with access to information, women in urban areas have more access to information through television. This may be due to the fact that more women in urban areas have a higher education, a greater socio-economic status, and therefore greater decision-making power which allows them access to television. Furthermore, access to television also gives women greater decision-making power through the supply of information. When asked where they watch television, a majority of the respondents (over 95 percent) in both urban and rural areas indicated that they have access to a television at home (table 3.6).

Table 3.6: Place where respondent usually watches television

Place	Rural		Urban		Total	
	Percent	Number	Percent	Number	Percent	Number
At home	95.6	217	97.4	267	96.6	484
At relative's house	3.1	7	1.8	5	2.4	12
At neighbor's house	0.9	2	0.7	2	0.8	4
Others	0.4	1	0.0	0	0.2	1
Total	100.0	227	100.0	274	100.0	501

When asked if they thought television has an impact on the health behavior of women, a nearly equal percentage of respondents in both rural and urban Rawalpindi thought that television is very influential.

Figure 3.3: Influence of television programs on the health behaviors of people



Radio

Much like television, radio is also a tool through which messages may be relayed to a relatively large audience. However, Figure 3.2 above appears to indicate that from the respondents interviewed, a majority from both rural and urban Rawalpindi do not listen to the radio. This seems to suggest that radio is not the most effective means of communicating information about health and neonatal care to the majority of married women.

As seen in table 3.7 below, even among those that have access to a radio, only 30.5 percent of the respondents interviewed in rural areas and 38.5 percent of the respondents in urban areas listened to the radio on a daily basis. Therefore, it becomes clear that the audience available through radio is very limited. This may be due to the increased use of television in many areas, which would lead to a decrease in the number of people who listen to the radio.

Table 3.7: Frequency of listening to radio

	Rural		Urban		Total	
Frequency	Percent	Number	Percent	Number	Percent	Number
Almost daily	30.5	25	38.5	20	33.6	45
Alt least once a week	7.3	6	13.5	7	9.7	13
At least once a month	1.2	1	0.0	0	0.7	1
Rarely	61.0	50	46.2	24	55.2	74
Others	0.0	0	1.9	1	0.7	1
Total	100.0	82	100.0	52	100.0	134

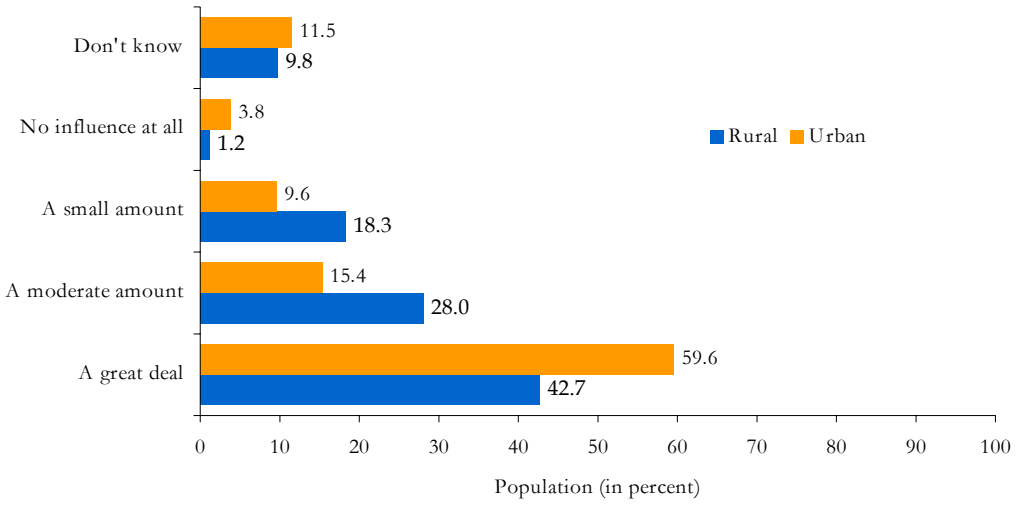
However, most of the respondents in both urban and rural areas, who have access to a radio indicated that they listen to it at home. Table 3.8 shows that more than 97 percent of the respondents in rural areas who indicated that they listen to the radio indicated that they had a radio at home, and 88.5 percent said the same in urban Rawalpindi.

Table 3.8: Place where respondent listens to the radio

Place	Rural		Urban		Total	
	Percent	Number	Percent	Number	Percent	Number
At home	97.5	79	88.5	46	94.0	125
At work place	0.0	0	1.9	1	0.8	1
At relative's house	1.2	1	1.9	1	1.5	2
Others	1.2	1	7.7	4	3.8	5
Total	100.0	81	100.0	52	100.0	133

Figure 3.4 indicates the influence radio has on the health behaviors of people. About 60 percent of those who listen to the radio in urban Rawalpindi indicated that radio has a great deal of influence on the health behaviors of people, whereas 3.8 percent indicated that it has no influence at all. In rural Rawalpindi, about 42.7 percent of the population interviewed with access to a radio indicated that it is very influential, whereas 1.2 percent stated that it has no influence at all.

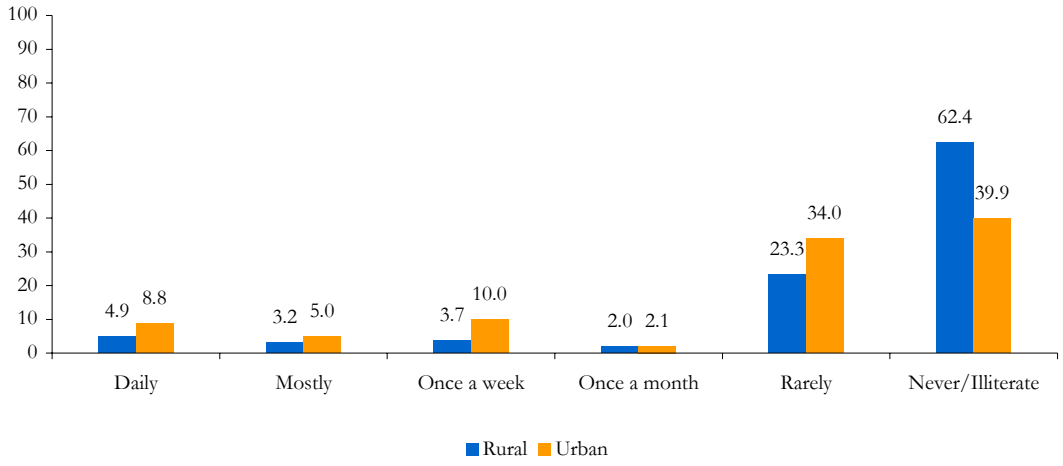
Figure 3.4: Influence of radio on the health behaviors



Newspapers

The results obtained for the percentage of respondents who read the newspaper on a daily basis were unexpectedly low. In rural Rawalpindi, as outlined in figure 3.5, almost 62 percent of the population interviewed indicated that they never read the newspaper. Only about 5 percent stated that they read the newspaper everyday, whereas 23 percent indicated that they rarely read the newspaper.

Figure 3.5: Frequency of reading newspaper



The results for urban Rawalpindi were only slightly better. About 40 percent of the women interviewed in the urban areas of Rawalpindi indicated that they never read the newspaper, while another 34 percent stated that they rarely read the newspaper. Only 9 percent indicated that they read the paper on a daily basis. Therefore, it becomes clear that promoting any messages through newspapers would not reach a majority of the women, as the target population either rarely or never reads the newspaper.

Figure 3.6: Exposure to mass media (radio, television or newspaper)

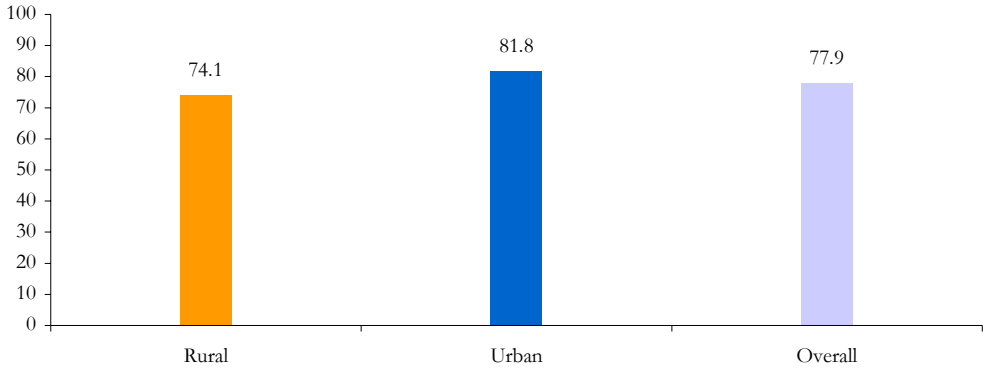
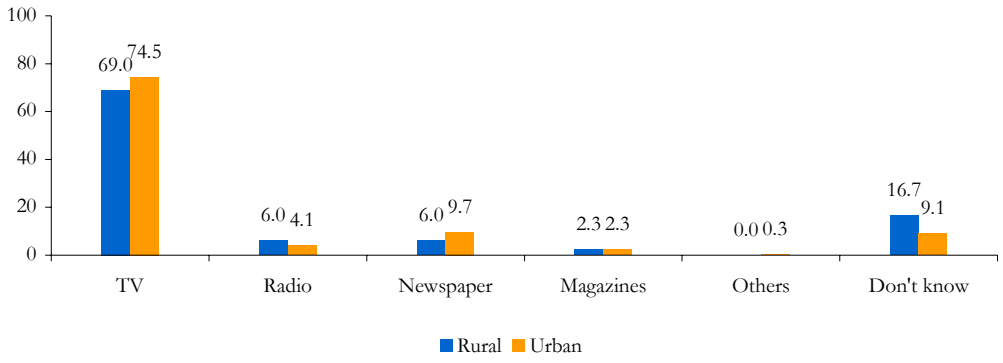


Figure 3.6 shows the percent of women with access to at least one type of media in Rawalpindi. According to the figure 3.6, about 78 percent of the population in the district of Rawalpindi has access to some sort of media; whether it is television, radio or newspapers. While it may seem

relatively easy to reach this large portion of women through one of the three main media channels, there are some obstacles in the way, including the lack of decision-making power for women and the infrequency of access to media. The 22 percent of the population that does not have access to any sort of media also needs to be reached. In order to do this, a more grassroots method must be adopted through which the rest of the population of the district is educated. These grassroots efforts may include inter-personal communication through community workers, community gatherings, speeches and health education sessions.

Even though television and radio were reported to have about the same level of influence on the health behaviors of people, according to figure 3.7, a majority of the people interviewed in both urban and rural areas believed that television is the most trust-worthy form of media. Among the married women who have access to media channels, more than two-thirds of married women in rural Rawalpindi indicated that they believed television is the most trustworthy media source, whereas three-fourths of their counterparts in urban areas felt the same way. As mentioned earlier, in 1975 radio was the most popular form of mass communication (Syed, 1979, pp.54), whereas in recent years television has assumed that position. According to UNESCO, global access to television is increasing rapidly, especially in developing countries. For example, in 1965 only about five percent of the world's television sets were in developing countries; by 1997 however, the number of television sets in developing countries rose to 52 percent (www.unesco.org). This data would suggest that access to television in the developing world has increased, bringing with it a "globalizing effect". As a result, many feel that television brings them trustworthy information and news.

Figure 3.7: Most trustworthy form of media



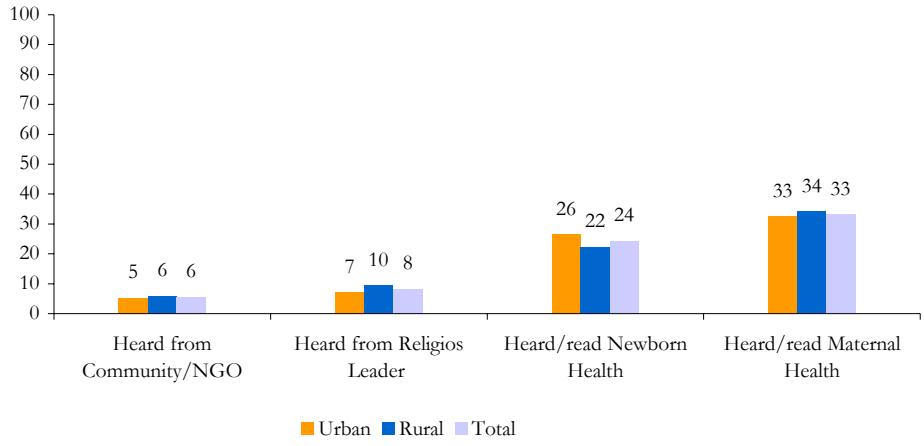
Therefore, perhaps the most efficient way to provide awareness to the married women of Rawalpindi in regards to maternal and neonatal health is through television, as well as through a more grassroots, community-based approach.

Information/Education through Media

Before moving on to questions regarding attitudes towards pregnancy, delivery and postpartum, respondents were asked to comment on whether or not they had heard/read anything about maternal and newborn health within the past three months. Figure 3.8 below depicts the responses given.

Figure 3.8 depicts that one-third of married women had heard/read anything regarding maternal health over the last three months. It means that over two-thirds of married women had neither heard nor read anything regarding maternal health.

Figure 3.8: Percentage of married women who had heard/read maternal and newborn messages during the last 3 months



Similarly, just around one-fourth of the married women in Rawalpindi had heard/read anything regarding newborn health, whereas nearly three-fourths had not heard/read anything regarding the topic within the last three months. It appears as though fewer people were exposed to the topic of newborn health than to the topic of maternal health. However, it is clear that a very large portion of the population is not exposed to any messages regarding maternal or newborn health on a frequent basis.

Furthermore, respondents were asked if they had heard religious leaders and community/NGO workers speak about health care in the last three months. In rural Rawalpindi, fewer than 10 percent of the population stated that they had heard a religious leader speak about maternal and newborn health, and about 7 percent in urban areas reported the same thing. However, in both urban and rural Rawalpindi, less than 6 percent of the population stated that they had heard a community/NGO worker speak about maternal and newborn health.

In urban areas, married women have consistently less exposure to these activities. This may be due to the lack of community events and discussions, which may be more popular in rural areas, or perhaps due to the more transient nature of urban areas which makes it difficult to organize such events.

It becomes evident from the data that the percentages of married women who had heard anything about maternal or newborn health are very low for both urban and rural areas, indicating the absence of proactive education and awareness in many areas of Rawalpindi. Hence, it would be a challenge for the PAIMAN team to reach these women in both urban and rural areas, and convey messages regarding maternal and newborn health.

Chapter 4

Knowledge of Safe Motherhood, Birth Preparedness and Community Resources

This chapter explores the level of understanding women have of safe motherhood practices, birth preparedness and the use of community resources. It examines the level of health awareness women in the district possess, and thus provides an explanation for the maternal and newborn mortality rates. Respondents were asked questions regarding knowledge of complications during pregnancy, delivery, the postpartum period, and newborn health. They were also asked about the community resources available to them within the community. The findings of those responses are presented in this chapter.

Knowledge of Danger Signs

Knowledge of Danger Signs During Pregnancy

Figure 4.1 below outlines the various complications which may occur during pregnancy. Respondents were asked to indicate which complications they believe are dangerous and require medical attention. Surprisingly, a very small percentage believe that most complications require a doctor's care, and agreed that medical attention must be provided only after being prompted.

The most known complication among married women in urban areas is high blood pressure. Approximately one-third of the respondents in urban areas know about high blood pressure, whereas one-forth of the respondents in rural areas are aware of this danger sign. Almost the same proportion know that heavy vaginal bleeding, spotting and severe abdominal pains during pregnancy are considered danger signs.

Upon analysis of these responses, it becomes evident that many women do not have a basic understanding of the complications that may arise during pregnancy, and may therefore fail to take action. Moreover, many may assume that the above-mentioned complications are part of the pregnancy process.

Figure 4.1: Knowledge of danger signs during pregnancy, which require medical attention

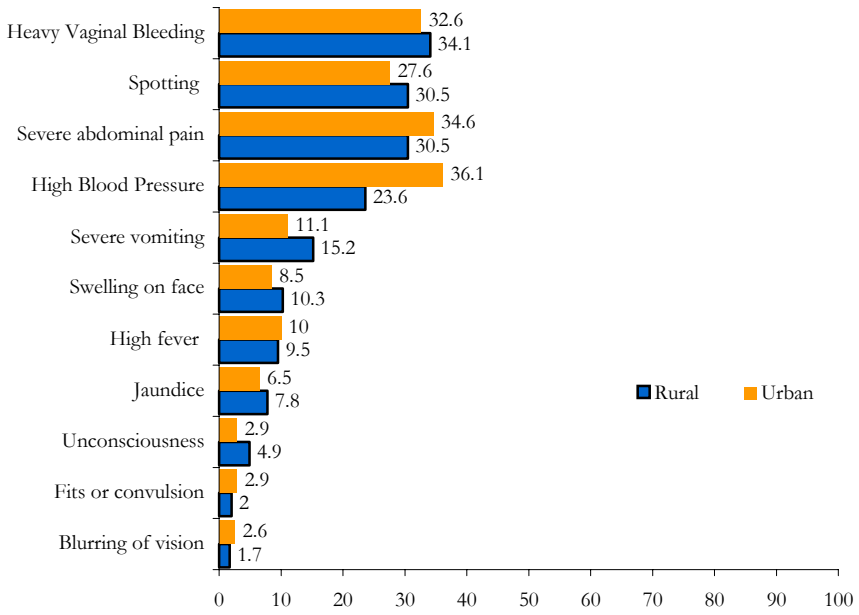
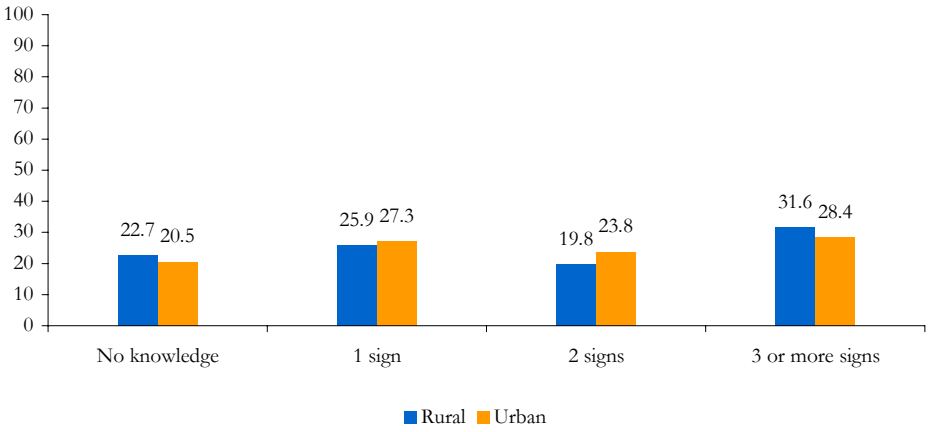


Figure 4.2 depicts that slightly more women in rural areas have knowledge of danger signs than their urban counterparts. It shows that 32 percent of the married women in rural areas know three or more danger signs during pregnancy, compared to 28 percent in urban areas. More than one-fifth of the women were unable to name a single sign of complications during pregnancy.

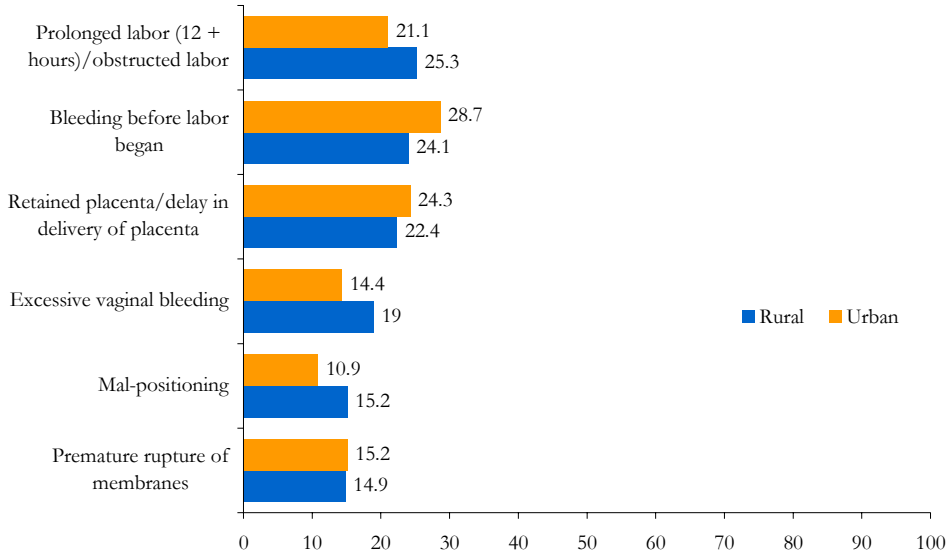
Figure 4.2: Percentage distribution of women by knowledge of the number of danger signs of pregnancy



Knowledge of Danger Signs during Childbirth/Delivery

As in the case of pregnancy, many women are not aware of the complications that may arise during delivery. This lack of knowledge may eventually result in women not being taken to a hospital in the event that such a complication should occur. Figure 4.3 depicts the level of the respondents' understanding of complications during delivery. In rural areas, the results demonstrate highest awareness levels with respect to "prolonged labor (more than 12 hours)/obstructed labor" (25.3 percent) followed by "bleeding before labor began" (24.1 percent) and "retained placenta/delay in delivery of placenta" (22.4 percent) as a danger sign during childbirth. Figure 4.3 demonstrates that there is not much difference in the knowledge of danger signs among married women of urban and rural areas.

Figure 4.3: Percentage distribution of respondents who had knowledge about complications during delivery

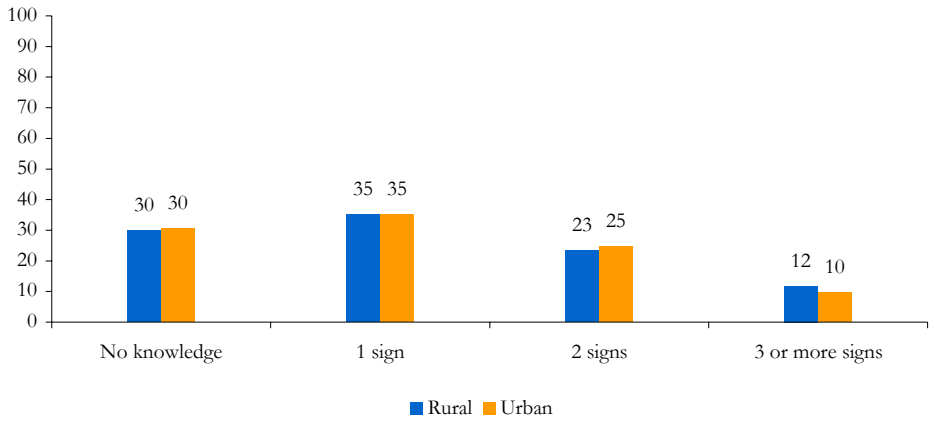


A large proportion of maternal mortalities occur during delivery in developing countries. More than three-fourths of the women surveyed do not recognize the danger signs that lead to severe consequences. Deliveries can only be made safe if married women are educated regarding danger signs that may appear during delivery so that they can decide when to seek treatment. Even under normal circumstances, approximately 15 percent of all pregnant women require emergency obstetric care to avoid maternal and newborn deaths.

The survey findings show that only 10 percent of the women recognized at least three danger signs during delivery (figure 4.4). It is very difficult to save the life of a pregnant woman who is unable to recognize danger signs during delivery, and therefore unable to decide when to seek medical attention. Figure 4.4 demonstrates that around 30 percent of the married women in Rawalpindi were unable to name a single complication during childbirth. This proportion is almost the same in urban and rural areas. One-third (35 percent) of married women know only one danger sign and around one-fourth know (24 percent) two danger signs.

Lack of awareness of danger signs during childbirth is not acceptable in a community where almost two-thirds of married women are literate (can read and write a simple letter). Innovative approaches are therefore needed to make these communities more aware of issues regarding maternal and newborn health.

Figure 4.4: Percentage distribution of women by knowledge of number of danger signs of delivery



Knowledge of Danger Signs during the Postpartum Period

In the baseline survey, the postpartum period is defined as the 40 days after childbirth. Postpartum hemorrhage is the most significant cause of maternal morality in developing countries. Although baseline survey findings indicate that excessive vaginal bleeding is the most known danger sign during the postpartum period, not all women were aware of this fact. This calls for some innovative approaches to make communities knowledgeable regarding the danger signs during the postpartum period. If mothers are not medically fit and completely healthy during the postpartum period, they are unlikely to take adequate care of their newborns.

Figure 4.5: Percentage of married women who had knowledge about complication during postpartum period

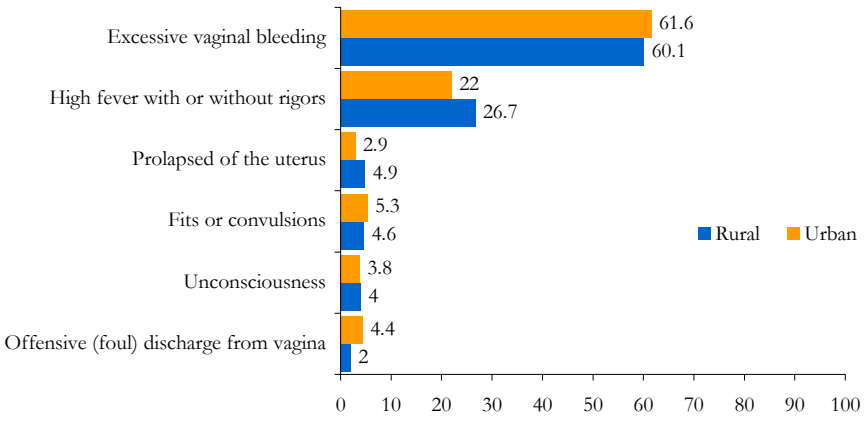
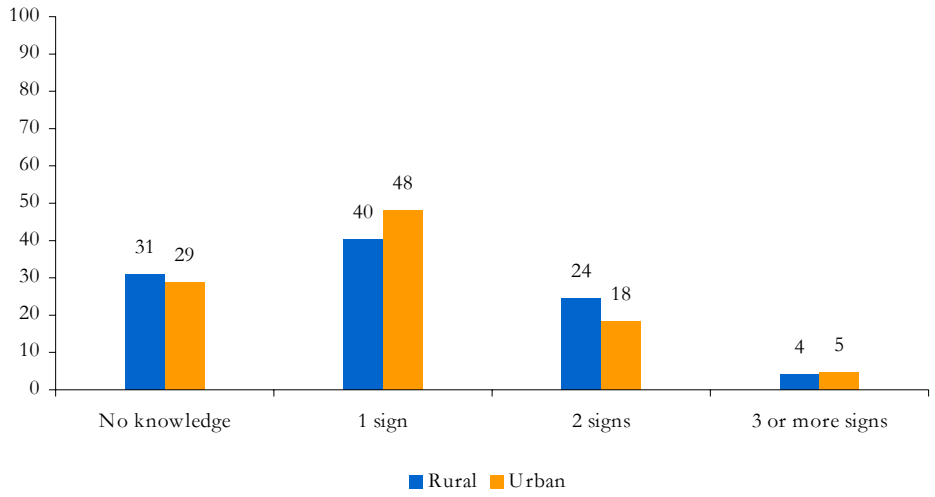


Figure 4.6 depicts the percentage of married women by the status of knowledge of danger signs during the postpartum period. It shows that more than one-fourth of women do not know even a single sign of complication. However, less than 5 percent were able to name three or more danger signs during the postpartum period.

Figure 4.6: Percentage distribution of women by number of known danger signs of postpartum period



Knowledge of Danger Signs in the Newborn

While many women may not seek medical attention when it comes to their own health due to a lack of awareness, doing so with a newborn may be detrimental. Unfortunately, many women are also unaware of the danger signs that may appear in newborns, especially in the first seven days after the childbirth. Figure 4.7 depicts the percentage of respondents who believe that each complication listed required medical attention. About 40 percent of married women reported that "yellow skin/Jaundice" is a danger sign. This was followed by 36 percent who believe that a weak cry is a danger sign, as well as by 29 percent who indicated that difficulty breathing should be looked upon as a complication.

As mentioned previously, women with higher levels of education are more likely to be aware of potential complications, detect danger signs sooner and seek medical attention. However, due to Pakistan's low education levels, many women are unaware of the severe complications that may affect the health of a newborn.

Figure 4.7: Percentage distribution of respondents who had knowledge about danger signs in newborns

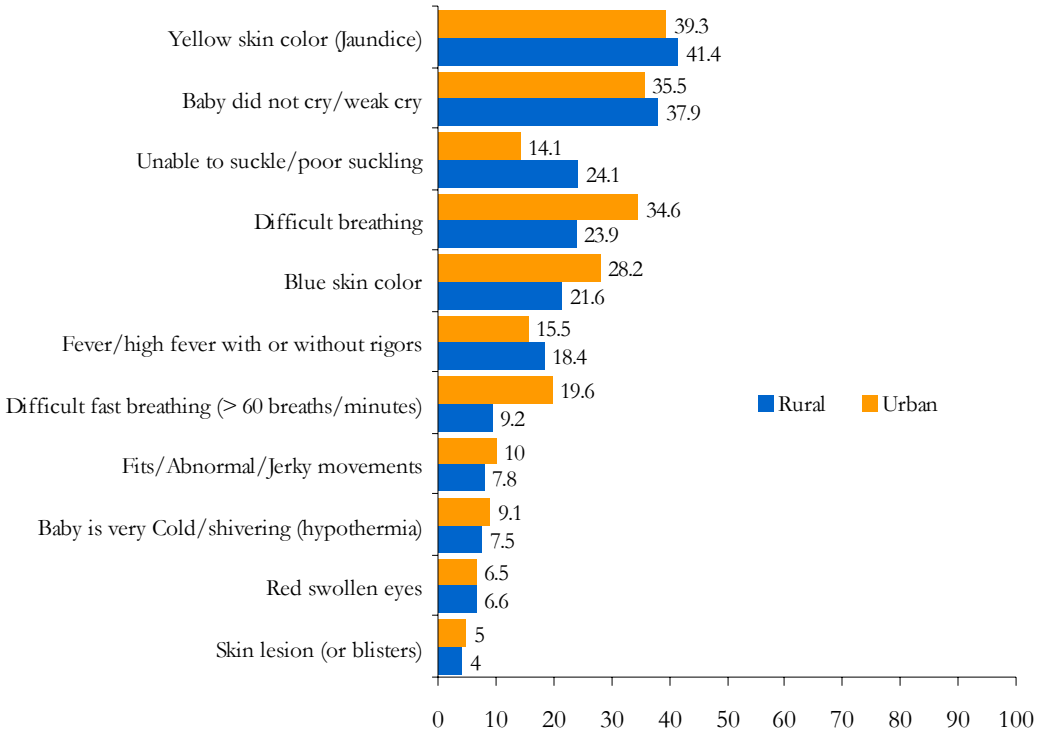
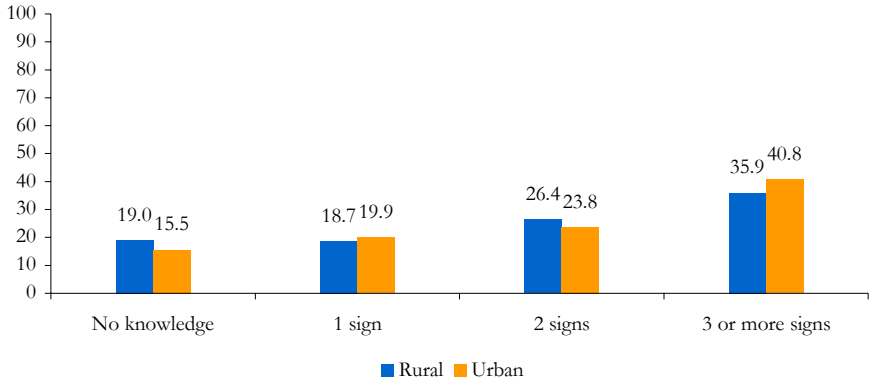


Figure 4.8 shows that not more than 40 percent of married women in Rawalpindi know three or more danger signs in newborn. About 19 percent of the respondents in rural areas, along with 15 percent in urban areas could not identify a even a single danger sign.

Figure 4.8: Percentage distribution of women by knowledge of the number of danger signs in a newborn at birth

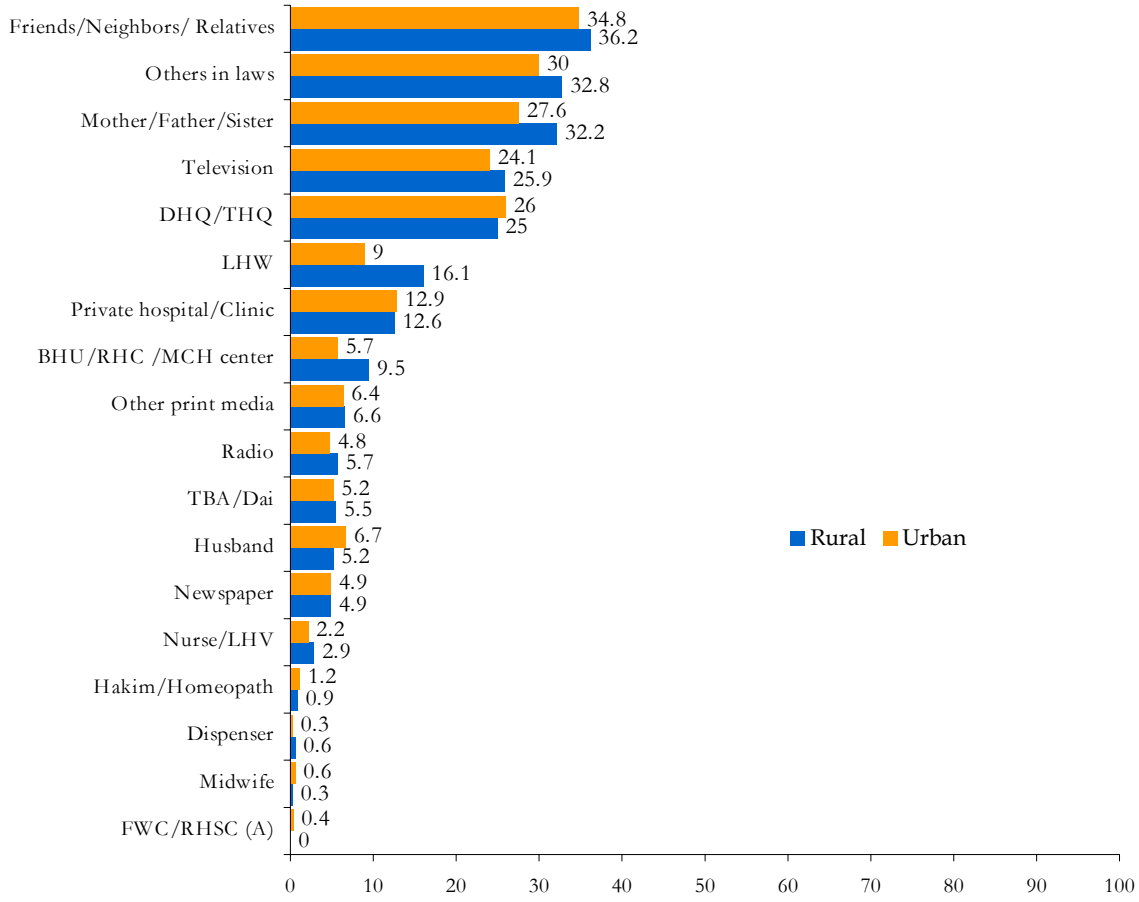


Source of Information Regarding Danger Signs

Finally, respondents were asked to state the source of their information regarding complications during pregnancy, delivery and the postpartum period. A very large proportion of women in both urban and rural areas indicated that they received their pregnancy related information from their in-laws, family members and friends. About 26 percent and 24 percent in rural and urban Rawalpindi respectively, indicated that they received their information primarily through television. Only 16 percent of the sample population in rural Rawalpindi said that a Lady Health Worker was the source of their information. District Headquarter Hospitals and Tehsil Headquarter Hospitals were also one of the main sources of information for approximately 25 percent of the rural, and 27 percent of the urban population in Rawalpindi, respectively.

The fact that most respondents indicated that they obtained information about pregnancy through in-laws, family members and friends suggests that many women may not be getting accurate information. Furthermore, many women are not receiving reliable information regarding antenatal and postnatal health from a doctor's perspective.

Figure 4.9: Source of information regarding danger signs during pregnancy



Knowledge of Community Schemes for the Welfare of Women and Newborns

In addition to being asked questions regarding the knowledge of danger signs, married women were asked whether they were aware of any existing schemes in their respective communities designed to help women have a safe childbirth, while also providing basic education regarding newborn care. The baseline focused on schemes pertaining to transportation, blood arrangements and funding; services which help ensure that there are no delays at the time of delivery. Arrangement of transport to a health facility is a major cause of delay which can lead to maternal and newborn mortality, and therefore the arrangement of transport ahead of time is necessary to eliminate that delay. Unfortunately, many households lack transport facilities in their communities.

Table 4.1: Knowledge of existence and importance of transport, blood and finances by the community at the time of delivery

Community Services	Rural		Urban		Total	
	Percent	Number	Percent	Number	Percent	Number
Existence of transport by the community at time of delivery	6.0	21	0.9	3	3.5	24
Importance of community provided transport facility as perceived by respondents	97.7	340	99.7	340	98.7	680
Existence of blood by the community at time of delivery	3.2	11	0.9	3	2.0	14
Importance of community provided blood facility as perceived by respondents	98.6	343	100.0	341	99.3	684
Existence of money by community at the time of delivery	2.6	9	0.3	1	1.5	10
Importance of community provided money facility as perceived by respondents	98.0	341	99.7	340	98.8	681

Table 4.1 indicates that more than 97 percent of the rural population and 99 percent of the urban population believes that the existence of transport in their community is very important. However, only 6 percent in rural areas and less than 1 percent in urban areas indicated that they know of a transport facility. Most communities do not have any arrangement of transport, provision of blood and existence of finances for women at the time of delivery. This is a major obstacle to safe birth practices.

Table 4.1 also depicts that almost every one agreed to the importance of having a community provided blood facility but only 2 percent reported the existence of such arrangements available at the time of delivery. Moreover, more than 98 percent of the respondents reported the importance of having community arranged money at the time of delivery, whereas less than 2 percent have such arrangements already in place in their communities.

Chapter 5

Attitudes Towards Pregnancy, Delivery and the Postpartum Period

This chapter explores the attitudes of married women towards pregnancy, delivery and the postpartum period. Determining these attitudes and beliefs is important for designing strategies that bring about a change in traditional thinking.

Attitudes Towards Age at Marriage

In response to the question of whether or not women should get married soon after puberty, both urban and rural populations yielded similar results. In rural Rawalpindi, 48 percent believe a woman should be married just after puberty, whereas the same percentage believe a woman should not be married soon after puberty. In urban Rawalpindi, 42 percent believe that women should be married soon after puberty, whereas 55 percent disagree with that statement. A deeper look into this issue shows that many families do not value girls' education, and place greater emphasis on marriage. As a result, women are married at an early age, and often do not have the opportunity to obtain any education whatsoever. There is also a link between the years of education obtained by women and the fertility rate of a country (Sathar *et al*, 1988). The younger the age at marriage, the greater the exposure to childbearing.

Attitudes Towards Antenatal Care

Women in both urban and rural areas of Rawalpindi were then asked if they believe pregnant women need to have antenatal check-ups. Overall, prenatal care provides an opportunity to offer preventive care that will benefit the newborn as well as the mother. Prenatal care also allows women to learn about hygiene, the benefits of breastfeeding, nutrition and general health (Mahmood, 2002). An overwhelming majority believe it is necessary for women to receive these check-ups. Therefore, it becomes quite clear that while many women do want to receive antenatal check-ups, and feel that it is a necessary part of antenatal care, many are not able to access this service. Table 5.1 outlines the percentage of respondents who feel that antenatal check-ups are either necessary or not necessary by place of residence.

Table 5.1: Importance of antenatal check-ups

	Rural		Urban		Total	
Should have antenatal check-up	Percent	Number	Percent	Number	Percent	Number
Yes	94.8	330	97.9	334	96.4	664
No	3.7	13	1.8	6	2.8	19
Don't know	1.4	5	0.3	1	0.9	6
Total	100.0	348	100.0	341	100.0	689

Antenatal care also encourages mothers to be more aware of their own health as well as the health of their babies. When asked to state in which month of pregnancy a woman should receive antenatal attention, the responses varied. The table 5.2 below outlines the different responses and opinions.

Table 5.2: Month of pregnancy when women should obtain antenatal care

Month	Rural		Urban		Total	
	Percent	Number	Percent	Number	Percent	Number
1	16.1	53	14.7	49	15.4	102
2	13.0	43	16.5	55	14.8	98
3	19.1	63	19.8	66	19.4	129
4	8.5	28	6.9	23	7.7	51
5	6.4	21	6.9	23	6.6	44
6	3.3	11	0.9	3	2.1	14
7	2.4	8	0.9	3	1.7	11
8	0.3	1	0.0	0	0.2	1
As soon as possible after pregnancy	11.8	39	17.1	57	14.5	96
When check-up is needed	10.3	34	12.9	43	11.6	77
Don't know	8.8	29	3.6	12	6.2	41
Total	100.0	330	100.0	334	100.0	664

Most of the women interviewed believe that an antenatal check-up should occur in the first three months of the pregnancy, and almost fifteen percent stated that the check-up should be as soon as possible after pregnancy. However, 11.6 percent of the married women indicated that an antenatal check-ups are only necessary in the event that they are needed.

Moreover, the number of antenatal visits respondents thought necessary is a good indicator of education, awareness and decision-making abilities. As mentioned earlier, a majority of the women interviewed indicated that they are in favor of antenatal care. However, the number of visits (as outlined in table 5.3) believed necessary seemed to be disproportionately low when compared to the response received in table 5.1.

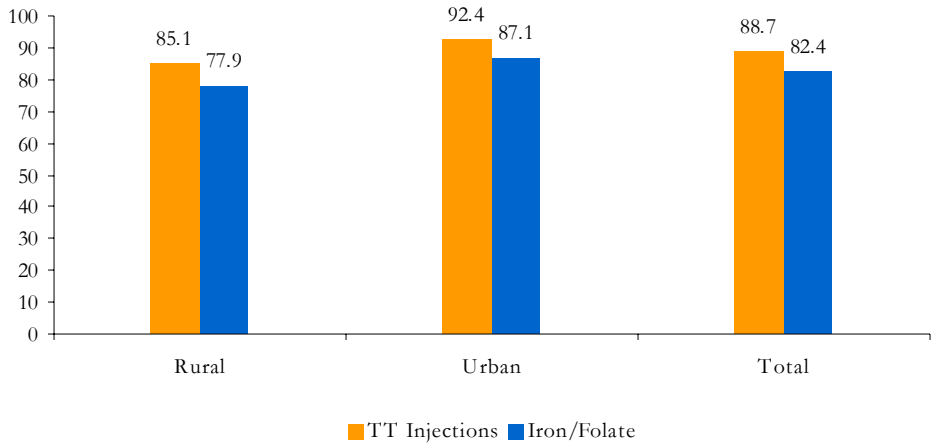
According to the table, most women believe that three or four antenatal visits are needed during pregnancy. However, more than 24 percent (the highest number of women) indicated that they would

have antenatal check-ups only when necessary. This gives rise to the question of access to antenatal care and the obstacles that stand in the way of women. Traditional and financial barriers, along with lack of transport may stand in the way.

Table 5.3 : Number of antenatal visits considered necessary by respondents

Number	Rural		Urban		Total	
	Percent	Number	Percent	Number	Percent	Number
1	0.9	3	0.9	3	0.9	6
2	3.9	13	1.2	4	2.6	17
3	15.5	51	6.6	22	11.0	73
4	14.8	49	8.7	29	11.8	78
5	6.4	21	8.4	28	7.4	49
6	7.9	26	6.6	22	7.2	48
7	7.6	25	7.5	25	7.5	50
8	3.0	10	5.4	18	4.2	28
9 +	14.2	47	23.7	79	19.3	126
When check-up is needed	20.6	68	27.9	93	24.3	161
Don't know	5.2	17	3.0	10	4.1	27
Total	100.0	330	100.0	333	100.0	663

Figure 5.1: Percentage of married women who thought it necessary to receive TT shots and take iron/folate tablets during pregnancy



Health education can help women become better aware of pregnancy-related care. For example, according to figure 5.1, 15 percent of the women in rural Rawalpindi and 7.6 percent of the women in urban Rawalpindi believe that TT shots are not necessary during pregnancy. The proportion of women who fail to realize the importance of iron/folate supplements during pregnancy is also quite high. Just under a quarter of the women in rural Rawalpindi thought it unnecessary to take iron/folate supplements, whereas 13 percent in urban Rawalpindi believed the same thing, as depicted in figure 5.1.

Attitudes Towards Delivery

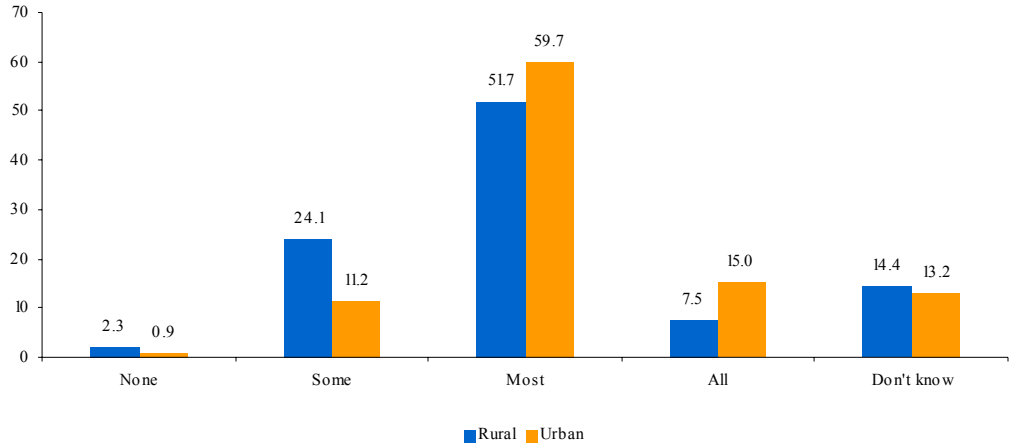
Many families prefer the traditional practice of employing Traditional Birth Attendants (TBAs) or Dais to assist with deliveries. These TBAs/Dais have vast experience but no formal training and therefore do not qualify as skilled birth attendants. However, many families do not realize the impact a lack of training can have on childbirth, and choose to opt for TBAs over health professionals. In fact, when asked if women should receive delivery services from Skilled Birth Attendants (SBAs), approximately 4 percent in both urban and rural areas disagreed with the idea of a skilled birth attendants assisting a delivery. Almost the same percentage of married women indicated that they are unsure as to whether or not they want assistance from a health professional. While the numbers for Rawalpindi may not seem exceptionally high, it is important to keep in mind that traditional deliveries are still preferred in Pakistan, more in some areas than in others.

Table 5.4: Respondents who believe that women should receive delivery services from health professional

	Rural		Urban		Total	
Number	Percent	Number	Percent	Number	Percent	Number
Yes	89.6	311	94.1	320	91.8	631
No	4.0	14	3.5	12	3.8	26
Don't know	6.3	22	2.4	8	4.4	30
Total	100.0	347	100.0	340	100.0	687

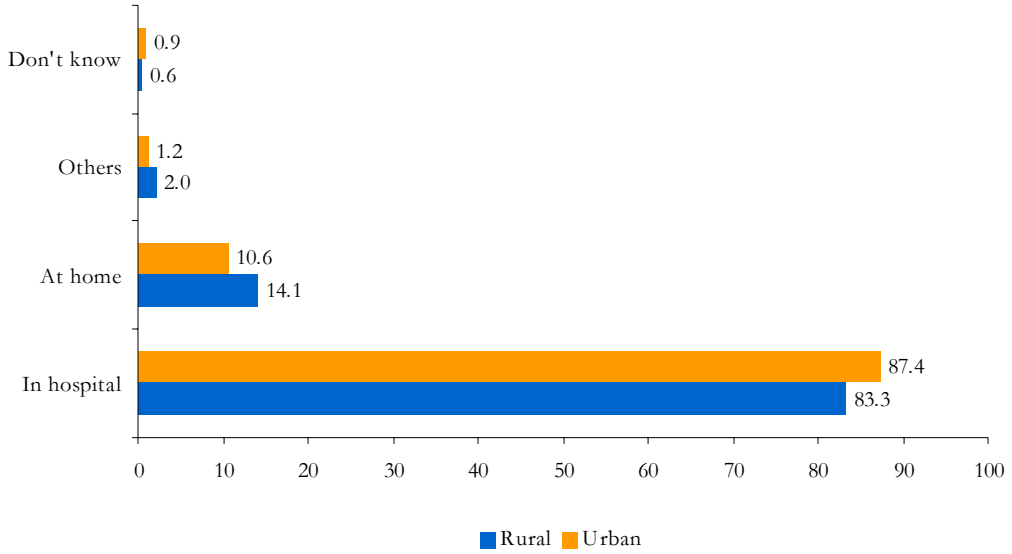
According to figure 5.2, over 50 percent of the respondents indicated that 'most' of the pregnant women in their communities obtain delivery services from SBAs. About 8 percent in rural areas and 15 percent in urban areas reported that 'almost all' women use SBAs for the deliveries.

Figure 5.2: Percentage of respondents who believe women in their community obtain delivery services from SBAs



As in Figure 5.3 below, most respondents in urban and rural Rawalpindi prefer to deliver at a hospital; however, a sizable portion of the population still deliver at home.

Figure 5.3: Perception of respondent regarding place of delivery



A possible reason why some women still deliver at home may be that they are unable to make major decisions independently, and must rely on their husbands or in-laws. Respondents were asked to indicate the person in their communities who should take charge of a pregnant woman and should be responsible for making the important decisions regarding her health. According to table 5.5 below, only one-third of the women in urban Rawalpindi and one-eighth of the women in rural Rawalpindi indicated that a pregnant woman should be given the freedom to take care of herself. A majority of the respondents believe that the woman's husband must make important decisions regarding pregnancy.

Table 5.5 : Person who should make decisions regarding the health of a pregnant women

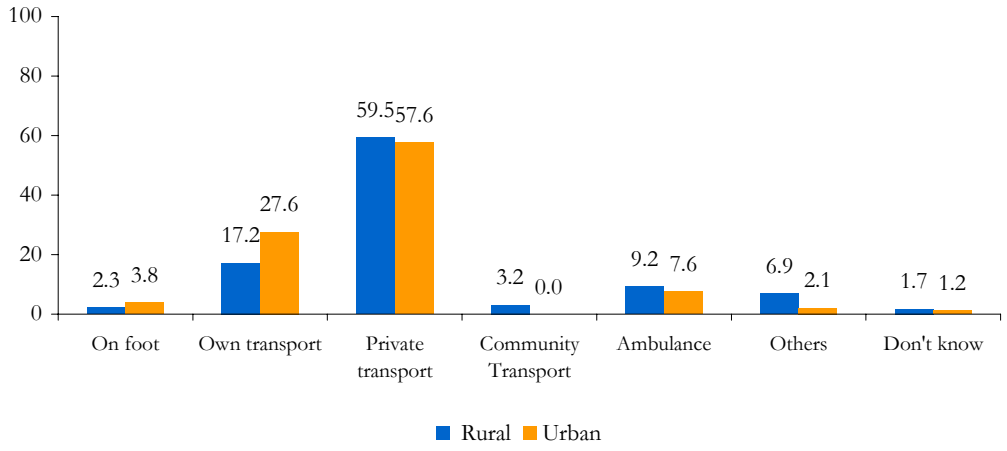
	Rural		Urban		Total	
Person	Percent	Number	Percent	Number	Percent	Number
Pregnant woman	13.5	47	32.4	110	22.9	157
Husband	56.2	195	46.2	157	51.2	352
Other family members	17.6	61	13.2	45	15.4	106
TBA/Dai	1.2	4	0.6	2	0.9	6
Others	7.5	26	6.2	21	6.8	47
Don't know	4.0	14	1.5	5	2.8	19
Total	100.0	347	100.0	340	100.0	687

Given these data, many women may not be allowed access to health facilities and SBAs even if they want to. Table 5.5 also indicates how family members often have a major impact on the decisions made regarding the health of an expectant mother. Since women are largely not allowed to make their own decisions, they are unable to seek medical care when they deem necessary, and often do not make decisions such as the location of delivery.

Finally, respondents were asked to indicate the mode of transportation they planned to use in order to reach a health facility at the time of delivery. Only 17 percent in rural areas and 28 percent in urban areas had their own transportation, whereas 60 percent indicated that they would hire private

transport. About 2 percent of the population indicated that no mode of transport is available to them, and that they would walk to the health facility in time of need. About 3 percent cited community transport would be their main source of transportation; however, the reliability of such forms of transportation is questionable.

Figure 5.4: Percentage of married women by mode of transport they would use to reach a health facility



In urban Rawalpindi, a greater number of people have their own transport; however, 57 percent still rely on hiring private transport to get to a health facility on time. Transportation to a health facility can be a critical and fatal delay in the childbirth process.

Attitudes Towards Postpartum and Neonatal Care

The importance of postnatal care is often undervalued. Postnatal care ensures that both mother and newborn are in good health and monitors the recovery process of new mothers. However, when asked if women require postnatal care, a large segment of the population indicated that postnatal care is not necessary. Surprisingly, the proportion of those women who feel postnatal care is unnecessary is higher in urban centers than in rural areas.

Table 5.6: Necessity of postnatal care

	Rural		Urban		Total	
Need postnatal	Percent	Number	Percent	Number	Percent	Number
Yes	57.2	199	50.4	172	53.8	371
No	38.5	134	45.5	155	41.9	289
Don't know	4.3	15	4.1	14	4.2	29
Total	100.0	348	100.0	341	100.0	689

In rural Rawalpindi, more than 38 percent of the married women feel that postnatal care is not necessary. In urban Rawalpindi, 46 percent felt the same way. These numbers prove that people are not aware of the complications that can arise following birth, and may ignore symptoms. A large number of maternal deaths occur during the first 48 hours after birth (JHPIEGO, 2004). "In spite of the high risk associated with the postpartum period, people seem to know very little about health practices during this period." (JHPIEGO, 2004, pp 142).

Furthermore, in both urban and rural areas of Rawalpindi, most respondents believed that only some women in their area received postnatal care. According to table 5.7, one-fifth of the women in rural Rawalpindi believe that none of the women in their area receive postnatal care.

In urban areas, the proportion of women who believed that none of the women in the area receive postnatal care is 10 percent. Since about 15 percent of pregnant women require emergency obstetric care to prevent mortality, it is important to have regular postnatal check-ups. A lack of knowledge during the postpartum period may lead to inappropriate or delayed care-seeking, which may result in maternal morbidity or mortality.

Table 5.7: Number of postnatal care visits women should have in the community

	Rural		Urban		Total	
Number of visits	Percent	Number	Percent	Number	Percent	Number
None	19.5	68	10.6	36	15.1	104
Some	44.5	155	40.6	138	42.6	293
Most	13.8	48	15.6	53	14.7	101
All	1.7	6	1.8	6	1.7	12
Don't know	20.4	71	31.5	107	25.9	178
Total	100.0	348	100.0	340	100.0	688

Coverage of Lady Health Workers

Women were asked if a Lady Health Worker (LHW) has been to their community. According to table 5.8 below, more than 75 percent of the population in rural areas answered yes to this question, with only 21 percent saying that no LHW had been to their community. In urban Rawalpindi, only 28 percent of the population indicated that a LHW had been to their community, whereas 54 percent in these communities stated that no LHW had visited.

Table 5.8: Presence of lady health worker in the community

	Rural		Urban		Total	
Has LHV in the area	Percent	Number	Percent	Number	Percent	Number
Yes	75.3	262	28.2	96	52.0	358
No	21.3	74	54.3	185	37.6	259
Respondent herself is LHW	0.3	1	0.6	2	0.4	3
Don't know	3.2	11	17.0	58	10.0	69
Total	100.0	348	100.0	341	100.0	689

In the communities where LHWs are available, 75 percent of the population in rural Rawalpindi claimed that a LHW had been to their house during the last three months; however, only 35 percent of the population in urban Rawalpindi was able to make the same claim.

Table 5.9: LHW ever visited home during last three months

Ever visited	Rural		Urban		Total	
	Percent	Number	Percent	Number	Percent	Number
Yes	74.8	196	35.4	34	64.2	230
No	25.2	66	64.6	62	35.8	128
Total	100.0	262	100.0	96	100.0	358

LHWs are more likely to be placed and working in rural areas, as opposed to urban areas where there are a greater number of health facilities available. However, it may also be possible that urban centers are more densely populated, thus making it more difficult for LHWs to reach most households.

Chapter 6

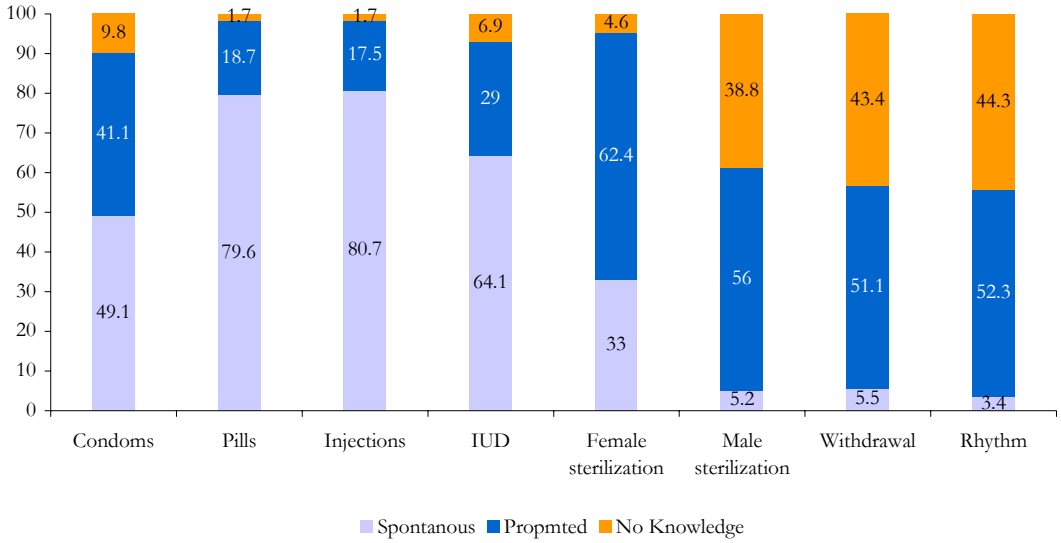
Contraceptive Knowledge and Use

Respondents were asked to name the ways in which a couple could delay or avoid a pregnancy. If the respondent did not spontaneously mention a particular method, the interviewer described different methods and asked the respondent to indicate if she recognized them. In the questionnaire, descriptions were included for six modern contraceptive methods and two traditional methods.

Knowledge of Contraceptive Methods

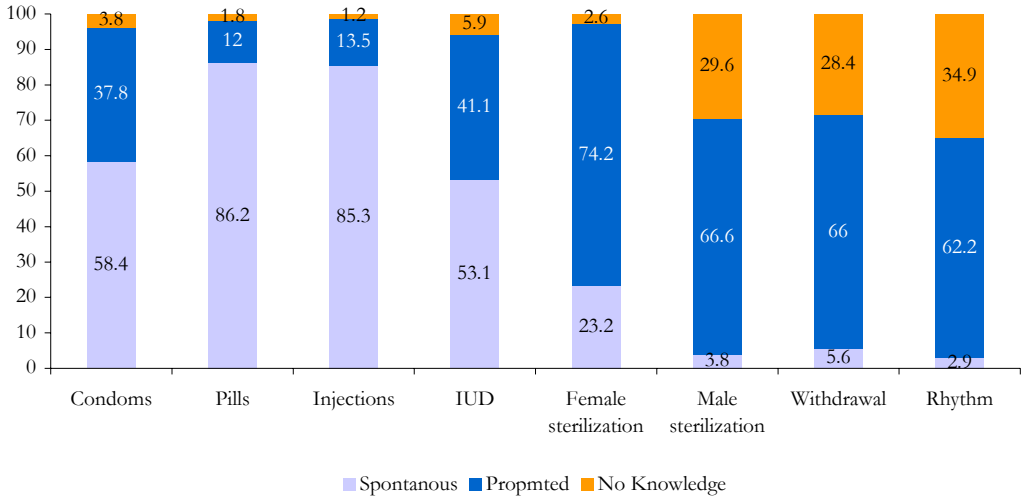
Many women are unaware of the different types of contraceptives that may be used to either delay or prevent pregnancy. Knowledge of contraception is an important step towards reproductive choice.

Figure 6.1: Percentage of married women by knowledge of specific contraceptive method – rural Rawalpindi



According to Figure 6.1, the most widely known methods in rural areas are the injection (81 percent), the pill (80 percent), IUD (64 percent) and condoms (49 percent). However, fewer women had heard of female (33 percent) and male sterilization (5.2 percent), along with the withdrawal (5.5 percent) and rhythm (3.4 percent) methods. In urban areas, the most widely known methods are the pill (86 percent), injection (85 percent), condoms (58 percent) and IUD (53 percent). Once again, fewer women had heard of female and male sterilization (23 percent and 3.8 percent respectively), along with the withdrawal (5.6 percent) and rhythm (2.3 percent) methods.

Figure 6.2: Percentage of married women by knowledge of specific contraceptive method – urban Rawalpindi



Ever Use of Contraception

When asked if they had ever used any form of contraception, the largest proportion of the respondents indicated that they had used condoms, followed by the IUD and injections. Evidence of male sterilization is almost non-existent in both rural and urban areas, while female sterilization is quite prevalent. The most used contraceptive method was the condom used by 32.7 percent of the couples, followed by the IUD, withdrawal and injections methods. In urban areas condoms were the most popular form of birth control followed by the withdrawal method, while in rural areas condoms and IUDs were the most used methods. Overall 59.7 percent of married women ever used any contraceptive method in Rawalpindi; 57.8 percent in rural and 61.6 percent in urban areas.

Table 6.1 : Ever use of family planning method by contraceptive

Contraceptive method	Place of residence		Total	
	Rural	Urban	Percent	Number
Any method	57.8	61.6	59.7	411
Condoms	29.9	35.5	32.7	225
Pills	14.1	11.1	12.6	87
Injections	17.0	12.9	14.9	103
IUD	18.1	12.0	15.1	104
Female sterilization	9.5	7.3	8.4	58
Male sterilization	0.6	0.3	0.4	3
Withdrawal	12.4	17.9	15.1	104
Rhythm	4.9	10.0	7.4	51

Current Use of Contraceptive Methods

Contraceptive prevalence is defined as the proportion of currently married women aged 15-49 years who were using some method of family planning at the time of the survey. Table 6.2 shows the percentage distribution of married women currently using specific family planning methods. Results indicate that 37 percent of married women are using some form of contraception. Furthermore, 29.2

percent of married women use modern methods while 8.1 percent use traditional methods. Among modern methods, condoms are the most commonly used method, followed by female sterilization (8.1 percent) and IUD (3.5 percent). Withdrawal is being used by 6.7 percent of the married women in Rawalpindi. The same pattern is observed in both urban and rural areas.

Table 6.2: Current use of family planning method by contraceptive

Contraceptive Method	Rural	Urban	All
Any method	33.3	41.6	37.4
Any modern method	28.4	29.9	29.2
Any traditional method	4.9	11.4	8.1
Condom	10.6	15.5	13.1
Pill	1.1	1.8	1.5
Injectables	3.2	2.9	3.0
IUD	4.3	2.6	3.5
Female sterilization	9.2	7.0	8.1
Withdrawal	4.6	8.8	6.7
Rhythm	0.3	2.6	1.5
Other	0.0	0.3	0.1
Not currently using	66.7	58.4	62.6
Number	348	341	689

Source of Contraceptive Supplies

Respondents were then asked to state the source of their contraceptive method. Table 6.3 shows the distribution of current users by most recent source of contraception. Findings show that contraceptive users are much more likely to rely on government sources than private medical sources (55 percent versus 32 percent). More than 12 percent of the respondents who are users indicated that they are uncertain of the source of their contraceptive method. In this case, it may be the husband or other family members who acquire contraceptives for the respondents.

In rural areas, 32 percent of the population stated that they receive their Family Planning (FP) methods from the DHQ/THQs. In urban areas, the percentage of people who receive their contraception from DHQ/THQs is slightly lower at 28 percent.

LHWs are also an important source of contraception in rural Rawalpindi, as almost 19 percent of the population reportedly obtained their family planning methods from them. However, LHWs were not as common in urban Rawalpindi.

Approximately 25 percent of the respondents in urban Rawalpindi stated that they obtained contraceptives at a medical store, whereas only 5 percent stated the same in rural Rawalpindi. Due to the fact that medical stores are more easily accessible in urban centers than in rural districts, more respondents in urban areas are able to obtain contraception from this source.

Table 6.3: Distribution of contraceptive users by source of supply

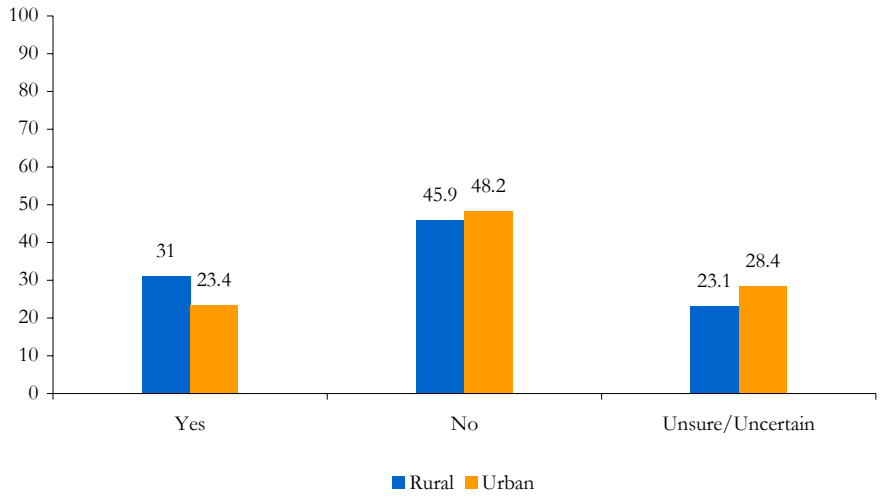
Source/Place	Rural		Urban		Total	
	Percent	Number	Percent	Number	Percent	Number
LHW	19.2	19	2.9	3	10.9	22
TBA/dai	1.0	1			0.5	1
BHU/RHC /MCH center	16.2	16	2.0	2	9.0	18
DHQ/THQ	32.3	32	28.4	29	30.3	61
Private clinic/hospital	9.1	9	14.7	15	11.9	24
Nurse/LHV	3.0	3			1.5	3
FWC/RHSA	1.0	1	4.9	5	3.0	6
Mobile team	1.0	1			0.5	1
Medical store	5.1	5	24.5	25	14.9	30
General store/shop	2.0	2	5.9	6	4.0	8
Others	2.0	2			1.0	2
Don't know	8.1	8	16.7	17	12.4	25
Total	100.0	99	100.0	102	100.0	201

Interestingly, a sizable percentage of the population was unsure of where they obtained contraceptives. This would indicate that many of the respondents are not able to obtain contraception themselves, and are helped by their husbands and other family members in obtaining contraception.

Intentions of Future Use

When the non-users of family planning methods were asked if they would like to use family planning methods in the future, the answers obtained were interesting. Figure 6.3 shows that less than one-third (31 percent) of the married women in rural Rawalpindi said that they would like to use contraception, whereas less than one-fourth (23 percent) of women in urban Rawalpindi stated the same. Almost half of the married women in both urban and rural Rawalpindi (46 and 48 percent respectively) indicated that they do not want to use any contraception or family planning methods. Also surprisingly, a slightly greater percentage of women in urban areas preferred not to use contraception compared to married women in rural areas. It is often assumed that rural communities are more conservative and therefore more hesitant to use contraceptive methods; while urban populations tend to have a better understanding of family planning, and are more willing to adopt means of contraception. This does not seem to be the case in Rawalpindi.

Figure 6.3: Percentage of married women by future intention to use contraceptives



Along with the portion of the women that do not want to use contraception, a large portion of women were also uncertain as to whether or not they want to try family planning methods. This uncertainty may be due to the fact that contraception is sometimes considered dangerous, harmful, wrong or even un-Islamic.

Chapter 7

Behavior Regarding Maternal and Newborn Health

Many of the women who were interviewed were currently pregnant. However, some women, especially those in the early stages of pregnancy, had not yet experienced the full range of events that take place over the nine-month gestational period. Women who had recently given birth were able to provide a full range of information on these events and thus constitute an important part of the sample population in terms of understanding attitudes and behaviors concerning maternal and newborn health. This chapter pertains to the respondents' last pregnancy, given that it was within the past three years. Respondents were asked several questions regarding their experience during their last pregnancy including antenatal and delivery care, complications during pregnancy and delivery, postnatal care, and problems in accessing health care.

Information on antenatal care, delivery services and postnatal care is of great value in identifying segments of married women who do not utilize such services, and it is useful in planning for future improvements in these services. Delivery services are described according to the person assisting and the rate of caesarean section. Information on postnatal care was collected for women who did not give birth in a health facility, and it describes the time since delivery when it was received, as well as the caregiver.

Gestational Age

The respondents were asked to indicate gestational age at the time at which the pregnancy ended. Table 7.1 shows that of those pregnancies that ended in live births, almost 84 percent of them were completed after nine months gestational period, whereas 14 percent of the pregnancies ended before the nine month gestational period. It also shows that all the abortions either spontaneous or induced ended within the first trimester, while stillbirths occurred in 7-8 months of the gestational period.

Table 7.1: Pregnancy outcome by gestational age

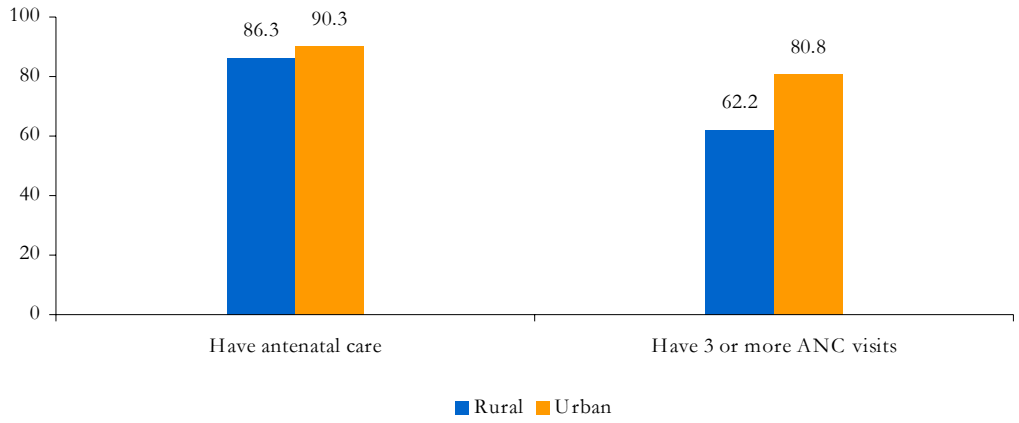
Gestational age when pregnancy ended	Live birth	Still birth	Spontaneous abortions	Induced abortions
Less than 3 months			100	100
6	0.8			
7	1.1	50		
8	13.6	50		
9	83.8			
10	0.8			
Total	100	100	100	100
Number of pregnancies	265	2	15	5

Antenatal Care

In this survey, antenatal care (ANC) is defined according to the type of provider, the number of visits made, and the stage of pregnancy at the time of the first visit, including whether or not tetanus toxoid injections and iron/folate tablets were received. The survey also included questions regarding the antenatal care received by the respondent during the last pregnancy. Interestingly, the responses obtained were overall very positive.

According to Figure 7.1, more than 86 percent of all pregnant women in rural Rawalpindi went for antenatal check-ups. Even better, over 90 percent of the women in urban Rawalpindi had at least one check-up during their last pregnancy. More than 62 percent and 81 percent of the pregnant women in rural and urban areas respectively reportedly had three or more ANC visits.

Figure 7.1: Percentage of respondents who obtained antenatal care



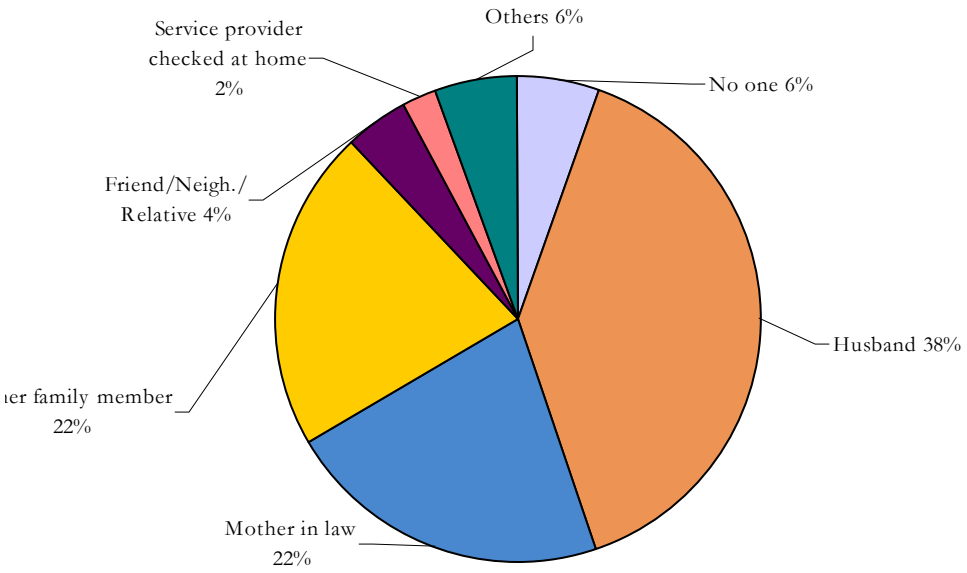
According to table 7.2, of those who went for antenatal care services, more than 67 percent went during the first trimester, 22 percent went during their second trimester and the rest in the third trimester. The median number of visits overall was 5; those medians were 4 in rural areas and 7 in urban areas.

Table 7.2: Gestational age at first antenatal check-up/ number of antenatal check-ups obtained

Check-ups		Rural		Urban		Total	
		Percent	Number	Percent	Number	Percent	Number
Gestational age of pregnancy at first antenatal care visits	0	3.0	4	7.4	9	5.1	13
	1	17.4	23	20.7	25	19.0	48
	2	23.5	31	25.6	31	24.5	62
	3	17.4	23	19.8	24	18.6	47
	4	8.3	11	7.4	9	7.9	20
	5	10.6	14	9.9	12	10.3	26
	6	3.8	5	3.3	4	3.6	9
	7	6.8	9	4.1	5	5.5	14
	8	3.8	5	1.7	2	2.8	7
	9	2.3	3	0.0	0	1.2	3
	Don't know	3.0	4	0.0	0	1.6	4
No. of antenatal check-ups during pregnancy	1	9.8	13	4.1	5	7.1	18
	2	16.7	22	5.8	7	11.5	29
	3	16.7	22	7.4	9	12.3	31
	4	12.1	16	7.4	9	9.9	25
	5	7.6	10	10.7	13	9.1	23
	6	9.1	12	8.3	10	8.7	22
	7	4.5	6	15.7	19	9.9	25
	8	4.5	6	9.9	12	7.1	18
	9	15.2	20	27.3	33	20.9	53
	Don't know	3.8	5	3.3	4	3.6	9
Total		100.0	132	100.0	121	100.0	253

Figure 7.2 shows that most of the women who went for ANCs were accompanied by their husbands (38 percent), followed by other family members (22 percent), and mothers in law (22 percent). There were also 6 percent of married women who reported that they went for ANC services by themselves.

Figure 7.2: Persons accompanying pregnant women to antenatal check-ups



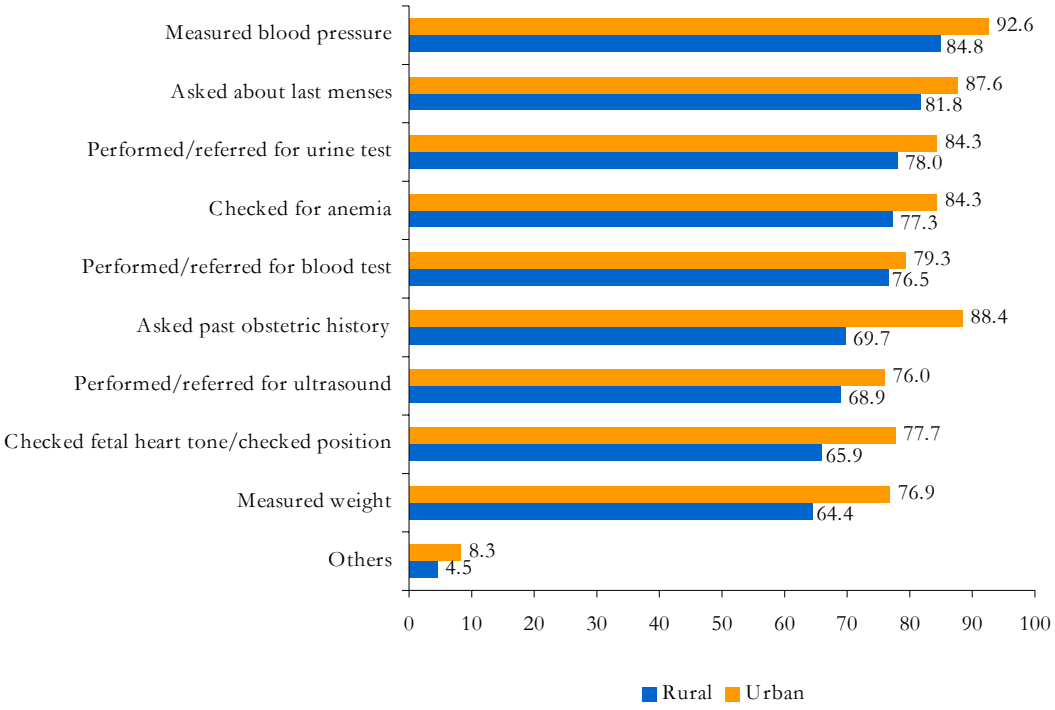
Components of Antenatal care

In Pakistan, it is recommended that every pregnant woman receive the following services: height and weight measurements, blood pressure measurement, urine test, tetanus toxoid immunization, and an abdominal examination. In any antenatal care visit, a woman should be informed of the danger signs of pregnancy, have her weight measured, and provide blood and urine samples for testing. Antenatal care can improve certain outcomes through timely detection and management of possible complications. Antenatal care may improve birth weight and can also identify, treat and prevent iron deficiency and anemia in pregnant mothers.

Respondents were asked to state the number of antenatal check-ups they received, as well as the questions that health providers asked them during those visits. This was to determine the level of care being provided by health care facilities in both urban and rural Rawalpindi. Figure 7.3 outlines the questions asked of, and the tests performed on, pregnant women during their antenatal check-ups in both urban and rural areas of Rawalpindi.

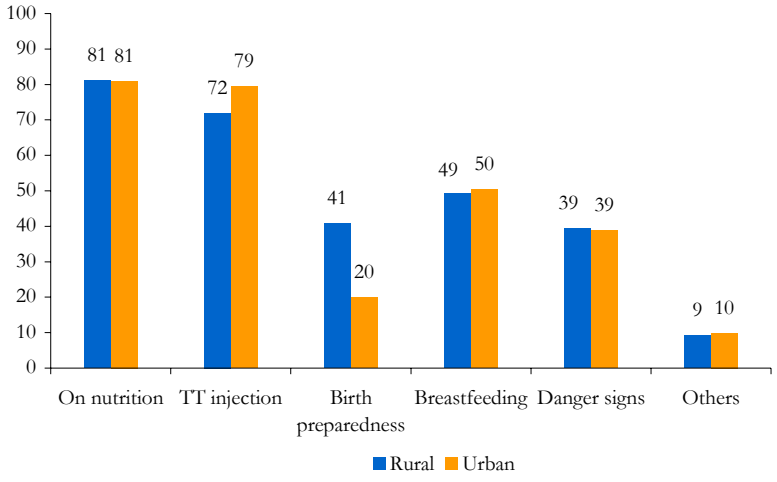
For both urban and rural areas, the percentage of respondents on whom the various tests were conducted appeared to be more or less the same. However, there were a few glaring disparities which must be mentioned. First of all, only 69 percent of the respondents in rural Rawalpindi were asked for their obstetric history during their antenatal visit, whereas 88 percent of their counterparts in urban Rawalpindi were asked the same question.

Figure 7.3: Services performed/ questions asked during antenatal check-up



About 84 percent of the women in urban Rawalpindi were tested for anemia compared to 77 percent in rural women. As anemia is a common condition during pregnancy and can cause serious harm if unchecked, it is surprising that a large proportion of women in rural areas were not tested.

Figure 7.4: Percentage of pregnant women by issues discussed during antenatal check-up



According to figure 7.4, it appears as though all the major issues (with the exception of birth preparedness in urban Rawalpindi) were discussed with a majority of the women during their

antenatal visits. However, less than forty percent of pregnant women were informed of the signs of pregnancy complications.

TT Injections and Iron/Folate Tablets

Respondents were also asked to state whether they took iron and folate supplements and received TT shots during their last pregnancy. In Pakistan, the immunization of pregnant women is enforced by a program coordinated by the Expanded Program on Immunization (EPI) and the Maternal and Child Health Care (MCH) departments at the district level. The program recommends that women receive two tetanus toxoid (TT) injections during their first pregnancy. Booster injections are given once during each subsequent pregnancy to maintain full protection. In recent years, TT immunization has also been given to women before marriage, so that any pregnancy occurring within three years of their marriage would be protected against tetanus.

The findings show that over 72 percent of married women in rural areas indicated that they did in fact receive TT shots during their last pregnancy, whereas 79 percent of the married women made the same claim in urban Rawalpindi. Moreover, 63 percent of the pregnant women in rural areas, along with 72 percent in urban areas reportedly had 2 or more TT shots.

Figure 7.5: Percentage of married women by status of TT injections received during last pregnancy

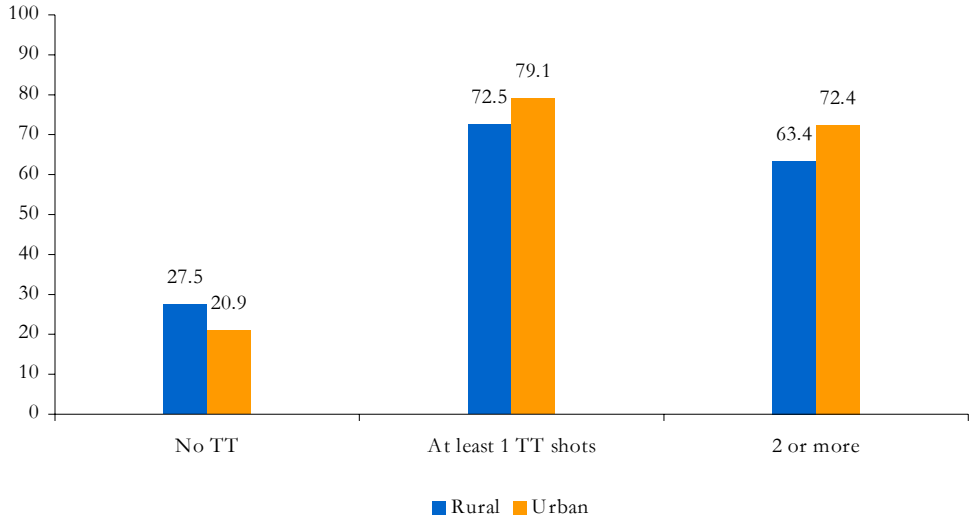
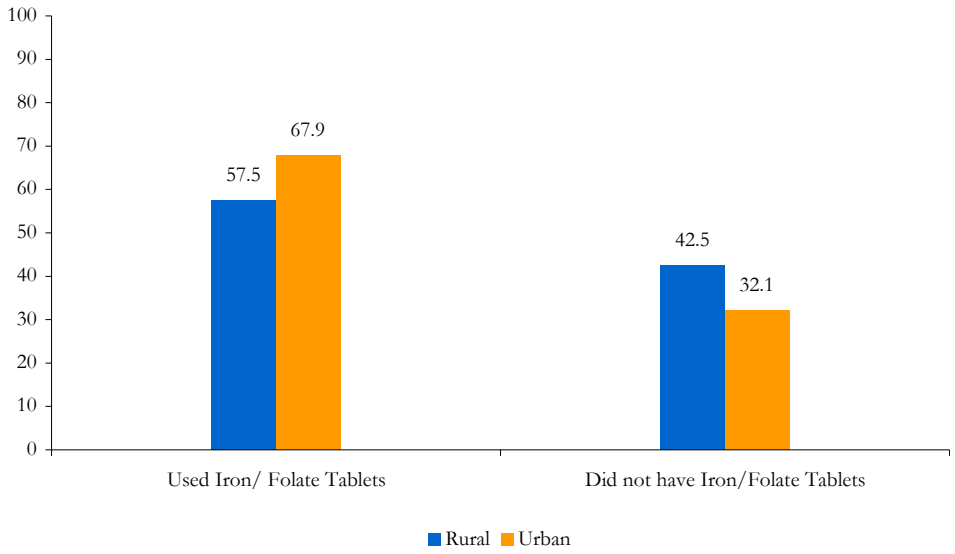


Figure 7.6 shows that more than 57 percent of pregnant women in rural Rawalpindi indicated that they also took iron/folate tablets during their last pregnancy, while the figure was 68 percent in urban centers. Still, a very large portion of rural women (43 percent) and urban women (32 percent) indicated that they took no iron or folate supplements during pregnancy. Lack of education and awareness may be the main reasons why many pregnant women fail to take iron/folate supplements and receive TT vaccinations. Also women may not have the decision-making power to obtain these supplements and vaccinations, and may be dependent upon husbands or family members/in-laws to make these important decisions for them.

Figure 7.6: Percentage of married women by status of iron/folate tablets taken during the last pregnancy



Experience of Complications and Birth Preparedness

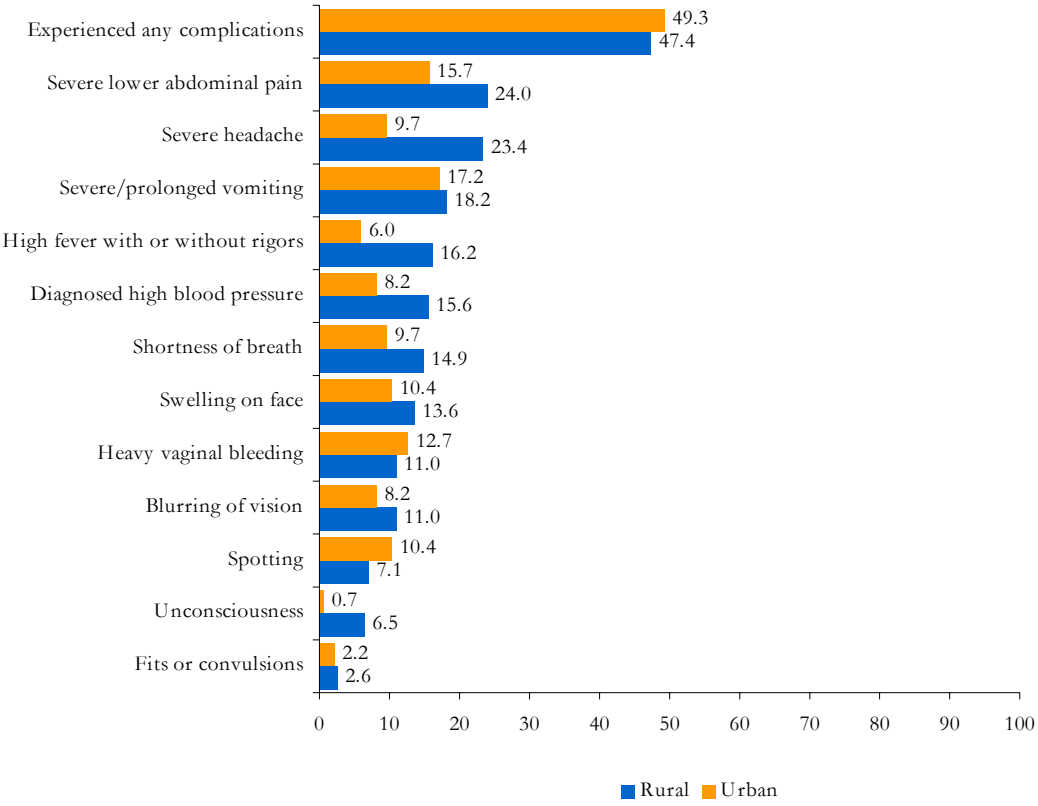
Complications During Pregnancy

To identify complications associated with pregnancy, women were asked about certain signs and symptoms that they had experienced during their last pregnancy within the past three years. Less than 50 percent of both urban and rural married women indicated that they did in fact experience some type of complications.

The percentage of married women who experienced complications during their last pregnancy is higher in rural areas than in urban areas of Rawalpindi. This may be due to the fact that women in rural areas are less aware when it comes to antenatal care, and may therefore fail to obtain proper care during pregnancy. As a result, they may experience more complications. Figure 7.7 shows that 49 percent of urban respondents and 47 percent of rural married women reported some type of complications during pregnancy. Among rural women, 24 percent had severe lower abdominal pain, 23.4 percent suffered from severe headache, and 18.2 percent had prolonged vomiting.

It was determined that urban women are more likely to report "heavy vaginal bleeding" and "spotting" during their pregnancy than their rural counterparts. It is possible that rural women perceive bleeding during pregnancy to be a normal symptom and may therefore fail to report it as a complication. Otherwise, more rural women reported complications during pregnancy than did their counterparts in urban areas.

Figure 7.7: Percentage of married women who experienced complications during their last pregnancy

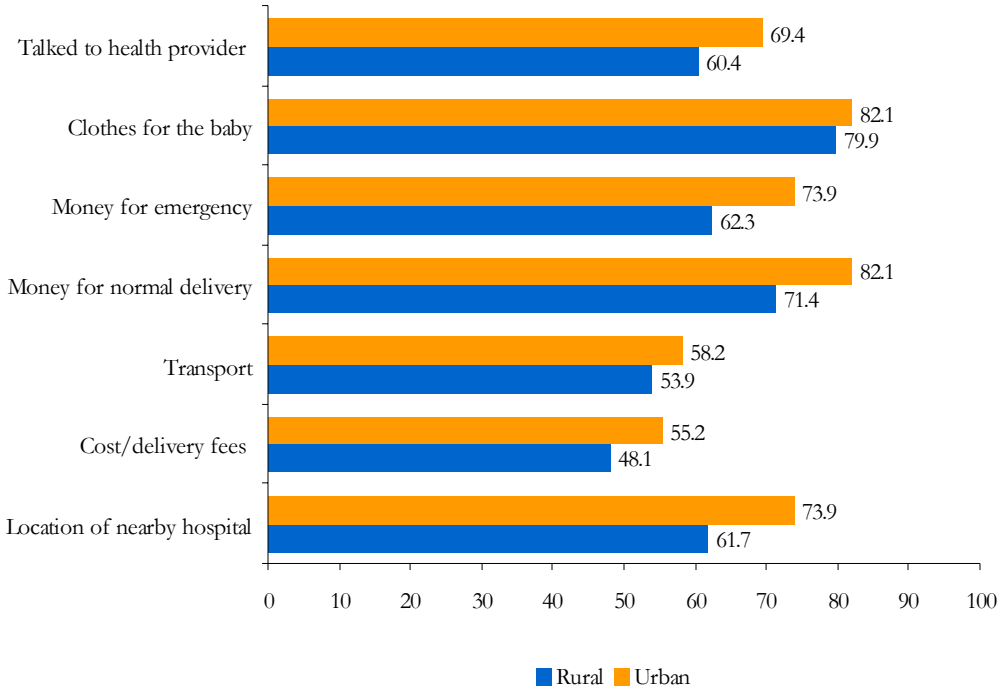


Preparedness for Childbirth

To ensure the safety of the mother and newborn at the time of delivery, certain preparations need to be made. These include deciding who is going to assist in the delivery, where the delivery is going to take place, how the woman is going to get to the place of delivery, and how much the delivery is going to cost. Delivery services, especially emergency obstetric care, are critical for pregnant women. Emergency care is important in the event that a pregnant mother experiences obstructed labor, pregnancy-induced hypertension, eclampsia or severe untreated anemia. Obstructed or prolonged labor is one of the most serious complications that can cause maternal death. Obstetric care can also prevent or treat complications that affect the neonate, such as birth asphyxia.

In the survey, women were asked whether they had discussed any of these specific topics during pregnancy. The questions asked assessed the arrangements that were made for the time of delivery, as well as the removal of various delays, which may affect the health of both mother and baby. Respondents were asked if they had made necessary arrangements regarding transport, money, blood, location and hours of operation of the nearest hospital, as well as clothes for the newborn baby. According to figure 7.8, a very large percentage of women appeared to have made all the necessary arrangements for the time of delivery. Most respondents claimed that they had arranged for transport, money, and hospital fees etc. prior to the time of delivery, therefore eradicating any major delays.

Figure 7.8: Percentage of married women who made arrangements for their last delivery



Three-fourths of the respondents reported they had arranged money for a normal delivery; two-thirds of the respondents arranged money for an emergency; and two-thirds also knew the location of a nearby hospital. Figure 7.8 shows that the urban respondents are much better in making delivery arrangements than rural respondents. Less than half of the respondents in rural Rawalpindi indicated that they had made prior arrangements for the time of delivery. More than 73 percent of the women knew the location of a nearby hospital in urban areas compared to 62 percent in rural areas. Only 55 percent in urban and 48 percent in rural areas knew what the delivery fees were and were aware of the costs that would be incurred at the time of delivery. Moreover, more than four-fifths of the women in urban areas and less than three-fourths in rural areas had made prior arrangements in regards to money which would be needed at the time of delivery.

Delivery Characteristics

When asked about the characteristics of the delivery, fewer than 73 percent of the respondents in rural areas indicated that they had a normal vaginal delivery, and fewer than 69 percent in urban areas said the same thing. The number of assisted vaginal deliveries was about the same in both urban and rural areas; however, the rate of spontaneous abortion was much higher in urban Rawalpindi, than in rural areas. Induced abortions were higher in rural areas than in urban ones.

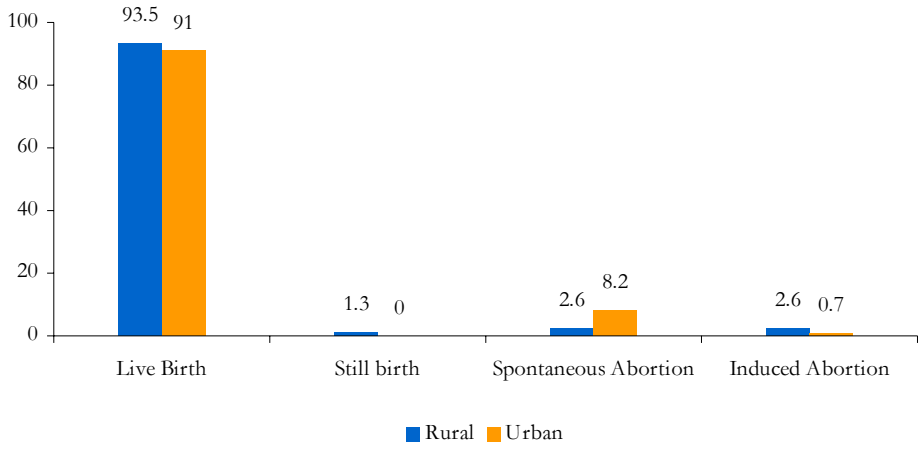
Almost 10 percent of the pregnancies ended with caesarean section deliveries. In Pakistan, caesarean sections are not very common and are generally performed for certain medical reasons and on complicated deliveries only.

Table 7.3: Status of last delivery

Status	Rural		Urban		Total	
	Percent	Number	Percent	Number	Percent	Number
Normal vaginal delivery	72.7	112	68.7	92	70.8	204
Assisted vaginal delivery	11.7	18	12.7	17	12.2	35
Caesarean section	10.4	16	9.7	13	10.1	29
Spontaneous abortion	2.6	4	8.2	11	5.2	15
Induced abortion	2.6	4	0.7	1	1.7	5
Total	100.0	154	100.0	134	100.0	288

The outcome of the pregnancy was recorded with live births making up 93 percent of the total births in rural areas, and 91 percent in urban areas. Figure 7.9 shows that a higher proportion (93.5 percent) of live births were recorded in rural areas compared to urban centers (91 percent). The main difference in the outcomes can be seen in spontaneous abortions, which make up more than 8 percent in urban areas compared to only 2.6 percent in rural areas. However, the proportion of induced abortions is higher in rural areas than urban centers. This difference may be due to the fact that spontaneous abortions are more socially acceptable than induced ones, and induced abortions may therefore be misreported by women.

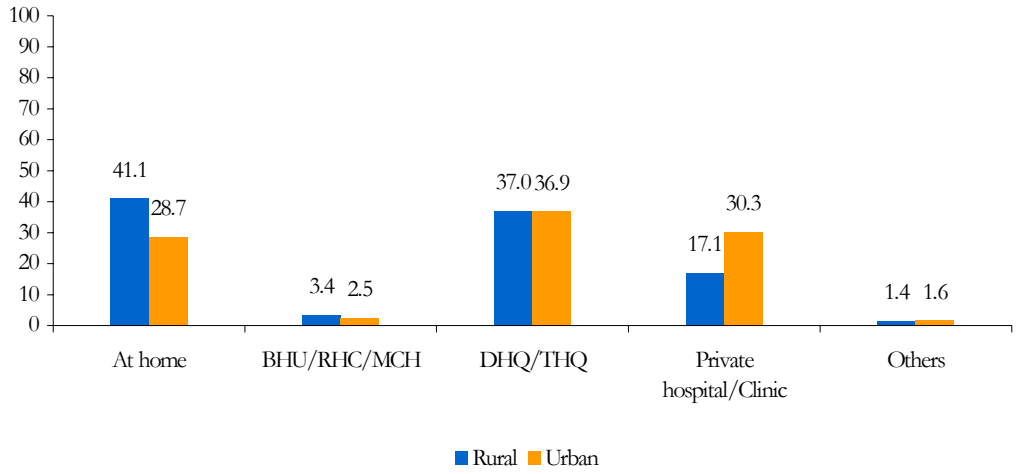
Figure 7.9: Outcome of last pregnancy



Place of delivery

The largest proportion of the women in rural Rawalpindi (41 percent respectively) delivered their babies at home while most urban women (67 percent) delivered in hospitals. Figure 7.10 also shows that 30 percent of the deliveries in urban areas were conducted at private clinics/hospitals, whereas 37 percent were conducted at government health facilities. This fact is interesting considering that over 60 percent of the married women in rural areas, and about 70 percent of the married women in urban areas, claim to have known the location of a nearly hospital. Also, over 50 percent of the respondents in both urban and rural areas claim to have arranged for transport yet, a sizable portion of the population ended up delivering their babies at home. DHQs and THQs were the next most popular choices for place of delivery.

Figure 7.10: Place of delivery



Financial constraint may be the leading cause for women delivering at home, in spite of their desire to deliver their babies at a health facility. Also, women may not be allowed to deliver at a health facility by their husbands, in-laws or family members.

Assistance during Delivery

According to figure 7.11, overall in Rawalpindi TBAs assisted three-fourths of the deliveries which took place at home, whereas only 17 percent of the deliveries were conducted by skilled birth attendants (lady doctors, midwifes, LHV/nurse). Once again, while a large number of respondents prefer the idea of having a doctor deliver their baby, in reality many have access only to TBAs. Also outlined in figure 7.12 are the main reasons for choosing a TBA to assist with deliveries. About 38.6 percent indicated that family choice was the main reason for having a TBA assist with the delivery. Figure 7.12 also shows that 21.4 percent of the married women believe that TBAs are more knowledgeable than other service providers. More than 20 percent of the married women who used a TBA to assist with a delivery also reported having already used the TBA for earlier deliveries. About 7 percent of the women cited geographical proximity as their main reason for choosing a TBA to assist with their delivery.

Figure 7.11: Distribution of births by type of attendant

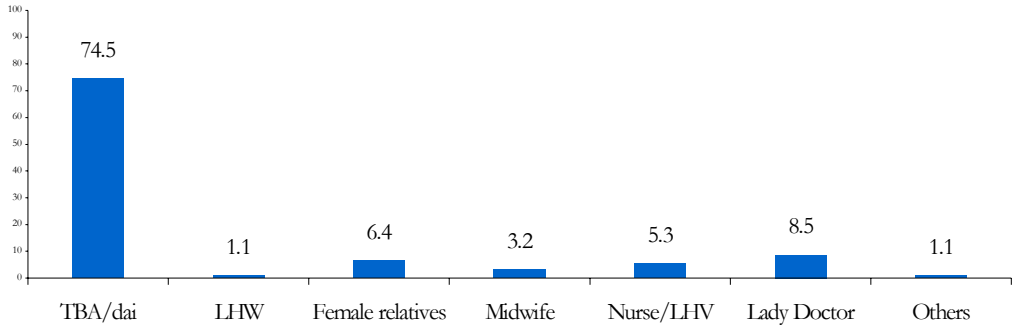
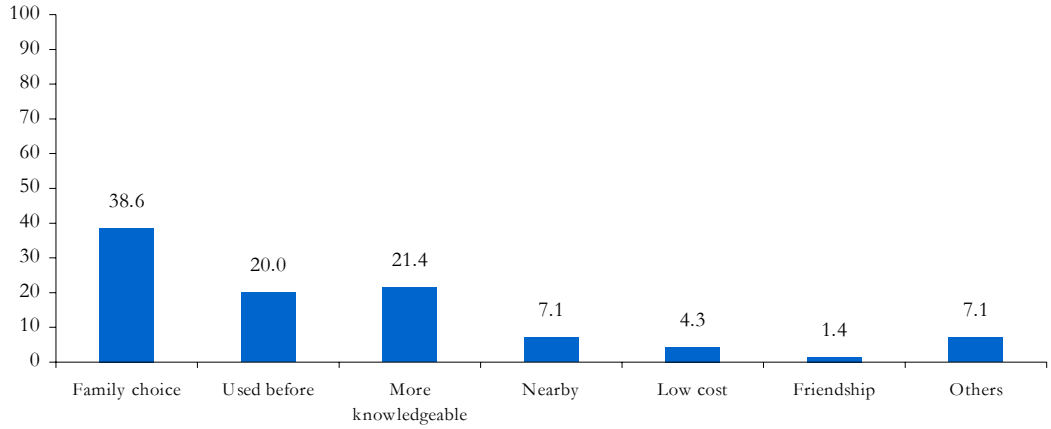


Figure 7.12: Main reason for using a TBA/dai to assist with the last delivery



Clean Delivery Practices

Respondents were asked to state if their TBA followed safe health practices such as washing their hands with soap prior to deliveries and using clean delivery kits. About 79.7 percent of the women in rural Rawalpindi and 68.6 percent of the women in urban Rawalpindi indicated that the TBA who assisted with the delivery washed her hands with soap. However, in case of 10 percent of the rural and 23 percent of the urban deliveries, TBAs did not wash their hands with soap.

Cord cutting methods and instruments were also inquired about in order to determine how hygienic the place and methods of delivery were. About 48 percent of the married women in rural Rawalpindi, and more than 29 percent of the married women in urban Rawalpindi stated that their TBA did use a new blade for cutting the cord. Those who did not use new blade to cut the cord, used scissors/knife (31 percent in rural and 46 percent in urban) and many even did not know what instrument TBA used to cut their cord. Figure 7.13 also shows that in the case of 66 percent of the respondents in rural areas and 57 percent in urban areas, the cord was tied-up with new thread.

Figure 7.13: Percentage of delivery attendants who reportedly washed their hands before conducting the delivery/ type of thread used to tie the cord

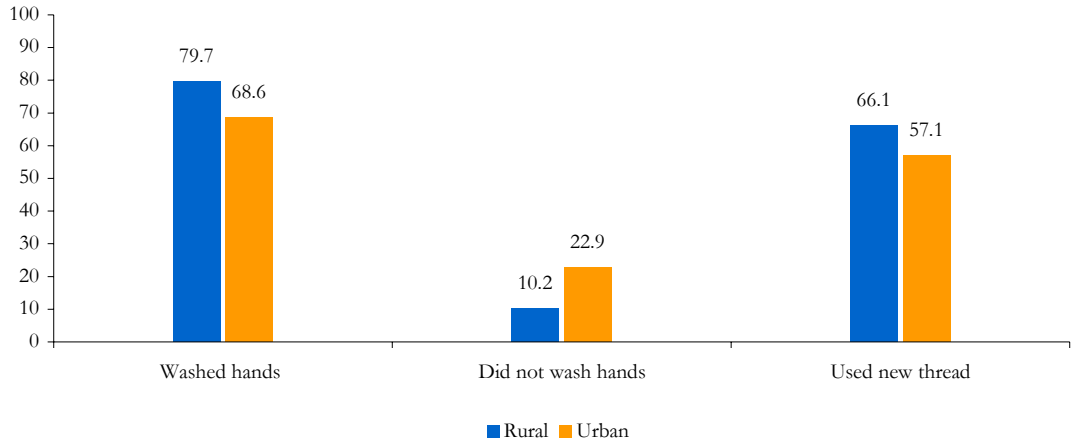
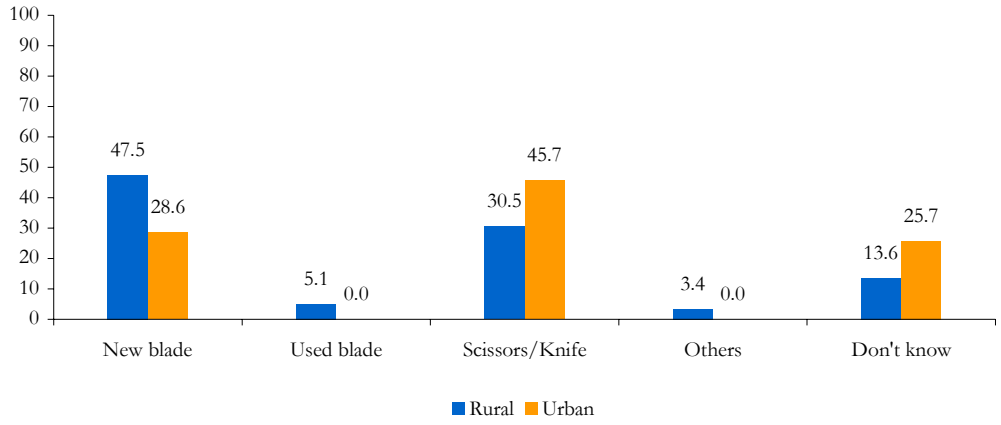


Figure 7.14: Percentage of delivery attendants who reported instruments used for cutting the cord



Complications during Childbirth

During the baseline survey, severe complications during childbirth were also discussed, and respondents were asked to indicate the complications they may have experienced. About 17 percent of the respondents in rural areas indicated that they experienced excruciatingly abnormal pain during their last pregnancy, whereas only 7 percent in urban centers reported the same thing. Premature rupture of membranes, excessive bleeding and prolonged labor were some other complications that were reported.

Table 7.4: Type of complications experienced during the last delivery

Complications	Rural	Urban	Total	
			Percent	Number
Excruciatingly abnormal pain	16.9	6.7	12.2	35
Premature rupture of membranes	13.6	11.9	12.8	37
Excessively postpartum bleeding on day of delivery /abortion	9.7	3	6.6	19
Abnormal position fetus	7.1	4.5	5.9	17
Delay in delivery of placenta/retained placenta	6.5	3.7	5.2	15
Fever	5.8	3.7	4.9	14
Prolonged labor	4.5	6	5.2	15
Bleeding before labor began	4.5	2.2	3.5	10
Tear in vagina, cervix or uterus	2.6	3.7	3.1	9
Prolapsed uterus	0.6	1.5	1	3

Decision-making within family

Delays in seeking care, in reaching adequate health facilities, and in receiving appropriate care at health facilities are recognized barriers to care for pregnant women, and these factors may be especially pronounced for young and older pregnant mothers. Timely and appropriate care provides an opportunity to prevent or manage the direct causes of maternal mortality such as hemorrhage, obstructed labor, infection and hypertensive disorders. It also reduces fetal and neonatal deaths related to obstetric complications. Table 7.5 shows that 30 percent of the respondents in rural areas indicated that their husbands were the ones who made the decision to seek treatment in order to address delivery-related complications, compared to only 13 percent in urban areas. In urban centers, only 17 percent of the respondents indicated that they themselves had the freedom to decide that they needed medical attention compared to one-fourth of the rural respondents. In urban areas, more than 53 percent of the respondents reported that service providers made such decisions for such treatments.

Table 7.5:Person who made decision to seek health care/mode of transport used to reach health facility

Measures taken		Rural		Urban		Total	
		Percent	Number	Percent	Number	Percent	Number
Person who made decision to seek health care	Self	26.0	13	16.7	5	22.5	18
	Husband	30.0	15	13.3	4	23.8	19
	Mother in law	6.0	3	6.7	2	6.3	5
	Other family member	4.0	2	3.3	1	3.8	3
	TBA/Dai	4.0	2	6.7	2	5.0	4
	Others/service providers	30.0	15	53.3	16	38.8	31
Mode of transport to reach health care service	Service provider visited at home	20.0	10	23.3	7	21.3	17
	On foot	2.0	1	3.3	1	2.5	2
	Own transport	24.0	12	26.7	8	25.0	20
	Private transport	50.0	25	43.3	13	47.5	38
	Others	4.0	2	3.3	1	3.8	3

Availability of Transport

The mode of transport to a health facility was also an issue that was discussed during the survey. Table 7.5 shows that most respondents indicated the use of private/hired transport to reach health facilities. Over 20 percent in both urban and rural areas stated that they had a health provider visit their homes, and 25 percent stated that they had their own mode of transport.

Figure 7.15: Time taken to reach the health facility for childbirth

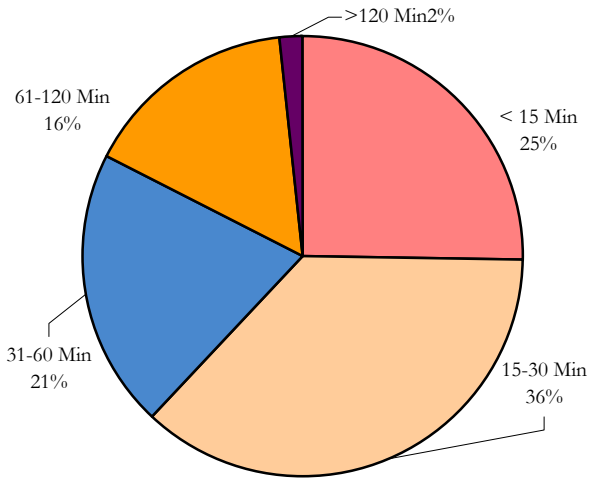
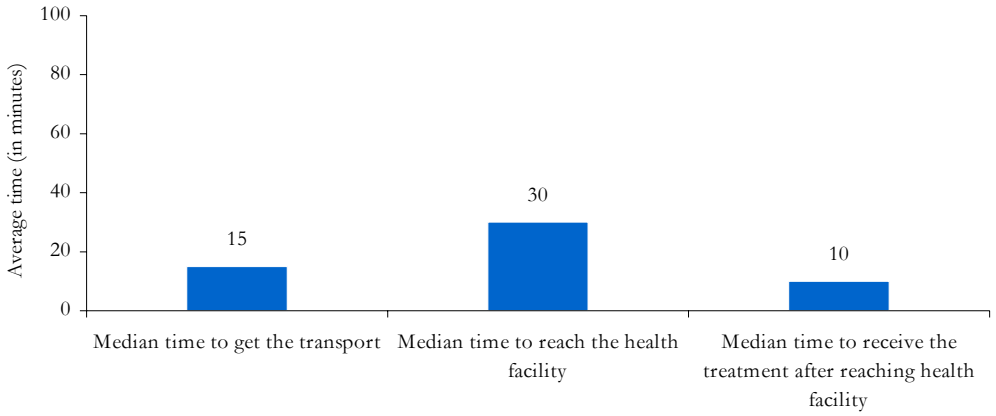


Figure 7.15 shows the distribution of respondents by the time they took to reach a health facility. About 25 percent reached the facility within fifteen minutes while more than one-third of the pregnant women were able to reach the facility within 15-30 minutes. Moreover, 16 percent took one to two hours to travel to reach the health facility to get delivery services.

Figure 7.16 shows the median time to get the transport, to reach the health facility and to obtain the treatment after reaching the facility. It shows that in Rawalpindi it takes only 15 minutes to find a mode of transport for the pregnant women for hospital. On average it took 30 minutes to travel to reach the health facility. Another 10 minutes were the waiting time to obtain the delivery services in Rawalpindi.

Figure 7.16: Average median time to get the transport, to reach the health facility and to obtain the treatment after reaching the facility



Postpartum Care

The postpartum period is a critical time for both the mother and the newborn. Respondents were asked about the quality and level of postpartum care they received after their last delivery. According to table 7.6, a large portion of the married women did not receive any postnatal check-ups after their last pregnancy. More than 36 percent of the married women in rural areas received no postnatal check-up, whereas the figure was 31 percent even in urban Rawalpindi. Among those who went for postnatal care, two-thirds went within 24 hours after the childbirth.

Table 7.6:History of postpartum care

History		Rural		Urban		Total	
		Percent	Number	Percent	Number	Percent	Number
Have a postnatal check-ups	Yes	6.2	9	4.9	6	5.6	15
	No	36.3	53	25.4	31	31.3	84
	Delivered in hospital	57.5	84	69.7	85	63.1	169
No. of days after delivery, have first check-up	Same day	55.6	5	83.3	5	66.7	10
Experienced complications during postpartum period	Yes	16.2	25	16.4	22	16.3	47
	No	83.8	129	83.6	112	83.7	241
Total		100.0	154	100.0	134	100.0	288

Table 7.6 also shows that more than 16 percent of the respondents reported that they experienced complications during the postpartum period. This proportion was almost the same for urban and rural respondents.

Newborn/ Infant Care

The care provided to a newborn upon birth is crucial to the baby's health. Survey questions regarding initial infant and childcare help determine the cause of newborn morbidity and mortality.

Child Care during Birth

Respondents were asked where their child was placed immediately after delivery. While most respondents indicated that their newborns were placed with the mother immediately following delivery, a large percentage indicated that their newborns were placed on either a piece of cloth (20 percent in rural Rawalpindi) or on a mattress (26 percent in urban Rawalpindi). Almost 6 percent of the respondents in rural areas indicated that their newborns were placed on the floor immediately after delivery. Since many babies are in fact delivered at home with the assistance of TBAs/Dais as discussed previously, the care provided to infants may not always be of good quality. Therefore, it is important to record the percentage of the newborns subject to harmful or unhealthy procedures in order to understand the root causes of infant mortality.

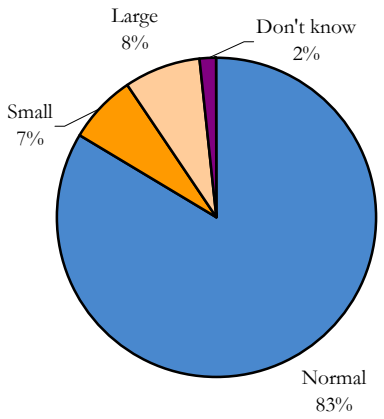
According to the table 7.7, respondents in rural Rawalpindi were more likely than their counterparts in urban areas to place their newborns on the floor immediately after delivery.

Table 7.7:History of newborn care

History	Placed child after	Rural		Urban		Total	
	Delivery	Percent	Number	Percent	Number	Percent	Number
Placed child immediately after delivery	On floor	5.6	8	1.6	2	3.8	10
	On mattress	14.0	20	26.2	32	19.6	52
	On piece of cloth	20.3	29	14.8	18	17.7	47
	Put with mother	38.5	55	34.4	42	36.6	97
	Others	14.0	20	16.4	20	15.1	40
	Don't know	7.7	11	6.6	8	7.2	19
Child dried up/cleaned before giving bath	Yes	80.4	115	85.2	104	82.6	219
	No	2.1	3	2.5	3	2.3	6
	Don't know	17.5	25	12.3	15	15.1	40

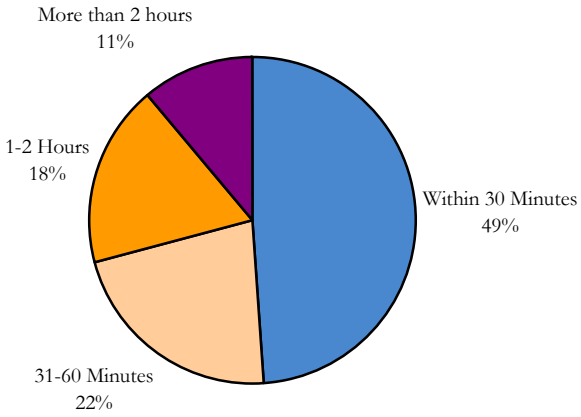
It is not very common to weigh a newborn in a district where most of the births take place at home. For those women who did not weigh their newborns, a question was asked about the size of the baby at the time of birth. Figure 7.17 depicts the percentage distribution of babies by their size at birth. More than 83 percent of the mothers reported that the size of their babies at the time of birth was normal. Only 7 percent reported that their baby was smaller than average, and 8 percent reported that their baby was bigger than average.

Figure 7.17: Percentage of newborns according to their size (small, normal and big) at birth



A question on the practice of bathing babies after the birth was also asked, and figure 7.18 shows the responses. It shows that almost half (49 percent) of the babies were given a bath within the first 30 minutes after their birth. Another 22 percent were given a bath in 31-60 minutes after birth.

Figure 7.18: Duration between the time of birth and the first bath given to a newborn



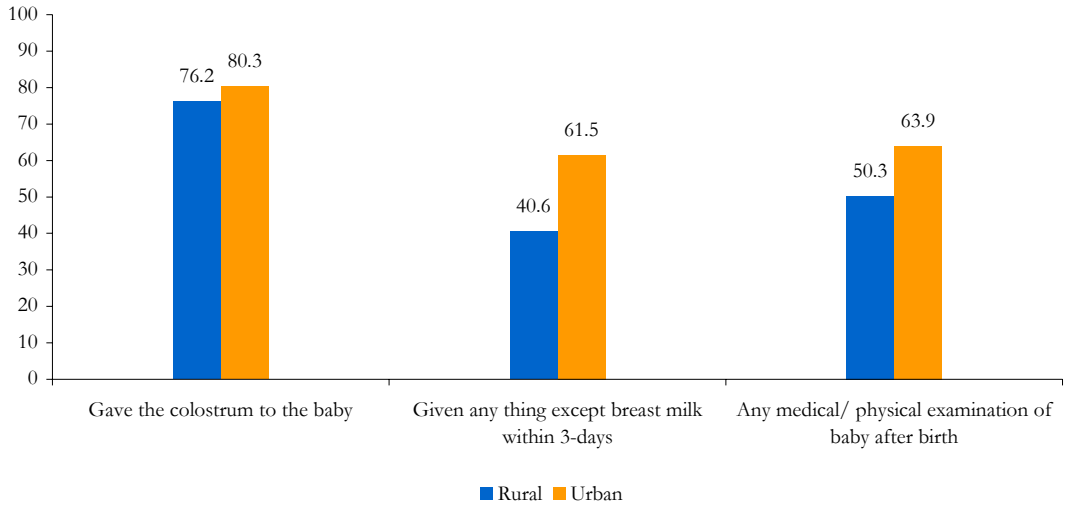
Colostrum and Breastfeeding

Respondents were also asked if they ever had breastfeed their infants. Over 90 percent in both urban and rural areas indicated that they did in fact breastfeed their child. However, the percentage of women who did not breastfeed was higher in rural areas than in urban centers. About 6 percent of the rural population in Rawalpindi indicated that they did not breastfeed their newborns, compared to 3 percent in urban Rawalpindi.

Colostrum is another very important aspect of newborn health, and respondents were asked if they gave colostrum to their newborn babies. In rural areas, three-fourths of the respondents stated that they did give colostrum to their babies, whereas almost a quarter of the respondents indicated that they did not do so. In urban areas, 80 percent of the mothers gave colostrum to their newborn child.

Early initiation of breastfeeding is vital to the health of the newborn; the earlier the initiation, the greater the chance of survival. From those who gave colostrum to their newborns, 24 percent gave it within the first hour of childbirth, while more than 60 percent gave it within twenty four hours. Furthermore, a very large percentage of both urban and rural respondents provided their newborns with food supplements other than breast-milk within the first three days following delivery.

Figure 7.19: Newborn feeding and health indicators



Newborn Medical Check-ups

Respondents were also asked if any physical and/or medical examinations were conducted on the newborn baby. About 49.7 percent of the rural respondents and 36 percent of the urban respondents indicated that their newborns did not have any medical or physical examinations. A lack of physical and medical examinations after birth may potentially result in complications being left undetected and untreated, which in turn could be harmful to the health of a newborn. Respondents were asked to recall any complications or symptoms they noted in their newborn soon after delivery.

Discoloration of the skin (jaundice) was the most widely noted symptom according to figure 7.20, followed by the inability to suckle. Respondents were then asked if they noted any symptoms or complications within the first seven days after birth. Once again, jaundice was the most commonly noted symptom in newborns within the first seven days of their birth (figure 7.21).

Finally, respondents were asked to indicate the measures they took to get their newborn treated once the symptoms mentioned above were noted. The responses are shows in figure 7.22. The highest percentage of women in rural areas (37 percent) indicated that they took their children to the DHQ/THQ to seek treatment. In rural areas, private hospitals and clinics were the most popular choice. However, a sizable portion of both urban and rural women failed to get any treatment at all. This may be due to a lack of the financial resources required to seek assistance, or due to a lack of education, which would result in families failing to realize the magnitude of such complications, especially within the first seven days of birth.

Figure 7.20: Percentage of newborns with danger signs/symptoms soon after deliver

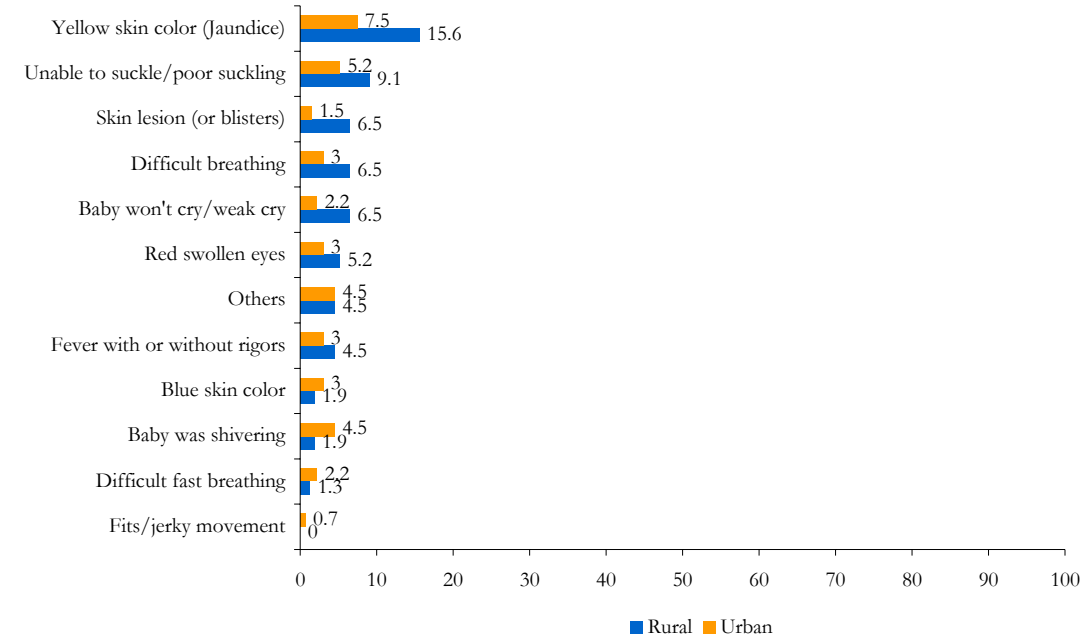


Figure 7.21: Percentage of newborns with danger signs within 7-days after delivery

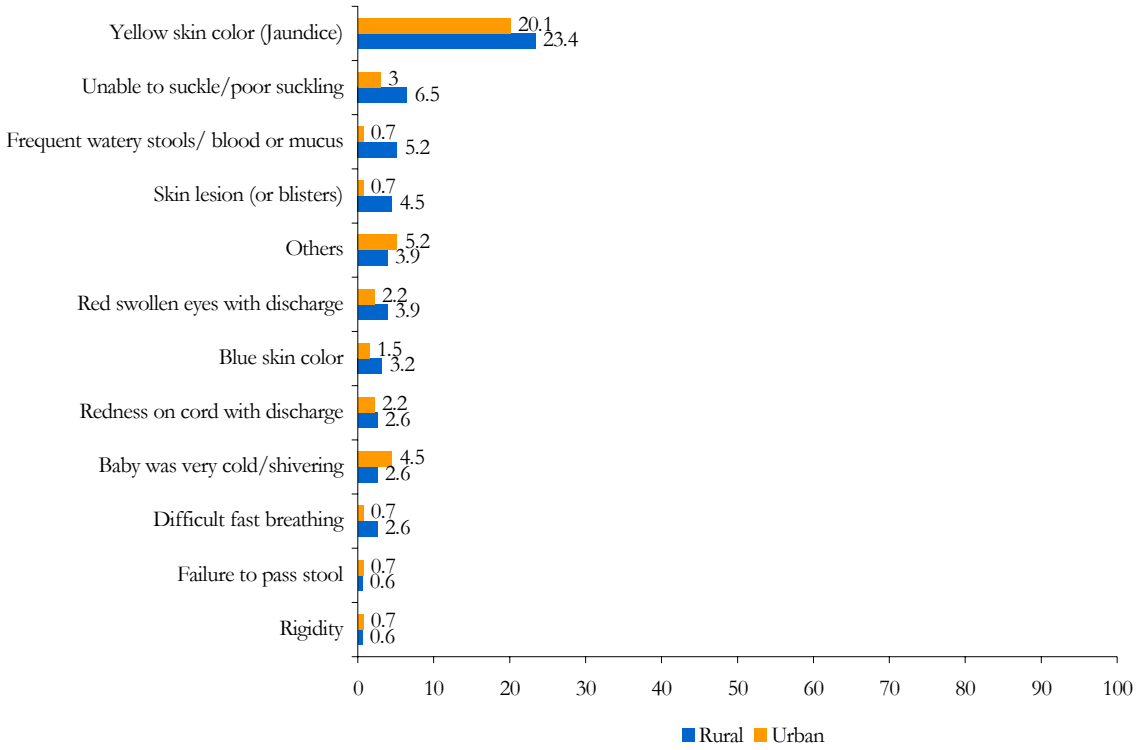
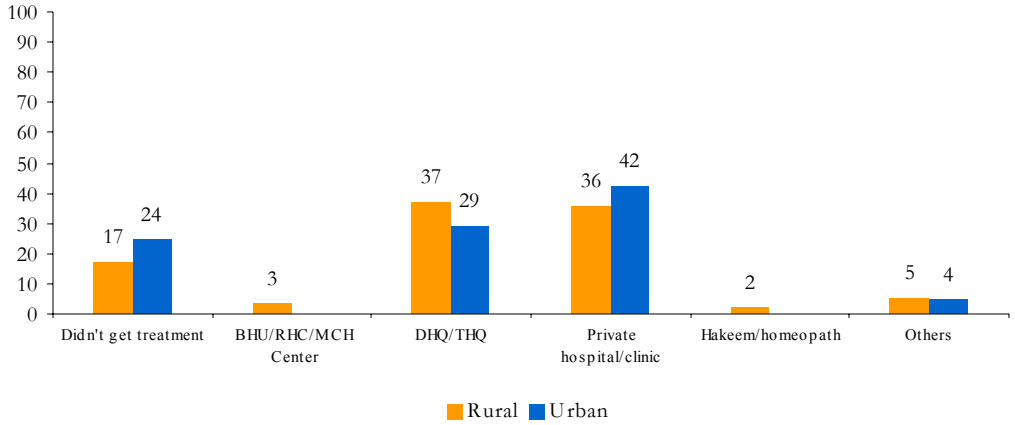
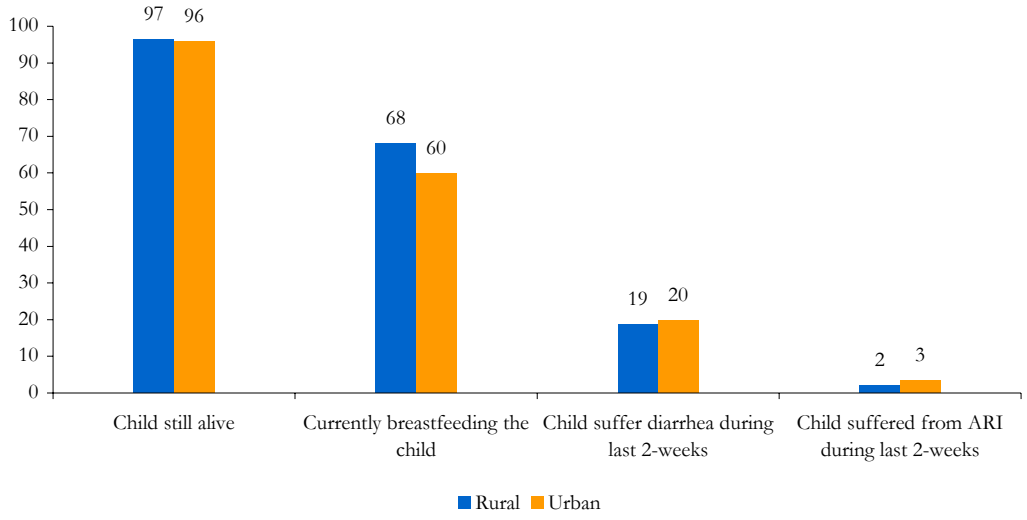


Figure 7.22: Place where treatment was sought for newborn complications



According to figure 7.22, 17 percent of rural women and 24 percent of urban women in Rawalpindi failed to seek treatment when symptoms of complications were seen in their newborns.

Figure 7.23: Status and health of last live birth



Finally, respondents were asked to indicate the status of health of their last child. The results are presented in figure 7.23. Over 96 percent of the children were still alive in both urban and rural Rawalpindi. More than two-thirds of the women in rural Rawalpindi and 60 percent in urban areas were still breastfeeding their children at the time of the survey. A large proportion of respondents indicated that their children had been healthy during the last two weeks and had not suffered from acute respiratory illnesses but almost one-fifth of the children under three years of age had had at least one episode of diarrhea.

Chapter 8

Conclusions

The baseline household survey conducted in Rawalpindi is an essential tool in the process of understanding the different attitudes towards, and misconceptions regarding, pregnancy and neonatal care. Since PAIMAN is intended to improve the health of all pregnant women as well as their newborn children, it is important to understand the obstacles that stand in the way of good health. The baseline survey is based largely on the opinions and experiences of married women of reproductive age (MWRA), the very individuals who are to be the primary recipients of the work carried out through PAIMAN.

The overall age-sex distribution shows a sex ratio of 103, which is better than the sex ratio of 105 obtained in 1998 Population Census. It may be due to the improvement in the overall enumeration of the female population in individual households. Another sign of improvement is in the marital status which clearly demonstrates a delay in age at marriage for females compared to the 1998 Population Census. However, women still tend to get married earlier than men. On average in Rawalpindi, there are 3.5 children ever born and 3.2 living children.

Findings also show that more than three quarters of the population in the district of Rawalpindi has access to some sort of media whether it is television, radio or newspapers. While it may seem relatively easy to reach this large portion of the population through one of the three main media channels, there are some obstacles that stand in the way including the lack of decision-making power for women and the infrequency of access to media. Approximately 22 percent of the population which does not have access to any sort of media would need to be reached through other channels. Even though television and radio are reported to have about the same level of influence on the health behaviors of people, a majority of the women interviewed in both urban and rural areas believe that television is the most trustworthy form of media.

Regarding antenatal care, an overwhelming majority believe it necessary for women to receive these antenatal check-ups. The findings show that more than 86 percent of all pregnant women in rural Rawalpindi, and 90 percent of the women in urban Rawalpindi went for an antenatal check during their last pregnancy. However, less than 50 percent of married women went for three or more antenatal checkups. Therefore, it is quite clear that while many women do want to receive antenatal check-ups, and feel that it is a necessary part of neonatal care, many do not have access to this service. Findings show that all the major issues were discussed with a majority of the women during their antenatal visits. However, less than 40 percent of the pregnant women were informed of the signs of pregnancy complications during the antenatal visits.

Respondents were asked to indicate which complications they believe are dangerous and require medical attention. Only a very small percentage believe that most complications require a doctor's care. The findings show that 32 percent of the married women in rural areas were able to name three or more danger signs during pregnancy, compared to 28 percent in urban areas. More than 20 percent were unable to name a single sign of complications during pregnancy. Their proportion is higher in rural than in urban areas.

The baseline findings show that over 70 percent of the married women in rural areas and 79 percent in urban centers indicated that they did in fact receive TT shots during their last pregnancy. A very large portion of the rural women (43 percent) and urban women (32 percent) indicated that they took no iron or folate supplements during their pregnancy.

Findings also show that even though a majority of the women believe that services during childbirth should be obtained from a hospital, only about 53 percent of the women in rural areas and 60 percent for women in urban areas had their babies delivered through SBAs. While it seems that many women do deliver through health professionals, it may also be said that some women are not allowed to deliver with the help of health professionals even if they want to. This may happen when women are dependant upon their husbands or in-law's when it comes to making major decisions. However, most of the respondents claimed they had arranged for transport, money, and hospital fees etc. prior to the time of delivery, therefore eradicating any major delays.

Almost 10 percent of the deliveries were conducted as caesarean section deliveries. Normally caesarean sections are performed only for certain medical indications and for complicated deliveries. About 17 percent of the respondents in rural areas indicated that they experienced excruciatingly abnormal pain during their last delivery, whereas only 6 percent in urban centers reported the same thing. Premature ruptures of membranes, excessive bleeding and prolonged labor were some other complications that were reported.

Married women in Rawalpindi generally undervalue the importance of postnatal care. The percentage of those who did not feel postnatal care was necessary was higher in urban centers than in rural areas. Furthermore, in both urban and rural areas of Rawalpindi, most respondents believed that only some women in their area received postnatal care.

As in the case of pregnancy, many women are not aware of the complications that may arise during delivery. The findings show that only 10 percent of the women recognize at least three danger signs during delivery. Deliveries can only be made safe if married women are educated regarding the danger signs which may be noted during the delivery so that they can decide when to seek treatment. Innovative approaches are therefore needed to make these communities more aware of issues regarding maternal and newborn health.

Although baseline survey findings indicate that excessive vaginal bleeding is the most known danger sign during the postpartum period, not all women were aware of this fact. Unfortunately, many women are unaware of danger signs that may appear in newborns, especially in the first seven days after delivery. The postpartum period is a critical time for mother and newborn. A very large portion of the married women did not receive any postnatal check-ups after their last pregnancy. More than 36 percent of the population in rural areas received no postnatal check-up, whereas the figure was 31 percent even in urban Rawalpindi. Among those who went for postnatal care, 22.7 percent went within 24 hours after the childbirth.

A very large percentage in both urban and rural areas indicated that they receive their pregnancy-related information from their in-laws, family members and friends. Only 16 percent in rural Rawalpindi indicated that a LHW is the source of their information. District Headquarter Hospitals and Tehsil Headquarter Hospitals are also a source of information for approximately 25 percent of the rural and 27 percent of the urban population in Rawalpindi.

The timely arrangement of transport to a health facility is a major cause of delay and can often lead to maternal and newborn mortality. Unfortunately, many households are unable to do so due to a lack of transportation in their communities. Most communities do not have any arrangement of transport, provision of blood or finances for women at the time of need during delivery. This is a major obstacle for safe birth practices, as women are then forced to deliver at home, and may be exposed to infections and complications. Birth preparedness promotes the arrangement of such aspects.

Baseline results indicate that 37 percent of married women are using contraception in Rawalpindi. Furthermore, 29.2 percent of married women use modern methods while 8.1 percent use traditional methods. Among modern methods, condoms are the most commonly used method, followed by female sterilization (8.1 percent) and IUD (3.5 percent). Withdrawal is being used by 6.7 percent of married women in Rawalpindi. The same pattern is observed in both urban and rural areas but the use is higher in urban areas.

We hope that these data may be used by health officials, NGOs, and other concerned stakeholders to improve the situation regarding maternal and newborn health in Rawalpindi. PAIMAN will use this information to guide its own interventions and to monitor its progress.

References

Caldwell, J., Routes to Low Mortality in Poor Countries. Population and Development Review, Vol. 12, No. 2. (Jun., 1986), pp. 171-220.

Federal Bureau of Statistics, "Socio-Economic Indicators at District Level, Punjab," Statistics Division, Government of Pakistan, (2002).

Hollander, D., Antenatal Education Helps Turkish Women Adopt Health-Promoting Behaviour. International Family Planning Perspectives, Vol. 30, No. 1. (Mar., 2004), pp. 45-46.

JHPIEGO/Maternal and Neonatal Health Program, "Monitoring Birth Preparedness and Complication Readiness: Tools and Indicators for Maternal and Newborn Health," (2004).

Mahmood, Arshad, Determinants of Neonatal and Post-Neonatal Mortality in Pakistan. The Pakistan Development Review, Vol. 41, No. 4, Part II (Winter 2002), pp. 723-744.

Mahmood, Arshad, Socioeconomic Factors, Personal Illness Control and Infant and Child Mortality in Pakistan. Pakistan Population Review, Vol. 3, No. 1 (1992), pp. 67-86.

Martin, Linda G.; J. Trussell; Florentina Reyes Salvail; Nasra M. Shah, Co-variates of Child Mortality in the Philippines, Indonesia, and Pakistan: An Analysis Based on Hazard Models. Population Studies, Vol. 37, No. 3. (Nov., 1983), pp. 417-432.

Nawaz, Shuja, The Mass Media and Development in Pakistan. Asian Survey, Vol. 23, No. 8. (Aug., 1983), pp. 934-957.

Ringheim, Karin, When the Client is Male: Client-Provider Interaction from a Gender Perspective, International Family Planning Perspectives, Vol. 28, No. 3 (Sept., 2002), pp. 170-175.

Robbins, P.T., Global Approaches to Development. Sociology of Development, University of London, (2001), pp. 29-37.

Sathar, Zeba; Nigel Crook; Christine Callum; Shahnaz Kazi, Women's Status and Fertility Change in Pakistan. Population and Development Review, Vol. 14, No. 3. (Sep., 1988), pp. 415-432.

Simmons, George B., Family Planning Programs or Development: How Persuasive is the New Wisdom? International Family Planning Perspectives, Vol. 5, No. 3. (Sep., 1979), pp. 101-110.

Syed, Sabiha H., Communications Channels and Family Planning in Pakistan. Studies in Family Planning, Vol. 10, No. 2. (Feb., 1979), pp. 53-60.

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