

The sample of respondents selected in the Punjab Multiple Indicator Cluster Survey is only one of the samples that could have been selected from the same population, using the same design and size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between the estimates from all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey data.

The following sampling error measures are presented in this appendix for each of the selected indicators:

Standard error (*se*): Sampling errors are usually measured in terms of standard errors for particular indicators (means, proportions etc.). Standard error is the square root of the variance of the estimate. The Taylor linearization method is used for the estimation of standard errors. Coefficient of variation ( $se/r$ ) is the ratio of the standard error to the value of the indicator, and is a measure of the relative sampling error.

Design effect (*deff*) is the ratio of the actual variance of an indicator, under the sampling method used in the survey, to the variance calculated under the assumption of simple random sampling. The square root of the design effect (*deff*) is used to show the efficiency of the sample design in relation to the precision. A *deff* value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a *deff* value above 1.0 indicates an increase in the standard error due to the use of a more complex sample design.

Confidence limits are calculated to show the interval within which the true value for the population can be reasonably assumed to fall, with a specified level of confidence. For any given statistic calculated from the survey, the value of that statistic will fall within a range of plus or minus two times the standard error ( $r + 2.se$  or  $r - 2.se$ ) of the statistic in 95 percent of all possible samples of identical size and design.

For the calculation of sampling errors from MICS data, SPSS Version 18 Complex Samples module has been used. The results are shown in the tables that follow. In addition to the sampling error measures described above, the tables also include weighted and unweighted counts of denominators for each indicator.

Sampling errors are calculated for indicators of primary interest, for the provincial level. Only one of the selected indicators is based on households, 4 are based on household members, 14 are based on women and 14 are based on children under 5. All indicators presented here are in the form of proportions. Table SE.1 shows the list of indicators for which sampling errors are calculated, including the base population (denominator) for each indicator. Tables SE.3 shows the calculated sampling errors for Punjab overall.

**Table SE.1: Indicators selected for sampling error calculations, MICS Punjab, 2011**

List of indicators selected for sampling error calculations, and base populations (denominators) for each indicator

MICS4 Indicator	Base Population
<b>HOUSEHOLD</b>	
2.16 Iodized salt consumption	All households
<b>HOUSEHOLD MEMBERS</b>	
4.1 Use of improved drinking water sources	All household members
4.3 Use of improved sanitation facilities	All household members
7.5 Secondary school net attendance ratio (adjusted)	Children of secondary school age
8.2 Child labour	Children age 5–14 years
<b>WOMEN</b>	
- Pregnant women	Women age 15–49 years
5.2 Early childbearing	Women age 20–24 years
5.3 Contraceptive prevalence	Women age 15–49 years who are currently married
5.4 Unmet need	Women age 15–49 years who are currently married
5.5a Antenatal care coverage - at least once by skilled personnel	Women age 15–49 years with a live birth in the 2 years preceding the survey
5.5b Antenatal care coverage - at least four times by any provider	Women age 15–49 years with a live birth in the 2 years preceding the survey
5.7 Skilled attendant at delivery	Women age 15–49 years with a live birth in the 2 years preceding the survey
5.8 Institutional deliveries	Women age 15–49 years with a live birth in the 2 years preceding the survey
5.9 Caesarean section	Women age 15–49 years with a live birth in the 2 years preceding the survey
7.1 Literacy rate among young women	Women age 15–24 years
8.7 Marriage before age 18	Women age 20–49 years
9.2 Comprehensive knowledge about HIV prevention among young people (ever married)	Women age 15–24 years
9.3 Knowledge of mother- to-child transmission of HIV (ever married)	Women age 15–49 years
9.4 Accepting attitudes towards people living with HIV (ever married)	Women age 15–49 years who have heard of HIV
<b>UNDER-5s</b>	
2.1a Underweight prevalence	Children under age 5
2.2a Stunting prevalence	Children under age 5
2.3a Wasting prevalence	Children under age 5
2.6 Exclusive breastfeeding under 6 months	Total number of infants under 6 months of age
2.14 Age-appropriate breastfeeding	Children age 0–23 months
- Tuberculosis immunization coverage	Children age 0–23 months
- Received polio immunization	Children age 0–23 months
- Received DPT immunization	Children age 0–23 months
- Received measles immunization	Children age 0–23 months
- Diarrhoea in the previous 2 weeks	Children under age 5
- Illness with a cough in the previous 2 weeks	Children under age 5
3.8 Oral rehydration therapy with continued feeding	Children under age 5 with diarrhoea in the previous 2 weeks
3.10 Antibiotic treatment of suspected pneumonia	Children under age 5 with suspected pneumonia in the previous 2 weeks
8.1 Birth registration	Children under age 5

**Table SE.3: Sampling errors: Rural**  
Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
								<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS									
Iodized salt consumption	2.16	0.3072	0.0030	0.010	2.447	1.564	56507	0.301	0.313
HOUSEHOLD MEMBERS									
Use of improved drinking water sources	4.1	0.9645	0.0019	0.002	5.876	2.424	422150	56863	0.961
Use of improved sanitation facilities	4.3	0.6368	0.0054	0.009	7.279	2.698	422150	56863	0.626
Secondary school net attendance ratio (adjusted)	7.5	0.3513	0.0041	0.012	3.203	1.790	50005	42390	0.343
Child labour	8.2	0.1298	0.0028	0.022	6.349	2.520	108876	91414	0.124
WOMEN									
Pregnant women	-	0.0764	0.0013	0.017	1.939	1.393	95172	80159	0.074
Early childbearing	5.2	0.1491	0.0051	0.034	1.405	1.185	8351	6757	0.139
Contraceptive prevalence	5.3	0.3202	0.0035	0.011	2.736	1.654	57568	47702	0.313
Unmet need	5.4	0.1742	0.0024	0.014	1.963	1.401	57568	47702	0.169
Antenatal care coverage - at least once by skilled personnel	5.5a	0.6960	0.0054	0.008	2.173	1.474	19296	15871	0.685
Antenatal care coverage - at least four times by any provider	5.5b	0.3216	0.0048	0.015	1.688	1.299	19296	15871	0.312
Skilled attendant at delivery	5.7	0.5231	0.0057	0.011	2.083	1.443	19296	15871	0.512
Institutional deliveries	5.8	0.4687	0.0058	0.012	2.160	1.470	19296	15871	0.457
Caesarean section	5.9	0.1490	0.0040	0.027	2.019	1.421	19296	15871	0.141
Literacy rate among young women	7.1	0.5796	0.0058	0.010	4.688	2.165	40630	34517	0.568
Marriage before age 18	8.7	0.2474	0.0026	0.010	2.195	1.481	73249	61348	0.242
Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0282	0.0018	0.065	1.039	1.019	10617	8511	0.025
Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.0988	0.0022	0.022	2.672	1.635	60370	50057	0.094
Accepting attitudes towards people living with HIV (ever married)	9.4	0.4077	0.0056	0.014	1.290	1.136	10987	9879	0.396
UNDER-5s									
Underweight prevalence	2.1a	0.3497	0.0037	0.011	2.365	1.538	45142	39056	0.342
Stunting prevalence	2.2a	0.3876	0.0034	0.009	1.851	1.361	44543	38572	0.381
Wasting prevalence	2.3a	0.1604	0.0029	0.018	2.474	1.573	45777	39404	0.155
Exclusive breastfeeding under 6 months	2.6	0.2235	0.0069	0.031	1.144	1.069	4831	4140	0.210
Age-appropriate breastfeeding	2.14	0.3518	0.0046	0.013	1.536	1.239	19050	16381	0.343
Tuberculosis immunization coverage	-	0.7310	0.0060	0.008	1.446	1.202	9012	7842	0.719
Received polio immunization	-	0.7092	0.0065	0.009	1.599	1.264	8900	7757	0.696
Received DPT immunization	-	0.5212	0.0064	0.012	1.282	1.132	8855	7699	0.508
Received measles immunization	-	0.6277	0.0062	0.010	1.272	1.128	8937	7782	0.615
Diarrhoea in the previous 2 weeks	-	0.1697	0.0029	0.017	2.415	1.554	48352	41517	0.164
Illness with a cough in the previous 2 weeks	-	0.0327	0.0012	0.038	2.040	1.428	48352	41517	0.030
Oral rehydration therapy with continued feeding	3.8	0.2892	0.0080	0.028	2.128	1.459	8207	6910	0.273
Antibiotic treatment of suspected pneumonia	3.10	0.8245	0.0091	0.011	0.799	0.894	1582	1391	0.806
Birth registration	8.1	0.7405	0.0048	0.007	5.078	2.253	48352	41517	0.731

Table SE.4: Sampling errors: All Urban

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
									<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS										
	2.16	0.4079	0.0039	0.009	2.355	1.534	27614	38023	0.400	0.416
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	0.8834	0.0032	0.004	3.847	1.961	175312	38375	0.877	0.890
Use of improved sanitation facilities	4.3	0.9244	0.0025	0.003	3.503	1.872	175312	38375	0.919	0.929
Secondary school net attendance ratio (adjusted)	7.5	0.5295	0.0047	0.009	2.471	1.572	19914	27939	0.520	0.539
Child labour	8.2	0.0544	0.0019	0.034	3.835	1.958	39873	56124	0.051	0.058
WOMEN										
Pregnant women	-	0.0564	0.0014	0.025	2.144	1.464	42766	57779	0.054	0.059
Early childbearing	5.2	0.1074	0.0057	0.053	1.368	1.170	3050	3997	0.096	0.119
Contraceptive prevalence	5.3	0.4289	0.0039	0.009	1.950	1.396	23937	31976	0.421	0.437
Unmet need	5.4	0.1565	0.0029	0.019	2.051	1.432	23937	31976	0.151	0.162
Antenatal care coverage - at least once by skilled personnel	5.5a	0.8652	0.0043	0.005	1.486	1.219	7190	9535	0.857	0.874
Antenatal care coverage - at least four times by any provider	5.5b	0.6273	0.0070	0.011	1.973	1.405	7190	9535	0.613	0.641
Skilled attendant at delivery	5.7	0.7519	0.0061	0.008	1.894	1.376	7190	9535	0.740	0.764
Institutional deliveries	5.8	0.7115	0.0062	0.009	1.760	1.327	7190	9535	0.699	0.724
Caesarean section	5.9	0.2490	0.0064	0.026	2.087	1.445	7190	9535	0.236	0.262
Literacy rate among young women	7.1	0.8373	0.0041	0.005	3.159	1.777	18476	25153	0.829	0.846
Marriage before age 18	8.7	0.1790	0.0024	0.013	1.708	1.307	33171	44470	0.174	0.184
Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0722	0.0040	0.056	1.152	1.074	3564	4749	0.064	0.080
Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.2468	0.0035	0.014	2.246	1.499	25132	33682	0.240	0.254
Accepting attitudes towards people living with HIV (ever married)	9.4	0.3694	0.0059	0.016	2.220	1.490	11899	14729	0.358	0.381
UNDER-5s										
Underweight prevalence	2.1a	0.2640	0.0041	0.016	2.086	1.444	17542	24027	0.256	0.272
Stunting prevalence	2.2a	0.2887	0.0043	0.015	2.133	1.461	17372	23827	0.280	0.297
Wasting prevalence	2.3a	0.1483	0.0034	0.023	2.219	1.490	17473	23972	0.141	0.155
Exclusive breastfeeding under 6 months	2.6	0.2197	0.0070	0.032	0.672	0.820	1729	2336	0.206	0.234
Age-appropriate breastfeeding	2.14	0.3479	0.0062	0.018	1.700	1.304	7316	9898	0.335	0.360
Tuberculosis immunization coverage	-	0.7590	0.0070	0.009	1.308	1.144	3552	4862	0.745	0.773
Received polio immunization	-	0.6840	0.0083	0.012	1.531	1.238	3518	4820	0.667	0.701
Received DPT immunization	-	0.6294	0.0081	0.013	1.335	1.155	3499	4759	0.613	0.646
Received measles immunization	-	0.6870	0.0074	0.011	1.229	1.109	3538	4841	0.672	0.702
Diarrhoea in the previous 2 weeks	-	0.1386	0.0035	0.025	2.622	1.619	18314	25149	0.132	0.146
Illness with a cough in the previous 2 weeks	-	0.0235	0.0014	0.058	2.066	1.438	18314	25149	0.021	0.026
Oral rehydration therapy with continued feeding	3.8	0.3426	0.0089	0.026	1.217	1.103	2538	3444	0.325	0.360
Antibiotic treatment of suspected pneumonia	3.10	0.8285	0.0116	0.014	0.602	0.776	431	641	0.805	0.852
Birth registration	8.1	0.8517	0.0040	0.005	3.134	1.770	18314	25149	0.844	0.860

**Table SE.5: Sampling errors: Major Cities**  
Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
									<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS										
	2.16	0.4268	0.0067	0.016	1.656	1.287	13880	8925	0.413	0.440
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	0.8547	0.0059	0.007	2.491	1.578	87576	9032	0.843	0.866
Use of improved sanitation facilities	4.3	0.9521	0.0040	0.004	3.120	1.766	87576	9032	0.944	0.960
Secondary school net attendance ratio (adjusted)	7.5	0.5541	0.0082	0.015	1.701	1.304	9660	6203	0.538	0.571
Child labour	8.2	0.0502	0.0033	0.066	2.815	1.678	19101	12191	0.044	0.057
WOMEN										
Pregnant women	-	0.0564	0.0025	0.044	1.516	1.231	21435	13406	0.051	0.061
Early childbearing	5.2	0.1020	0.0098	0.096	1.017	1.009	1572	980	0.083	0.122
Contraceptive prevalence	5.3	0.4552	0.0066	0.015	1.321	1.149	12118	7496	0.442	0.468
Unmet need	5.4	0.1597	0.0051	0.032	1.436	1.198	12118	7496	0.150	0.170
Antenatal care coverage - at least once by skilled personnel	5.5a	0.9068	0.0066	0.007	1.153	1.074	3636	2256	0.894	0.920
Antenatal care coverage - at least four times by any provider	5.5b	0.7298	0.0116	0.016	1.540	1.241	3636	2256	0.707	0.753
Skilled attendant at delivery	5.7	0.8324	0.0097	0.012	1.511	1.229	3636	2256	0.813	0.852
Institutional deliveries	5.8	0.8074	0.0096	0.012	1.323	1.150	3636	2256	0.788	0.826
Caesarean section	5.9	0.2784	0.0112	0.040	1.416	1.190	3636	2256	0.256	0.301
Literacy rate among young women	7.1	0.8633	0.0069	0.008	2.309	1.520	9171	5798	0.850	0.877
Marriage before age 18	8.7	0.1683	0.0039	0.023	1.112	1.054	16826	10476	0.161	0.176
Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0738	0.0071	0.096	0.812	0.901	1788	1116	0.060	0.088
Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.2761	0.0060	0.022	1.415	1.189	12689	7867	0.264	0.288
Accepting attitudes towards people living with HIV (ever married)	9.4	0.3567	0.0093	0.026	1.556	1.248	6807	4171	0.338	0.375
UNDER-5s										
Underweight prevalence	2.1a	0.2478	0.0068	0.027	1.386	1.177	8841	5631	0.234	0.261
Stunting prevalence	2.2a	0.2743	0.0072	0.026	1.445	1.202	8738	5580	0.260	0.289
Wasting prevalence	2.3a	0.1428	0.0058	0.041	1.544	1.243	8774	5588	0.131	0.154
Exclusive breastfeeding under 6 months	2.6	0.2138	0.0116	0.054	0.461	0.679	895	572	0.190	0.237
Age-appropriate breastfeeding	2.14	0.3371	0.0104	0.031	1.147	1.071	3740	2382	0.316	0.358
Tuberculosis immunization coverage	-	0.7603	0.0122	0.016	0.938	0.969	1807	1159	0.736	0.785
Received polio immunization	-	0.6710	0.0145	0.022	1.097	1.048	1789	1149	0.642	0.700
Received DPT immunization	-	0.6590	0.0136	0.021	0.950	0.975	1791	1149	0.632	0.686
Received measles immunization	-	0.6860	0.0127	0.018	0.862	0.928	1800	1154	0.661	0.711
Diarrhoea in the previous 2 weeks	-	0.1406	0.0063	0.045	1.903	1.380	9183	5832	0.128	0.153
Illness with a cough in the previous 2 weeks	-	0.0216	0.0023	0.105	1.418	1.191	9183	5832	0.017	0.026
Oral rehydration therapy with continued feeding	3.8	0.3590	0.0151	0.042	0.808	0.899	1291	812	0.329	0.389
Antibiotic treatment of suspected pneumonia	3.10	0.8069	0.0227	0.028	0.452	0.673	198	138	0.762	0.852
Birth registration	8.1	0.8829	0.0066	0.008	2.480	1.575	9183	5832	0.870	0.896

**Table SE.6: Sampling errors: Other Urban**  
Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
									<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS										
	2.16	0.3888	0.0037	0.010	1.698	1.303	13734	29098	0.381	0.396
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	0.9120	0.0025	0.003	2.351	1.533	87736	29343	0.907	0.917
Use of improved sanitation facilities	4.3	0.8968	0.0031	0.003	3.030	1.741	87736	29343	0.891	0.903
Secondary school net attendance ratio (adjusted)	7.5	0.5064	0.0047	0.009	1.954	1.398	10253	21736	0.497	0.516
Child labour	8.2	0.0583	0.0019	0.033	2.901	1.703	20772	43933	0.055	0.062
WOMEN										
Pregnant women	-	0.0564	0.0014	0.024	1.540	1.241	21332	44373	0.054	0.059
Early childbearing	5.2	0.1132	0.0055	0.049	0.910	0.954	1478	3017	0.102	0.124
Contraceptive prevalence	5.3	0.4019	0.0040	0.010	1.592	1.262	11819	24480	0.394	0.410
Unmet need	5.4	0.1532	0.0027	0.018	1.424	1.193	11819	24480	0.148	0.159
Antenatal care coverage - at least once by skilled personnel	5.5a	0.8226	0.0052	0.006	1.334	1.155	3554	7279	0.812	0.833
Antenatal care coverage - at least four times by any provider	5.5b	0.5224	0.0070	0.013	1.439	1.200	3554	7279	0.508	0.536
Skilled attendant at delivery	5.7	0.6695	0.0070	0.010	1.596	1.263	3554	7279	0.656	0.683
Institutional deliveries	5.8	0.6135	0.0071	0.012	1.535	1.239	3554	7279	0.599	0.628
Caesarean section	5.9	0.2189	0.0060	0.027	1.529	1.237	3554	7279	0.207	0.231
Literacy rate among young women	7.1	0.8117	0.0047	0.006	2.767	1.663	9306	19355	0.802	0.821
Marriage before age 18	8.7	0.1900	0.0027	0.014	1.591	1.262	16344	33994	0.185	0.195
Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0706	0.0039	0.055	0.835	0.914	1777	3633	0.063	0.078
Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.2168	0.0036	0.017	1.975	1.405	12443	25815	0.210	0.224
Accepting attitudes towards people living with HIV (ever married)	9.4	0.3862	0.0062	0.016	1.712	1.308	5092	10558	0.374	0.399
UNDER-5s										
Underweight prevalence	2.1a	0.2804	0.0046	0.016	1.929	1.389	8701	18396	0.271	0.290
Stunting prevalence	2.2a	0.3032	0.0046	0.015	1.857	1.363	8633	18247	0.294	0.312
Wasting prevalence	2.3a	0.1539	0.0036	0.023	1.812	1.346	8700	18384	0.147	0.161
Exclusive breastfeeding under 6 months	2.6	0.2260	0.0073	0.032	0.542	0.736	834	1764	0.211	0.241
Age-appropriate breastfeeding	2.14	0.3591	0.0067	0.019	1.458	1.208	3576	7516	0.346	0.373
Tuberculosis immunization coverage	-	0.7576	0.0067	0.009	0.902	0.949	1745	3703	0.744	0.771
Received polio immunization	-	0.6974	0.0075	0.011	0.976	0.988	1730	3671	0.682	0.712
Received DPT immunization	-	0.5983	0.0084	0.014	1.047	1.023	1708	3610	0.582	0.615
Received measles immunization	-	0.6880	0.0073	0.011	0.905	0.951	1738	3687	0.673	0.703
Diarrhoea in the previous 2 weeks	-	0.1365	0.0032	0.023	1.633	1.278	9131	19317	0.130	0.143
Illness with a cough in the previous 2 weeks	-	0.0255	0.0015	0.060	1.848	1.360	9131	19317	0.022	0.029
Oral rehydration therapy with continued feeding	3.8	0.3257	0.0095	0.029	1.076	1.037	1247	2632	0.307	0.345
Antibiotic treatment of suspected pneumonia	3.10	0.8468	0.0101	0.012	0.397	0.630	233	503	0.827	0.867
Birth registration	8.1	0.8204	0.0043	0.005	2.403	1.550	9131	19317	0.812	0.829



**Table SE.7: Sampling errors: Bahawalpur**  
Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
									<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS										
Iodized salt consumption										
	2.16	0.2468	0.0066	0.027	2.463	1.569	9137	10360	0.233	0.260
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	0.9462	0.0037	0.004	2.735	1.654	59497	10410	0.939	0.954
Use of improved sanitation facilities	4.3	0.6065	0.0108	0.018	5.131	2.265	59497	10410	0.585	0.628
Secondary school net attendance ratio (adjusted)	7.5	0.2833	0.0080	0.028	2.545	1.595	7058	8123	0.267	0.299
Child labour	8.2	0.1500	0.0053	0.036	3.931	1.983	15684	17616	0.139	0.161
WOMEN										
Pregnant women	-	0.0810	0.0029	0.036	1.703	1.305	13246	14969	0.075	0.087
Early childbearing	5.2	0.1611	0.0114	0.071	1.181	1.087	1165	1238	0.138	0.184
Contraceptive prevalence	5.3	0.2983	0.0056	0.019	1.320	1.149	7905	8746	0.287	0.310
Unmet need	5.4	0.1888	0.0052	0.027	1.537	1.240	7905	8746	0.178	0.199
Antenatal care coverage - at least once by skilled personnel	5.5a	0.6703	0.0113	0.017	1.747	1.322	2822	3023	0.648	0.693
Antenatal care coverage - at least four times by any provider	5.5b	0.2218	0.0090	0.041	1.417	1.190	2822	3023	0.204	0.240
Skilled attendant at delivery	5.7	0.4128	0.0124	0.030	1.925	1.387	2822	3023	0.388	0.438
Institutional deliveries	5.8	0.3846	0.0123	0.032	1.925	1.387	2822	3023	0.360	0.409
Caesarean section	5.9	0.1595	0.0086	0.054	1.656	1.287	2822	3023	0.142	0.177
Literacy rate among young women	7.1	0.5021	0.0119	0.024	3.745	1.935	5789	6604	0.478	0.526
Marriage before age 18	8.7	0.2798	0.0055	0.020	1.689	1.300	10001	11283	0.269	0.291
Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0181	0.0041	0.224	1.501	1.225	1531	1617	0.010	0.026
Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.0993	0.0042	0.042	1.771	1.331	8296	9190	0.091	0.108
Accepting attitudes towards people living with HIV (ever married)	9.4	0.3776	0.0149	0.039	1.725	1.313	1422	1833	0.348	0.407
UNDER-5s										
Underweight prevalence	2.1a	0.3838	0.0076	0.020	1.836	1.355	6699	7481	0.369	0.399
Stunting prevalence	2.2a	0.4245	0.0075	0.018	1.707	1.307	6656	7440	0.409	0.439
Wasting prevalence	2.3a	0.1705	0.0054	0.032	1.575	1.255	6738	7530	0.160	0.181
Exclusive breastfeeding under 6 months	2.6	0.1947	0.0122	0.063	0.749	0.865	708	790	0.170	0.219
Age-appropriate breastfeeding	2.14	0.3818	0.0102	0.027	1.371	1.171	2775	3122	0.361	0.402
Tuberculosis immunization coverage	-	0.7191	0.0137	0.019	1.415	1.190	1337	1532	0.692	0.746
Received polio immunization	-	0.7428	0.0127	0.017	1.279	1.131	1321	1508	0.717	0.768
Received DPT immunization	-	0.5185	0.0156	0.030	1.450	1.204	1283	1482	0.487	0.550
Received measles immunization	-	0.5741	0.0167	0.029	1.721	1.312	1318	1514	0.541	0.607
Diarrhoea in the previous 2 weeks	-	0.2279	0.0060	0.026	1.611	1.269	7041	7857	0.216	0.240
Illness with a cough in the previous 2 weeks	-	0.0456	0.0031	0.068	1.711	1.308	7041	7857	0.039	0.052
Oral rehydration therapy with continued feeding	3.8	0.2410	0.0122	0.051	1.445	1.202	1605	1762	0.217	0.266
Antibiotic treatment of suspected pneumonia	3.10	0.8234	0.0231	0.028	1.164	1.079	321	317	0.777	0.870
Birth registration	8.1	0.5475	0.0115	0.021	4.189	2.047	7041	7857	0.525	0.571

Table SE.8: Sampling errors: D.G Khan

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
									<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS										
	2.16	0.3099	0.0089	0.029	3.124	1.767	9280	8366	0.292	0.328
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	0.9428	0.0074	0.008	8.458	2.908	60269	8398	0.928	0.958
Use of improved sanitation facilities	4.3	0.4601	0.0167	0.036	9.379	3.062	60269	8398	0.427	0.493
Secondary school net attendance ratio (adjusted)	7.5	0.2403	0.0121	0.050	5.563	2.359	7813	6981	0.216	0.264
Child labour	8.2	0.1759	0.0092	0.052	8.787	2.964	17496	15170	0.158	0.194
WOMEN										
Pregnant women	-	0.1156	0.0046	0.040	2.413	1.553	12595	11721	0.106	0.125
Early childbearing	5.2	0.2006	0.0153	0.076	1.770	1.330	1432	1216	0.170	0.231
Contraceptive prevalence	5.3	0.2562	0.0090	0.035	3.200	1.789	8606	7586	0.238	0.274
Unmet need	5.4	0.1914	0.0068	0.035	2.250	1.500	8606	7586	0.178	0.205
Antenatal care coverage - at least once by skilled personnel	5.5a	0.5811	0.0158	0.027	2.689	1.640	3082	2629	0.550	0.613
Antenatal care coverage - at least four times by any provider	5.5b	0.2036	0.0139	0.068	3.123	1.767	3082	2629	0.176	0.231
Skilled attendant at delivery	5.7	0.3387	0.0161	0.048	3.056	1.748	3082	2629	0.306	0.371
Institutional deliveries	5.8	0.3011	0.0156	0.052	3.025	1.739	3082	2629	0.270	0.332
Caesarean section	5.9	0.0678	0.0065	0.095	1.742	1.320	3082	2629	0.055	0.081
Literacy rate among young women	7.1	0.3940	0.0169	0.043	6.052	2.460	5329	5051	0.360	0.428
Marriage before age 18	8.7	0.4138	0.0094	0.023	3.277	1.810	9673	8929	0.395	0.433
Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0165	0.0033	0.199	1.046	1.023	1945	1581	0.010	0.023
Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.0655	0.0041	0.062	2.125	1.458	8840	7816	0.057	0.074
Accepting attitudes towards people living with HIV (ever married)	9.4	0.3731	0.0166	0.044	1.760	1.327	1008	1501	0.340	0.406
UNDER-5s										
Underweight prevalence	2.1a	0.4252	0.0147	0.034	5.818	2.412	7187	6611	0.396	0.454
Stunting prevalence	2.2a	0.4867	0.0086	0.018	1.950	1.396	7071	6513	0.469	0.504
Wasting prevalence	2.3a	0.1614	0.0084	0.052	3.537	1.881	7590	6835	0.145	0.178
Exclusive breastfeeding under 6 months	2.6	0.2018	0.0265	0.131	2.917	1.708	762	669	0.149	0.255
Age-appropriate breastfeeding	2.14	0.3354	0.0103	0.031	1.280	1.132	3009	2706	0.315	0.356
Tuberculosis immunization coverage	-	0.6438	0.0178	0.028	1.788	1.337	1428	1296	0.608	0.679
Received polio immunization	-	0.7657	0.0155	0.020	1.724	1.313	1398	1287	0.735	0.797
Received DPT immunization	-	0.3254	0.0180	0.055	1.902	1.379	1416	1283	0.289	0.362
Received measles immunization	-	0.4712	0.0203	0.043	2.124	1.458	1419	1291	0.431	0.512
Diarrhoea in the previous 2 weeks	-	0.2376	0.0073	0.031	2.127	1.458	8057	7180	0.223	0.252
Illness with a cough in the previous 2 weeks	-	0.0586	0.0046	0.078	2.725	1.651	8057	7180	0.049	0.068
Oral rehydration therapy with continued feeding	3.8	0.3166	0.0173	0.055	2.335	1.528	1915	1680	0.282	0.351
Antibiotic treatment of suspected pneumonia	3.10	0.8608	0.0184	0.021	1.222	1.106	472	433	0.824	0.898
Birth registration	8.1	0.4001	0.0127	0.032	4.825	2.197	8057	7180	0.375	0.426



**Table SE.9: Sampling errors: Faisalabad**  
Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
								<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS									
Iodized salt consumption	2.16	0.3145	0.0061	0.019	2.093	12706	12328	0.302	0.327
HOUSEHOLD MEMBERS									
Use of improved drinking water sources	4.1	0.8772	0.0068	0.008	5.295	82345	12418	0.864	0.891
Use of improved sanitation facilities	4.3	0.7511	0.0115	0.015	8.812	82345	12418	0.728	0.774
Secondary school net attendance ratio (adjusted)	7.5	0.4403	0.0089	0.020	2.817	9225	8857	0.423	0.458
Child labour	8.2	0.1064	0.0050	0.047	5.056	19725	18974	0.096	0.117
WOMEN									
Pregnant women	-	0.0662	0.0024	0.036	1.667	19239	17989	0.061	0.071
Early childbearing	5.2	0.1114	0.0113	0.101	1.808	1556	1409	0.089	0.134
Contraceptive prevalence	5.3	0.3808	0.0110	0.029	5.260	11194	10344	0.359	0.403
Unmet need	5.4	0.1435	0.0062	0.043	3.240	11194	10344	0.131	0.156
Antenatal care coverage - at least once by skilled personnel	5.5a	0.7616	0.0079	0.010	1.150	3631	3358	0.746	0.777
Antenatal care coverage - at least four times by any provider	5.5b	0.4361	0.0114	0.026	1.777	3631	3358	0.413	0.459
Skilled attendant at delivery	5.7	0.6245	0.0098	0.016	1.381	3631	3358	0.605	0.644
Institutional deliveries	5.8	0.5776	0.0100	0.017	1.370	3631	3358	0.558	0.598
Caesarean section	5.9	0.1911	0.0104	0.054	2.353	3631	3358	0.170	0.212
Literacy rate among young women	7.1	0.6998	0.0108	0.015	4.247	8108	7634	0.678	0.721
Marriage before age 18	8.7	0.1821	0.0043	0.023	1.706	14971	13955	0.174	0.191
Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0335	0.0044	0.133	1.082	1990	1775	0.025	0.042
Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.1314	0.0057	0.043	3.124	11923	11015	0.120	0.143
Accepting attitudes towards people living with HIV (ever married)	9.4	0.3188	0.0093	0.029	1.238	2810	3123	0.300	0.337
UNDER-5s									
Underweight prevalence	2.1a	0.3238	0.0068	0.021	1.740	9062	8317	0.310	0.337
Stunting prevalence	2.2a	0.3582	0.0067	0.019	1.610	8981	8251	0.345	0.372
Wasting prevalence	2.3a	0.1429	0.0061	0.042	2.480	9018	8278	0.131	0.155
Exclusive breastfeeding under 6 months	2.6	0.1991	0.0176	0.089	1.563	897	803	0.164	0.234
Age-appropriate breastfeeding	2.14	0.3633	0.0113	0.031	1.882	3723	3430	0.341	0.386
Tuberculosis immunization coverage	-	0.7501	0.0140	0.019	1.740	1769	1668	0.722	0.778
Received polio immunization	-	0.7689	0.0137	0.018	1.751	1756	1656	0.742	0.796
Received DPT immunization	-	0.5319	0.0144	0.027	1.372	1748	1644	0.503	0.561
Received measles immunization	-	0.6420	0.0113	0.018	0.925	1756	1654	0.619	0.665
Diarrhoea in the previous 2 weeks	-	0.1463	0.0082	0.056	4.639	9386	8623	0.130	0.163
Illness with a cough in the previous 2 weeks	-	0.0303	0.0025	0.082	1.828	9386	8623	0.025	0.035
Oral rehydration therapy with continued feeding	3.8	0.2548	0.0247	0.097	4.006	1373	1244	0.205	0.304
Antibiotic treatment of suspected pneumonia	3.10	0.8717	0.0122	0.014	0.406	284	304	0.847	0.896
Birth registration	8.1	0.8748	0.0063	0.007	3.110	9386	8623	0.862	0.887

Table SE.10: Sampling errors: Gujranwala

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
								<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS									
Iodized salt consumption	2.16	0.4320	0.0077	0.018	3.692	14486	15415	0.417	0.447
HOUSEHOLD MEMBERS									
Use of improved drinking water sources	4.1	0.9517	0.0039	0.004	5.058	95478	15549	0.944	0.959
Use of improved sanitation facilities	4.3	0.8828	0.0075	0.009	8.465	95478	15549	0.868	0.898
Secondary school net attendance ratio (adjusted)	7.5	0.4901	0.0069	0.014	2.348	11479	12178	0.476	0.504
Child labour	8.2	0.0649	0.0052	0.080	11.022	23362	24791	0.055	0.075
WOMEN									
Pregnant women	-	0.0587	0.0018	0.031	1.444	22676	23922	0.055	0.062
Early childbearing	5.2	0.1035	0.0075	0.072	0.976	1533	1611	0.088	0.118
Contraceptive prevalence	5.3	0.3590	0.0053	0.015	1.609	12716	13300	0.348	0.370
Unmet need	5.4	0.1827	0.0043	0.023	1.629	12716	13300	0.174	0.191
Antenatal care coverage - at least once by skilled personnel	5.5a	0.8257	0.0080	0.010	1.862	3981	4241	0.810	0.842
Antenatal care coverage - at least four times by any provider	5.5b	0.4789	0.0114	0.024	2.223	3981	4241	0.456	0.502
Skilled attendant at delivery	5.7	0.6858	0.0089	0.013	1.563	3981	4241	0.668	0.704
Institutional deliveries	5.8	0.6049	0.0092	0.015	1.499	3981	4241	0.587	0.623
Caesarean section	5.9	0.1903	0.0073	0.038	1.459	3981	4241	0.176	0.205
Literacy rate among young women	7.1	0.8386	0.0061	0.007	2.931	10055	10713	0.826	0.851
Marriage before age 18	8.7	0.1806	0.0034	0.019	1.423	17358	18146	0.174	0.187
Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0934	0.0065	0.070	0.933	1764	1865	0.080	0.106
Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.2280	0.0045	0.020	1.604	13278	13894	0.219	0.237
Accepting attitudes towards people living with HIV (ever married)	9.4	0.4286	0.0082	0.019	1.597	5328	5766	0.412	0.445
UNDER-5s									
Underweight prevalence	2.1a	0.2339	0.0051	0.022	1.566	10039	10895	0.224	0.244
Stunting prevalence	2.2a	0.3010	0.0065	0.022	2.187	9925	10777	0.288	0.314
Wasting prevalence	2.3a	0.1148	0.0050	0.044	2.718	10014	10860	0.105	0.125
Exclusive breastfeeding under 6 months	2.6	0.2582	0.0122	0.047	0.822	988	1060	0.234	0.283
Age-appropriate breastfeeding	2.14	0.3097	0.0077	0.025	1.232	4027	4428	0.294	0.325
Tuberculosis immunization coverage	-	0.8169	0.0086	0.011	1.059	1892	2128	0.800	0.834
Received polio immunization	-	0.7095	0.0099	0.014	0.992	1869	2107	0.690	0.729
Received DPT immunization	-	0.7312	0.0099	0.013	1.025	1847	2070	0.711	0.751
Received measles immunization	-	0.7791	0.0090	0.012	0.995	1886	2122	0.761	0.797
Diarrhoea in the previous 2 weeks	-	0.1090	0.0047	0.043	2.548	10390	11270	0.100	0.118
Illness with a cough in the previous 2 weeks	-	0.0209	0.0018	0.084	1.691	10390	11270	0.017	0.024
Oral rehydration therapy with continued feeding	3.8	0.3576	0.0145	0.041	1.177	1133	1280	0.329	0.387
Antibiotic treatment of suspected pneumonia	3.10	0.7731	0.0214	0.028	0.689	218	265	0.730	0.816
Birth registration	8.1	0.9375	0.0035	0.004	2.305	10390	11270	0.931	0.944

Table SE.11: Sampling errors: Lahore

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
									<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS										
	2.16	0.3950	0.0068	0.017	2.402	1.550	13894	12345	0.381	0.409
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	0.9600	0.0036	0.004	4.264	2.065	89802	12483	0.953	0.967
Use of improved sanitation facilities	4.3	0.8900	0.0059	0.007	4.478	2.116	89802	12483	0.878	0.902
Secondary school net attendance ratio (adjusted)	7.5	0.4515	0.0083	0.018	2.589	1.609	10228	9400	0.435	0.468
Child labour	8.2	0.0613	0.0031	0.050	3.199	1.789	21421	19627	0.055	0.067
WOMEN										
Pregnant women	-	0.0620	0.0027	0.043	2.195	1.482	20862	17913	0.057	0.067
Early childbearing	5.2	0.1299	0.0094	0.072	1.067	1.033	1672	1369	0.111	0.149
Contraceptive prevalence	5.3	0.3933	0.0061	0.016	1.595	1.263	12133	10177	0.381	0.406
Unmet need	5.4	0.1848	0.0049	0.027	1.628	1.276	12133	10177	0.175	0.195
Antenatal care coverage - at least once by skilled personnel	5.5a	0.7740	0.0109	0.014	2.250	1.500	3899	3297	0.752	0.796
Antenatal care coverage - at least four times by any provider	5.5b	0.5579	0.0117	0.021	1.819	1.349	3899	3297	0.535	0.581
Skilled attendant at delivery	5.7	0.7107	0.0127	0.018	2.571	1.603	3899	3297	0.685	0.736
Institutional deliveries	5.8	0.6675	0.0129	0.019	2.463	1.570	3899	3297	0.642	0.693
Caesarean section	5.9	0.2243	0.0117	0.052	2.581	1.607	3899	3297	0.201	0.248
Literacy rate among young women	7.1	0.7387	0.0084	0.011	2.906	1.705	9059	7972	0.722	0.755
Marriage before age 18	8.7	0.2010	0.0054	0.027	2.496	1.580	15945	13521	0.190	0.212
Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0459	0.0052	0.113	0.998	0.999	1941	1627	0.036	0.056
Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.1646	0.0051	0.031	2.011	1.418	12655	10639	0.154	0.175
Accepting attitudes towards people living with HIV (ever married)	9.4	0.4069	0.0121	0.030	2.066	1.437	4461	3383	0.383	0.431
UNDER-5s										
Underweight prevalence	2.1a	0.2920	0.0074	0.025	2.126	1.458	8869	7989	0.277	0.307
Stunting prevalence	2.2a	0.3137	0.0074	0.023	1.986	1.409	8761	7898	0.299	0.328
Wasting prevalence	2.3a	0.1543	0.0054	0.035	1.836	1.355	9131	8164	0.143	0.165
Exclusive breastfeeding under 6 months	2.6	0.2470	0.0110	0.045	0.556	0.746	959	855	0.225	0.269
Age-appropriate breastfeeding	2.14	0.3322	0.0094	0.028	1.372	1.171	3912	3469	0.313	0.351
Tuberculosis immunization coverage	-	0.7405	0.0147	0.020	1.884	1.373	1871	1675	0.711	0.770
Received polio immunization	-	0.6413	0.0182	0.028	2.400	1.549	1864	1664	0.605	0.678
Received DPT immunization	-	0.5569	0.0156	0.028	1.623	1.274	1847	1654	0.526	0.588
Received measles immunization	-	0.6409	0.0153	0.024	1.684	1.298	1850	1663	0.610	0.671
Diarrhoea in the previous 2 weeks	-	0.1302	0.0066	0.051	3.369	1.836	9656	8670	0.117	0.143
Illness with a cough in the previous 2 weeks	-	0.0182	0.0019	0.102	1.665	1.290	9656	8670	0.014	0.022
Oral rehydration therapy with continued feeding	3.8	0.2970	0.0178	0.060	1.536	1.239	1257	1017	0.262	0.333
Antibiotic treatment of suspected pneumonia	3.10	0.7744	0.0178	0.023	0.296	0.544	176	165	0.739	0.810
Birth registration	8.1	0.8778	0.0083	0.009	5.588	2.364	9656	8670	0.861	0.894

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
								<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS									
Iodized salt consumption	2.16	0.2854	0.0057	0.020	1.698	11271	10677	0.274	0.297
HOUSEHOLD MEMBERS									
Use of improved drinking water sources	4.1	0.9677	0.0032	0.003	3.424	68849	10719	0.961	0.974
Use of improved sanitation facilities	4.3	0.5713	0.0102	0.018	4.593	68849	10719	0.551	0.592
Secondary school net attendance ratio (adjusted)	7.5	0.3371	0.0082	0.024	2.433	8489	8011	0.321	0.354
Child labour	8.2	0.1491	0.0048	0.033	3.093	17845	16696	0.139	0.159
WOMEN									
Pregnant women	-	0.0718	0.0025	0.034	1.392	15688	15445	0.067	0.077
Early childbearing	5.2	0.1860	0.0126	0.068	1.302	1362	1245	0.161	0.211
Contraceptive prevalence	5.3	0.4237	0.0068	0.016	1.721	9595	9204	0.410	0.437
Unmet need	5.4	0.1294	0.0044	0.034	1.563	9595	9204	0.121	0.138
Antenatal care coverage - at least once by skilled personnel	5.5a	0.7363	0.0102	0.014	1.480	3026	2786	0.716	0.757
Antenatal care coverage - at least four times by any provider	5.5b	0.3767	0.0117	0.031	1.634	3026	2786	0.353	0.400
Skilled attendant at delivery	5.7	0.5465	0.0117	0.021	1.533	3026	2786	0.523	0.570
Institutional deliveries	5.8	0.4917	0.0127	0.026	1.796	3026	2786	0.466	0.517
Caesarean section	5.9	0.1965	0.0112	0.057	2.209	3026	2786	0.174	0.219
Literacy rate among young women	7.1	0.5858	0.0115	0.020	3.583	6631	6588	0.563	0.609
Marriage before age 18	8.7	0.2617	0.0056	0.021	1.926	12091	11857	0.250	0.273
Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0378	0.0050	0.132	1.066	1726	1563	0.028	0.048
Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.1102	0.0036	0.033	1.285	10049	9676	0.103	0.117
Accepting attitudes towards people living with HIV (ever married)	9.4	0.3892	0.0109	0.028	1.316	2244	2612	0.367	0.411
UNDER-5s									
Underweight prevalence	2.1a	0.3803	0.0080	0.021	1.911	7073	7023	0.364	0.396
Stunting prevalence	2.2a	0.3953	0.0080	0.020	1.878	6989	6940	0.379	0.411
Wasting prevalence	2.3a	0.2088	0.0065	0.031	1.788	7034	6971	0.196	0.222
Exclusive breastfeeding under 6 months	2.6	0.1619	0.0111	0.069	0.657	738	722	0.140	0.184
Age-appropriate breastfeeding	2.14	0.3343	0.0105	0.031	1.404	2968	2858	0.313	0.355
Tuberculosis immunization coverage	-	0.7917	0.0113	0.014	1.082	1434	1391	0.769	0.814
Received polio immunization	-	0.7475	0.0127	0.017	1.180	1425	1383	0.722	0.773
Received DPT immunization	-	0.5775	0.0148	0.026	1.218	1416	1356	0.548	0.607
Received measles immunization	-	0.6812	0.0133	0.019	1.121	1426	1381	0.655	0.708
Diarrhoea in the previous 2 weeks	-	0.1689	0.0060	0.036	1.904	7454	7352	0.157	0.181
Illness with a cough in the previous 2 weeks	-	0.0202	0.0021	0.103	1.602	7454	7352	0.016	0.024
Oral rehydration therapy with continued feeding	3.8	0.3102	0.0165	0.053	1.404	1259	1101	0.277	0.343
Antibiotic treatment of suspected pneumonia	3.10	0.8415	0.0111	0.013	0.126	151	137	0.819	0.864
Birth registration	8.1	0.6924	0.0095	0.014	3.087	7454	7352	0.673	0.711

**Table SE.13: Sampling errors: Rawalpindi**  
Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
									<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS										
	Iodized salt consumption	2.16	0.3634	0.0078	0.022	2.811	8348	10621	0.348	0.379
HOUSEHOLD MEMBERS										
	Use of improved drinking water sources	4.1	0.8950	0.0055	0.006	3.404	49872	10752	0.884	0.906
	Use of improved sanitation facilities	4.3	0.8204	0.0079	0.010	4.520	49872	10752	0.805	0.836
	Secondary school net attendance ratio (adjusted)	7.5	0.6092	0.0088	0.014	2.176	5261	6672	0.592	0.627
	Child labour	8.2	0.0413	0.0032	0.076	3.357	10634	13368	0.035	0.048
WOMEN										
	Pregnant women	-	0.0543	0.0030	0.054	2.621	12542	15419	0.048	0.060
	Early childbearing	5.2	0.0943	0.0111	0.118	1.496	869	1031	0.072	0.117
	Contraceptive prevalence	5.3	0.3647	0.0079	0.022	2.330	7150	8659	0.349	0.381
	Unmet need	5.4	0.1599	0.0060	0.037	2.307	7150	8659	0.148	0.172
	Antenatal care coverage - at least once by skilled personnel	5.5a	0.8684	0.0097	0.011	1.973	2081	2404	0.849	0.888
	Antenatal care coverage - at least four times by any provider	5.5b	0.6341	0.0137	0.022	1.954	2081	2404	0.607	0.662
	Skilled attendant at delivery	5.7	0.7524	0.0126	0.017	2.043	2081	2404	0.727	0.778
	Institutional deliveries	5.8	0.7241	0.0127	0.018	1.942	2081	2404	0.699	0.750
	Caesarean section	5.9	0.2049	0.0107	0.052	1.679	2081	2404	0.184	0.226
	Literacy rate among young women	7.1	0.8286	0.0075	0.009	2.486	5075	6248	0.814	0.844
	Marriage before age 18	8.7	0.1724	0.0049	0.029	2.079	9993	12224	0.163	0.182
	Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0418	0.0059	0.142	1.073	1041	1221	0.030	0.054
	Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.1871	0.0067	0.036	2.677	7507	9138	0.174	0.200
	Accepting attitudes towards people living with HIV (ever married)	9.4	0.3642	0.0116	0.032	1.790	2874	3098	0.341	0.387
UNDER-5s										
	Underweight prevalence	2.1a	0.2335	0.0082	0.035	2.158	4520	5704	0.217	0.250
	Stunting prevalence	2.2a	0.2581	0.0082	0.032	1.960	4450	5644	0.242	0.274
	Wasting prevalence	2.3a	0.1234	0.0073	0.059	2.809	4540	5718	0.109	0.138
	Exclusive breastfeeding under 6 months	2.6	0.3542	0.0153	0.043	0.663	545	650	0.324	0.385
	Age-appropriate breastfeeding	2.14	0.3873	0.0118	0.031	1.463	2051	2482	0.364	0.411
	Tuberculosis immunization coverage	-	0.7234	0.0167	0.023	1.686	981	1205	0.690	0.757
	Received polio immunization	-	0.5861	0.0169	0.029	1.400	965	1187	0.552	0.620
	Received DPT immunization	-	0.6255	0.0172	0.028	1.499	963	1186	0.591	0.660
	Received measles immunization	-	0.6820	0.0159	0.023	1.393	977	1197	0.650	0.714
	Diarrhoea in the previous 2 weeks	-	0.1286	0.0061	0.048	2.058	4891	6108	0.116	0.141
	Illness with a cough in the previous 2 weeks	-	0.0149	0.0021	0.140	1.806	4891	6108	0.011	0.019
	Oral rehydration therapy with continued feeding	3.8	0.4030	0.0232	0.058	1.461	629	654	0.357	0.449
	Antibiotic treatment of suspected pneumonia	3.10	0.7576	0.0088	0.012	0.041	73	99	0.740	0.775
	Birth registration	8.1	0.9005	0.0070	0.008	3.361	4891	6108	0.886	0.914



Table SE.14: Sampling errors: Sahiwal

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deff</i> )	Weighted count	Unweighted count	Confidence limits	
									<i>r</i> - 2 <i>se</i>	<i>r</i> + 2 <i>se</i>
HOUSEHOLDS										
	Iodized salt consumption	2.16	0.3015	0.0101	0.033	2.900	8412	6040	0.281	0.322
HOUSEHOLD MEMBERS										
	Use of improved drinking water sources	4.1	0.9710	0.0045	0.005	4.351	48019	6063	0.962	0.980
	Use of improved sanitation facilities	4.3	0.6095	0.0254	0.042	16.496	48019	6063	0.559	0.660
	Secondary school net attendance ratio (adjusted)	7.5	0.3218	0.0153	0.048	4.257	5315	3974	0.291	0.352
	Child labour	8.2	0.1627	0.0125	0.077	9.763	12018	8578	0.138	0.188
WOMEN										
	Pregnant women	-	0.0757	0.0054	0.072	3.403	10654	8070	0.065	0.087
	Early childbearing	5.2	0.1293	0.0173	0.134	1.837	1026	693	0.095	0.164
	Contraceptive prevalence	5.3	0.3360	0.0086	0.026	1.517	6259	4604	0.319	0.353
	Unmet need	5.4	0.1650	0.0078	0.047	2.022	6259	4604	0.149	0.181
	Antenatal care coverage - at least once by skilled personnel	5.5a	0.6892	0.0245	0.036	4.261	2124	1516	0.640	0.738
	Antenatal care coverage - at least four times by any provider	5.5b	0.3342	0.0146	0.044	1.447	2124	1516	0.305	0.363
	Skilled attendant at delivery	5.7	0.5702	0.0200	0.035	2.474	2124	1516	0.530	0.610
	Institutional deliveries	5.8	0.4893	0.0208	0.043	2.627	2124	1516	0.448	0.531
	Caesarean section	5.9	0.1786	0.0162	0.091	2.698	2124	1516	0.146	0.211
	Literacy rate among young women	7.1	0.4905	0.0217	0.044	6.653	4671	3534	0.447	0.534
	Marriage before age 18	8.7	0.2073	0.0067	0.032	1.692	8296	6268	0.194	0.221
	Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0233	0.0052	0.222	0.990	1268	842	0.013	0.034
	Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.0823	0.0062	0.075	2.488	6628	4886	0.070	0.095
	Accepting attitudes towards people living with HIV (ever married)	9.4	0.4186	0.0143	0.034	0.830	900	984	0.390	0.447
UNDER-5s										
	Underweight prevalence	2.1a	0.3691	0.0133	0.036	2.784	4811	3676	0.343	0.396
	Stunting prevalence	2.2a	0.3624	0.0129	0.035	2.576	4714	3604	0.337	0.388
	Wasting prevalence	2.3a	0.2048	0.0101	0.049	2.289	4805	3672	0.185	0.225
	Exclusive breastfeeding under 6 months	2.6	0.2026	0.0169	0.083	0.670	503	380	0.169	0.236
	Age-appropriate breastfeeding	2.14	0.3364	0.0219	0.065	3.363	2066	1567	0.293	0.380
	Tuberculosis immunization coverage	-	0.7678	0.0163	0.021	1.112	970	747	0.735	0.800
	Received polio immunization	-	0.6399	0.0191	0.030	1.149	948	730	0.602	0.678
	Received DPT immunization	-	0.6199	0.0207	0.033	1.336	963	737	0.579	0.661
	Received measles immunization	-	0.7160	0.0162	0.023	0.956	965	744	0.684	0.748
	Diarrhoea in the previous 2 weeks	-	0.1404	0.0075	0.054	1.861	5148	3953	0.125	0.156
	Illness with a cough in the previous 2 weeks	-	0.0304	0.0035	0.115	1.647	5148	3953	0.023	0.037
	Oral rehydration therapy with continued feeding	3.8	0.2992	0.0247	0.082	1.656	723	571	0.250	0.349
	Antibiotic treatment of suspected pneumonia	3.10	0.7963	0.0347	0.044	0.890	157	121	0.727	0.866
	Birth registration	8.1	0.8506	0.0118	0.014	4.358	5148	3953	0.827	0.874

Table SE.15: Sampling errors: Sargodha

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*) and confidence intervals for selected indicators, MICS Punjab, 2011

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deff)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	r + 2se
HOUSEHOLDS										
	2.16	0.3089	0.0081	0.026	2.564	1.601	6942	8378	0.293	0.325
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	0.9625	0.0049	0.005	5.526	2.351	43331	8446	0.953	0.972
Use of improved sanitation facilities	4.3	0.7268	0.0099	0.014	4.201	2.050	43331	8446	0.707	0.747
Secondary school net attendance ratio (adjusted)	7.5	0.4256	0.0095	0.022	2.247	1.499	5050	6133	0.407	0.445
Child labour	8.2	0.0837	0.0037	0.044	2.294	1.515	10564	12718	0.076	0.091
WOMEN										
Pregnant women	-	0.0620	0.0026	0.041	1.405	1.185	10436	12490	0.057	0.067
Early childbearing	5.2	0.1033	0.0098	0.095	0.969	0.984	786	942	0.084	0.123
Contraceptive prevalence	5.3	0.2959	0.0062	0.021	1.293	1.137	5947	7058	0.284	0.308
Unmet need	5.4	0.1755	0.0046	0.026	1.047	1.023	5947	7058	0.166	0.185
Antenatal care coverage - at least once by skilled personnel	5.5a	0.7605	0.0120	0.016	1.694	1.301	1841	2152	0.737	0.784
Antenatal care coverage - at least four times by any provider	5.5b	0.3411	0.0117	0.034	1.299	1.140	1841	2152	0.318	0.364
Skilled attendant at delivery	5.7	0.5935	0.0131	0.022	1.533	1.238	1841	2152	0.567	0.620
Institutional deliveries	5.8	0.5462	0.0132	0.024	1.518	1.232	1841	2152	0.520	0.573
Caesarean section	5.9	0.1517	0.0090	0.060	1.365	1.168	1841	2152	0.134	0.170
Literacy rate among young women	7.1	0.6457	0.0102	0.016	2.435	1.561	4388	5326	0.625	0.666
Marriage before age 18	8.7	0.1959	0.0048	0.025	1.430	1.196	8091	9635	0.186	0.206
Comprehensive knowledge about HIV prevention among young people (ever married)	9.2	0.0386	0.0053	0.138	0.899	0.948	976	1169	0.028	0.049
Knowledge of mother- to-child transmission of HIV (ever married)	9.3	0.1622	0.0054	0.033	1.594	1.263	6326	7485	0.151	0.173
Accepting attitudes towards people living with HIV (ever married)	9.4	0.3640	0.0121	0.033	1.463	1.210	1839	2308	0.340	0.388
UNDER-5s										
Underweight prevalence	2.1a	0.3163	0.0080	0.025	1.586	1.259	4422	5387	0.300	0.332
Stunting prevalence	2.2a	0.3297	0.0082	0.025	1.619	1.272	4367	5332	0.313	0.346
Wasting prevalence	2.3a	0.1600	0.0058	0.036	1.332	1.154	4380	5348	0.148	0.172
Exclusive breastfeeding under 6 months	2.6	0.1795	0.0157	0.087	0.913	0.955	459	547	0.148	0.211
Age-appropriate breastfeeding	2.14	0.4342	0.0128	0.029	1.467	1.211	1836	2217	0.409	0.460
Tuberculosis immunization coverage	-	0.6293	0.0152	0.024	1.058	1.028	882	1062	0.599	0.660
Received polio immunization	-	0.6394	0.0152	0.024	1.052	1.026	873	1055	0.609	0.670
Received DPT immunization	-	0.4200	0.0180	0.043	1.383	1.176	871	1046	0.384	0.456
Received measles immunization	-	0.5743	0.0162	0.028	1.140	1.068	877	1057	0.542	0.607
Diarrhoea in the previous 2 weeks	-	0.1835	0.0058	0.032	1.280	1.131	4642	5653	0.172	0.195
Illness with a cough in the previous 2 weeks	-	0.0351	0.0031	0.088	1.573	1.254	4642	5653	0.029	0.041
Oral rehydration therapy with continued feeding	3.8	0.3071	0.0143	0.047	1.010	1.005	852	1045	0.278	0.336
Antibiotic treatment of suspected pneumonia	3.10	0.8141	0.0180	0.022	0.406	0.637	163	191	0.778	0.850
Birth registration	8.1	0.8508	0.0074	0.009	2.426	1.557	4642	5653	0.836	0.866