

## VII. WATER AND SANITATION

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Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant determinant of diseases such as cholera, typhoid, and schistosomiasis. Drinking water can be contaminated with chemical and physical contaminants with harmful effects on human health. In addition to preventing disease, improved access to drinking water may be particularly important for women and children, especially in rural areas, who bear the primary responsibility for carrying water, often for long distances.<sup>32</sup>

Inadequate disposal of human excreta and personal hygiene are associated with a range of diseases including diarrhoeal diseases and polio and are important determinants of stunting. Improved sanitation can reduce diarrhoeal disease by more than a third<sup>33</sup>, and can substantially lessen the adverse health impacts of other disorders among millions of children in many countries.

The MDG target 7.C is to reduce by half, between 1990 and 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. For more details on water and sanitation and to access some reference documents, please visit [data.unicef.org](http://data.unicef.org)<sup>34</sup> or the website of the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation<sup>35</sup>.

### Use of Improved Water Sources

The distribution of the population by main source of drinking water is shown in Table WS.1. The population using *improved sources* of drinking water is that using any of the following types of supply: piped water (into dwelling, compound, yard or plot, to neighbour, public tap/standpipe), tube well/borehole, protected well, protected spring, and rainwater collection. Bottled water is considered as an improved water source only if the household is using an improved water source for handwashing and cooking.

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<sup>32</sup> WHO/UNICEF. 2012. *Progress on Drinking water and Sanitation: 2012 update*.

<sup>33</sup> Cairncross, S et al. 2010. *Water, sanitation and hygiene for the prevention of diarrhoea*. International Journal of Epidemiology 39: i193-i205.

<sup>34</sup> <http://data.unicef.org/water-sanitation>

<sup>35</sup> <http://www.wssinfo.org>

**Table WS.1: Use of improved water sources**

Percent distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Punjab, 2014.

	Main source of drinking water																				Percentage using improved sources of drinking water <sup>1</sup>	Number of household members
	Improved sources											Unimproved sources										
	Piped water				Tube-well/ bore-hole	Hand pump (tap)	Motorized pump (dunky / turbine)	Pro-ected well	Pro-ected spring	Rain-water collection	Bottled water <sup>a</sup>	Unpro-ected well	Unpro-ected spring	Tanker truck	Cart with small tank/ drum	Surface water	Bottled water <sup>a</sup>	Other	Missing	Total		
	Into dwelling	Into yard/plot	To neigh-bour	Public tap/ stand-pipe																		
Punjab	11.6	1.7	0.9	5.1	0.8	30.6	41.7	0.9	0.3	0.2	0.6	0.2	0.1	0.2	4.1	0.1	0.0	0.7	0.1	100.0	94.4	246,396
Area of residence																						
Rural	4.6	1.7	0.8	2.6	0.7	41.5	43.4	1.1	0.4	0.3	0.1	0.3	0.2	0.1	1.7	0.2	0.0	0.4	0.0	100.0	97.0	165,174
All Urban	25.8	1.9	1.1	10.3	0.9	8.6	38.2	0.5	0.1	0.0	1.6	0.0	0.0	0.3	8.9	0.1	0.0	1.5	0.1	100.0	89.0	81,222
Major Cities	38.5	1.0	1.1	12.0	1.6	2.1	27.7	0.2	0.0	0.0	2.6	0.0	0.0	0.4	10.6	0.1	0.1	1.9	0.2	100.0	86.8	42,289
Other Urban	12.0	3.0	1.1	8.5	0.2	15.6	49.6	0.7	0.2	0.0	0.5	0.0	0.0	0.2	7.1	0.0	0.0	1.1	0.0	100.0	91.5	38,933
Education of household head <sup>b</sup>																						
None/pre-school	7.8	1.8	1.1	3.5	0.7	42.7	37.7	0.6	0.1	0.3	0.1	0.2	0.2	0.1	2.4	0.1	0.0	0.5	0.0	100.0	96.5	99,632
Primary	11.0	2.1	0.8	4.1	0.7	31.5	43.1	0.9	0.5	0.0	0.1	0.2	0.1	0.1	3.7	0.1	0.0	0.9	0.1	100.0	94.7	43,176
Middle	13.7	2.1	0.7	5.6	0.9	23.6	44.8	1.3	0.4	0.2	0.5	0.5	0.1	0.2	4.1	0.2	0.0	0.9	0.0	100.0	93.9	31,941
Secondary	14.6	1.4	0.8	6.4	0.7	19.2	46.9	1.4	0.5	0.1	0.8	0.2	0.1	0.4	5.5	0.1	0.0	0.8	0.1	100.0	92.8	44,624
Higher	19.3	1.1	0.5	10.0	1.1	11.7	41.8	0.9	0.2	0.0	2.9	0.1	0.1	0.3	8.5	0.1	0.1	1.2	0.2	100.0	89.4	26,950
Wealth index quintile																						
Lowest	0.8	1.5	0.9	1.5	0.9	80.4	9.9	0.5	0.3	0.9	0.0	0.6	0.5	0.1	0.6	0.3	0.0	0.2	0.0	100.0	97.6	49,280
Second	4.4	2.8	1.0	2.1	0.6	43.1	42.5	0.7	0.6	0.0	0.0	0.2	0.1	0.1	1.1	0.1	0.0	0.3	0.1	100.0	98.0	49,278
Middle	9.3	2.3	1.2	4.2	0.4	20.1	57.0	1.3	0.4	0.0	0.0	0.2	0.0	0.0	2.8	0.1	0.0	0.5	0.0	100.0	96.3	49,279
Fourth	15.8	1.5	0.9	7.1	0.6	7.6	56.6	1.3	0.1	0.0	0.0	0.1	0.0	0.2	6.8	0.1	0.0	1.0	0.1	100.0	91.6	49,281
Highest	27.8	0.6	0.4	10.7	1.5	1.8	42.2	0.8	0.0	0.0	2.7	0.0	0.0	0.5	9.1	0.0	0.1	1.7	0.1	100.0	88.4	49,278

**Table WS.1: Use of improved water sources**

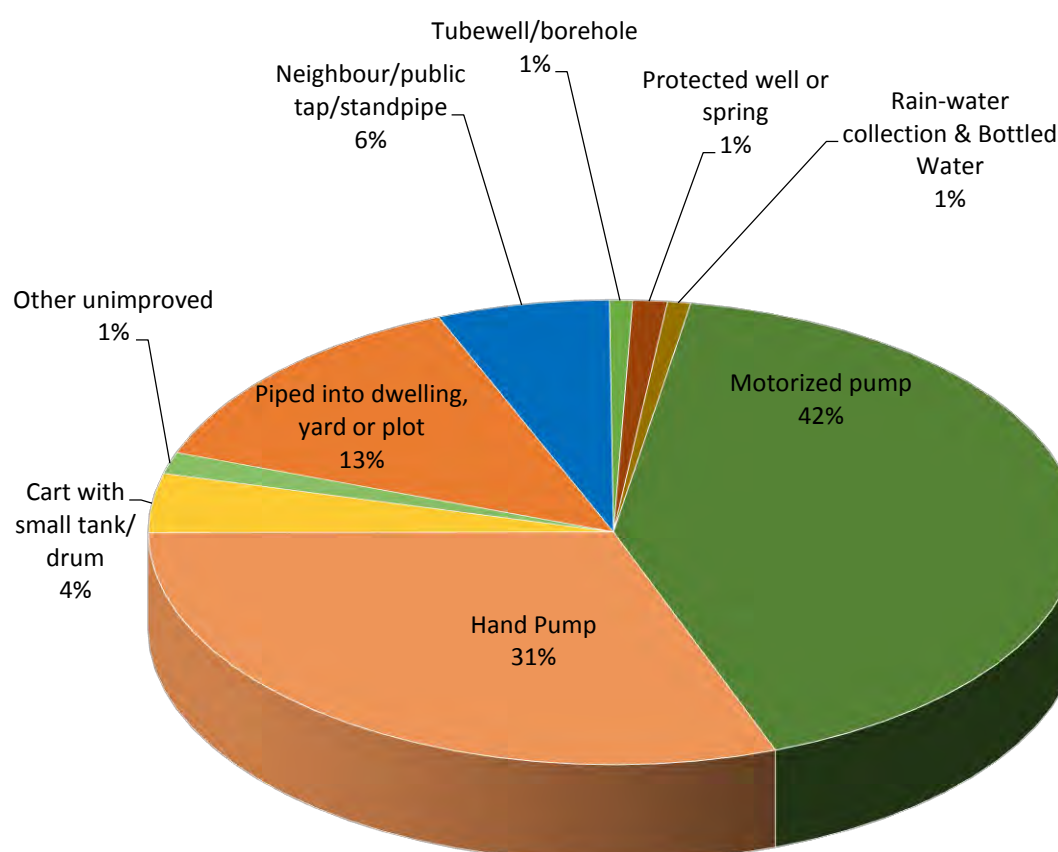
Percent distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Punjab, 2014.

	Main source of drinking water																			Percentage using improved sources of drinking water <sup>1</sup>	Number of household members		
	Improved sources											Unimproved sources											
	Piped water				Tube-well/ bore-hole	Hand pump (tap)	Motorized pump (dunky / turbine)	Pro-ected well	Pro-ected spring	Rain-water collection	Bottled water <sup>a</sup>	Unpro-ected well	Unpro-ected spring	Tanker truck	Cart with small tank/ drum	Surface water	Bottled water <sup>a</sup>	Other	Missing			Total	
	Into dwelling	Into yard/plot	To neighbour	Public tap/ stand-pipe																			
Division																							
Bahawalpur	7.6	6.2	1.1	6.5	0.2	46.4	26.6	0.2	0.0	0.0	0.2	0.0	0.0	0.0	4.6	0.1	0.0	0.1	0.0	100.0	95.1	25,956	
D.G. Khan	1.2	0.7	0.4	3.5	0.3	76.9	12.0	0.0	0.0	1.1	0.0	0.3	0.4	0.3	2.4	0.4	0.0	0.0	0.0	100.0	96.1	23,418	
Faisalabad	9.1	0.6	1.0	5.4	0.2	29.6	36.1	0.0	0.0	0.0	0.3	0.0	0.0	0.2	16.4	0.4	0.1	0.6	0.0	100.0	82.3	30,970	
Gujranwala	6.0	0.0	0.5	4.3	0.1	22.9	60.9	0.0	0.0	0.0	0.1	0.0	0.0	0.0	2.0	0.0	0.0	2.9	0.0	100.0	94.9	36,313	
Lahore	32.8	1.1	0.6	7.4	1.3	10.9	41.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	2.2	0.0	0.0	0.1	0.2	100.0	97.5	43,847	
Multan	5.6	2.0	0.8	4.5	0.5	21.9	62.8	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.0	0.0	0.0	0.7	0.1	100.0	98.2	27,788	
Rawalpindi	18.6	0.1	2.8	7.7	1.6	6.4	43.8	10.0	3.1	0.0	0.4	1.9	0.6	1.3	0.2	0.1	0.0	1.2	0.1	100.0	94.6	21,767	
Sahiwal	3.0	4.5	0.6	1.6	2.4	19.0	65.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.1	0.0	100.0	97.0	17,255	
Sargodha	4.5	2.7	0.5	2.3	1.2	64.6	17.3	0.2	0.2	0.9	0.2	0.3	0.7	0.0	3.8	0.3	0.0	0.3	0.2	100.0	94.5	19,082	
Punjab	11.6	1.7	0.9	5.1	0.8	30.6	41.7	0.9	0.3	0.2	0.6	0.2	0.1	0.2	4.1	0.1	0.0	0.7	0.1	100.0	94.4	246,396	
<sup>1</sup> MICS indicator 4.1; MDG indicator 7.8 - Use of improved drinking water sources																							
<sup>a</sup> Households using bottled water as the main source of drinking water are classified into improved or unimproved drinking water users according to the water source used for other purposes such as cooking and handwashing.																							
<sup>b</sup> Total includes 80 unweighted cases of household head's education missing																							

Overall, 94 percent of the population uses an improved source of drinking water; 89 percent in urban areas and 97 percent in rural areas. At division level, it ranges from 82 percent in Faisalabad to 98 percent in Multan.

The most common drinking water source is a motorized pump (42%) followed by a hand pump (31%). The source of drinking water for the population varies by division. More than 60 percent of the population in Gujranwala, Sahiwal and Multan are using drinking water from a motorized pump. In D.G Khan and Sargodha, a hand pump is the most commonly used source of drinking water. Lahore is the only division with more households (33%) having drinking water piped into the dwelling. The main water sources are depicted in Figure WS.1.

**Figure WS.1: Percent distribution of household members by source of drinking water, MICS Punjab, 2014**



Use of water treatment by households is presented in Table WS.2. Households were asked about ways they may be treating water at home to make it safer to drink. Boiling water, adding bleach or chlorine, using a water filter, and using solar disinfection are considered as effective treatment of drinking water. The table shows water treatment by all household members and the percentage of those living in households using unimproved water sources but using appropriate water treatment methods. Out of those household members who are using unimproved drinking water sources, only 2 percent are found using an appropriate water treatment. About 4 percent of the population boils the water and 2 percent uses a water filter.

Table WS.2: Household water treatment												
Percentage of household population by drinking water treatment method used in the household, and for household members living in households where an unimproved drinking water source is used, the percentage who are using an appropriate treatment method, Punjab, 2014.												
	Water treatment method used in the household										Percentage of household members in households using unimproved drinking water sources and using an appropriate water treatment method <sup>1</sup>	Number of household members in households using unimproved drinking water sources
	None	Boil	Add bleach/ chlorine	Strain through a cloth	Use water filter	Solar disinfection	Let it stand and settle	Other	Missing/DK	Number of household members		
Punjab	93.6	4.1	0.0	0.9	1.8	0.0	0.3	0.1	0.0	246,396	2.1	13,808
Area of residence												
Rural	97.5	1.3	0.0	0.4	0.6	0.0	0.4	0.0	0.0	165,174	1.6	4,900
All Urban	85.6	10.0	0.0	1.8	4.3	0.0	0.2	0.1	0.0	81,222	2.4	8,908
Major Cities	79.1	15.4	0.0	2.9	5.7	0.1	0.2	0.1	0.0	42,289	2.6	5,588
Other Urban	92.7	4.1	0.0	0.5	2.7	0.0	0.1	0.0	0.0	38,933	2.1	3,320
Main source of drinking water												
Improved	93.3	4.3	0.0	0.9	1.9	0.0	0.3	0.1	0.0	232,588	na	na
Unimproved	97.2	1.3	0.0	0.6	0.7	0.0	0.3	0.0	0.0	13,808	2.1	13,808
Education of household head <sup>a</sup>												
None/pre-school	97.1	1.6	0.0	0.6	0.6	0.0	0.4	0.0	0.0	99,632	1.1	3,507
Primary	95.3	3.3	0.0	0.7	1.0	0.0	0.1	0.0	0.0	43,176	1.0	2,267
Middle	93.9	4.0	0.0	1.0	1.3	0.0	0.4	0.1	0.0	31,941	1.9	1,950
Secondary	90.8	6.4	0.0	1.1	2.4	0.0	0.2	0.1	0.0	44,624	2.7	3,226
Higher	82.1	11.2	0.1	1.5	7.1	0.0	0.1	0.0	0.0	26,950	3.6	2,844
Wealth index quintile												
Lowest	98.7	0.2	0.0	0.3	0.0	0.1	0.7	0.0	0.0	49,280	0.0	1,168
Second	98.8	0.5	0.0	0.3	0.0	0.0	0.3	0.0	0.0	49,278	0.5	991
Middle	98.1	1.1	0.0	0.3	0.3	0.0	0.2	0.0	0.0	49,279	0.1	1,812
Fourth	93.9	4.9	0.0	0.9	0.7	0.0	0.1	0.1	0.0	49,281	2.3	4,130
Highest	78.3	14.0	0.0	2.5	8.0	0.1	0.2	0.1	0.0	49,278	3.3	5,707
Division												
Bahawalpur	96.7	0.7	0.0	0.7	0.4	0.2	1.3	0.0	0.0	25,956	0.4	1,270
D.G. Khan	98.6	1.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	23,418	2.2	905
Faisalabad	96.7	2.0	0.0	0.3	0.9	0.0	0.1	0.0	0.0	30,970	2.3	5,469
Gujranwala	94.5	4.0	0.0	1.0	1.6	0.0	0.1	0.0	0.0	36,313	1.9	1,837
Lahore	83.2	12.3	0.0	2.5	4.7	0.1	0.2	0.1	0.0	43,847	1.3	1,079
Multan	95.6	1.7	0.0	0.1	2.2	0.0	0.4	0.0	0.0	27,788	2.6	500
Rawalpindi	89.9	7.2	0.0	1.2	1.5	0.0	0.1	0.4	0.0	21,767	2.4	1,186
Sahiwal	96.9	0.9	0.0	0.0	2.0	0.0	0.2	0.0	0.0	17,255	3.4	514
Sargodha	98.3	1.0	0.0	0.3	0.3	0.0	0.2	0.1	0.0	19,082	3.0	1,047
<sup>1</sup> MICS indicator 4.2 - Water treatment												
na: not applicable												
<sup>a</sup> Total includes 80 unweighted cases of household head's education missing												

The amount of time it takes to fetch water is presented in Table WS.3 and the person who usually collects the water is included in Table WS.4. Note that for Table WS.3, household members using water on premises are also shown in this table and for others, the results refer to one roundtrip from home to drinking water source. Information on the number of trips made in one day was not collected.

The availability of water on premises is associated with greater use, better family hygiene and better health outcomes. Table WS.3 shows that for 83 percent of the household population, the drinking water source is on premises. For a water collection round trip of 30 minutes or more, it has been observed that households carry progressively less water and are likely to compromise on the minimal

basic drinking water needs of the household.<sup>36</sup> For 7 percent of the household population, it takes the household more than 30 minutes or more to get to the water source and bring water. In urban areas a higher percentage of household members live in households that spend this amount of time in collecting water compared to those in rural areas.

**Table WS.3: Time to source of drinking water**

Percent distribution of household population according to time to go to source of drinking water, get water and return, for users of improved and unimproved drinking water sources, Punjab, 2014.

	Time to source of drinking water									Number of household members
	Users of improved drinking water sources				Users of unimproved drinking water sources					
	Water on premises	Less than 30 minutes	30 minutes or more	Missing /DK	Water on premises	Less than 30 minutes	30 minutes or more	Missing /DK	Total	
Punjab	80.8	8.4	5.2	0.1	1.7	2.1	1.5	0.3	100.0	246,396
Area of residence										
Rural	84.3	7.9	4.8	0.1	0.5	1.2	1.1	0.1	100.0	165,174
All Urban	73.7	9.3	5.9	0.1	4.2	3.9	2.4	0.5	100.0	81,222
Major Cities	70.4	10.1	6.2	0.1	6.4	3.7	2.4	0.7	100.0	42,289
Other Urban	77.3	8.4	5.6	0.2	1.8	4.2	2.3	0.2	100.0	38,933
Education of household head <sup>a</sup>										
None/pre-school	83.9	7.4	5.1	0.1	1.0	1.3	1.2	0.1	100.0	99,632
Primary	82.1	7.5	5.1	0.1	1.8	1.8	1.4	0.3	100.0	43,176
Middle	79.3	9.0	5.4	0.1	1.6	2.3	2.0	0.2	100.0	31,941
Secondary	78.2	9.4	5.1	0.1	2.4	2.8	1.7	0.4	100.0	44,624
Higher	73.2	10.7	5.3	0.2	3.5	4.3	2.2	0.6	100.0	26,950
Wealth index quintile										
Lowest	84.3	7.0	6.3	0.1	0.1	0.5	1.8	0.0	100.0	49,280
Second	87.0	6.2	4.7	0.0	0.4	0.6	0.9	0.1	100.0	49,278
Middle	84.1	7.9	4.3	0.1	1.3	1.4	0.9	0.1	100.0	49,279
Fourth	77.0	9.4	5.0	0.2	2.5	3.2	2.2	0.4	100.0	49,281
Highest	71.5	11.3	5.5	0.1	4.3	4.7	1.9	0.6	100.0	49,278
Division										
Bahawalpur	81.5	6.1	7.5	0.0	0.2	2.1	2.4	0.2	100.0	25,956
D.G. Khan	88.6	2.5	5.0	0.1	0.4	1.2	2.2	0.1	100.0	23,418
Faisalabad	69.9	6.7	5.7	0.1	9.7	4.0	3.2	0.8	100.0	30,970
Gujranwala	77.8	14.9	2.2	0.0	0.2	4.0	0.7	0.1	100.0	36,313
Lahore	84.0	8.4	5.0	0.1	0.9	0.9	0.5	0.2	100.0	43,847
Multan	90.3	5.1	2.7	0.1	0.3	0.8	0.7	0.0	100.0	27,788
Rawalpindi	71.1	13.8	9.3	0.3	2.0	1.3	2.0	0.2	100.0	21,767
Sahiwal	84.8	7.5	4.6	0.0	0.1	1.8	1.1	0.0	100.0	17,255
Sargodha	79.9	8.1	6.5	0.0	0.5	2.2	1.9	0.9	100.0	19,082
<sup>a</sup> Total includes 80 unweighted cases of household head's education missing										

<sup>a</sup> Total includes 80 unweighted cases of household head's education missing

<sup>36</sup> Cairncross, S and Cliff, JL. 1987. *Water use and Health in Mueda, Mozambique*. Transactions of the Royal Society of Tropical Medicine and Hygiene 81: 51-4.

Table WS.4 shows that for more than half of households (53%), an adult male usually collects drinking water when the source is not on the premises. Adult women collect water in 34 percent of cases, while for the rest of the households, female or male children under age 15 collect water (11%). In rural areas, an adult female usually collects drinking water (46%) in contrast to urban areas where mostly males (72%) collect the water.

<b>Table WS.4: Person collecting water</b>									
Percentage of households without drinking water on premises, and percent distribution of households without drinking water on premises according to the person usually collecting drinking water used in the household, Punjab, 2014.									
	Percentage of households without drinking water on premises	Number of households	Person usually collecting drinking water						Number of households without drinking water on premises
			Adult woman (age 15+ years)	Adult man (age 15+ years)	Female child (under 15)	Male child (under 15)	DK / Missing	Total	
<b>Punjab</b>	17.8	38,405	33.7	53.2	3.5	7.5	2.2	100.0	6,831
<b>Area of residence</b>									
Rural	15.4	25,577	45.9	39.5	4.8	8.1	1.8	100.0	3,947
All Urban	22.5	12,828	16.9	72.0	1.8	6.6	2.7	100.0	2,884
Major Cities	23.7	6,717	16.8	72.1	1.8	6.2	3.1	100.0	1,595
Other Urban	21.1	6,111	17.1	71.9	1.8	7.0	2.2	100.0	1,289
<b>Education of household head<sup>a</sup></b>									
None/pre-school	15.2	15,399	47.8	39.4	4.9	6.4	1.5	100.0	2,341
Primary	16.6	6,639	33.6	49.5	4.1	9.3	3.6	100.0	1,102
Middle	19.4	4,863	30.3	54.3	3.5	10.2	1.7	100.0	941
Secondary	19.9	7,022	26.0	62.0	2.5	7.7	1.9	100.0	1,398
Higher	23.4	4,472	15.2	75.2	1.4	5.3	2.9	100.0	1,045
<b>Wealth index quintile</b>									
Lowest	15.8	8,027	64.3	23.9	6.0	4.4	1.5	100.0	1,268
Second	12.9	7,721	49.6	34.3	4.1	9.2	2.8	100.0	996
Middle	15.1	7,508	34.0	49.8	3.9	10.9	1.4	100.0	1,133
Fourth	20.8	7,551	23.2	63.3	3.3	8.1	2.1	100.0	1,569
Highest	24.5	7,598	13.0	76.8	1.5	6.0	2.8	100.0	1,865
<b>Division</b>									
Bahawalpur	17.9	4,091	40.6	52.1	2.4	4.5	0.5	100.0	732
D.G. Khan	11.1	3,436	40.4	46.4	3.6	7.3	2.2	100.0	382
Faisalabad	20.9	4,889	22.6	66.9	1.6	7.3	1.7	100.0	1,019
Gujranwala	22.0	5,569	25.7	55.2	5.2	11.9	2.0	100.0	1,222
Lahore	15.6	6,631	16.6	67.1	3.9	8.4	4.1	100.0	1,036
Multan	9.8	4,633	33.1	56.8	3.1	4.7	2.3	100.0	453
Rawalpindi	27.1	3,633	52.3	35.6	3.9	5.7	2.4	100.0	983
Sahiwal	16.2	2,638	44.2	40.6	5.8	8.1	1.3	100.0	427
Sargodha	20.0	2,885	48.2	42.1	2.3	5.3	2.1	100.0	577

<sup>a</sup> Total includes 3 unweighted cases of household head's education missing

## Use of Improved Sanitation

An improved sanitation facility is defined as one that hygienically separates human excreta from human contact. Improved sanitation facilities for excreta disposal include flush or pour flush to a piped sewer system, septic tank, or pit latrine; ventilated improved pit latrine, pit latrine with slab, and use of a composting toilet. The data on the use of improved sanitation facilities in Punjab are provided in Table WS.5.

Seventy five percent of the population is living in households using improved sanitation facilities (Table WS.5), with a higher proportion in urban areas (92%) compared to rural areas (67%). Across divisions, use of improved sanitation facilities is most common in Lahore division (90%) and least common in Multan division (50%). The table indicates that use of improved sanitation facilities is strongly associated with wealth. Only 25 percent of the population living in the households in lowest quintile is using improved sanitation compared to 93 percent of the population living in the households in highest quintile.

In Punjab, 18 percent of the population has no access to toilet facilities. In rural areas, the percentage of the population practicing open defecation is 25percent in contrast to only 1 percent of the population in urban areas. The population with no access to facilities is even higher among the population living in households in the lowest quintile (69%) and those in DG Khan division (41%).



**Table WS.5: Types of sanitation facilities**

Percent distribution of household population according to type of toilet facility used by the household, Punjab, 2014.

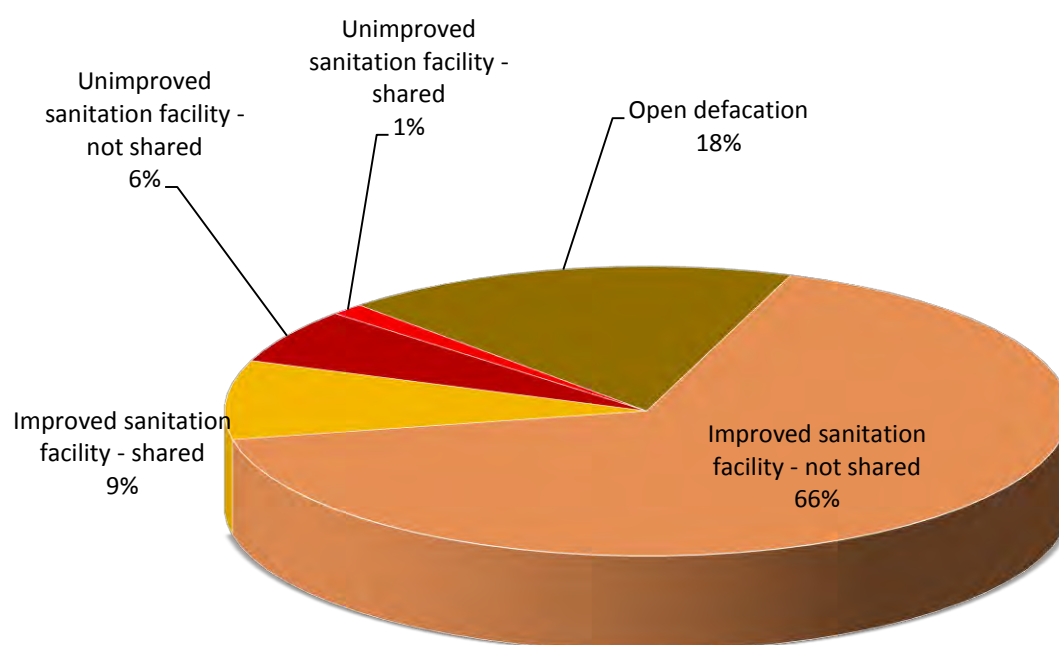
	Type of toilet facility used by household												Open defecation (no facility, bush, field)	Total	Number of household members
	Improved sanitation facility							Unimproved sanitation facility							
	Flush/Pour flush to:				Ventilated improved pit latrine	Pit latrine with slab	Compos- ting toilet	Flush/ Pour flush to somewhere else	Pit latrine without slab/ open pit	Bucket	Other	DK/ Missing			
	Piped sewer system	Septic tank	Pit latrine	Unknown place/not sure/DK where											
Punjab	21.3	44.1	8.7	0.3	0.2	0.6	0.0	6.8	0.2	0.0	0.2	0.1	17.5	100.0	246,396
Area of residence															
Rural	4.1	49.1	12.2	0.3	0.3	0.8	0.0	7.2	0.3	0.0	0.3	0.0	25.4	100.0	165,174
All Urban	56.3	33.8	1.5	0.3	0.1	0.1	0.0	6.2	0.1	0.0	0.1	0.3	1.2	100.0	81,222
Major Cities	78.9	16.6	0.4	0.3	0.1	0.0	0.0	2.7	0.0	0.0	0.1	0.4	0.4	100.0	42,289
Other Urban	31.8	52.4	2.6	0.3	0.1	0.3	0.0	9.9	0.1	0.0	0.1	0.2	2.2	100.0	38,933
Education of household head <sup>a</sup>															
None/pre-school	13.1	38.1	9.4	0.3	0.3	0.7	0.0	7.5	0.3	0.1	0.3	0.1	29.8	100.0	99,632
Primary	18.8	46.8	9.4	0.4	0.2	0.6	0.0	8.0	0.2	0.0	0.1	0.2	15.2	100.0	43,176
Middle	22.3	48.5	10.3	0.2	0.2	0.5	0.0	6.5	0.1	0.0	0.3	0.1	11.0	100.0	31,941
Secondary	27.5	51.9	7.5	0.2	0.1	0.3	0.0	5.6	0.2	0.0	0.1	0.2	6.4	100.0	44,624
Higher	43.8	43.6	4.7	0.4	0.1	0.4	0.0	5.1	0.0	0.0	0.0	0.2	1.6	100.0	26,950
Wealth index quintile															
Lowest	0.6	12.2	10.1	0.3	0.4	1.0	0.0	4.9	0.5	0.1	0.4	0.1	69.4	100.0	49,280
Second	3.6	48.0	18.3	0.5	0.4	1.2	0.0	10.8	0.4	0.0	0.4	0.1	16.4	100.0	49,278
Middle	11.8	65.1	11.1	0.3	0.2	0.5	0.0	9.4	0.1	0.0	0.1	0.1	1.4	100.0	49,279
Fourth	30.2	58.9	3.4	0.3	0.0	0.1	0.0	6.7	0.0	0.0	0.0	0.2	0.1	100.0	49,281
Highest	60.3	36.2	0.6	0.2	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.3	0.0	100.0	49,278
Division															
Bahawalpur	18.2	11.9	27.4	0.5	0.3	1.5	0.0	10.6	0.5	0.0	0.4	0.0	28.7	100.0	25,956
D.G. Khan	2.6	45.2	5.5	0.4	0.3	2.6	0.1	1.5	1.0	0.1	0.2	0.0	40.6	100.0	23,418
Faisalabad	23.8	53.7	1.5	0.1	0.1	0.0	0.0	3.3	0.1	0.0	0.2	0.1	17.3	100.0	30,970
Gujranwala	8.8	80.4	0.1	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.3	0.1	8.4	100.0	36,313
Lahore	50.1	39.0	0.3	0.7	0.0	0.0	0.0	5.5	0.0	0.0	0.1	0.3	3.7	100.0	43,847
Multan	21.5	16.7	11.1	0.1	0.2	1.2	0.0	28.5	0.2	0.0	0.3	0.1	20.1	100.0	27,788
Rawalpindi	12.3	56.2	18.2	0.3	0.2	0.1	0.0	1.6	0.1	0.0	0.2	0.2	10.4	100.0	21,767
Sahiwal	22.5	39.6	8.8	0.7	0.0	0.1	0.0	7.8	0.1	0.0	0.0	0.0	20.5	100.0	17,255
Sargodha	10.6	43.5	19.7	0.1	1.0	0.1	0.0	0.5	0.1	0.0	0.0	0.1	24.3	100.0	19,082

<sup>a</sup> Total includes 80 unweighted cases of household head's education missing

The MDGs and the WHO / UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation classify otherwise acceptable sanitation facilities which are public or shared between two or more households as unimproved. Therefore, the term “use of improved sanitation” is used both in the context of this report and as an MDG indicator to refer to improved sanitation facilities, which are not public or shared.

Table WS.6 shows that 66 percent of the household population is using an improved sanitation facility which is not shared. Only 9 percent of households use an improved sanitation facility that is public or shared with other households. The population living in the households in the lowest quintile is less likely to use the improved sanitation that is not shared compared to the population residing in the households in the higher quintiles. Figure WS.2 presents the distribution of the survey population by use and sharing of sanitation facilities.

**Figure WS.2: Percent distribution of household members by use and sharing of sanitation facilities, MICS Punjab, 2014**



**Table WS.6: Use and sharing of sanitation facilities**

Percent distribution of household population by use of private and public sanitation facilities and use of shared facilities, by users of improved and unimproved sanitation facilities, Punjab, 2014.

	Users of improved sanitation facilities				Users of unimproved sanitation facilities				Open defecation (no facility, bush, field)	Total	Number of household members
	Not shared <sup>1</sup>	Public facility	Shared by		Not shared	Public facility	Shared by				
			5 households or less	More than 5 households			5 households or less	More than 5 households			
Punjab	66.2	0.1	8.6	0.2	6.1	0.0	1.3	0.0	17.5	100.0	246,396
Area of residence											
Rural	57.4	0.0	9.1	0.3	6.3	0.0	1.4	0.0	25.4	100.0	165,174
All Urban	84.1	0.1	7.7	0.1	5.7	0.0	0.9	0.0	1.2	100.0	81,222
Major Cities	88.5	0.1	7.5	0.2	2.7	0.0	0.5	0.0	0.4	100.0	42,289
Other Urban	79.4	0.0	8.0	0.1	8.9	0.0	1.4	0.0	2.2	100.0	38,933
Education of household head <sup>a</sup>											
None/pre-school	52.9	0.0	8.8	0.2	6.8	0.0	1.4	0.0	29.8	100.0	99,632
Primary	65.9	0.1	10.0	0.3	7.0	0.0	1.4	0.0	15.2	100.0	43,176
Middle	71.9	0.1	10.0	0.1	5.5	0.0	1.4	0.0	11.0	100.0	31,941
Secondary	79.0	0.0	8.2	0.2	5.0	0.0	1.1	0.0	6.4	100.0	44,624
Higher	87.7	0.1	5.1	0.1	4.5	0.0	0.8	0.0	1.6	100.0	26,950
Wealth index quintile											
Lowest	16.7	0.1	7.4	0.5	4.3	0.0	1.6	0.0	69.4	100.0	49,280
Second	58.0	0.1	13.6	0.2	9.4	0.0	2.3	0.0	16.4	100.0	49,278
Middle	76.8	0.0	11.8	0.2	8.1	0.0	1.5	0.0	1.4	100.0	49,279
Fourth	84.5	0.0	8.1	0.1	6.2	0.0	0.8	0.0	0.1	100.0	49,281
Highest	95.0	0.1	2.2	0.0	2.5	0.0	0.2	0.0	0.0	100.0	49,278
Division											
Bahawalpur	54.0	0.1	5.5	0.2	10.5	0.0	0.9	0.0	28.7	100.0	25,956
D.G. Khan	44.9	0.1	10.7	0.9	1.8	0.0	0.9	0.1	40.6	100.0	23,418
Faisalabad	69.7	0.0	9.4	0.0	2.9	0.0	0.7	0.0	17.3	100.0	30,970
Gujranwala	80.6	0.1	8.6	0.1	1.8	0.0	0.4	0.0	8.4	100.0	36,313
Lahore	81.7	0.0	8.3	0.2	4.8	0.0	1.2	0.0	3.7	100.0	43,847
Multan	41.9	0.0	8.7	0.2	23.9	0.0	5.1	0.0	20.1	100.0	27,788
Rawalpindi	82.1	0.0	5.0	0.1	1.9	0.0	0.3	0.0	10.4	100.0	21,767
Sahiwal	61.8	0.0	9.8	0.1	6.4	0.0	1.5	0.0	20.5	100.0	17,255
Sargodha	61.4	0.1	13.1	0.4	0.4	0.0	0.2	0.0	24.3	100.0	19,082

<sup>1</sup> MICS indicator 4.3; MDG indicator 7.9 - Use of improved sanitation

<sup>a</sup> Total includes 80 unweighted cases of household head's education missing

Having access to both an improved drinking water source and an improved sanitation facility brings the largest public health benefits to a household.<sup>37</sup> In its 2008 report<sup>38</sup>, the JMP developed a new way of presenting the access figures, by disaggregating and refining the data on drinking-water and sanitation and reflecting them in "ladder" format. This ladder allows a disaggregated analysis of trends in a three rung ladder for drinking-water and a four-rung ladder for sanitation. For sanitation, this gives an understanding of the proportion with no sanitation facilities at all – who revert to open defecation, of those reliant on technologies defined by JMP as "unimproved," of those sharing sanitation facilities of otherwise acceptable technology, and those using "improved" sanitation facilities.

Table WS.7 presents the percentages of household population by these drinking water and sanitation ladders. The table also shows the percentage of household members using both improved sources of drinking water<sup>39</sup> and an improved sanitary means of excreta disposal. Overall, 62 percent of the population is using both improved drinking water and improved sanitation. At divisional level, access to an improved drinking water source and improved sanitation facility is highest in Lahore (80%) followed by Rawalpindi (78%) and lowest in Multan division (41%). The population in urban areas is more likely to use improved drinking water sources and improved sanitation than in rural areas (74% and 55% respectively). There are also notable differences across wealth quintiles ranging from 17 percent of population living in the households in the lowest quintile to 84 percent of population living in the households in the highest quintile. The results are presented by area of residence and wealth quintiles in Figure WS.3.

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<sup>37</sup> Wolf, J et al. 2014. *Systematic review: Assessing the impact of drinking water and sanitation on diarrhoeal disease in low- and middle-income settings: systematic review and meta-regression*. Tropical Medicine and International Health 2014. DfID. 2013. *Water, Sanitation and Hygiene: Evidence Paper*. DfID:

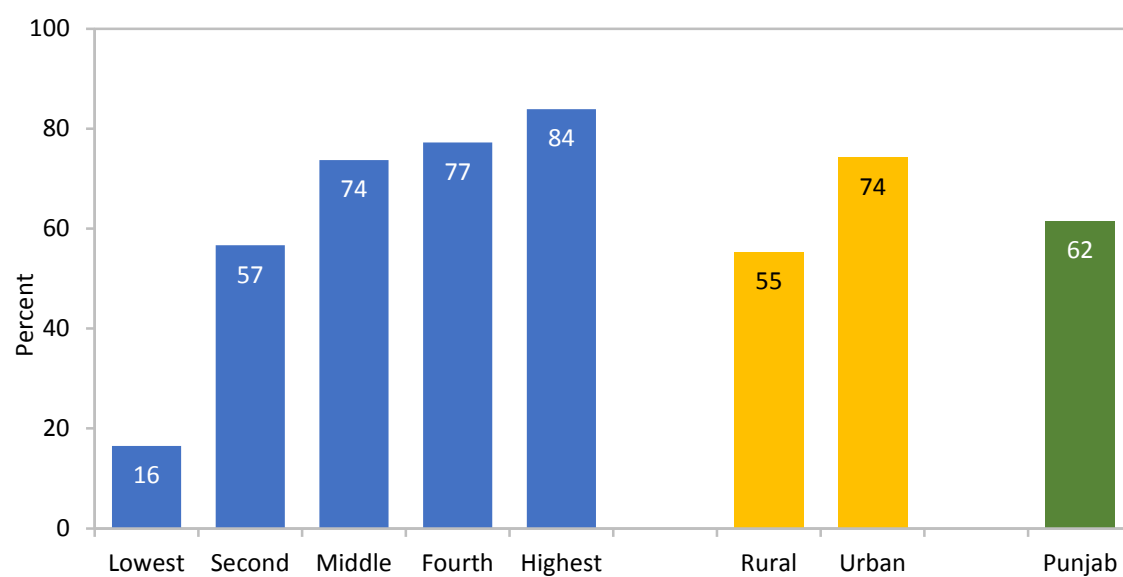
<http://r4d.dfid.gov.uk/pdf/outputs/sanitation/WASH-evidence-paper-april2013.pdf>

<sup>38</sup> WHO/UNICEF JMP. 2008. *MDG assessment report*.

[http://www.wssinfo.org/fileadmin/user\\_upload/resources/1251794333-JMP\\_08\\_en.pdf](http://www.wssinfo.org/fileadmin/user_upload/resources/1251794333-JMP_08_en.pdf)

<sup>39</sup> Those indicating bottled water as the main source of drinking water are distributed according to the water source used for other purposes such as cooking and handwashing.

**Figure WS.3: Use of improved drinking water sources and improved sanitation facilities by household members, MICS Punjab, 2014**



**Table WS.7: Drinking water and sanitation ladders**

Percentage of household population by drinking water and sanitation ladders, Punjab, 2014.

	Percentage of household population using:									Improved drinking water sources and improved sanitation	Number of household members
	Improved drinking water <sup>1</sup>				Unimproved sanitation						
	Piped into dwelling, plot or yard	Other improved	Unimproved drinking water	Total	Improved sanitation <sup>2</sup>	Shared improved facilities	Unimproved facilities	Open defecation	Total		
<b>Punjab</b>	13.8	80.6	5.6	100.0	66.2	8.9	7.4	17.5	100.0	61.6	246,396
<b>Area of residence</b>											
Rural	6.3	90.7	3.0	100.0	57.4	9.4	7.8	25.4	100.0	55.4	165,174
All Urban	28.9	60.1	11.0	100.0	84.1	8.0	6.6	1.2	100.0	74.3	81,222
Major Cities	41.7	45.1	13.2	100.0	88.5	7.9	3.2	0.4	100.0	76.5	42,289
Other Urban	15.1	76.3	8.5	100.0	79.4	8.1	10.3	2.2	100.0	71.8	38,933
<b>Education of household head<sup>b</sup></b>											
None/pre-school	9.6	86.9	3.5	100.0	52.9	9.1	8.2	29.8	100.0	50.6	99,632
Primary	13.1	81.6	5.3	100.0	65.9	10.4	8.5	15.2	100.0	61.8	43,176
Middle	16.2	77.6	6.1	100.0	71.9	10.2	6.9	11.0	100.0	66.8	31,941
Secondary	16.6	76.2	7.2	100.0	79.0	8.5	6.0	6.4	100.0	72.6	44,624
Higher	22.5	67.0	10.6	100.0	87.7	5.4	5.3	1.6	100.0	77.8	26,950
<b>Wealth index quintile</b>											
Lowest	2.4	95.3	2.4	100.0	16.7	8.0	5.9	69.4	100.0	16.5	49,280
Second	7.2	90.8	2.0	100.0	58.0	13.9	11.7	16.4	100.0	56.7	49,278
Middle	11.6	84.7	3.7	100.0	76.8	12.1	9.7	1.4	100.0	73.7	49,279
Fourth	17.3	74.3	8.4	100.0	84.5	8.4	7.0	0.1	100.0	77.3	49,281
Highest	30.3	58.1	11.6	100.0	95.0	2.3	2.7	0.0	100.0	83.9	49,278
<b>Division</b>											
Bahawalpur	13.9	81.2	4.9	100.0	54.0	5.8	11.5	28.7	100.0	50.2	25,956
D.G. Khan	1.9	94.2	3.9	100.0	44.9	11.7	2.8	40.6	100.0	42.9	23,418
Faisalabad	9.8	72.6	17.7	100.0	69.7	9.5	3.6	17.3	100.0	53.7	30,970
Gujranwala	6.0	88.9	5.1	100.0	80.6	8.7	2.2	8.4	100.0	75.8	36,313
Lahore	35.9	61.7	2.5	100.0	81.7	8.5	6.0	3.7	100.0	79.9	43,847
Multan	7.6	90.6	1.8	100.0	41.9	9.0	29.0	20.1	100.0	40.8	27,788
Rawalpindi	19.0	75.6	5.4	100.0	82.1	5.2	2.2	10.4	100.0	78.2	21,767
Sahiwal	7.5	89.6	3.0	100.0	61.8	9.9	7.9	20.5	100.0	59.3	17,255
Sargodha	7.3	87.2	5.5	100.0	61.4	13.6	0.6	24.3	100.0	57.4	19,082

<sup>1</sup> MICS indicator 4.1; MDG indicator 7.8 - Use of improved drinking water sources

<sup>2</sup> MICS indicator 4.3; MDG indicator 7.9 - Use of improved sanitation

<sup>a</sup> Those indicating bottled water as the main source of drinking water are distributed according to the water source used for other purposes such as cooking and handwashing.

<sup>b</sup> Total includes 80 unweighted cases of household head's education missing

Safe disposal of a child's faeces is disposing of the stool, by the child using a toilet or by rinsing it into a toilet or latrine. Putting disposable diapers with solid waste, a very common practice throughout the world has thus far been classified as an inadequate means of disposal of child faeces for concerns about poor disposal of solid waste itself. This classification is currently under review.

Disposal of faeces of children 0-2 years of age is presented in Table WS.8. The stools of 71 percent of the children age 0-2 years were disposed of safely. The most commonly method of children's stool disposal is putting or rinsing into toilet or latrine (65%). For 17 percent of children, stool was thrown into garbage and 6 percent of children used toilet or latrine. Safe disposal of child's faeces is much more common in urban (89%) compared to rural areas (64%). Mothers with higher education are more likely to dispose of the stool safely (87%) compared to those having only pre-school or no education (55%).

<b>Table WS.8: Disposal of child's faeces</b>											
Percent distribution of children age 0-2 years according to place of disposal of child's faeces, and the percentage of children age 0-2 years whose stools were disposed of safely the last time the child passed stools, Punjab, 2014.											
	<b>Place of disposal of child's faeces</b>									Percentage of children whose last stools were disposed of safely <sup>1</sup>	Number of children age 0-2 years
	Child used toilet/latrine	Put/rinsed into toilet or latrine	Put/rinsed into drain or ditch	Thrown into garbage (solid waste)	Buried	Left in the open	Other	DK / Missing	Total		
<b>Punjab</b>	6.1	65.3	6.4	16.8	1.2	3.2	0.4	0.7	100.0	71.4	16,028
<b>Area of residence</b>											
Rural	5.0	58.8	7.6	21.3	1.6	4.6	0.5	0.7	100.0	63.8	11,097
All Urban	8.5	80.0	3.6	6.6	0.1	0.2	0.2	0.8	100.0	88.5	4,931
Major Cities	8.5	79.7	4.0	7.2	0.1	0.0	0.1	0.5	100.0	88.1	2,537
Other Urban	8.5	80.3	3.3	6.0	0.2	0.3	0.3	1.1	100.0	88.8	2,394
<b>Type of sanitation facility used by household members</b>											
Improved	7.5	78.2	3.9	8.5	0.3	0.8	0.2	0.6	100.0	85.7	11,827
Unimproved	6.4	75.4	5.4	8.9	0.5	2.3	0.2	0.9	100.0	81.8	1,182
Open defecation	0.4	10.8	16.3	52.4	4.8	13.1	1.3	0.9	100.0	11.2	3,019
<b>Mother's education</b>											
None/pre-school	4.1	51.1	9.0	26.2	2.3	5.9	0.5	0.8	100.0	55.2	7,294
Primary	6.5	73.4	4.7	12.0	0.5	2.0	0.2	0.7	100.0	79.9	2,968
Middle	7.0	79.3	3.8	8.0	0.0	0.6	0.4	0.8	100.0	86.3	1,661
Secondary	9.1	79.8	2.9	6.8	0.2	0.5	0.2	0.5	100.0	88.9	2,182
Higher	8.7	78.1	4.9	7.4	0.1	0.0	0.2	0.5	100.0	86.8	1,923
<b>Wealth index quintile</b>											
Lowest	1.1	22.9	13.6	45.5	4.0	11.1	0.8	0.9	100.0	24.0	3,486
Second	5.1	64.6	7.3	17.3	1.2	3.3	0.4	0.7	100.0	69.8	3,254
Middle	7.1	82.0	3.4	5.9	0.2	0.5	0.1	0.7	100.0	89.1	3,228
Fourth	8.7	83.8	3.0	3.3	0.0	0.1	0.3	0.6	100.0	92.5	3,163
Highest	9.2	78.2	3.5	8.5	0.0	0.0	0.1	0.5	100.0	87.4	2,898
<b>Division</b>											
Bahawalpur	7.8	50.6	7.2	21.5	5.6	6.4	0.0	0.9	100.0	58.4	1,687
D.G. Khan	3.5	36.3	13.8	33.0	1.4	10.5	0.1	1.3	100.0	39.8	1,767
Faisalabad	4.4	75.4	2.4	15.3	0.5	1.2	0.4	0.3	100.0	79.8	1,928
Gujranwala	8.1	78.7	3.3	7.8	0.1	1.0	0.2	0.8	100.0	86.8	2,417
Lahore	9.1	80.2	2.5	6.2	0.3	1.2	0.1	0.4	100.0	89.4	2,746
Multan	3.5	65.5	6.8	19.1	0.4	3.3	0.1	1.2	100.0	69.0	1,777
Rawalpindi	10.3	48.9	14.2	20.0	0.8	2.6	2.6	0.6	100.0	59.3	1,274
Sahiwal	2.7	72.4	7.6	14.1	0.7	1.8	0.3	0.4	100.0	75.1	1,224
Sargodha	1.9	61.1	5.4	26.8	1.7	2.3	0.3	0.5	100.0	63.0	1,208
<sup>1</sup> MICS indicator 4.4 - Safe disposal of child's faeces											

## Handwashing

Handwashing with water and soap is the most cost effective health intervention to reduce both the incidence of diarrhoea and pneumonia in children under five<sup>40</sup>. It is most effective when done using water and soap after visiting a toilet or cleaning a child, before eating or handling food and, before feeding a child. Monitoring correct handwashing behaviour at these critical times is challenging. A reliable alternative to observations or self-reported behaviour is assessing the likelihood that correct handwashing behaviour takes place by asking if a household has a specific place where people wash their hands and, if yes, observing whether water and soap (or other local cleansing materials) are available at this place<sup>41</sup>.

In Punjab, a specific place for handwashing is observed in 98 percent of the households while only less than 1 percent of households could not indicate a specific place where household members usually wash their hands (Table WS.9). Among households where a place for handwashing is observed, 80 percent had both water and soap (or another cleansing agent) present at the specific place. In 17 percent of the households, only water is available at the specific place, while in less than 1 percent of the households, the place has soap but no water. The remaining 2 percent of households have neither water nor soap available at the specific place for handwashing.

Among divisions, 92 percent of households in Lahore have water and soap available at a place for handwashing compared to 57 percent of households in D.G Khan. There are also notable differences by wealth quintile. Percentage of households in the highest wealth quintile having water and soap available at a place for handwashing is more than twice as high compared to households in the lowest wealth quintile (98% and 45% respectively).

Results presented in Table WS.10 show that 2 percent of the households were not able or refused to show any soap present in the household, whereas another 5 percent did not have any soap in the households, leaving the remaining 93 percent of households, in which either the soap was observed or shown to the interviewer.

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<sup>40</sup> Cairncross, S and Valdmanis, V. 2006. *Water supply, sanitation and hygiene promotion* Chapter 41 in *Disease Control Priorities in Developing Countries*. 2<sup>nd</sup> Edition, Edt. Jameson et al. The World Bank.

<sup>41</sup> Ram, P et al. editors. 2008. *Use of a novel method to detect reactivity to structured observation for measurement of handwashing behavior*. American Society of Tropical Medicine and Hygiene.



**Table WS.9: Water and soap at place for handwashing**

Percentage of households where place for handwashing was observed, percentage with no specific place for handwashing, and percent distribution of households by availability of water and soap at specific place for handwashing, Punjab, 2014.

	Percentage of households:			Place for handwashing observed						No specific place for handwashing in the dwelling, yard, or plot	Total	Percentage of households with a specific place for handwashing where water and soap or other cleansing agent are present <sup>1</sup>	Number of households where place for handwashing was observed or with no specific place for handwashing
	Where place for handwashing was observed	With no specific place for handwashing in the dwelling, yard, or plot	Number of households	Water is available and:			Water is not available and:						
				Soap present	No soap:		Soap present	No soap:					
					Ash, mud, or sand present	No other cleansing agent present		Ash, mud, or sand present	No other cleansing agent present				
<b>Punjab</b>	97.9	0.5	38,405	78.3	1.3	16.9	0.6	0.0	2.4	0.5	100.0	79.6	37,790
<b>Area of residence</b>													
Rural	98.4	0.7	25,577	71.2	1.9	22.3	0.6	0.1	3.2	0.7	100.0	73.1	25,365
All Urban	96.8	0.1	12,828	92.8	0.1	5.7	0.6	0.0	0.7	0.1	100.0	92.9	12,425
Major Cities	95.1	0.2	6,717	95.3	0.0	3.5	0.6	0.0	0.3	0.2	100.0	95.4	6,397
Other Urban	98.6	0.0	6,111	90.1	0.2	8.1	0.5	0.0	1.0	0.0	100.0	90.3	6,028
<b>Education of household head<sup>a</sup></b>													
None/pre-school	98.2	0.9	15,399	67.1	2.3	25.1	0.8	0.1	3.7	0.9	100.0	69.5	15,256
Primary	98.2	0.5	6,639	78.7	1.1	16.7	0.5	0.0	2.4	0.5	100.0	79.9	6,554
Middle	98.0	0.3	4,863	83.1	0.6	13.3	0.6	0.0	2.0	0.3	100.0	83.8	4,778
Secondary	97.7	0.1	7,022	89.2	0.4	9.0	0.6	0.0	0.8	0.1	100.0	89.5	6,866
Higher	96.6	0.2	4,472	94.2	0.2	4.8	0.3	0.0	0.3	0.2	100.0	94.3	4,327
<b>Wealth index quintile</b>													
Lowest	97.1	2.0	8,027	40.1	5.0	44.6	0.7	0.2	7.3	2.1	100.0	45.1	7,960
Second	99.2	0.2	7,721	73.7	1.1	21.3	1.0	0.0	2.7	0.2	100.0	74.8	7,675
Middle	99.2	0.1	7,508	89.2	0.1	9.2	0.6	0.0	0.9	0.1	100.0	89.3	7,451
Fourth	97.8	0.1	7,551	93.4	0.1	5.7	0.5	0.0	0.3	0.1	100.0	93.4	7,394
Highest	96.1	0.1	7,598	98.2	0.0	1.2	0.4	0.0	0.1	0.1	100.0	98.2	7,310
<b>Division</b>													
Bahawalpur	99.0	0.7	4,091	62.1	1.7	31.6	0.3	0.1	3.5	0.8	100.0	63.8	4,081
D.G. Khan	99.2	0.3	3,436	51.4	5.9	36.1	0.6	0.2	5.5	0.3	100.0	57.3	3,418
Faisalabad	98.9	0.5	4,889	83.8	1.6	12.3	0.3	0.0	1.5	0.5	100.0	85.5	4,861
Gujranwala	98.2	0.1	5,569	90.3	0.1	8.4	0.4	0.0	0.6	0.1	100.0	90.5	5,475
Lahore	97.0	0.4	6,631	91.2	0.3	6.5	0.9	0.0	0.8	0.4	100.0	91.4	6,458
Multan	98.3	0.8	4,633	72.1	1.4	22.9	0.3	0.1	2.4	0.8	100.0	73.5	4,591
Rawalpindi	93.6	0.4	3,633	86.8	0.0	6.7	1.6	0.0	4.4	0.4	100.0	86.8	3,414
Sahiwal	98.7	1.0	2,638	82.3	2.1	8.8	1.0	0.1	4.7	1.0	100.0	84.4	2,632
Sargodha	98.2	1.0	2,885	67.9	0.0	30.3	0.2	0.0	0.6	1.0	100.0	68.0	2,863

<sup>1</sup> MICS indicator 4.5 - Place for handwashing

<sup>a</sup> Total includes 11 unweighted cases of household head's education missing

**Table WS.10: Availability of soap or other cleansing agent**

Percent distribution of households by availability of soap or other cleansing agent in the dwelling, Punjab, 2014.

	Place for handwashing observed					Place for handwashing not observed			Total	Percentage of households with soap or other cleansing agent anywhere in the dwelling <sup>1</sup>	Number of households
	Soap or other cleansing agent observed	Soap or other cleansing agent not observed at place for handwashing				Soap or other cleansing agent shown	No soap or other cleansing agent in household	Not able/Does not want to show soap or other cleansing agent			
		Soap or other cleansing agent shown	No soap or other cleansing agent in household	Not able/Does not want to show soap or other cleansing agent	Missing						
Punjab	78.9	13.2	4.3	1.2	0.2	0.6	0.4	1.1	100.0	92.8	38,405
Area of residence											
Rural	73.1	17.6	5.9	1.6	0.2	0.8	0.3	0.5	100.0	91.5	25,577
All Urban	90.6	4.4	1.2	0.5	0.1	0.4	0.4	2.4	100.0	95.3	12,828
Major Cities	91.4	2.5	0.8	0.3	0.1	0.6	0.6	3.7	100.0	94.5	6,717
Other Urban	89.6	6.4	1.7	0.8	0.1	0.2	0.2	1.0	100.0	96.2	6,111
Education of household head <sup>a</sup>											
None/pre-school	69.7	19.1	7.4	1.8	0.2	0.8	0.4	0.6	100.0	89.5	15,399
Primary	79.4	13.5	4.0	1.1	0.2	0.7	0.3	0.7	100.0	93.6	6,639
Middle	82.9	11.3	2.5	1.0	0.3	0.5	0.4	1.1	100.0	94.7	4,863
Secondary	88.1	7.1	1.6	0.7	0.2	0.4	0.2	1.7	100.0	95.6	7,022
Higher	91.6	4.0	0.5	0.4	0.0	0.4	0.3	2.6	100.0	96.0	4,472
Wealth index quintile											
Lowest	45.6	33.9	14.3	3.0	0.3	1.7	0.8	0.3	100.0	81.2	8,027
Second	75.3	17.6	4.6	1.5	0.2	0.4	0.1	0.2	100.0	93.3	7,721
Middle	89.2	7.6	1.3	0.8	0.2	0.2	0.1	0.5	100.0	97.0	7,508
Fourth	91.9	4.5	0.7	0.6	0.1	0.3	0.4	1.4	100.0	96.8	7,551
Highest	94.8	1.0	0.1	0.1	0.0	0.5	0.3	3.2	100.0	96.2	7,598
Division											
Bahawalpur	64.0	24.4	8.1	2.3	0.1	0.6	0.2	0.2	100.0	89.1	4,091
D.G. Khan	57.8	30.0	9.8	1.5	0.1	0.5	0.2	0.1	100.0	88.2	3,436
Faisalabad	85.3	8.5	3.8	1.3	0.1	0.4	0.3	0.3	100.0	94.2	4,889
Gujranwala	89.3	5.8	1.7	1.2	0.2	0.2	0.2	1.4	100.0	95.3	5,569
Lahore	89.9	4.1	1.9	1.0	0.1	0.5	0.6	1.8	100.0	94.5	6,631
Multan	73.2	18.0	5.8	1.1	0.2	1.0	0.3	0.5	100.0	92.1	4,633
Rawalpindi	83.1	7.2	1.9	1.0	0.3	1.2	0.6	4.6	100.0	91.5	3,633
Sahiwal	85.2	7.3	5.8	0.3	0.1	0.8	0.3	0.3	100.0	93.3	2,638
Sargodha	67.6	25.5	3.6	1.3	0.3	1.1	0.4	0.3	100.0	94.2	2,885

<sup>1</sup> MICS indicator 4.6 - Availability of soap or other cleansing agent

<sup>a</sup> Total includes 11 unweighted cases of household head's education missing