

Nutrition Profile

District Jamshoro

Geography¹

Tehsils/ Talukas: 4
Union Councils: 28

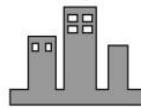
Demography¹

Population 1998: 582,094
Population 2016(est): 919,093
Average Household Size: 5.7
Population Growth Rate: 2.57%

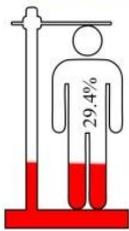
Urban/ Rural Population¹



77 out of 100 persons settled in villages.



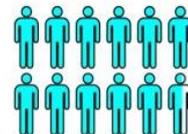
Stunting Prevalence²



29.4% population lied under severe stunting prevalence.

Sex Ratio¹

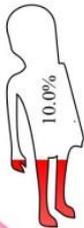
Male
117



Female
100



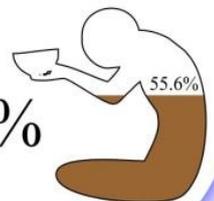
Wasting Prevalence²



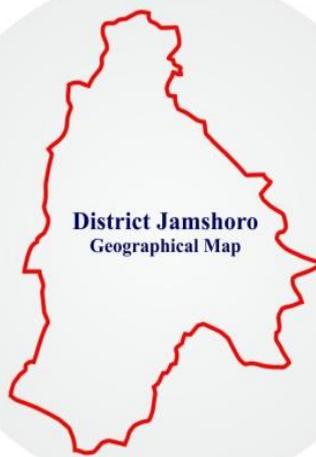
10.0% population lied under severe wasting prevalence.

Poverty Rate³

55.6%

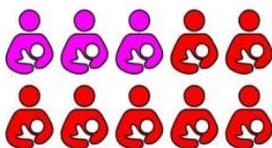


District Jamshoro Geographical Map



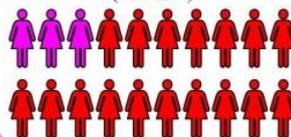
Breast Feeding²

3 out of 10 children are exclusively breastfed.



MDD-W⁴

Only 3 out of 20 women of reproductive age take adequate amount of diversified food groups. (FG ≥ 5)



WASH²

90.6% population uses improved sources of drinking water.



References

1. Pakistan Emergency Situation Analysis (PESA) 2014.
2. Sindh Multiple Indicator Cluster Survey (MICS) 2014.
3. Multidimensional Poverty in Pakistan.
4. Programme for Improved Nutrition in Sindh (PINS) Survey.

1. Jamshoro District

Jamshoro district, created in December 2004 with the division of Dadu district in Sindh province, comprises four talukas (namely Kotri, Manjhand, Thana Bula Khan and Sehwan). The district has a total geographical area of 11,402 square kilometres¹ and its capital is Jamshoro city. It is situated on the west bank of the River Indus and shares its border with the districts of Shaheed Benazirabad, Naushahro Feroze, Matiari, Hyderabad, Thatta, Karachi and Dadu. It also shares a boundary with the province of Balochistan. The geographical position of the district is depicted below in Figure 1:

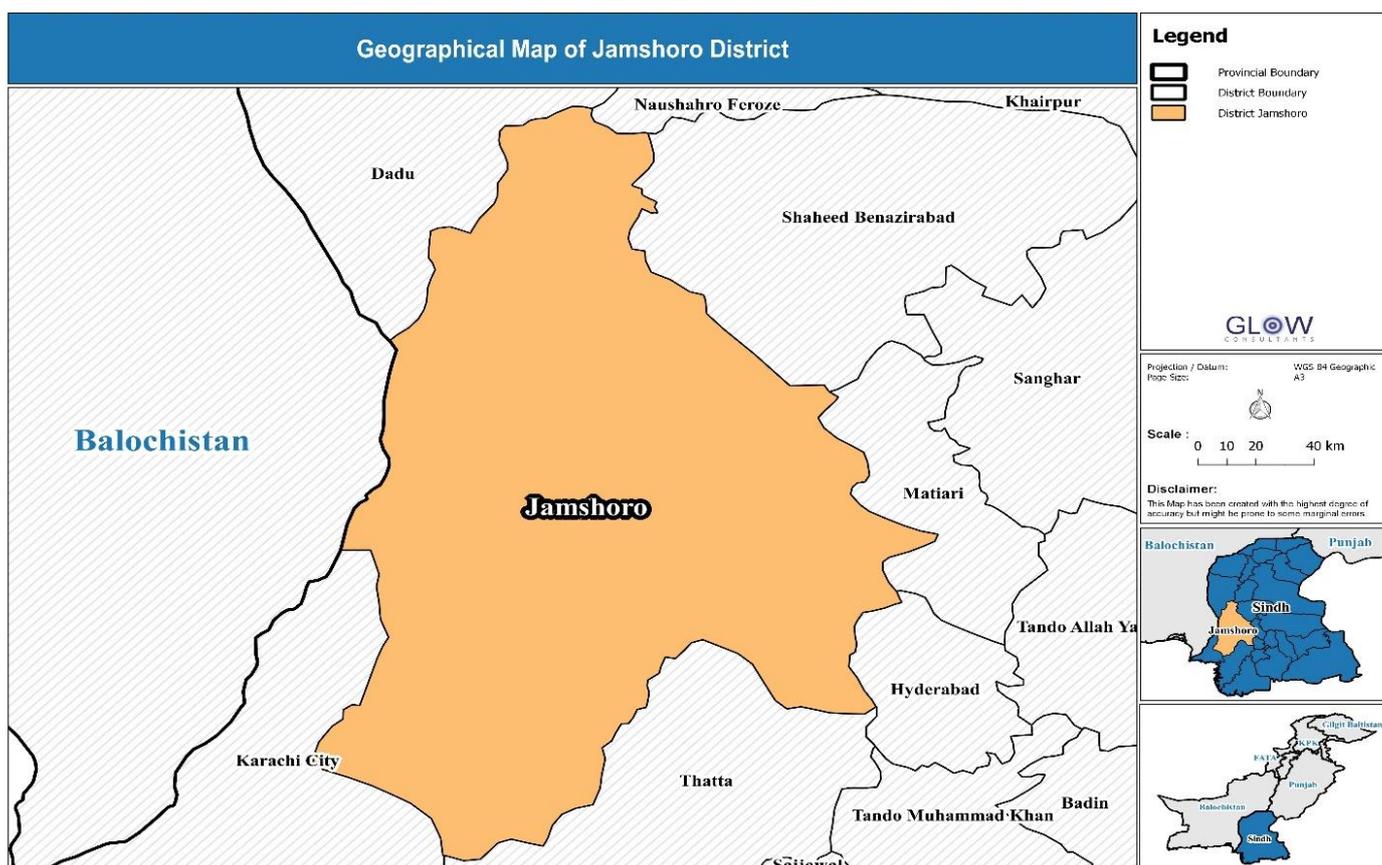


Figure 1: Geographical Map of Jamshoro District

2. Overall Development Situation in Jamshoro District

According to the Human Development Index (HDI) of 2013, Jamshoro is an underdeveloped district with a value of 0.54, which is lower than the gross HDI value of Sindh province (0.59). The index reflects a composite statistic used to rank life expectancy, education and *per-capita* Gross National Income in the area to judge the level of “human development” where Medium Human Development ranges from 0.555 to 0.699 and any score below 0.555 signifies Low Human Development.

When compared with the neighbouring districts, Jamshoro appears to be in second place after Karachi as reflected in Figure 2 below. Jamshoro and all neighbouring districts except Karachi (which is in the Medium Human Development Category) fall into the underdeveloped district category².

¹ USAID/IMMAP Pakistan Emergency Situation Analysis – District Jamshoro, August 2014 Page i

² SPDC Social Development in Pakistan, 2014/15 Page 135

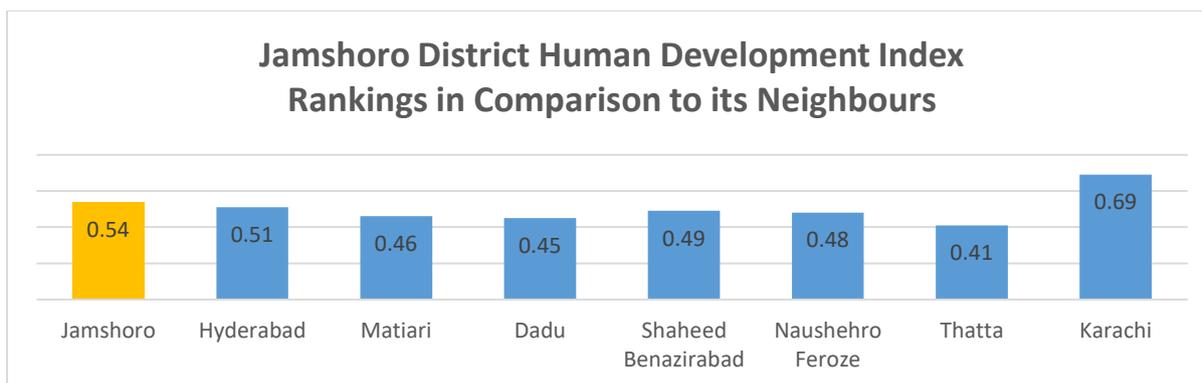


Figure 2: HDI Ranking of Jamshoro District and its Neighbours

3. Demographics

According to a 2016 estimate, Jamshoro has an estimated population of 919,093 individuals (with an annual population growth rate of 2.57%). In 1998, the current area constituting Jamshoro had a population of 582,094. The 1998 census reported the Male-to-Female ratio to be 54:46 while the EU Programme for Improved Nutrition in Sindh (PINS) survey in the district gave a ratio of 51:49. The ratio of men to women in Jamshoro is higher as a result of underreporting of women, a high maternal mortality rate, a preference for son leading to selective abortions, infanticide amongst other reasons. This reflects high discrimination towards women which also leads to poor nutrition situation amongst women as a girl child is less likely to receive same care as a boy child in the same family. In addition, a very high maternal mortality rate, poor healthcare and the non-availability of basic health facilities at district and provincial level are likely to be instrumental to this difference.

Based on the EU profiling exercise for Jamshoro, the distribution of age groups by percentage of the district population is shown in Table 1.

Table 1: Age of the Population in Jamshoro District

Age Group	Male (%)	Female (%)	Total
0-5	10.16%	9.26%	19.42%
6-14	14.57%	12.96%	27.53%
15-18	4.99%	4.74%	9.73%
19-49	18.08%	18.34%	36.42%
50-59	2.80%	2.48%	5.28%
60+	0.72%	0.90%	1.62%
Total	51.32%	48.68%	100.00%

Jamshoro, like most districts in Sindh, can be characterised as rural since 77% of the population resides in rural areas as compared to the 23% that resides in urban areas. According to census data, the average household size is 5.7 members but based on the profiling survey, the average household size is 6.9 members. The Sindhi language is spoken by 84.0% of the total population followed by Urdu (6.3%), Punjabi (4.2%) and Pashto (3.0%). The remaining 2.5% of the population speaks other languages (see Table 2 for key population and demographic figures for the district)³.

³ USAID/IMMAP Pakistan Emergency Situation Analysis - District Jamshoro, August 2014

Table 2: Key Figures for Jamshoro District

Population 1998	582,094
Estimated Population 2016	919,093
Males	496,310 (54%)
Females	422,783 (46%)
Urban	211,391 (23%)
Rural	707,702 (77%)
Languages Spoken	Sindhi (84.0%)
	Urdu (6.3%)
	Punjabi (4.2%)
	Pashto (3.0%)
	Others (2.5%)
Population Annual Growth Rate (1981-1998)	2.57%
Total Households (est. 2016)	161,244
Average Household Size	5.7 persons per household
Population Density	80.60 persons per km ²
Total Area	11,402 km ²

4. Poverty Status

According to the Multidimensional Poverty Report (MPR) of 2014/15, Jamshoro is among the few districts to have witnessed a steady improvement in poverty rates over the years.⁴ In 2008/09, 72.4% of the population of the district was living below the poverty line but this fell to 70.7% in 2010/11 and 67% in 2012/13. In 2014/15, the district registered a poverty rate of 55.6% (which is lower than the provincial average)⁵.

The poverty scorecard survey conducted by the Rural Support Programme Network (RSPN) under the Sindh Union Council and Community Economic Strengthening and Support (SUCCESS) project reports that Jamshoro has the lowest poverty rate (45.9%) of all seven districts surveyed. This survey collected and analysed data against various indicators⁶.

33.5% of households in Jamshoro do not own any durable goods, 36.1% do not own any productive assets and 82.7% do not own any cultivable land. Across all districts profiled by SUCCESS, 56.2% of households do not own any durable goods, 35.8% do not own any productive assets and 83.9% do not own any cultivable land⁷. Approximately 3.6% of the population consists of widows/widowers,

⁴ The MPR includes the Multidimensional Poverty Index (MPI) which is based on the Alkire-Foster methodology and has 3 dimensions: education, health and living standards. To tailor the measure to Pakistan's context and public policy priorities, 15 indicators were used for this national measure instead of the 10 employed for the global measure. Of these 15 indicators, 3 are included under the dimension of education (years of schooling, child school attendance and educational quality), 4 under health (access to health facilities/clinics/Basic Health Units, immunisation, ante-natal care and assisted delivery) and 8 under living standards (water, sanitation, walls, overcrowding, electricity, cooking fuel, assets and a land/livestock indicator specifically for rural areas). All these elements are directly related to nutrition as better education, health and income leads to improved nutrition status within the district.

⁵ UNDP-Multidimensional Poverty in Pakistan Page 70-71

⁶ RSPN-Sindh Union Council and Community Economic Strengthening Support (SUCCESS) Programme Page 6

⁷ RSPN-Sindh Union Council and Community Economic Strengthening Support (SUCCESS) Programme Page 11

0.1% is divorced and 0.2% is separated. The population of widows/widowers in Jamshoro (3.6%) is the lowest of all seven districts covered under the RSPN survey⁸.

5. Economy and Agriculture

Much of the population of the district is rural and involved in cultivation. Some people work in industrial areas and power plants while towns are providing business opportunities to the residents. The inhabitants of mountainous areas keep cattle while the Mallahs (fisherfolk) of Manchhar Lake earn their living by fishing. Approximately 20% of the district population works for the federal and provincial government. Nooriabad Industrial Area and Kotri Industrial Area are two big industrial zones where more than 500 different industries are located. Jamshoro Power Station, Lakhra Power Project and Kotri Thermal Power Station are the main power units in the districtⁱ.

According to the EU PINS Survey, in Jamshoro district 43.7% of the households had an income of PKR 10,000 or below, 33.1% had an income of PKR 10,001-15,000 and 23.2% had an income of PKR 15,001 or above as can be seen from the pie chart in Figure 3 below. The average monthly income across the surveyed households is PKR 13,805.

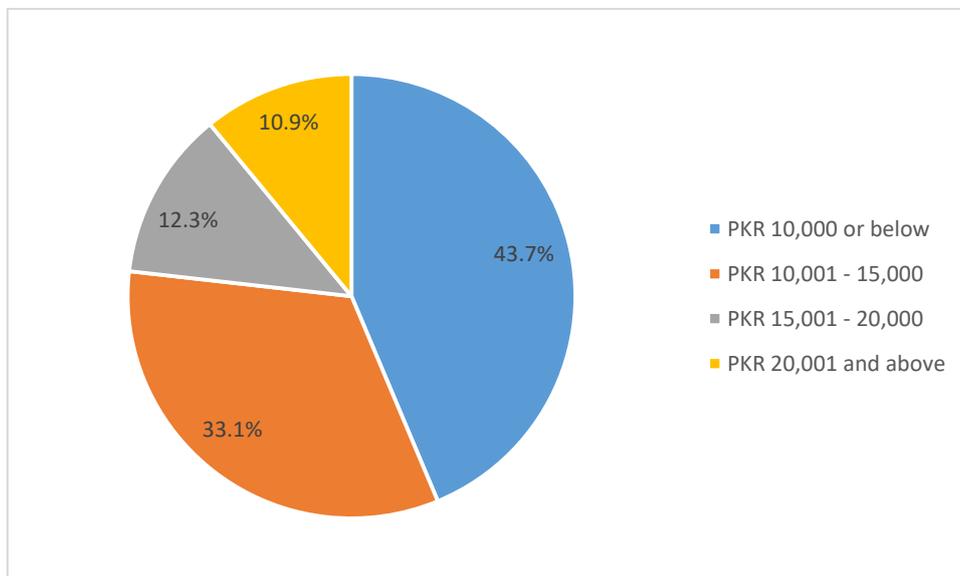


Figure 3: Household Income

In Jamshoro district 40.8% of the households had a monthly expenditure of PKR 10,000 or below, 36.4% had a monthly expenditure of PKR 10,001-15,000 and the remainder had an expenditure of PKR 15,001 or above as can be seen from the pie chart in Figure 4 below. On average, household expenditure is PKR 13,047 per household per month in Jamshoro. Food constitutes by far the most important item of household expenditure followed by health. Almost 18% of the households are making regular payments with regard to debt (the amount of debt being below PKR 10,000 in 88% of cases).

⁸ RSPN-Sindh Union Council and Community Economic Strengthening Support (SUCCESS) Programme Page 7

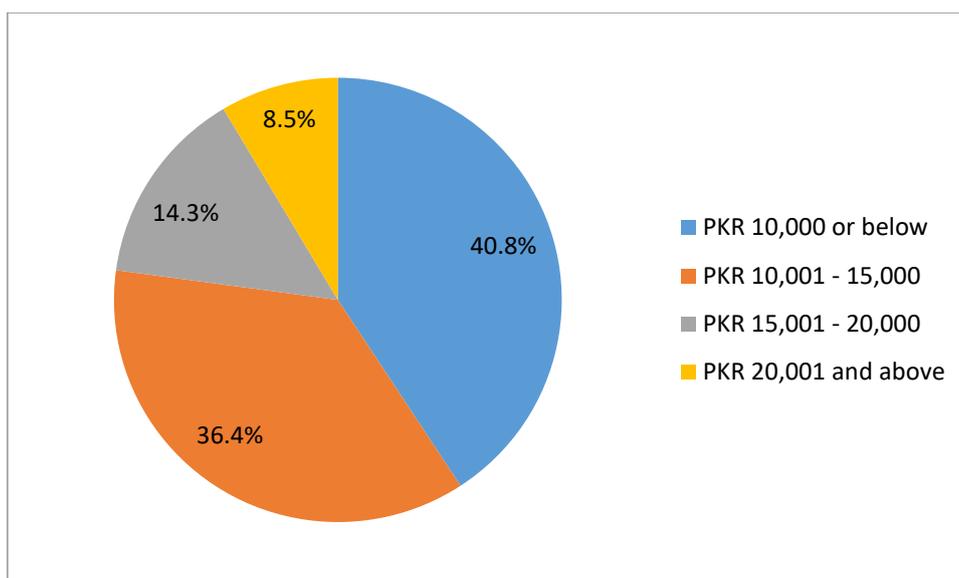


Figure 4: Household Expenditure

In 67% of households in Jamshoro, there is only one earner while 21.6% of households have two earners. Of all the households in Jamshoro, 26.8% are earning below PKR 10,000 per month and 54.6% are earning between PKR 10,000 and 20,000 per month. Table 3 shows the percentage of all households in each income bracket by number of earners.

Table 3: % of Households in Each Income Bracket by Number of Earners, Jamshoro District

Income (PKR)	Number of Earners					Total
	1	2	3	4	5 or more	
< 10,000	22.60	4.16	-	-	-	26.76
10,000 - 20,000	37.92	14.03	1.04	1.04	0.52	54.55
20,001 - 30,000	5.19	2.60	2.08	1.30	1.80	12.97
30,001 - 40,000	1.04	0.52	0.52	1.04	0.78	3.90
40,001 - 50,000	0.26	-	-	0.26	0.78	1.30
> 50,000	-	0.26	-	-	0.26	0.52
% of all households	67.01	21.57	3.64	3.64	4.14	100.00

Data Source: CARDNO PINS Survey 2017

Paid skilled non-agricultural labour (26.8%), small business/ self-employed (14.8%), skilled agricultural labour (14.8%) and paid unskilled non-agricultural labour (14.5%) are the main sources of income as shown in the pie chart in Figure 5 below.

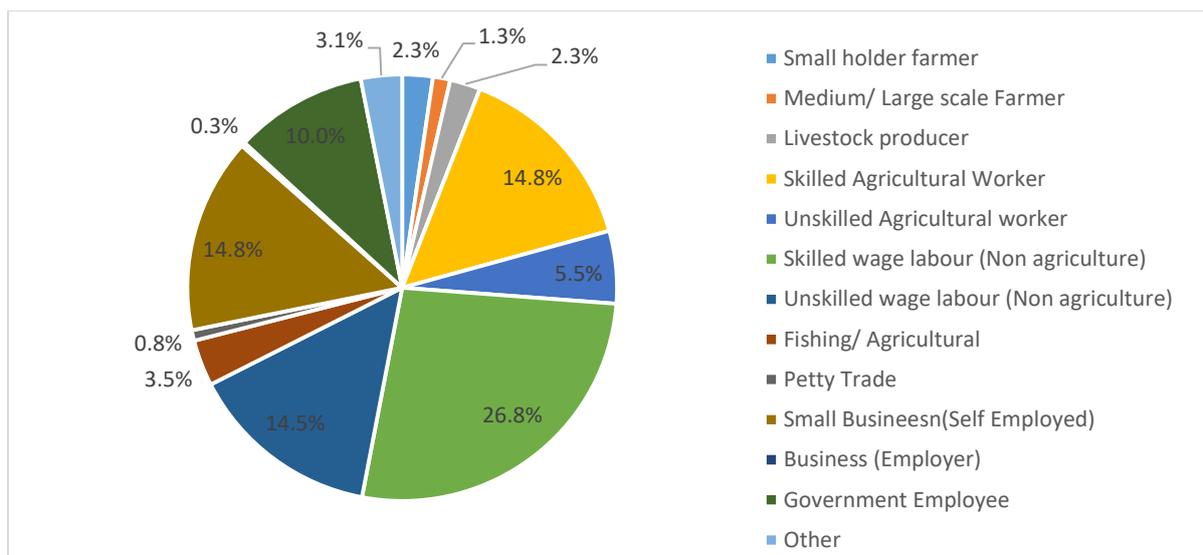


Figure 5: Sources of Household Income

The majority of lands in Jamshoro district lie at the bottom of the Kirthar mountain range at a higher altitude than the Indus River and are thus dependent on perennial water and tube wells for cultivation. The majority of mouzas are waterless (barani). Of the 150 rural mouzas, 76 (51%) are mostly arid while the remaining 74 are irrigated through canals, tube wells, rivers or other water sources (or a combination thereof)⁹ In 2008/09, 93% of the total sown area was irrigated of which 82% in turn was irrigated through canals and tube wells. Between 2008/09 and 2009/10, there was a 57% increase in canal-irrigated areaⁱⁱ.

Since the lands of this district are mostly arid/barren, agricultural production and productivity are not as efficient as in other districts of Sindh province. Nonetheless, the water resources and climate enable wheat, cotton, maize and vegetables to be grown in this district. The Katcha area alongside the Indus River is the main agricultural production area where vegetables are grown abundantly. Some of the areas in Sehwan Taluka are irrigated by water from the Dadu canal and produce wheat, cotton and maize. However, the productivity of agriculture is compromised due to the soil. In Thanu Bula Khan Taluka, onion is the main crop and approximate production of this crop is about 100,000 tonnes per year. The total reported area of the district in 2009/10 was 1,235,000 hectares of which 139,000 (11%) were cultivated. Within the cultivated area, 75,000 hectares were sown and 64,000 hectares were fallow land. The remaining 89% of the total area was uncultivated¹⁰.

In the livelihood zone of irrigated wheat production in Jamshoro, 23% of households are considered very poor, an estimated 34% are poor and the remainder are considered “middle-income” and “better-off”. The population is clearly skewed with high numbers of households living in poverty and only a few living in relative wealth. The average household size across all wealth groups is 7-10 members. Very poor households are typically the smallest and better-off households are the largestⁱⁱⁱ (see Table 4).

⁹ USAID/IMMAP Pakistan Emergency Situation Analysis - District Jamshoro, August 2014 Page 3

¹⁰ Sindh Development Statistics 2011 Table 4.13

Table 4: Landownership, Income and Assets in Jamshoro

	Very Poor (23%)	Poor (34%)	Middle (28%)	Better-Off (15%)
Household size	7	9	9	10
Land owned (in acres)	0 acres	0-2 acres	2-7 acres	5-25 acres
Land cultivated (in acres)	0 acres	3-7 acres	4-12 acres	5-25 acres
Livestock and assets	0	0-4 goats 0-2 buffaloes	0-4 goats 1-5 buffaloes 0.5 motorcycles	0-6 goats 2-8 buffaloes 1 motorcycle
Annual cash income (PKR) per household	122,375	196,315	327,725	621,550

The rainy season in Jamshoro lasts from June/July to September and the cropping calendar is divided into two seasons: the Rabi and the Kharif. Wheat is the predominant Rabi-season crop. Millet, beans, cotton and chilli peppers are the Kharif-season crops. Onions are often harvested in between these seasons. Men and women have distinct productive activities and responsibilities in agriculture, with both men and women actively involved on the family farm although women are considered to play a more supportive role in agricultural work. Both men and women carry out paid local agricultural labour and in situations where a family migrates in search of work, both men and women will take on paid farm labour. Both men and women are also engaged as casual labourers on farms.

One difference is that the decision-making responsibility rests entirely with men. In sharecropping arrangements for example, landlords only deal with the male sharecropper. Livestock production is also gender-divisive; women rear small stock and men rear large stock, but decisions about all types of livestock sales rest with men. Another difference is that only women fetch water for domestic or livestock use and only men are involved in market-based activities, including buying supplies and selling produce at the market^{iv}.

Table 5: Seasonal Calendar

Agricultural Season (including gender roles)	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
	Rabi	Kharif						Rabi				
Rainy season												
Crops (women having key role both in harvesting and planting season)												
Wheat, winter (irrigated)	Harvest							Planting				
Millet (rain-fed)				Planting				Harvest				
Chilli peppers		P					Harvest					
Onions						Planting			Harvest			
bean				Planting					Harvest			
Mustard seed	H								P			
Sesame					P				Harvest			
Livestock (women being the primary care taker of livestock)												
Cattle milking peak												
Buffalo milking peak												
Goat milking peak												
Livestock sales peak												
Other Income												
Agricultural labour peak												
Construction labour peak (mostly men)												
Labour migration peak (most men leaving home and women taking over their roles at home)												

Firewood sales												
Stress/High Expenditure Periods												
Livestock diseases												
High staple prices												
Human diseases												
Festivals												
Hunger season / Lean period (irrigated zones)												
Hunger season / Lean period (rain-fed zones)												
Migration to Urban Centres												

The EU PINS profiling survey reported that almost 98% of the women in Jamshoro had consumed fish at least once in the 12 months prior to the survey, while those who did not consume it mentioned religion and health as the two main reasons why. Some minority communities simply do not eat fish while others associate it with the development of white patches on the skin (a condition known as vitiligo or leucoderma) or miscarriage during the first trimester in expecting mothers. . Over 95% of all the surveyed women were eating fish at least once a month. Average fish consumption across 80% of the respondents was 100-150g per person per meal. Fish is eaten twice as often in winter (even though prices are higher) with portion sizes staying the same. Thus, there is no direct correlation between the price of fish and its consumption with the season apparently having the biggest influence.

Children and pregnant women in Jamshoro are given fish, although it is only given to children under the supervision of an adult and is not generally given to breastfeeding women. People in general avoid consuming milk and fish without any significant variation among gender or age group. Better information on the utility of fish and the facilitation of fish farming are among the key factors that may promote fish consumption in Jamshoro.

Mango, lychee, citrus, jammon, banana and papaya are the main fruits produced in the district and chilli, onion, tomato, okra, sesame, mustard seed, cauliflower, bitter gourd, coriander and cucumber are the main vegetables and herbs. Rural households grow their own vegetables (most commonly onion and chilli) for home consumption and sale on the market. Access to fruit is not universal even among farming families and fruit is too expensive to buy from the market, even during the peak season. Where households do produce fruit, they do so for their own consumption. Mangoes and bananas are two fruits of high nutritive value that are produced in the district. Mangoes contain over 20 different vitamins and minerals and bananas are a good source of dietary fibre, vitamin C, potassium and manganese.

6. Water and Sanitation

According to the Sindh Multiple-Indicator Cluster Survey (MICS) of 2014, 90.6% of the population in Jamshoro has access to improved sources of drinking water. 47.5% of people are using piped water, 28.0% are using drinking water from protected wells, 13.8% are sourcing their drinking water from hand pumps and 1.0% are collecting rainwater for drinking purposes (see Figure 6 below).

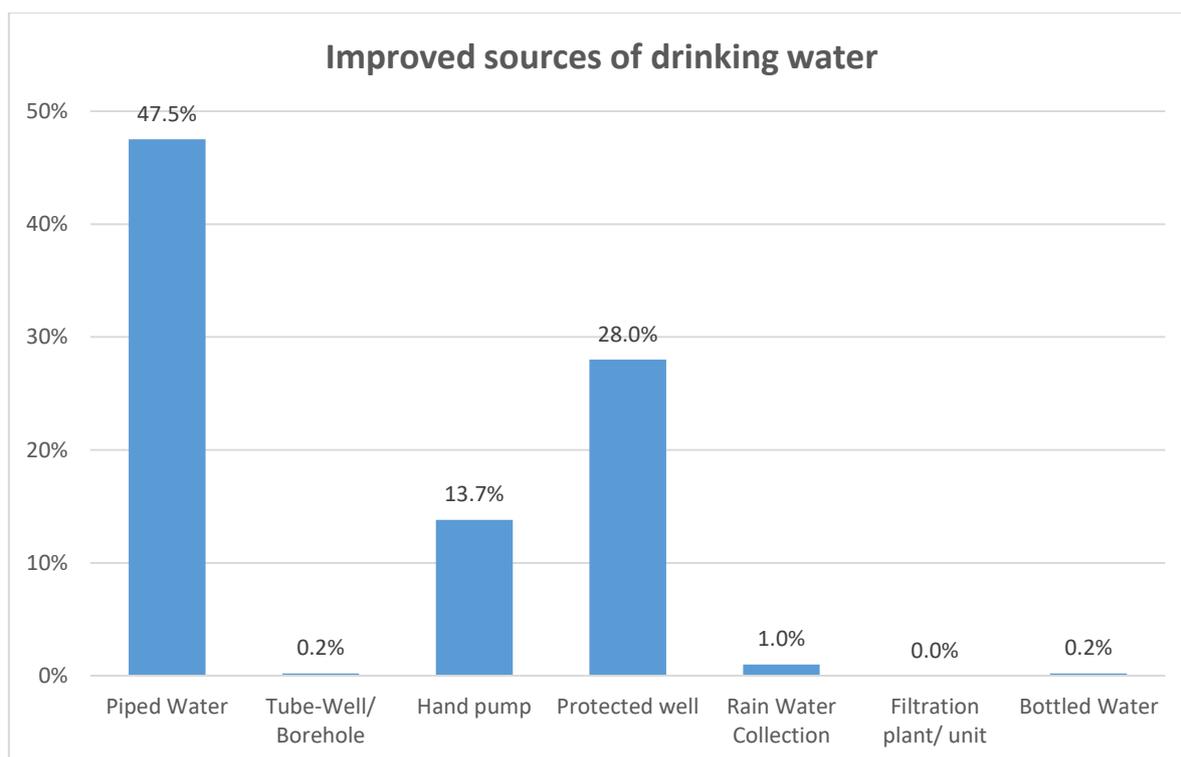


Figure 6: Improved Sources of Drinking Water

In the case of Jamshoro, 47.5% of households have water piped directly to their dwelling while 8.0% have piped water in their yard/plot. A further 28.0% have access to a protected well and 13.7% have access to a hand pump. Access to clean drinking water has a direct link with nutritional status. Detailed data are given in Table 6 below.

Table 6: Main Sources of Drinking Water at Household Level

Main Sources of Drinking Water		Percentage of the population	
Improved Sources	Piped Water	Into dwelling	37.5%
		Into yard/plot	8.0%
		To neighbour	0.7%
		Public tap/stand-pipe	1.3%
	Tube-well/Borehole	0.2%	
	Hand pump	13.7%	
	Protected well	28.0%	
	Rainwater collection	1.0%	
	Filtration plant/unit	0.0%	
Bottled water	0.2%		
Percentage Using Improved Sources of Drinking Water (A)		90.6%	
Unimproved Sources	Tanker truck	4.1%	
	Unprotected well	1.4%	
	Cart with small tank/drum	0.1%	
	Surface water	3.8%	
	Bottled water	0.0%	
	Other	0.0%	
Percentage Using Unimproved Sources of Drinking Water (B)		9.4%	
Total A + B		100.0%	

76.6% of households in Jamshoro are not using any form of water treatment while the remainder are mainly boiling water, straining it through a cloth or using other methods as reflected in Table 7 below. A reduction in the consumption of untreated water leads to reduced incidences of diarrhoea and an improvement in nutritional status.

Table 7 shows the percentage of total households which use various methods of water treatment (with some households using more than one method).

Table 7: Water Treatment Methods Used in Households

Percentage of households using different water treatment methods								
None	Boiling	Addition of bleach/ chlorine	Straining through a cloth	Water filter	Solar disinfection	Letting it stand and settle	Alum (phitkari)	Other
76.6%	4.4%	0.1%	15.7%	1.2%	0.0%	0.5%	4.3%	0.0%

Data Source: Govt of Sindh / UNICEF Sindh Survey 2014/15

83% of people in Jamshoro district are using improved sanitation facilities, 3% are using unimproved sanitation facilities and 14% are still practising open defecation as shown in Figure 7 below^v.

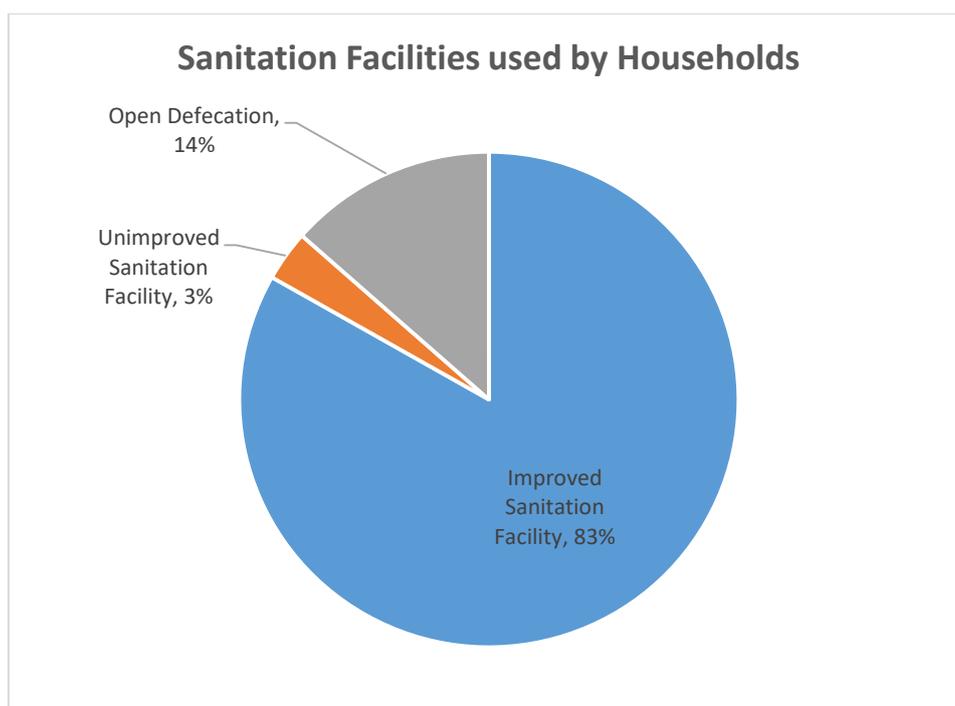


Figure 7: Household Use of Sanitation Facilities

Figure 8 shows that 61.1% of people in Jamshoro are using pour flush latrines and 20.3% are using ventilated improved pit latrines.

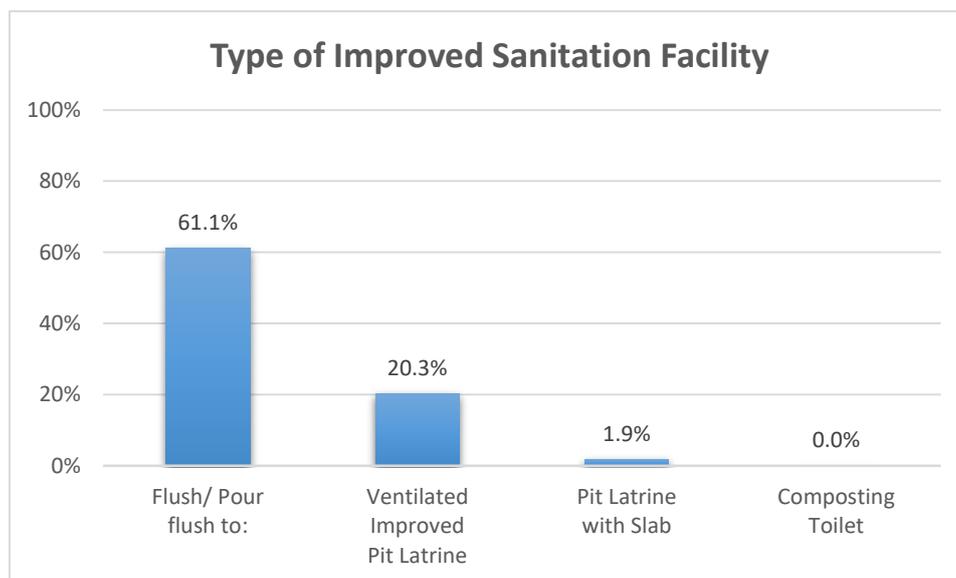


Figure 8: Improved Sanitation Facilities

6.1. Diarrhoea Treatment

Of the total number of children suffering from diarrhoea, 22.0% consulted public doctors or other health service providers and 67.6% consulted private health facilities or providers (although these figures are distorted by the fact that some children sought treatment from both public and private health facilities or providers). No treatment or advice was sought for 14.9% of the children and this reflects the need for increased access to and awareness of health services among the communities in Jamshoro.

Table 8 shows the percentage of children with diarrhoea for whom advice or treatment was sought from health facilities or other service providers.

Table 8: Percentage of children with diarrhoea who receive treatment

Percentage of children with diarrhoea for whom:					
Advice or treatment was sought from:					No advice or treatment sought
Health facilities or providers			Other source	A health facility or provider	
Public	Private	Lady Health Worker			
22.0%	67.6%	0.0%	0.0%	84.3%	14.9%

Data Source: Govt of Sindh / UNICEF Sindh Survey 2014/15

7. Literacy and Education

In Jamshoro district there are a total of 787 government schools, of which 90.6% are primary schools. Of these, 14.6% are exclusively for girls, 5.2% are for boys and 80.2% are mixed schools. 26% of teachers in Jamshoro district are female while the remaining 74% are male. This highlights

the need for more female teachers in order not only to effectively reach out to girls' schools but also to enable the more effective communication of nutrition-related messages to female students¹¹.

Table 9: Number and Type of Government Schools

Level of Schooling	N ^o of Schools	%
Primary	713	90.6%
Middle	21	2.7%
Elementary	9	1.1%
Secondary	36	4.6%
Higher Secondary	8	1.0%
Total	787	100%

In Jamshoro district 34.0% of boys and 26.5% of girls attend primary school. At secondary level the attendance rate is 26.0% for boys and 20.5% for girls^{vi}. Moreover, 31.2% of young women aged 15-24 are literate. The low rate of literacy among both boys and girls is a challenge to increasing awareness of nutrition. The school attendance ratio disaggregated by gender and level of schooling is shown in Table 10 below.

Table 10: School Attendance Ratio

Gender	Primary School net attendance ratio (adjusted)	Secondary School net attendance ratio (adjusted)
Male	34.0%	26.0%
Female	26.5%	20.5%

8. Access to Mass Media

As shown in Table 11 below, 2.7% of women aged 15-49 in Jamshoro have access to all three types of mass media (newspapers, radio and television) at least once a week. These are important means of communicating nutrition messages to the masses (including women), especially in the context of areas like Jamshoro.

Table 11: Exposure to Mass Media

Exposure to Mass Media among Women aged 15-49 at least once a week	
Newspapers	8.9%
Radio	14.0%
Television	79.7%
All Three Media	2.7%
Any of the Three Media	81.0%

Data Source: Govt of Sindh / UNICEF Sindh Survey 2014/15

9. Infant and Young Child Nutrition and Health

9.1 Infant and young child mortality

The infant mortality rate in Hyderabad division (which includes Jamshoro) is 85 deaths per 1,000 live births and the under-five mortality rate is 109 deaths per 1,000 live births. Sindh province overall has

¹¹ Sindh Educational Profile 2014/15

an infant mortality rate of 82 deaths per 1,000 live births and an under-five mortality rate of 104 deaths per 1,000 live births¹². These figures reflect a generally worrisome situation around children’s health in the district.

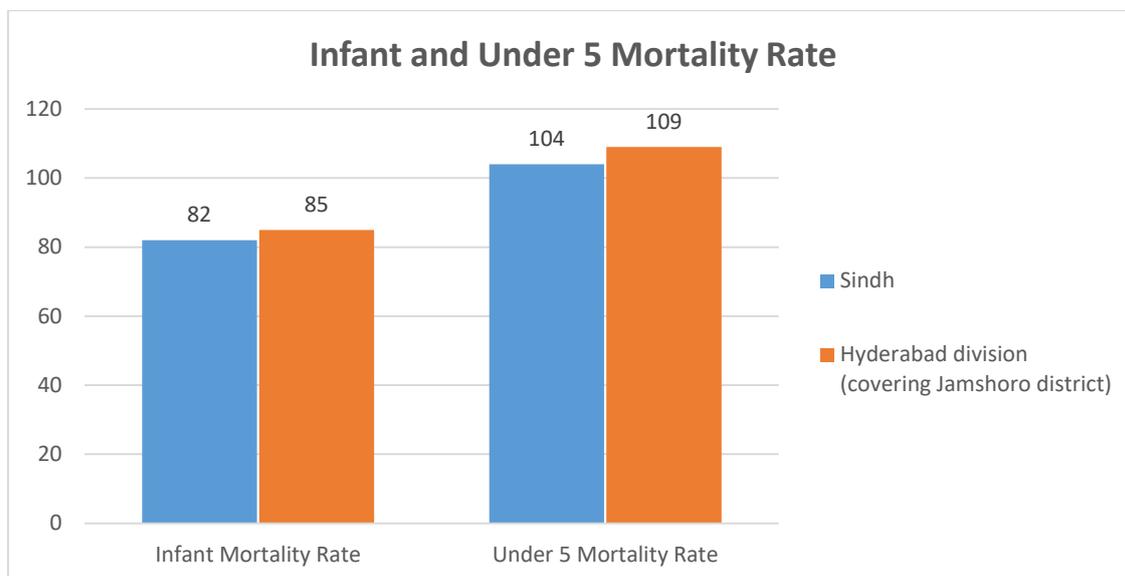


Figure 9: Infant and Under-5 Mortality Rates (per 1,000 live births)

9.2 Nutritional status

28.7% of children aged 0-5 in Jamshoro are moderately underweight while 22.1% are severely so (with 50.8% of all children aged 0-5 being of a less-than-healthy weight overall). 25% of under-fives are moderately stunted and 29.4% severely so (with 54.4% of all children aged 0.5 being stunted to some degree overall). 23.8% of under-fives are wasted overall (with 13.8% of all children of this age group showing moderate wasting and 10%, severe wasting).

In Sindh, more than four in ten (42.0%) of children under the age of five are underweight and 17.0% are classified as severely underweight. Almost half of children aged under five (48.0%) are stunted or short for their age and almost a quarter (24.4%) are severely stunted. 15.4% of these children are wasted or thin for their height and only 1.0% are overweight or too heavy for their height. This amounts overall to a crisis situation as regards the health of children under five in Jamshoro district. These statistics are sourced from the MICS of 2014/15¹³ and are shown in Figure 10.

¹² Sindh MICS 2014

¹³ Sindh MICS 2014

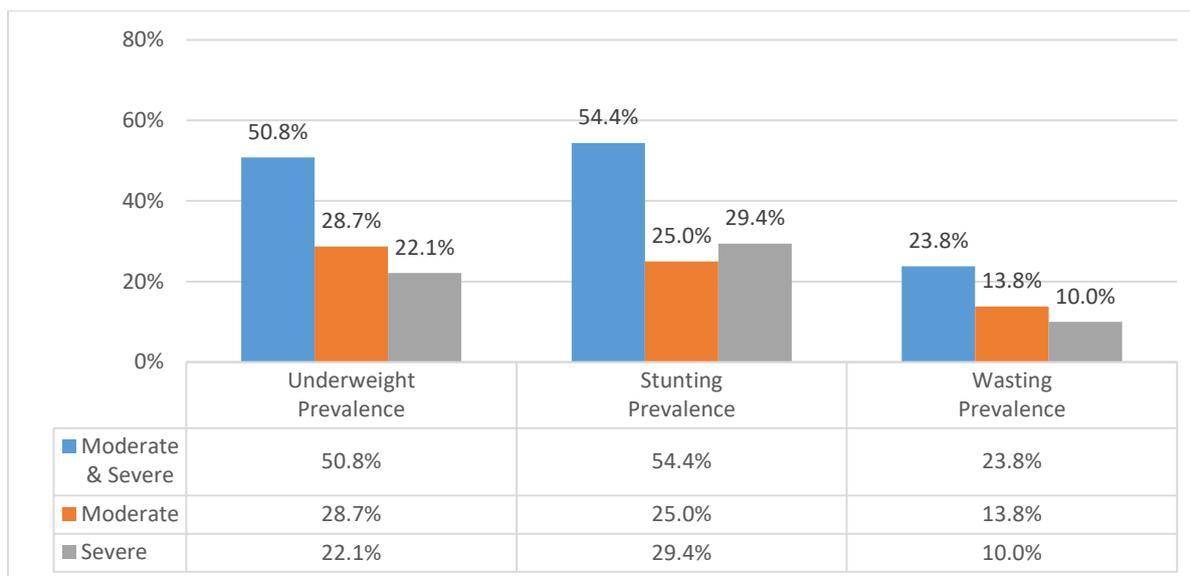


Figure 10: Prevalence of underweight, stunting and wasting

9.3 Breastfeeding and complementary feeding

28.9% of women in Sindh province and 28.7% in Jamshoro district practise exclusive breastfeeding during the first six months of life. In both Sindh overall and Jamshoro specifically, 56% of women report predominantly breastfeeding their infants until six months of age. Feeding practices play a critical role in child development; poor feeding practices can adversely impact the health and nutritional status of children, which in turn has direct consequences for their mental and physical development. Duration and intensity of breastfeeding also affect a mother's period of postpartum infertility and thus, the amount of time between births¹⁴. In Sindh overall, only 20.7% of women initiate breastfeeding within one hour of birth. This is much more widely practised in Jamshoro where 45.9% of women initiate breastfeeding within one hour of birth according to MICS 2014/15 data (see Figure 11).¹⁵

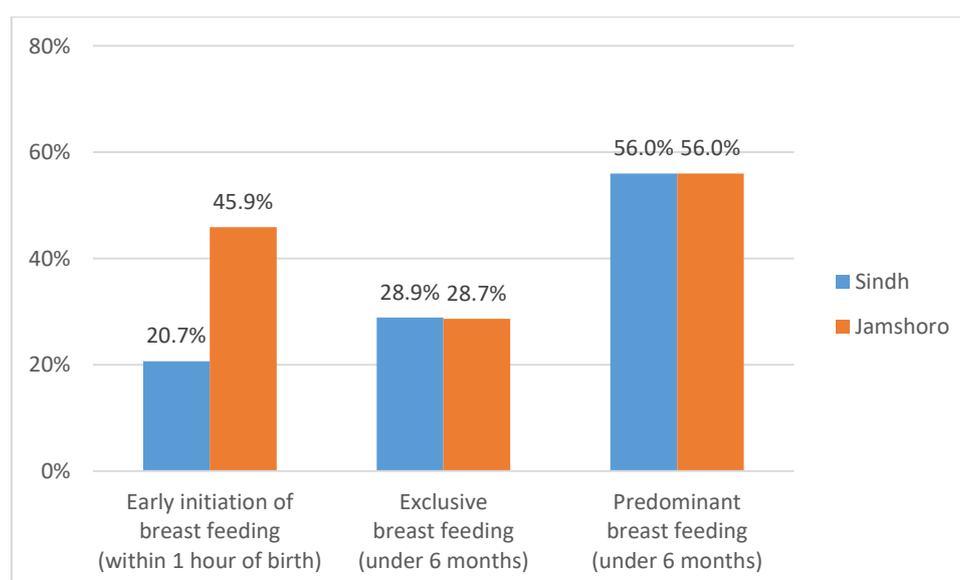


Figure 11: Early-initiation, exclusive and predominant breastfeeding

¹⁴ WHO Global Strategy for Infant and Young Child Feeding

¹⁵ Sindh MICS 2014

9.4 Dietary diversity and frequency of meals among children aged 6-23 months

According to MICS 2014/15 estimates, 30.8% of children aged 6-23 months are achieving Minimum Dietary Diversity (MDD) in Jamshoro district, 50.3% are achieving Minimum Meal Frequency (MMF) and 18.6% are achieving Minimum Acceptable Diet (MAD)¹⁶. These percentages are not encouraging as insufficient quantities and quality of complementary foods, poor child feeding practices and high rates of infection all have a detrimental effect on health and growth in children under 2 years of age. An estimated 6% of under-five deaths can be prevented by ensuring optimal complementary feeding among which MDD and MMF are the most important indicators¹⁷.

MICS 2014/15 estimates of achievement of MDD, MMF and MAD in Jamshoro district are presented in Figure 12.

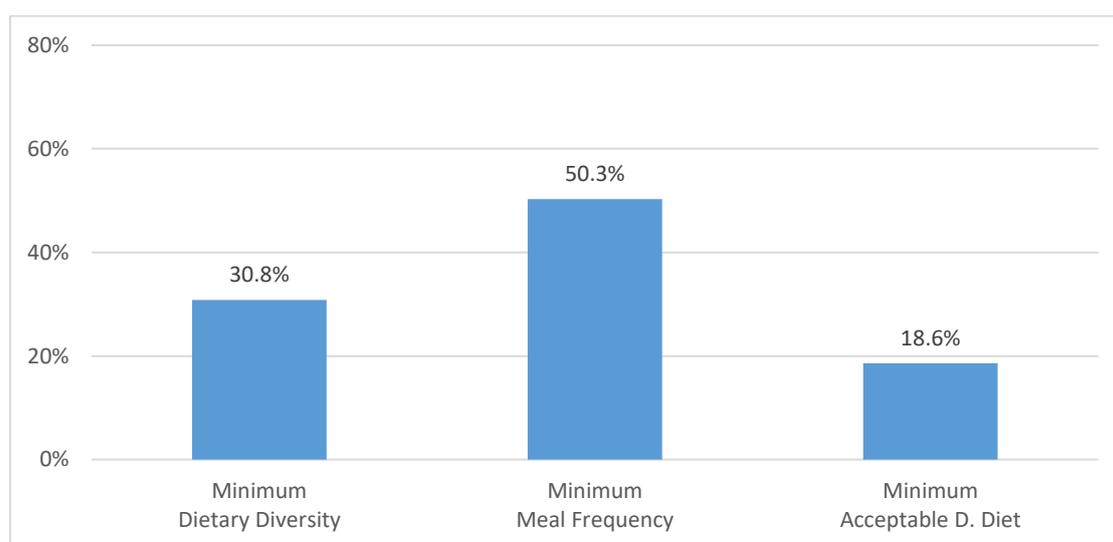


Figure 12: Achievement of Minimum Acceptable Diet, Minimum Meal Frequency and Minimum Dietary Diversity in Jamshoro district

9.5 Minimum Dietary Diversity of Women (MDD-W)

Only 13.8% of women of childbearing age (15-49 years) in Jamshoro district achieve their minimum dietary diversity (where this is interpreted to mean the consumption of at least 5 food groups and an adequate amount of micronutrients). In other words, almost 9 out of 10 women are not meeting minimum required dietary diversity criteria. MDD-W is an indicator of whether a woman receives enough nutrients through her diet. The percentage of women achieving their MDD-W by household type and income is presented in Table 12.

Table 12: Rate of achievement of Minimum Dietary Diversity of Women (MDD-W) in Jamshoro

Food groups consumed	Overall	Agricultural households
Less than 5	86.2%	78.0%
5 or more	13.8%	22.0%

Data Source: CARDNO PINS Survey 2017

The table shows that significantly more women aged 15-49 in agricultural households achieve their MDD-W than in the overall population. Almost 30% of people in Jamshoro district are involved in

¹⁶ Sindh MICS 2014

¹⁷ www.unicef.org/nutrition/index_24826.html

agricultural and/or food production and it would seem that women in these households are in a better position to maintain a diversified diet than those not involved in agriculture. Agricultural households eat a greater variety of foodstuffs because they grow their own food and are not reliant on markets. Table 13 provides a more detailed breakdown of the achievement rate of MDD-W by household type.

Table 13: Breakdown of Achievement of MDD-W in Jamshoro

Number of food groups consumed	Overall	Agricultural households
At least 1	100%	100%
At least 2	87.8%	89.8%
At least 3	48.8%	60.2%
At least 4	23.8%	28.0%
At least 5	13.8%	22.0%
At least 6	7.8%	15.3%
At least 7	3.5%	6.8%
At least 8	1.0%	0.8%
At least 9	0.3%	0.0%
All 10	0.0%	0.0%

Data Source: CARDNO PINS Survey 2017

In Jamshoro district, grains and related foodstuffs have a significant presence in the diet of both agricultural and non-agricultural households and among families of both high and low income. More meat, poultry, fish and dark-green leafy vegetables are consumed in agricultural households than by the overall population as reflected in Table 14.

Table 14: Consumption of Food Groups in Jamshoro by household type and income

N°	Food Group	Overall	Agricultural Households
1	Grains, white roots and tubers, plantains	100%	100%
2	Pulses (beans, peas, and lentils)	52%	57%
3	Nuts and seeds	1%	1%
4	Dairy	47%	55%
5	Meat, poultry and fish	19%	25%
6	Eggs	21%	25%
7	Dark-green leafy vegetables	3%	5%
8	Other Vitamin A-rich fruit and vegetables	12%	19%
9	Other vegetables	8%	6%
10	Other fruits	24%	31%

Data Source: CARDNO PINS Survey 2017

The diets of women who eat from fewer than five food groups show a significant absence of nuts, seeds, meat, poultry, fish, eggs, dark-green leafy vegetables, Vitamin A-rich fruit and vegetables and other fruits and vegetables. Tables 14 and 15 provide a breakdown of the consumption of different food groups by those with adequate and inadequate food diversity in Jamshoro.

Table 15: Key Food Groups consumed by those with inadequate food diversity in Jamshoro (i.e. those with fewer than 5 food groups in their diet)

N°	Food Group	Overall	Agricultural Households
1	Grains, white roots and tubers, plantains	100%	100%
2	Pulses (beans, peas, and lentils)	45%	47%
3	Nuts and seeds	1%	0%
4	Dairy	42%	51%
5	Meat, poultry and fish	14%	13%
6	Eggs	10%	5%
7	Dark-green leafy vegetables	1%	1%
8	Other Vitamin A-rich fruit and vegetables	4%	4%
9	Other vegetables	7%	4%
10	Other fruits	15%	17%

Data Source: CARDNO PINS Survey 2017

Those with adequate food diversity in Jamshoro eat significantly more fruit, vegetables (including dark-green leafy vegetables) and eggs than those without. There are some variations among these food groups, but this can probably be attributed to the fact that some families are substituting food from one group with another food group. As shown by a comparison of Tables 15 and 16, there are major differences between the dietary intakes of women with adequate food diversity and those with inadequate food diversity (especially in the case of eggs and Vitamin A-rich fruit and vegetables).

Table 16: Key Food Groups consumed among those with adequate food diversity in Jamshoro (i.e. those with 5 food groups or more in their diet)

N°	Food Group	Overall	Agricultural Households
1	Grains, white roots and tubers, plantains	100%	100%
2	Pulses (beans, peas, and lentils)	95%	92%
3	Nuts and seeds	2%	4%
4	Dairy	76%	69%
5	Meat, poultry and fish	53%	65%
6	Eggs	91%	92%
7	Dark-green leafy vegetables	20%	19%
8	Other Vitamin A-rich fruit and vegetables	60%	73%
9	Other vegetables	15%	12%
10	Other fruits	80%	77%

Data Source: CARDNO PINS Survey 2017

9.6 Low birth weight

Amongst the children who were weighed in the district at birth, low birth weight is witnessed for every fourth child born in Jamshoro, indicating poor maternal and newborn health and nutrition. 30.0% of babies born in Sindh and 27.6% of those born in Jamshoro have a low weight at birth. This reflects undernourishment *in utero* and increases the risk of a child's death in the early months and years of life. It also increases the risk that even those who survive will remain undernourished, with reduced muscle strength and cognitive capacity.¹⁸

¹⁸ Sindh MICS 2014

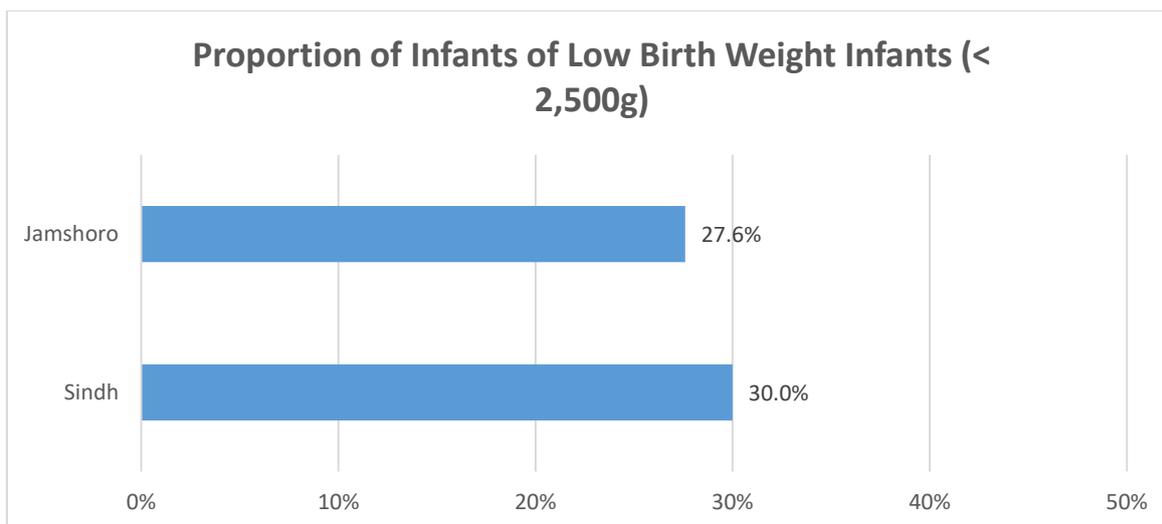


Figure 13: Proportion of Infants of Low Birth Weight (<2,500g)

9.7 Child immunisation

In Jamshoro district 68.5% of children aged 12-23 months had received all recommended vaccinations by 12 months of age. 71.4% of children had been vaccinated against measles and 88.2% against TB. Immunisation is crucial to reducing child death from preventable diseases and is closely linked with nutrition-specific interventions. The chart in Figure 14 covers all required vaccination indicators.¹⁹

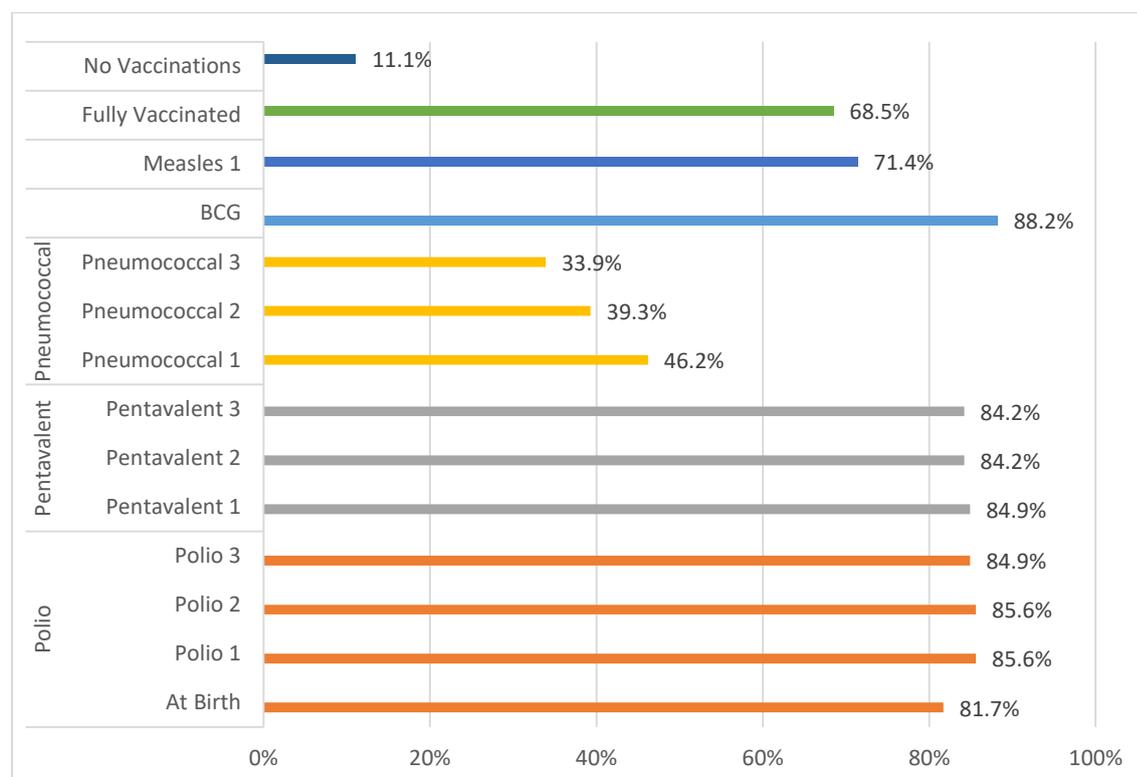


Figure 14: Vaccination of children aged 12-23 months

Figure 15 provides details on the vaccination of children aged 24-35 months.

¹⁹ Sindh MICS 2014

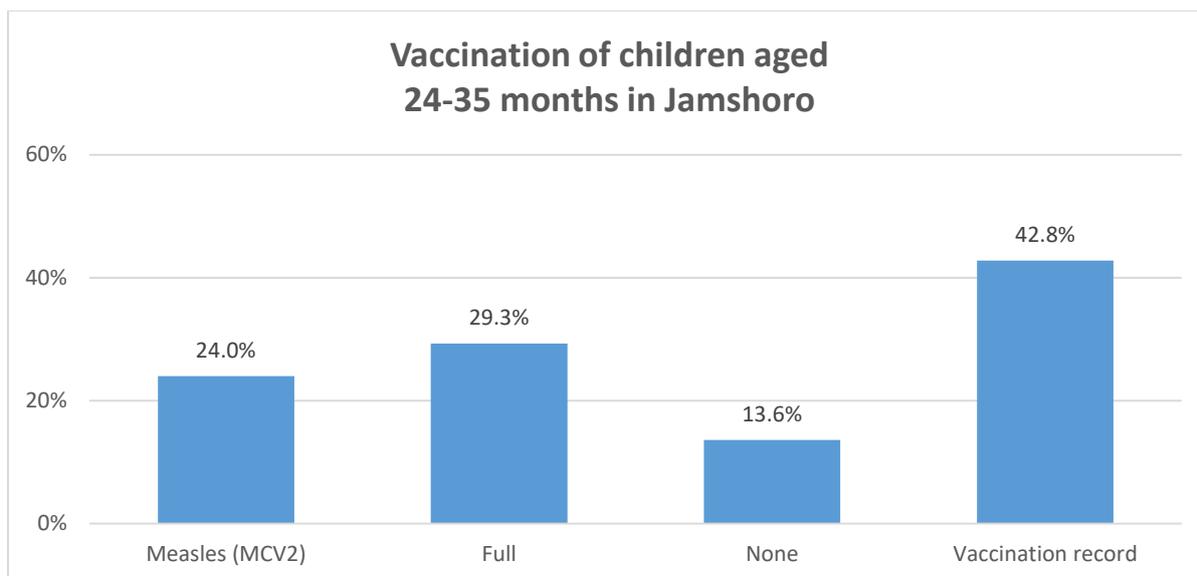


Figure 15: Vaccination of children aged 24-35 months in Jamshoro

10. Maternal Health and Nutrition

10.1 Reproductive health

The fertility rate in Jamshoro is 3.7 children per woman. 21.9% of women in the district use some form of contraception with 21.04% using modern contraceptive methods^{vii}. The most common contraceptive method is female sterilisation which is currently used by 10.2% of ever-married women²⁰.

10.2 Maternal and neonatal health

76% of ever-married women in Jamshoro have received antenatal care. According to the MICS of 2014/15, 57.1% of all deliveries in Jamshoro took place at a health facility with 25.5% occurring in state centres and 31.6% in private centres. The remaining 42.9% of deliveries took place at home²¹. Seeking antenatal care (ANC) during pregnancy is of significant importance as it identifies risk factors which minimise the chances of later maternal complications and can reduce the number of miscarriages and stillbirths.

²⁰ Sind MICS 2014

²¹ Sindh MICS 2014

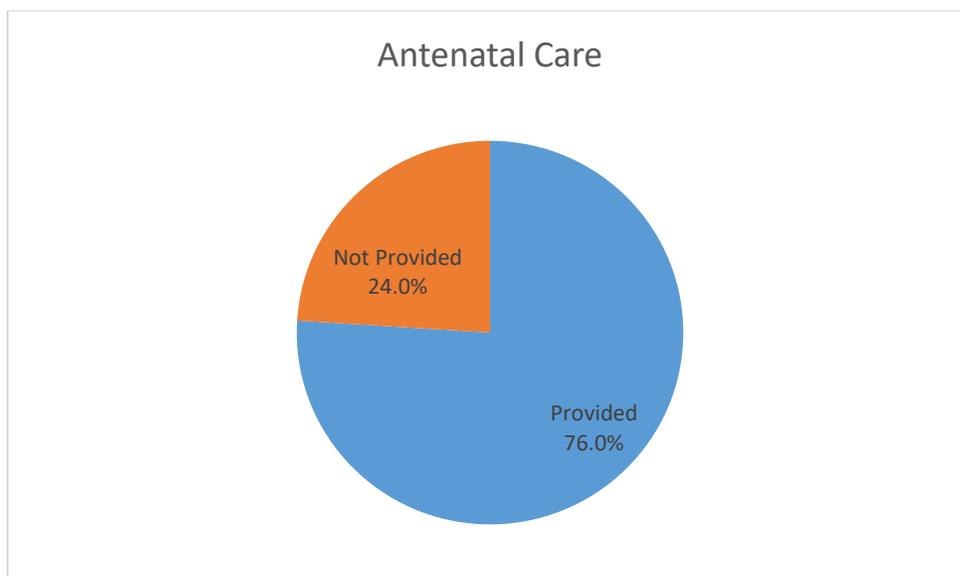


Figure 16: Provision of ANC in Jamshoro

In Sindh province overall, almost 79.6% of ever-married women have received antenatal care from a skilled provider (an improvement of almost 100% over the last decade as compared to the findings of the MICS 2003/04 when only 42% received ANC) while in Jamshoro 75.3% of ever-married women have received antenatal care from a skilled provider. The percentage of deliveries taking place at a health facility also considerably increased from 42% (Demographic and Health Survey 2006/07) to 64% as reported in the Sindh MICS 2014. Figure 18 below presents these figures on ANC and place of delivery in both Sindh province and Jamshoro district.²²

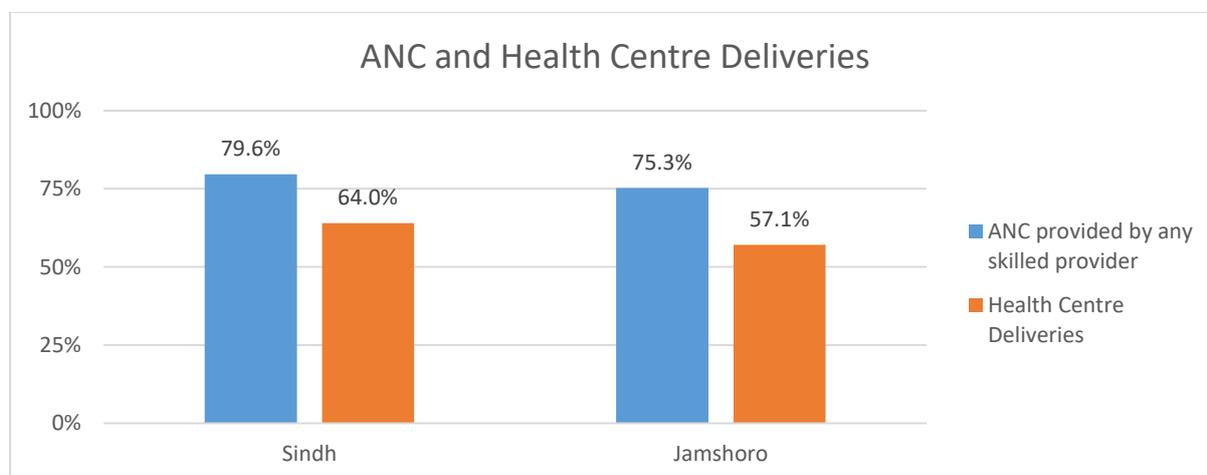


Figure 17: ANC and Health Centre Deliveries

As shown in Table 17, 66% of women receive ANC from doctors, 9.3% receive it from nurses and/or midwives and 0.7% receive it from other service providers (total 76%). The remaining 24% receive no antenatal care.²³

²² Sindh MICS 2014

²³ Sindh MICS 2014

Table 17: Provision of Antenatal Care

Provision of Antenatal Care							
Medical Doctor	Nurse/Midwife	Community Midwife	Lady Health Visitor	Traditional/Skilled Birth Attendant	Lady Health Worker	Relative/Friends	Other
66%	9.3%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%

Data Source: Govt of Sindh / UNICEF Sindh Survey 2014/15

12.9% of women in Jamshoro receive or attend one ANC visit, 19.4% have two visits, 20.9% have three visits and 21.2% have four or more visits as shown in Figure 19.²⁴ Data on the remaining 1.6% of women who receive ANC are missing.

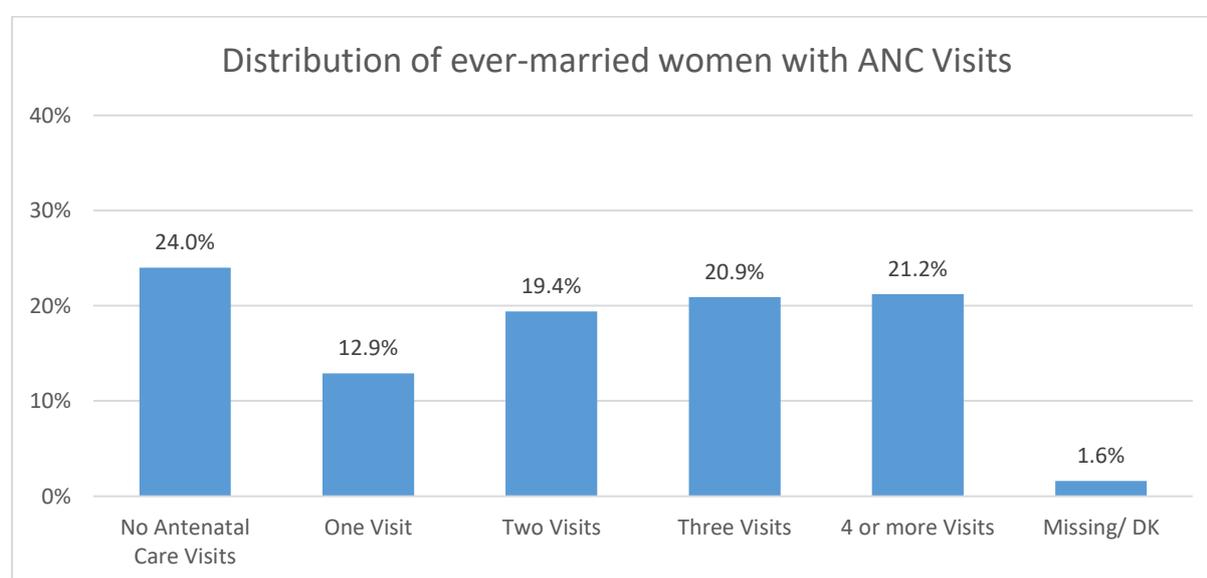


Figure 18: Distribution of ever-married women having ANC visits

In Jamshoro, 33.9% of pregnant women have their first ANC during the first trimester. 15.7% first attend at 4-5 months, 19.1% first attend at 6-7 months and 4.3% first attend at 8 months or later (see Table 18).²⁵

Table 18: Number of months of pregnancy at time of first ANC visit

Percentage distribution of ever-married women by number of months pregnant at the time of first antenatal care (ANC) visit					Median months pregnant at first ANC visit
First trimester	4-5 months	6-7 months	8+ months	Missing/DK	
33.9%	15.7%	19.1%	4.3%	2.3%	4

Data Source: Govt of Sindh / UNICEF Sindh Survey 2014/15

²⁴ Sindh MICS 2014

²⁵ Sindh MICS 2014

10.3 Post-natal care of mothers and children

In Jamshoro, 47% of newborns and 41.4% of mothers receive a health check following birth in either a facility or at home²⁶. In Sindh overall, this figure is much higher at 77% of newborns. Such checks are important as they may take advantage of a critical window of opportunity to deliver life-saving interventions to both the mother and newborn if needed²⁷.

10.4 Visits to women aged 15-49 by Lady Health Workers (LHWs)

In Sindh, 52.3% of women of childbearing age were visited by a Lady Health Worker during the past three months prior to the MICS 2014 survey while this percentage was 64.2% in Jamshoro. In Sindh, 64% of ever-married women live in close proximity to an LHW while this figure is 74.6% in Jamshoro²⁸. With insufficient numbers of health managers, nurses, paramedics and skilled birth attendants, the national government created the Lady Health Worker Programme for family planning and primary healthcare in order to provide essential primary health services to the community and fulfil unmet health-related needs in rural and urban slum areas²⁹.

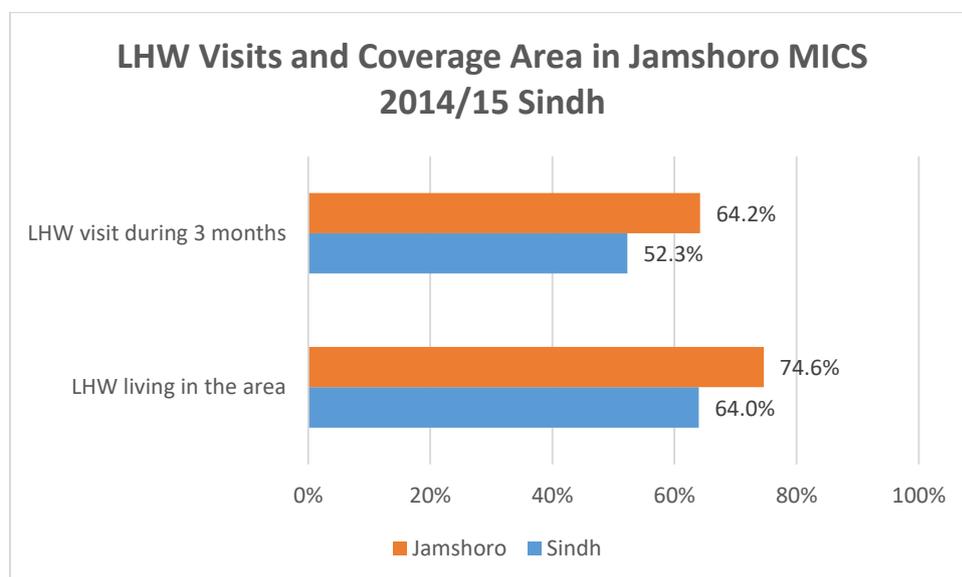


Figure 19: LHW Coverage in Jamshoro

²⁶ Sindh MICS 2014

²⁷ www.unicef.org/health/index_maternalhealth.html

²⁸ Sindh MICS 2014-Page 273

²⁹ WHO Pakistan's Lady Health Worker Programme

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