

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2000 Armenia Demographic and Health Survey (ADHS) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the ADHS is only one of many samples that could have been selected from the same population, using the same design and expected 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 all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the ADHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the ADHS is the ISSA Sampling Error Module. This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate,  $r = y/x$ , where  $y$  represents the total sample value for variable  $y$ , and  $x$  represents the total number of cases in the group or subgroup under consideration. The variance of  $r$  is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = \text{var}(r) = \frac{1}{x^2} \sum_{h=1}^H \left[ \frac{(1-f_h)m_h}{m_h-1} \left( \sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which

$$z_{hi} = y_{hi} - r \cdot x_{hi}, \text{ and } z_h = y_h - r \cdot x_h$$

where  $h$  represents the stratum which varies from 1 to  $H$ ,  
 $m_h$  is the total number of clusters selected in the  $h^{\text{th}}$  stratum,  
 $y_{hi}$  is the sum of the weighted values of variable  $y$  in the  $i^{\text{th}}$  cluster in the  $h^{\text{th}}$  stratum,  
 $x_{hi}$  is the sum of the weighted number of cases in the  $i^{\text{th}}$  cluster in the  $h^{\text{th}}$  stratum, and  
 $f$  is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the ADHS, there were 260 non-empty clusters. Hence, 260 replications were created. The variance of a rate  $r$  is calculated as follows:

$$SE^2(r) = \text{var}(r) = \frac{1}{k(k-1)} \sum_{i=1}^k (r_i - r)^2$$

in which

$$r_i = k r - (k - 1) r_{(i)}$$

where  $r$  is the estimate computed from the full sample of 260 clusters,  
 $r_{(i)}$  is the estimate computed from the reduced sample of 259 clusters ( $i^{\text{th}}$  cluster excluded), and  
 $k$  is the total number of clusters.

In addition to the standard error, ISSA computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. ISSA also computes the relative error and confidence limits for the estimates.

Sampling errors for the ADHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, urban and rural areas separately, Yerevan, and for each of the 10 regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.19 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits ( $R \pm 2SE$ ), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to child-bearing. Sampling errors for childhood mortality rates are presented only for the whole country, and for urban and rural areas.

The confidence interval (e.g., as calculated for *Children ever born to women aged 15-49*) can be interpreted as follows: the overall average from the national sample is 1.694 and its standard error is 0.018. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e.,  $1.694 \pm 2 \times 0.018$ . There is a high probability (95 percent) that the *true* average number of children ever born to all women aged 15 to 49 is between 1.657 and 1.731.

Sampling errors are analyzed for the national woman sample and for two separate groups of estimates: (1) means and proportions, and (2) complex demographic rates. The relative standard errors (SE/R) for the means and proportions range between 0.2 percent and 26.1 percent with an average of 4.9 percent; the highest relative standard errors are for estimates of very low values (e.g., *Women currently using pill*). If estimates of very low values (less than 10 percent) were removed, then the average would drop to 3.1 percent. So in general, the relative standard errors for most estimates for the country as a whole is small, except for estimates of very small proportions. The relative standard error for the total fertility rate is small, 7.0 percent. However, for the mortality rates, the average relative standard error is much higher, 21.5 percent.

There are differentials in the relative standard error for the estimates of sub-populations. For example, for the variable *Never married*, the relative standard errors as a percent of the estimated mean for the whole country, urban and rural areas, and for Aragatsotn are 2.0 percent, 1.4 percent, 1.1 percent, and 9.6 percent respectively.

For the total sample, the value of the design effect (DEFT), averaged over all variables, is 1.18 which means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.18 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Armenia 2000

Variable	Estimate	Base population
Urban residence	Proportion	All women 15-49
Primary education	Proportion	All women 15-49
Secondary education	Proportion	All women 15-49
Secondary-special education	Proportion	All women 15-49
Higher education	Proportion	All women 15-49
Net attendance ratio	Proportion	All women 15-49
Never married	Proportion	All women 15-49
Currently married	Proportion	All women 15-49
Married before age 20	Proportion	Women 25-49
Had first sexual intercourse before age 18	Proportion	Women 25-49
Currently pregnant	Proportion	All women 15-49
Children ever born	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women age 40-49	Mean	Women 40-49
Knows any contraceptive method	Proportion	Currently married women 15-49
Ever used any contraceptive method	Proportion	Currently married women 15-49
Currently using any contraceptive method	Proportion	Currently married women 15-49
Currently using any modern method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using IUD	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using periodic abstinence	Proportion	Currently married women 15-49
Currently using withdrawal	Proportion	Currently married women 15-49
Obtained method in public source	Proportion	Current users of modern methods
Wants no more children	Proportion	Currently married women 15-49
Wants to delay birth at least 2 years	Proportion	Currently married women 15-49
Ideal family size	Mean	All women 15-49
Medical assistance at delivery	Proportion	Children under 5
Had diarrhea in two weeks before survey	Proportion	Children under 5
Treated with ORS packets	Proportion	Children under 5 with diarrhea in last 2 weeks
Taken to a health provider	Proportion	Children under 5 with diarrhea in last 2 weeks
Child immunization card at facility	Proportion	Children 12-23 months
Child immunization card at home	Proportion	Children 12-23 months
Received BCG	Proportion	Children 12-23 months
Received DPT (3 doses)	Proportion	Children 12-23 months
Received Polio (3 doses)	Proportion	Children 12-23 months
Received Measles	Proportion	Children 12-23 months
Fully immunized	Proportion	Children 12-23 months
Weight-for-height 2SD below the median	Proportion	Children under 5 who were measured
Height-for-age 2SD below the median	Proportion	Children under 5 who were measured
Weight-for-age 2SD below the median	Proportion	Children under 5 who were measured
Prevalence of anemia in children	Proportion	Children under 5 who were tested
Prevalence of anemia in women	Proportion	Women 15-49 who were tested
Body mass index below 18.5	Proportion	Women 15-49 who were measured
Pregnancy outcome is induced abortion	Proportion	Terminated pregnancies, 3 years prior to survey
Ever had an abortion	Proportion	All women 15-49
Knows about condoms	Proportion	Women 15-49
Knows about limiting partners	Proportion	Women 15-49
Prevalence of STIs or STI symptoms	Proportion	Women 15-49
Total fertility rate	Rate	Woman-years of exposure to child-bearing
Total abortion rate	Rate	Woman-years of exposure to child-bearing
Perinatal mortality rate	Rate	Number of births
Neonatal mortality rate	Rate	Number of births
Postneonatal mortality rate	Rate	Number of births
Infant mortality rate	Rate	Number of births
Child mortality rate	Rate	Number of births
Under-five mortality rate	Rate	Number of births

**Table B.2 Sampling errors for the total population**

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.613	0.011	6430	6430	1.890	0.019	0.590	0.636
Primary education	0.092	0.005	6430	6430	1.507	0.059	0.081	0.103
Secondary education	0.364	0.008	6430	6430	1.295	0.021	0.348	0.380
Secondary-special education	0.357	0.009	6430	6430	1.459	0.024	0.339	0.374
Higher education	0.187	0.008	6430	6430	1.609	0.042	0.171	0.202
Net attendance ratio	0.945	0.005	2370	2307	1.085	0.006	0.935	0.955
Never married	0.288	0.006	6430	6430	1.038	0.020	0.276	0.300
Currently married	0.641	0.006	6430	6430	1.017	0.009	0.629	0.654
Married before age 20	0.444	0.009	4271	4263	1.168	0.020	0.426	0.462
Had first sexual intercourse before age 18	0.159	0.007	4271	4263	1.293	0.046	0.144	0.173
Currently pregnant	0.029	0.002	6430	6430	1.071	0.077	0.024	0.033
Children ever born	1.694	0.018	6430	6430	0.999	0.011	1.657	1.731
Children surviving	1.587	0.016	6430	6430	0.967	0.010	1.554	1.619
Children ever born to women age 40-49	2.618	0.036	1772	1769	1.105	0.014	2.546	2.690
Knows any contraceptive method	0.988	0.002	4198	4125	1.391	0.002	0.983	0.992
Ever used any contraceptive method	0.815	0.008	4198	4125	1.325	0.010	0.799	0.831
Currently using any contraceptive method	0.605	0.009	4198	4125	1.218	0.015	0.587	0.624
Currently using any modern method	0.223	0.008	4198	4125	1.204	0.035	0.207	0.238
Currently using pill	0.011	0.002	4198	4125	1.173	0.171	0.007	0.015
Currently using IUD	0.094	0.005	4198	4125	1.197	0.057	0.084	0.105
Currently using condom	0.069	0.005	4198	4125	1.183	0.067	0.060	0.078
Currently using female sterilization	0.027	0.003	4198	4125	1.101	0.103	0.021	0.032
Currently using periodic abstinence	0.048	0.004	4198	4125	1.118	0.077	0.041	0.056
Currently using withdrawal	0.319	0.008	4198	4125	1.103	0.025	0.303	0.335
Obtained method in public source	0.882	0.012	809	850	1.084	0.014	0.858	0.907
Wants no more children	0.717	0.009	4198	4125	1.267	0.012	0.699	0.735
Wants to delay birth at least 2 years	0.085	0.005	4198	4125	1.098	0.056	0.076	0.095
Ideal family size	2.676	0.017	6336	6333	1.214	0.006	2.642	2.709
Medical assistance at delivery	0.968	0.006	1726	1657	1.186	0.006	0.956	0.980
Had diarrhea in two weeks before survey	0.078	0.008	1659	1596	1.147	0.105	0.062	0.095
Treated with ORS packets	0.330	0.046	129	125	1.034	0.139	0.238	0.421
Taken to a health provider	0.261	0.040	129	125	0.971	0.154	0.181	0.341
Child immunization card at facility	0.929	0.015	305	300	0.985	0.016	0.899	0.958
Child immunization card at home	0.331	0.032	305	300	1.178	0.098	0.266	0.396
Received BCG	0.960	0.012	287	283	1.005	0.012	0.937	0.984
Received DPT (3 doses)	0.951	0.012	287	283	0.899	0.012	0.928	0.974
Received Polio (3 doses)	0.976	0.008	287	283	0.919	0.009	0.959	0.993
Received Measles	0.788	0.029	287	283	1.170	0.036	0.731	0.845
Fully immunized	0.757	0.028	287	283	1.101	0.037	0.701	0.813
Weight-for-height 2SD below the median	0.020	0.005	1517	1463	1.314	0.261	0.009	0.030
Height-for-age 2SD below the median	0.130	0.012	1517	1463	1.270	0.092	0.106	0.154
Weight-for-age 2SD below the median	0.026	0.004	1517	1463	0.962	0.159	0.018	0.034
Prevalence of anemia in children	0.239	0.012	1384	1334	0.996	0.049	0.216	0.263
Prevalence of anemia in women	0.124	0.005	6137	6137	1.216	0.041	0.114	0.135
Body mass index below 18.5	0.035	0.003	5944	5962	1.080	0.073	0.030	0.040
Pregnancy outcome is induced abortion	0.550	0.014	2496	2423	1.121	0.025	0.523	0.578
Ever had an abortion	0.468	0.007	6430	6430	1.071	0.014	0.455	0.481
Knows about condoms	0.479	0.010	6430	6430	1.593	0.021	0.459	0.499
Knows about limiting partners	0.568	0.010	6430	6430	1.543	0.017	0.549	0.587
Prevalence of STIs or STI symptoms	0.250	0.008	4643	4592	1.274	0.032	0.234	0.266

Table B.3 Sampling errors for the urban population

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Primary education	0.064	0.005	3545	3942	1.186	0.076	0.054	0.073
Secondary education	0.294	0.010	3545	3942	1.280	0.033	0.274	0.314
Secondary-special education	0.386	0.011	3545	3942	1.299	0.028	0.365	0.407
Higher education	0.256	0.012	3545	3942	1.619	0.046	0.233	0.280
Net attendance ratio	0.945	0.007	1119	1234	1.059	0.008	0.930	0.960
Never married	0.314	0.008	3545	3942	1.065	0.026	0.297	0.330
Currently married	0.607	0.008	3545	3942	1.034	0.014	0.590	0.624
Married before age 20	0.377	0.011	2358	2621	1.084	0.029	0.355	0.398
Had first sexual intercourse before age 18	0.121	0.008	2358	2621	1.247	0.069	0.104	0.138
Currently pregnant	0.019	0.002	3545	3942	1.053	0.126	0.014	0.024
Children ever born	1.500	0.023	3545	3942	1.003	0.015	1.455	1.546
Children surviving	1.418	0.021	3545	3942	1.006	0.015	1.375	1.460
Children ever born to women age 40-49	2.383	0.042	1052	1160	1.081	0.018	2.299	2.466
Knows any contraceptive method	0.991	0.003	2173	2391	1.538	0.003	0.985	0.997
Ever used any contraceptive method	0.808	0.012	2173	2391	1.366	0.014	0.785	0.831
Currently using any contraceptive method	0.591	0.013	2173	2391	1.228	0.022	0.565	0.617
Currently using any modern method	0.245	0.011	2173	2391	1.208	0.046	0.223	0.267
Currently using pill	0.012	0.003	2173	2391	1.173	0.233	0.006	0.017
Currently using IUD	0.098	0.007	2173	2391	1.101	0.072	0.084	0.113
Currently using condom	0.090	0.007	2173	2391	1.162	0.079	0.075	0.104
Currently using female sterilization	0.023	0.004	2173	2391	1.153	0.161	0.016	0.031
Currently using periodic abstinence	0.064	0.005	2173	2391	1.050	0.086	0.053	0.074
Currently using withdrawal	0.264	0.010	2173	2391	1.109	0.040	0.243	0.285
Obtained method in public source	0.842	0.018	469	547	1.082	0.022	0.805	0.878
Wants no more children	0.703	0.013	2173	2391	1.370	0.019	0.676	0.730
Wants to delay birth at least 2 years	0.091	0.007	2173	2391	1.120	0.076	0.077	0.104
Ideal family size	2.619	0.021	3497	3889	1.201	0.008	2.576	2.661
Medical assistance at delivery	0.991	0.006	758	838	1.363	0.006	0.980	1.002
Had diarrhea in two weeks before survey	0.078	0.012	740	819	1.184	0.157	0.054	0.103
Treated with ORS packets	0.282	0.061	60	64	1.003	0.217	0.159	0.404
Taken to a health provider	0.252	0.056	60	64	0.908	0.221	0.141	0.364
Child immunization card at facility	0.916	0.023	150	169	1.006	0.025	0.870	0.961
Child immunization card at home	0.321	0.035	150	169	0.914	0.110	0.250	0.391
Received BCG	0.974	0.013	139	157	0.959	0.013	0.948	1.000
Received DPT (3 doses)	0.936	0.018	139	157	0.896	0.020	0.900	0.973
Received Polio (3 doses)	0.980	0.012	139	157	1.050	0.013	0.955	1.005
Received Measles	0.817	0.040	139	157	1.216	0.049	0.738	0.896
Fully immunized	0.787	0.038	139	157	1.103	0.049	0.711	0.864
Weight-for-height 2SD below the median	0.022	0.009	672	750	1.405	0.386	0.005	0.039
Height-for-age 2SD below the median	0.101	0.015	672	750	1.273	0.152	0.070	0.132
Weight-for-age 2SD below the median	0.024	0.006	672	750	1.015	0.250	0.012	0.035
Prevalence of anemia in children	0.156	0.014	611	684	0.979	0.092	0.127	0.184
Prevalence of anemia in women	0.099	0.005	3374	3762	1.071	0.056	0.088	0.110
Body mass index below 18.5	0.041	0.004	3309	3698	1.078	0.091	0.033	0.048
Pregnancy outcome is induced abortion	0.539	0.019	1094	1202	1.084	0.035	0.501	0.577
Ever had an abortion	0.450	0.009	3545	3942	1.112	0.021	0.432	0.469
Knows about condoms	0.584	0.011	3545	3942	1.343	0.019	0.562	0.606
Knows about limiting partners	0.650	0.011	3545	3942	1.320	0.016	0.629	0.671
Prevalence of STIs or STI symptoms	0.220	0.010	2463	2717	1.240	0.047	0.199	0.240

Table B.4 Sampling errors for the rural population

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Primary education	0.138	0.011	2885	2488	1.777	0.083	0.115	0.160
Secondary education	0.475	0.012	2885	2488	1.287	0.025	0.451	0.499
Secondary-special education	0.311	0.015	2885	2488	1.710	0.047	0.281	0.340
Higher education	0.077	0.006	2885	2488	1.137	0.074	0.065	0.088
Net attendance ratio	0.945	0.007	1251	1073	1.123	0.008	0.931	0.960
Never married	0.247	0.007	2885	2488	0.828	0.027	0.234	0.260
Currently married	0.697	0.008	2885	2488	0.916	0.011	0.681	0.712
Married before age 20	0.552	0.015	1913	1642	1.290	0.027	0.523	0.582
Had first sexual intercourse before age 18	0.219	0.013	1913	1642	1.377	0.059	0.193	0.245
Currently pregnant	0.044	0.004	2885	2488	1.128	0.098	0.035	0.053
Children ever born	2.000	0.028	2885	2488	0.944	0.014	1.944	2.057
Children surviving	1.855	0.023	2885	2488	0.843	0.012	1.809	1.900
Children ever born to women age 40-49	3.065	0.068	720	609	1.248	0.022	2.930	3.200
Knows any contraceptive method	0.983	0.004	2025	1733	1.275	0.004	0.976	0.991
Ever used any contraceptive method	0.824	0.010	2025	1733	1.196	0.012	0.804	0.844
Currently using any contraceptive method	0.625	0.012	2025	1733	1.159	0.020	0.600	0.650
Currently using any modern method	0.192	0.010	2025	1733	1.154	0.053	0.172	0.212
Currently using pill	0.010	0.003	2025	1733	1.137	0.246	0.005	0.016
Currently using IUD	0.089	0.008	2025	1733	1.333	0.095	0.072	0.106
Currently using condom	0.040	0.005	2025	1733	1.074	0.117	0.031	0.050
Currently using female sterilization	0.031	0.004	2025	1733	1.029	0.127	0.023	0.039
Currently using periodic abstinence	0.027	0.004	2025	1733	1.207	0.161	0.018	0.036
Currently using withdrawal	0.395	0.011	2025	1733	1.053	0.029	0.372	0.418
Obtained method in public source	0.955	0.010	340	304	0.927	0.011	0.935	0.976
Wants no more children	0.736	0.010	2025	1733	1.013	0.013	0.716	0.756
Wants to delay birth at least 2 years	0.078	0.006	2025	1733	1.029	0.079	0.066	0.090
Ideal family size	2.766	0.028	2839	2444	1.250	0.010	2.711	2.822
Medical assistance at delivery	0.945	0.010	968	819	1.208	0.011	0.924	0.966
Had diarrhea in two weeks before survey	0.078	0.011	919	777	1.118	0.140	0.056	0.100
Treated with ORS	0.380	0.068	69	61	1.086	0.178	0.245	0.516
Taken to a health provider	0.270	0.058	69	61	1.063	0.215	0.154	0.387
Child immunization card at facility	0.945	0.016	155	131	0.886	0.017	0.913	0.978
Child immunization card at home	0.345	0.059	155	131	1.516	0.170	0.228	0.462
Received BCG	0.944	0.021	148	126	1.093	0.022	0.902	0.985
Received DPT (3 doses)	0.969	0.013	148	126	0.883	0.013	0.944	0.994
Received Polio (3 doses)	0.971	0.011	148	126	0.757	0.011	0.950	0.992
Received Measles	0.751	0.041	148	126	1.139	0.054	0.669	0.832
Fully immunized	0.719	0.042	148	126	1.128	0.058	0.635	0.803
Weight-for-height 2SD below the median	0.017	0.005	845	713	1.122	0.320	0.006	0.028
Height-for-age 2SD below the median	0.160	0.018	845	713	1.282	0.111	0.125	0.196
Weight-for-age 2SD below the median	0.028	0.006	845	713	0.931	0.201	0.017	0.040
Prevalence of anemia in children	0.328	0.016	773	650	0.970	0.050	0.295	0.361
Prevalence of anemia in women	0.165	0.010	2763	2376	1.377	0.059	0.146	0.185
Body mass index below 18.5	0.026	0.003	2635	2264	0.993	0.118	0.020	0.033
Pregnancy outcome is induced abortion	0.561	0.019	1402	1220	1.173	0.034	0.523	0.600
Ever had an abortion	0.495	0.009	2885	2488	0.950	0.018	0.478	0.513
Knows about condoms	0.313	0.016	2885	2488	1.866	0.051	0.281	0.345
Knows about limiting partners	0.439	0.015	2885	2488	1.626	0.034	0.409	0.469
Prevalence of STIs or STI symptoms	0.293	0.013	2180	1874	1.331	0.044	0.267	0.319

Table B.5 Sampling errors for Yerevan

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	1.000	0.000	1604	2206	na	0.000	1.000	1.000
Primary education	0.062	0.007	1604	2206	1.107	0.108	0.048	0.075
Secondary education	0.275	0.014	1604	2206	1.232	0.050	0.247	0.302
Secondary-special education	0.358	0.016	1604	2206	1.298	0.043	0.327	0.389
Higher education	0.305	0.019	1604	2206	1.656	0.062	0.267	0.344
Net attendance ratio	0.944	0.010	447	612	0.929	0.011	0.924	0.964
Never married	0.335	0.013	1604	2206	1.097	0.039	0.309	0.361
Currently married	0.585	0.013	1604	2206	1.071	0.023	0.559	0.612
Married before age 20	0.339	0.014	1060	1458	0.982	0.042	0.310	0.367
Had first sexual intercourse before age 18	0.115	0.013	1060	1458	1.279	0.109	0.090	0.140
Currently pregnant	0.018	0.003	1604	2206	0.965	0.178	0.012	0.025
Children ever born	1.375	0.036	1604	2206	1.116	0.026	1.303	1.447
Children surviving	1.312	0.034	1604	2206	1.117	0.026	1.244	1.379
Children ever born to women age 40-49	2.228	0.069	456	627	1.240	0.031	2.090	2.366
Knows any contraceptive method	0.984	0.006	939	1291	1.400	0.006	0.973	0.995
Ever used any contraceptive method	0.782	0.019	939	1291	1.382	0.024	0.744	0.819
Currently using any contraceptive method	0.571	0.020	939	1291	1.241	0.035	0.531	0.611
Currently using any modern method	0.281	0.017	939	1291	1.149	0.060	0.247	0.315
Currently using pill	0.014	0.004	939	1291	1.132	0.312	0.005	0.022
Currently using IUD	0.099	0.010	939	1291	0.999	0.098	0.080	0.119
Currently using condom	0.117	0.010	939	1291	0.989	0.089	0.096	0.138
Currently using female sterilization	0.023	0.006	939	1291	1.191	0.251	0.012	0.035
Currently using periodic abstinence	0.066	0.008	939	1291	1.005	0.123	0.050	0.082
Currently using withdrawal	0.208	0.016	939	1291	1.211	0.077	0.176	0.240
Obtained method in public source	0.820	0.027	244	336	1.095	0.033	0.766	0.874
Wants no more children	0.684	0.022	939	1291	1.435	0.032	0.640	0.727
Wants to delay birth at least 2 years	0.101	0.011	939	1291	1.096	0.107	0.080	0.123
Ideal family size	2.544	0.033	1585	2180	1.292	0.013	2.478	2.611
Medical assistance at delivery	0.988	0.009	334	459	1.292	0.010	0.969	1.007
Had diarrhea in two weeks before survey	0.043	0.011	328	451	0.998	0.261	0.020	0.065
Treated with ORS packets	0.286	0.124	14	19	1.028	0.434	0.037	0.534
Taken to a health provider	0.286	0.112	14	19	0.926	0.391	0.062	0.509
Child immunization card at facility	0.917	0.036	60	83	0.995	0.039	0.846	0.988
Child immunization card at home	0.233	0.051	60	83	0.890	0.220	0.131	0.336
Received BCG	1.000	0.000	55	76	na	0.000	1.000	1.000
Received DPT (3 doses)	0.927	0.026	55	76	0.755	0.029	0.874	0.980
Received Polio (3 doses)	0.982	0.018	55	76	1.017	0.019	0.945	1.018
Received Measles	0.818	0.050	55	76	0.965	0.062	0.717	0.919
Fully immunized	0.800	0.045	55	76	0.838	0.057	0.709	0.891
Weight-for-height 2SD below the median	0.023	0.012	307	422	1.201	0.508	0.000	0.046
Height-for-age 2SD below the median	0.075	0.016	307	422	1.109	0.220	0.042	0.108
Weight-for-age 2SD below the median	0.007	0.005	307	422	0.999	0.703	0.000	0.016
Prevalence of anemia in children	0.129	0.020	280	385	1.003	0.156	0.088	0.169
Prevalence of anemia in women	0.056	0.007	1522	2093	1.191	0.126	0.042	0.070
Body mass index below 18.5	0.043	0.006	1499	2061	1.089	0.132	0.032	0.055
Pregnancy outcome is induced abortion	0.527	0.027	455	626	1.012	0.052	0.473	0.582
Ever had an abortion	0.441	0.014	1604	2206	1.101	0.031	0.413	0.468
Knows about condoms	0.661	0.015	1604	2206	1.309	0.023	0.631	0.692
Knows about limiting partners	0.700	0.016	1604	2206	1.412	0.023	0.668	0.732
Prevalence of STIs or STI symptoms	0.200	0.016	1073	1475	1.293	0.079	0.169	0.232

na = Not applicable



Table B.6 Sampling errors for Aragatsotn

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.244	0.028	484	279	1.451	0.116	0.187	0.301
Primary education	0.105	0.038	484	279	2.703	0.358	0.030	0.181
Secondary education	0.465	0.037	484	279	1.611	0.079	0.392	0.538
Secondary-special education	0.320	0.025	484	279	1.173	0.078	0.270	0.370
Higher education	0.110	0.027	484	279	1.869	0.242	0.056	0.163
Net attendance ratio	0.949	0.018	216	127	1.245	0.019	0.912	0.986
Never married	0.260	0.025	484	279	1.253	0.096	0.210	0.310
Currently married	0.692	0.021	484	279	0.981	0.030	0.651	0.733
Married before age 20	0.495	0.047	325	188	1.698	0.095	0.401	0.590
Had first sexual intercourse before age 18	0.194	0.031	325	188	1.423	0.161	0.131	0.256
Currently pregnant	0.045	0.007	484	279	0.697	0.145	0.032	0.059
Children ever born	1.955	0.057	484	279	0.789	0.029	1.841	2.068
Children surviving	1.826	0.055	484	279	0.842	0.030	1.716	1.937
Children ever born to women age 40-49	2.966	0.144	118	68	1.072	0.049	2.678	3.254
Knows any contraceptive method	0.982	0.006	335	193	0.824	0.006	0.970	0.994
Ever used any contraceptive method	0.839	0.028	335	193	1.400	0.034	0.782	0.895
Currently using any contraceptive method	0.630	0.025	335	193	0.939	0.039	0.580	0.679
Currently using any modern method	0.146	0.015	335	193	0.757	0.100	0.117	0.176
Currently using pill	0.006	0.004	335	193	1.027	0.725	0.000	0.015
Currently using IUD	0.078	0.019	335	193	1.311	0.247	0.039	0.116
Currently using condom	0.024	0.004	335	193	0.511	0.179	0.015	0.032
Currently using female sterilization	0.021	0.010	335	193	1.296	0.485	0.001	0.041
Currently using periodic abstinence	0.039	0.012	335	193	1.149	0.313	0.015	0.063
Currently using withdrawal	0.442	0.016	335	193	0.600	0.037	0.409	0.474
Obtained method in public source	0.955	0.035	44	25	1.092	0.036	0.885	1.024
Wants no more children	0.758	0.023	335	193	0.980	0.030	0.712	0.804
Wants to delay birth at least 2 years	0.063	0.014	335	193	1.021	0.216	0.036	0.090
Ideal family size	2.818	0.065	484	279	1.118	0.023	2.688	2.948
Medical assistance at delivery	0.928	0.024	166	96	1.231	0.026	0.880	0.976
Had diarrhea in two weeks before survey	0.103	0.021	156	90	0.679	0.201	0.061	0.144
Treated with ORS packets	0.250	0.173	16	9	1.358	0.690	0.000	0.595
Taken to a health provider	0.250	0.173	16	9	1.283	0.690	0.000	0.595
Child immunization card at facility	0.846	0.050	26	15	0.701	0.059	0.747	0.946
Child immunization card at home	0.192	0.081	26	15	1.052	0.423	0.029	0.355
Received BCG	0.913	0.057	23	13	0.972	0.063	0.799	1.027
Received DPT (3 doses)	0.913	0.057	23	13	0.972	0.063	0.799	1.027
Received Polio (3 doses)	0.913	0.057	23	13	0.972	0.063	0.799	1.027
Received Measles	0.696	0.112	23	13	1.161	0.160	0.473	0.919
Fully immunized	0.609	0.112	23	13	1.102	0.184	0.384	0.833
Weight-for-height 2SD below the median	0.027	0.016	147	85	1.175	0.576	0.000	0.059
Height-for-age 2SD below the median	0.088	0.014	147	85	0.558	0.155	0.061	0.116
Weight-for-age 2SD below the median	0.020	0.014	147	85	1.245	0.707	0.000	0.049
Prevalence of anemia in children	0.255	0.030	141	81	0.903	0.119	0.194	0.316
Prevalence of anemia in women	0.117	0.018	480	277	1.217	0.153	0.081	0.152
Body mass index below 18.5	0.029	0.008	455	263	0.983	0.269	0.013	0.044
Pregnancy outcome is induced abortion	0.606	0.036	269	155	1.048	0.060	0.534	0.678
Ever had an abortion	0.514	0.025	484	279	1.098	0.049	0.465	0.564
Knows about condoms	0.374	0.050	484	279	2.253	0.133	0.275	0.473
Knows about limiting partners	0.517	0.043	484	279	1.888	0.083	0.431	0.602
Prevalence of STIs or STI symptoms	0.224	0.012	357	206	0.559	0.055	0.199	0.249

**Table B.7 Sampling errors for Ararat**

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.199	0.036	564	642	2.127	0.180	0.127	0.270
Primary education	0.101	0.019	564	642	1.472	0.185	0.064	0.138
Secondary education	0.429	0.023	564	642	1.093	0.053	0.383	0.475
Secondary-special education	0.379	0.019	564	642	0.951	0.051	0.341	0.418
Higher education	0.090	0.012	564	642	1.030	0.138	0.066	0.115
Net attendance ratio	0.928	0.010	237	262	0.629	0.011	0.907	0.949
Never married	0.255	0.014	564	642	0.752	0.054	0.228	0.283
Currently married	0.700	0.017	564	642	0.874	0.024	0.667	0.734
Married before age 20	0.579	0.029	366	416	1.124	0.050	0.521	0.637
Had first sexual intercourse before age 18	0.221	0.017	366	416	0.801	0.079	0.187	0.256
Currently pregnant	0.048	0.008	564	642	0.934	0.176	0.031	0.065
Children ever born	1.897	0.064	564	642	1.014	0.034	1.769	2.026
Children surviving	1.791	0.055	564	642	0.940	0.031	1.681	1.901
Children ever born to women age 40-49	2.922	0.150	128	146	1.233	0.051	2.623	3.221
Knows any contraceptive method	0.997	0.002	395	449	0.974	0.002	0.993	1.002
Ever used any contraceptive method	0.856	0.020	395	449	1.135	0.023	0.816	0.896
Currently using any contraceptive method	0.663	0.024	395	449	0.999	0.036	0.616	0.711
Currently using any modern method	0.258	0.025	395	449	1.139	0.097	0.208	0.308
Currently using pill	0.010	0.006	395	449	1.213	0.604	0.000	0.022
Currently using IUD	0.114	0.020	395	449	1.246	0.175	0.074	0.154
Currently using condom	0.053	0.015	395	449	1.344	0.286	0.023	0.084
Currently using female sterilization	0.061	0.011	395	449	0.894	0.177	0.039	0.082
Currently using periodic abstinence	0.043	0.012	395	449	1.166	0.277	0.019	0.067
Currently using withdrawal	0.357	0.019	395	449	0.793	0.054	0.319	0.395
Obtained method in public source	0.958	0.019	95	108	0.901	0.019	0.921	0.995
Wants no more children	0.694	0.021	395	449	0.919	0.031	0.651	0.736
Wants to delay birth at least 2 years	0.073	0.006	395	449	0.448	0.080	0.062	0.085
Ideal family size	2.637	0.042	543	618	1.101	0.016	2.553	2.721
Medical assistance at delivery	0.995	0.005	182	207	0.953	0.005	0.984	1.005
Had diarrhea in two weeks before survey	0.125	0.036	176	200	1.378	0.286	0.054	0.196
Treated with ORS packets	0.455	0.073	22	25	0.662	0.161	0.309	0.601
Taken to a health provider	0.273	0.063	22	25	0.651	0.231	0.147	0.399
Child immunization card at facility	0.926	0.047	27	31	0.922	0.050	0.833	1.019
Child immunization card at home	0.370	0.088	27	31	0.941	0.236	0.195	0.545
Received BCG	0.962	0.033	26	30	0.876	0.034	0.895	1.028
Received DPT (3 doses)	0.962	0.033	26	30	0.876	0.034	0.895	1.028
Received Polio (3 doses)	0.962	0.033	26	30	0.876	0.034	0.895	1.028
Received Measles	0.731	0.065	26	30	0.747	0.089	0.601	0.861
Fully immunized	0.731	0.065	26	30	0.747	0.089	0.601	0.861
Weight-for-height 2SD below the median	0.000	0.000	150	171	na	na	0.000	0.000
Height-for-age 2SD below the median	0.153	0.035	150	171	1.059	0.225	0.084	0.222
Weight-for-age 2SD below the median	0.033	0.010	150	171	0.680	0.299	0.013	0.053
Prevalence of anemia in children	0.307	0.036	140	159	0.937	0.118	0.235	0.379
Prevalence of anemia in women	0.163	0.015	528	601	0.960	0.095	0.132	0.194
Body mass index below 18.5	0.032	0.007	501	570	0.944	0.233	0.017	0.047
Pregnancy outcome is induced abortion	0.520	0.032	252	287	0.864	0.062	0.456	0.584
Ever had an abortion	0.500	0.013	564	642	0.627	0.026	0.474	0.526
Knows about condoms	0.404	0.036	564	642	1.721	0.088	0.333	0.475
Knows about limiting partners	0.592	0.033	564	642	1.604	0.056	0.526	0.659
Prevalence of STIs or STI symptoms	0.281	0.025	420	478	1.127	0.088	0.231	0.330

na = Not applicable

**Table B.8 Sampling errors for Armavir**

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.287	0.025	495	553	1.241	0.088	0.236	0.337
Primary education	0.162	0.033	495	553	2.019	0.207	0.095	0.228
Secondary education	0.422	0.022	495	553	1.006	0.053	0.378	0.467
Secondary-special education	0.305	0.029	495	553	1.404	0.095	0.247	0.363
Higher education	0.111	0.011	495	553	0.772	0.098	0.089	0.133
Net attendance ratio	0.956	0.014	204	236	0.807	0.014	0.928	0.983
Never married	0.248	0.008	495	553	0.417	0.033	0.232	0.265
Currently married	0.675	0.015	495	553	0.720	0.022	0.644	0.705
Married before age 20	0.494	0.027	328	367	0.963	0.054	0.441	0.547
Had first sexual intercourse before age 18	0.207	0.029	328	367	1.305	0.141	0.149	0.266
Currently pregnant	0.042	0.009	495	553	1.023	0.219	0.024	0.061
Children ever born	1.875	0.040	495	553	0.578	0.021	1.795	1.954
Children surviving	1.741	0.034	495	553	0.542	0.020	1.673	1.810
Children ever born to women age 40-49	2.805	0.113	128	143	0.838	0.040	2.579	3.030
Knows any contraceptive method	1.000	0.000	334	373	na	0.000	1.000	1.000
Ever used any contraceptive method	0.844	0.025	334	373	1.242	0.029	0.795	0.894
Currently using any contraceptive method	0.653	0.018	334	373	0.680	0.027	0.617	0.688
Currently using any modern method	0.180	0.015	334	373	0.692	0.081	0.151	0.209
Currently using pill	0.012	0.004	334	373	0.721	0.359	0.003	0.021
Currently using IUD	0.093	0.013	334	373	0.814	0.139	0.067	0.119
Currently using condom	0.033	0.007	334	373	0.723	0.215	0.019	0.047
Currently using female sterilization	0.015	0.006	334	373	0.921	0.410	0.003	0.027
Currently using periodic abstinence	0.048	0.012	334	373	0.997	0.244	0.025	0.071
Currently using withdrawal	0.380	0.023	334	373	0.855	0.060	0.335	0.426
Obtained method in public source	0.945	0.016	55	61	0.524	0.017	0.913	0.978
Wants no more children	0.674	0.026	334	373	1.028	0.039	0.621	0.726
Wants to delay birth at least 2 years	0.072	0.016	334	373	1.109	0.218	0.040	0.103
Ideal family size	2.804	0.080	474	530	1.255	0.028	2.645	2.963
Medical assistance at delivery	0.973	0.018	147	164	1.382	0.019	0.936	1.010
Had diarrhea in two weeks before survey	0.099	0.021	142	159	0.770	0.217	0.056	0.141
Treated with ORS packets	0.429	0.184	14	16	1.218	0.429	0.061	0.796
Taken to a health provider	0.357	0.173	14	16	1.169	0.485	0.011	0.703
Child immunization card at facility	0.958	0.036	24	27	0.876	0.037	0.887	1.030
Child immunization card at home	0.500	0.138	24	27	1.353	0.276	0.224	0.776
Received BCG	0.913	0.068	23	26	1.151	0.074	0.778	1.048
Received DPT (3 doses)	1.000	0.000	23	26	na	0.000	1.000	1.000
Received Polio (3 doses)	1.000	0.000	23	26	na	0.000	1.000	1.000
Received Measles	0.870	0.093	23	26	1.327	0.107	0.683	1.056
Fully immunized	0.826	0.104	23	26	1.311	0.126	0.619	1.034
Weight-for-height 2SD below the median	0.000	0.000	138	154	na	na	0.000	0.000
Height-for-age 2SD below the median	0.087	0.020	138	154	0.735	0.231	0.047	0.127
Weight-for-age 2SD below the median	0.014	0.010	138	154	0.961	0.672	0.000	0.034
Prevalence of anemia in children	0.328	0.035	125	140	0.847	0.106	0.258	0.398
Prevalence of anemia in women	0.180	0.021	488	546	1.192	0.115	0.139	0.222
Body mass index below 18.5	0.030	0.007	467	522	0.873	0.230	0.016	0.044
Pregnancy outcome is induced abortion	0.640	0.042	267	299	1.175	0.065	0.557	0.724
Ever had an abortion	0.511	0.016	495	553	0.718	0.032	0.479	0.543
Knows about condoms	0.317	0.038	495	553	1.801	0.119	0.242	0.393
Knows about limiting partners	0.471	0.035	495	553	1.541	0.074	0.401	0.540
Prevalence of STIs or STI symptoms	0.304	0.030	375	419	1.253	0.098	0.244	0.364

na = Not applicable

Table B.9 Sampling errors for Gegharkunik

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.307	0.027	489	484	1.295	0.088	0.253	0.361
Primary education	0.155	0.020	489	484	1.232	0.130	0.115	0.196
Secondary education	0.479	0.020	489	484	0.867	0.041	0.439	0.518
Secondary-special education	0.303	0.031	489	484	1.511	0.104	0.240	0.366
Higher education	0.063	0.014	489	484	1.269	0.221	0.035	0.091
Net attendance ratio	0.952	0.018	231	226	1.288	0.019	0.916	0.988
Never married	0.243	0.012	489	484	0.592	0.047	0.220	0.266
Currently married	0.706	0.017	489	484	0.845	0.025	0.671	0.740
Married before age 20	0.623	0.025	318	315	0.926	0.040	0.572	0.673
Had first sexual intercourse before age 18	0.270	0.049	318	315	1.952	0.180	0.173	0.368
Currently pregnant	0.037	0.009	489	484	1.094	0.253	0.018	0.055
Children ever born	2.198	0.062	489	484	0.779	0.028	2.074	2.322
Children surviving	1.982	0.045	489	484	0.647	0.023	1.892	2.071
Children ever born to women age 40-49	3.473	0.176	129	128	1.334	0.051	3.122	3.824
Knows any contraceptive method	0.991	0.005	345	341	1.016	0.005	0.981	1.001
Ever used any contraceptive method	0.858	0.015	345	341	0.796	0.017	0.828	0.888
Currently using any contraceptive method	0.562	0.034	345	341	1.265	0.060	0.495	0.630
Currently using any modern method	0.183	0.024	345	341	1.176	0.134	0.134	0.232
Currently using pill	0.006	0.004	345	341	1.012	0.715	0.000	0.014
Currently using IUD	0.081	0.022	345	341	1.472	0.267	0.038	0.125
Currently using condom	0.029	0.008	345	341	0.931	0.291	0.012	0.046
Currently using female sterilization	0.035	0.009	345	341	0.928	0.264	0.016	0.053
Currently using periodic abstinence	0.026	0.010	345	341	1.178	0.388	0.006	0.046
Currently using withdrawal	0.345	0.019	345	341	0.723	0.054	0.308	0.382
Obtained method in public source	0.926	0.036	54	53	0.989	0.038	0.855	0.997
Wants no more children	0.733	0.020	345	341	0.838	0.027	0.693	0.773
Wants to delay birth at least 2 years	0.087	0.018	345	341	1.181	0.206	0.051	0.123
Ideal family size	2.730	0.064	485	480	1.043	0.024	2.601	2.859
Medical assistance at delivery	0.848	0.035	184	182	1.046	0.041	0.778	0.918
Had diarrhea in two weeks before survey	0.094	0.033	170	168	1.420	0.353	0.028	0.161
Treated with ORS packets	0.250	0.148	16	16	1.340	0.593	0.000	0.546
Taken to a health provider	0.250	0.091	16	16	0.824	0.364	0.068	0.432
Child immunization card at facility	0.906	0.047	32	32	0.917	0.052	0.812	1.001
Child immunization card at home	0.219	0.095	32	32	1.294	0.433	0.029	0.408
Received BCG	1.000	0.000	29	29	na	0.000	1.000	1.000
Received DPT (3 doses)	0.966	0.035	29	29	1.028	0.036	0.896	1.035
Received Polio (3 doses)	1.000	0.000	29	29	na	0.000	1.000	1.000
Received Measles	0.828	0.086	29	29	1.221	0.104	0.656	0.999
Fully immunized	0.793	0.092	29	29	1.225	0.116	0.609	0.978
Weight-for-height 2SD below the median	0.014	0.011	140	139	1.124	0.788	0.000	0.037
Height-for-age 2SD below the median	0.321	0.053	140	139	1.282	0.166	0.215	0.428
Weight-for-age 2SD below the median	0.036	0.012	140	139	0.798	0.349	0.011	0.061
Prevalence of anemia in children	0.315	0.041	124	123	0.913	0.130	0.233	0.396
Prevalence of anemia in women	0.173	0.020	415	411	1.077	0.115	0.133	0.214
Body mass index below 18.5	0.030	0.008	401	397	0.925	0.263	0.014	0.046
Pregnancy outcome is induced abortion	0.557	0.060	287	284	1.492	0.107	0.438	0.677
Ever had an abortion	0.538	0.021	489	484	0.914	0.038	0.497	0.579
Knows about condoms	0.227	0.031	489	484	1.647	0.138	0.165	0.289
Knows about limiting partners	0.299	0.025	489	484	1.206	0.084	0.249	0.349
Prevalence of STIs or STI symptoms	0.332	0.023	370	366	0.957	0.071	0.285	0.379

na = Not applicable

**Table B.10 Sampling errors for Lori**

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.535	0.051	409	489	2.056	0.095	0.434	0.637
Primary education	0.090	0.014	409	489	0.972	0.153	0.063	0.118
Secondary education	0.403	0.039	409	489	1.601	0.096	0.326	0.481
Secondary-special education	0.374	0.031	409	489	1.298	0.083	0.312	0.436
Higher education	0.132	0.021	409	489	1.273	0.162	0.089	0.175
Net attendance ratio	0.929	0.027	140	171	1.159	0.029	0.874	0.983
Never married	0.244	0.020	409	489	0.918	0.080	0.205	0.284
Currently married	0.660	0.023	409	489	0.998	0.035	0.613	0.707
Married before age 20	0.470	0.037	279	333	1.236	0.079	0.396	0.544
Had first sexual intercourse before age 18	0.129	0.020	279	333	0.972	0.151	0.090	0.168
Currently pregnant	0.017	0.007	409	489	1.049	0.393	0.004	0.031
Children ever born	1.731	0.069	409	489	1.016	0.040	1.594	1.868
Children surviving	1.619	0.063	409	489	1.013	0.039	1.493	1.744
Children ever born to women age 40-49	2.600	0.094	115	137	0.807	0.036	2.412	2.788
Knows any contraceptive method	0.996	0.004	270	323	1.015	0.004	0.989	1.004
Ever used any contraceptive method	0.870	0.028	270	323	1.370	0.032	0.814	0.926
Currently using any contraceptive method	0.681	0.028	270	323	0.980	0.041	0.626	0.737
Currently using any modern method	0.211	0.029	270	323	1.152	0.136	0.154	0.268
Currently using pill	0.007	0.005	270	323	1.006	0.710	0.000	0.018
Currently using IUD	0.119	0.022	270	323	1.126	0.187	0.074	0.163
Currently using condom	0.037	0.010	270	323	0.856	0.266	0.017	0.057
Currently using female sterilization	0.019	0.008	270	323	1.009	0.448	0.002	0.035
Currently using periodic abstinence	0.041	0.009	270	323	0.787	0.233	0.022	0.060
Currently using withdrawal	0.419	0.032	270	323	1.048	0.075	0.355	0.482
Obtained method in public source	0.942	0.034	52	62	1.036	0.036	0.875	1.010
Wants no more children	0.711	0.029	270	323	1.044	0.041	0.653	0.769
Wants to delay birth at least 2 years	0.100	0.019	270	323	1.015	0.186	0.063	0.137
Ideal family size	2.546	0.075	403	481	1.620	0.029	2.396	2.696
Medical assistance at delivery	0.992	0.009	119	142	1.039	0.009	0.974	1.009
Had diarrhea in two weeks before survey	0.107	0.029	112	134	0.859	0.271	0.049	0.165
Treated with ORS packets	0.167	0.098	12	14	0.883	0.589	0.000	0.363
Taken to a health provider	0.083	0.073	12	14	0.990	0.874	0.000	0.229
Child immunization card at facility	0.966	0.031	29	35	0.922	0.032	0.903	1.028
Child immunization card at home	0.483	0.103	29	35	1.074	0.213	0.277	0.689
Received BCG	0.931	0.045	29	35	0.956	0.048	0.841	1.021
Received DPT (3 doses)	1.000	0.000	29	35	na	0.000	1.000	1.000
Received Polio (3 doses)	1.000	0.000	29	35	na	0.000	1.000	1.000
Received Measles	0.690	0.126	29	35	1.437	0.182	0.439	0.941
Fully immunized	0.655	0.121	29	35	1.345	0.185	0.413	0.897
Weight-for-height 2SD below the median	0.009	0.010	106	127	1.045	1.024	0.000	0.029
Height-for-age 2SD below the median	0.123	0.037	106	127	1.021	0.300	0.049	0.196
Weight-for-age 2SD below the median	0.000	0.000	106	127	na	na	0.000	0.000
Prevalence of anemia in children	0.315	0.041	92	110	0.854	0.131	0.232	0.398
Prevalence of anemia in women	0.179	0.019	403	481	0.980	0.105	0.141	0.216
Body mass index below 18.5	0.046	0.005	391	467	0.512	0.118	0.035	0.057
Pregnancy outcome is induced abortion	0.413	0.054	143	171	1.209	0.131	0.305	0.520
Ever had an abortion	0.386	0.032	409	489	1.312	0.082	0.323	0.450
Knows about condoms	0.350	0.040	409	489	1.680	0.113	0.270	0.429
Knows about limiting partners	0.447	0.035	409	489	1.416	0.078	0.378	0.517
Prevalence of STIs or STI symptoms	0.271	0.032	310	370	1.283	0.120	0.206	0.336

na = Not applicable

**Table B.11 Sampling errors for Kotayk**

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.544	0.036	445	505	1.503	0.065	0.473	0.615
Primary education	0.106	0.014	445	505	0.953	0.132	0.078	0.133
Secondary education	0.344	0.034	445	505	1.487	0.097	0.277	0.411
Secondary-special education	0.425	0.034	445	505	1.452	0.080	0.357	0.493
Higher education	0.126	0.021	445	505	1.351	0.169	0.083	0.168
Net attendance ratio	0.925	0.018	134	153	0.848	0.020	0.889	0.962
Never married	0.317	0.013	445	505	0.588	0.041	0.291	0.343
Currently married	0.625	0.015	445	505	0.637	0.023	0.595	0.654
Married before age 20	0.503	0.043	286	325	1.462	0.086	0.417	0.590
Had first sexual intercourse before age 18	0.147	0.021	286	325	0.987	0.141	0.105	0.188
Currently pregnant	0.022	0.011	445	505	1.559	0.488	0.001	0.044
Children ever born	1.697	0.048	445	505	0.676	0.028	1.601	1.792
Children surviving	1.616	0.036	445	505	0.545	0.022	1.544	1.688
Children ever born to women age 40-49	2.695	0.084	128	145	0.734	0.031	2.528	2.863
Knows any contraceptive method	0.996	0.004	278	316	1.010	0.004	0.989	1.004
Ever used any contraceptive method	0.827	0.025	278	316	1.090	0.030	0.778	0.877
Currently using any contraceptive method	0.525	0.028	278	316	0.936	0.053	0.469	0.581
Currently using any modern method	0.140	0.026	278	316	1.262	0.188	0.088	0.193
Currently using pill	0.000	0.000	278	316	na	na	0.000	0.000
Currently using IUD	0.076	0.023	278	316	1.449	0.305	0.030	0.122
Currently using condom	0.040	0.018	278	316	1.499	0.444	0.004	0.075
Currently using female sterilization	0.014	0.007	278	316	0.922	0.459	0.001	0.028
Currently using periodic abstinence	0.025	0.012	278	316	1.324	0.495	0.000	0.050
Currently using withdrawal	0.349	0.036	278	316	1.244	0.102	0.278	0.420
Obtained method in public source	0.833	0.067	36	41	1.065	0.081	0.699	0.968
Wants no more children	0.773	0.021	278	316	0.837	0.027	0.731	0.815
Wants to delay birth at least 2 years	0.079	0.014	278	316	0.843	0.173	0.052	0.106
Ideal family size	2.887	0.033	441	501	0.625	0.012	2.820	2.953
Medical assistance at delivery	0.978	0.017	93	106	1.106	0.017	0.945	1.012
Had diarrhea in two weeks before survey	0.079	0.041	89	101	1.452	0.520	0.000	0.160
Treated with ORS packets	0.286	0.141	7	8	0.827	0.495	0.003	0.568
Taken to a health provider	0.143	0.071	7	8	0.534	0.495	0.001	0.284
Child immunization card at facility	1.000	0.000	16	18	na	0.000	1.000	1.000
Child immunization card at home	0.625	0.092	16	18	0.757	0.147	0.441	0.809
Received BCG	0.875	0.067	16	18	0.812	0.077	0.741	1.009
Received DPT (3 doses)	0.938	0.058	16	18	0.952	0.062	0.822	1.053
Received Polio (3 doses)	1.000	0.000	16	18	na	0.000	1.000	1.000
Received Measles	0.813	0.126	16	18	1.286	0.155	0.561	1.064
Fully immunized	0.688	0.113	16	18	0.977	0.165	0.461	0.914
Weight-for-height 2SD below the median	0.105	0.045	86	98	1.265	0.434	0.014	0.195
Height-for-age 2SD below the median	0.081	0.031	86	98	1.046	0.378	0.020	0.143
Weight-for-age 2SD below the median	0.093	0.034	86	98	1.079	0.364	0.025	0.161
Prevalence of anemia in children	0.107	0.021	84	95	0.650	0.192	0.066	0.148
Prevalence of anemia in women	0.106	0.011	432	490	0.757	0.106	0.084	0.129
Body mass index below 18.5	0.033	0.010	424	481	1.170	0.308	0.013	0.053
Pregnancy outcome is induced abortion	0.637	0.041	157	178	0.949	0.064	0.555	0.719
Ever had an abortion	0.494	0.017	445	505	0.722	0.035	0.460	0.529
Knows about condoms	0.333	0.028	445	505	1.260	0.085	0.276	0.389
Knows about limiting partners	0.501	0.017	445	505	0.729	0.035	0.467	0.536
Prevalence of STIs or STI symptoms	0.391	0.033	304	345	1.162	0.083	0.326	0.457

na = Not applicable

Table B.12 Sampling errors for Shirak

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.638	0.037	492	611	1.689	0.057	0.565	0.711
Primary education	0.061	0.016	492	611	1.501	0.266	0.029	0.093
Secondary education	0.358	0.025	492	611	1.134	0.069	0.309	0.407
Secondary-special education	0.362	0.037	492	611	1.709	0.102	0.288	0.436
Higher education	0.220	0.018	492	611	0.960	0.082	0.184	0.255
Net attendance ratio	0.945	0.023	199	259	1.430	0.024	0.899	0.990
Never married	0.283	0.019	492	611	0.952	0.068	0.244	0.321
Currently married	0.634	0.019	492	611	0.878	0.030	0.596	0.672
Married before age 20	0.404	0.023	339	421	0.862	0.057	0.358	0.450
Had first sexual intercourse before age 18	0.130	0.011	339	421	0.617	0.087	0.107	0.152
Currently pregnant	0.028	0.008	492	611	1.041	0.275	0.013	0.044
Children ever born	1.703	0.065	492	611	0.948	0.038	1.574	1.832
Children surviving	1.555	0.049	492	611	0.845	0.032	1.456	1.653
Children ever born to women age 40-49	2.517	0.103	149	185	0.874	0.041	2.310	2.724
Knows any contraceptive method	0.968	0.014	312	388	1.396	0.014	0.940	0.996
Ever used any contraceptive method	0.811	0.017	312	388	0.784	0.021	0.776	0.846
Currently using any contraceptive method	0.654	0.031	312	388	1.153	0.048	0.592	0.716
Currently using any modern method	0.237	0.025	312	388	1.024	0.104	0.188	0.287
Currently using pill	0.026	0.009	312	388	1.021	0.357	0.007	0.044
Currently using IUD	0.119	0.015	312	388	0.834	0.129	0.088	0.149
Currently using condom	0.067	0.017	312	388	1.196	0.253	0.033	0.101
Currently using female sterilization	0.019	0.008	312	388	0.980	0.397	0.004	0.034
Currently using periodic abstinence	0.058	0.013	312	388	0.992	0.227	0.031	0.084
Currently using withdrawal	0.340	0.024	312	388	0.890	0.070	0.292	0.388
Obtained method in public source	0.875	0.028	72	89	0.710	0.032	0.819	0.931
Wants no more children	0.760	0.027	312	388	1.119	0.036	0.705	0.814
Wants to delay birth at least 2 years	0.071	0.016	312	388	1.111	0.229	0.038	0.103
Ideal family size	2.843	0.048	491	610	0.976	0.017	2.748	2.939
Medical assistance at delivery	0.979	0.015	94	117	0.991	0.015	0.949	1.008
Had diarrhea in two weeks before survey	0.076	0.033	92	114	1.204	0.436	0.010	0.143
Treated with ORS packets	0.429	0.158	7	9	0.844	0.369	0.112	0.745
Taken to a health provider	0.429	0.206	7	9	1.101	0.481	0.016	0.841
Child immunization card at facility	0.913	0.057	23	29	0.961	0.062	0.800	1.026
Child immunization card at home	0.391	0.144	23	29	1.414	0.368	0.103	0.679
Received BCG	0.955	0.044	22	27	0.979	0.046	0.867	1.042
Received DPT (3 doses)	0.955	0.046	22	27	1.027	0.048	0.863	1.046
Received Polio (3 doses)	0.955	0.046	22	27	1.027	0.048	0.863	1.046
Received Measles	0.864	0.076	22	27	1.039	0.088	0.711	1.016
Fully immunized	0.864	0.076	22	27	1.039	0.088	0.711	1.016
Weight-for-height 2SD below the median	0.024	0.017	85	106	1.028	0.706	0.000	0.057
Height-for-age 2SD below the median	0.224	0.076	85	106	1.715	0.339	0.072	0.375
Weight-for-age 2SD below the median	0.059	0.028	85	106	0.956	0.484	0.002	0.116
Prevalence of anemia in children	0.276	0.035	76	94	0.695	0.128	0.206	0.347
Prevalence of anemia in women	0.172	0.020	489	608	1.191	0.118	0.131	0.212
Body mass index below 18.5	0.019	0.005	476	592	0.822	0.272	0.009	0.029
Pregnancy outcome is induced abortion	0.581	0.033	148	184	0.677	0.057	0.514	0.648
Ever had an abortion	0.459	0.018	492	611	0.813	0.040	0.423	0.496
Knows about condoms	0.583	0.026	492	611	1.160	0.044	0.532	0.635
Knows about limiting partners	0.622	0.018	492	611	0.835	0.029	0.585	0.659
Prevalence of STIs or STI symptoms	0.116	0.019	353	439	1.105	0.163	0.078	0.154

**Table B.13 Sampling errors for Syunik**

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.662	0.028	494	271	1.297	0.042	0.607	0.717
Primary education	0.075	0.010	494	271	0.831	0.132	0.055	0.095
Secondary education	0.372	0.033	494	271	1.532	0.090	0.306	0.439
Secondary-special education	0.431	0.027	494	271	1.202	0.062	0.378	0.485
Higher education	0.121	0.020	494	271	1.375	0.167	0.081	0.162
Net attendance ratio	0.989	0.008	189	107	1.039	0.008	0.974	1.005
Never married	0.273	0.022	494	271	1.086	0.080	0.230	0.317
Currently married	0.640	0.022	494	271	1.017	0.034	0.596	0.684
Married before age 20	0.474	0.034	323	177	1.221	0.072	0.406	0.542
Had first sexual intercourse before age 18	0.161	0.016	323	177	0.775	0.099	0.129	0.193
Currently pregnant	0.030	0.009	494	271	1.136	0.289	0.013	0.048
Children ever born	1.891	0.051	494	271	0.710	0.027	1.788	1.993
Children surviving	1.757	0.048	494	271	0.726	0.027	1.661	1.853
Children ever born to women age 40-49	3.042	0.086	144	79	0.789	0.028	2.870	3.213
Knows any contraceptive method	0.981	0.006	316	173	0.796	0.006	0.969	0.993
Ever used any contraceptive method	0.658	0.038	316	173	1.405	0.057	0.583	0.733
Currently using any contraceptive method	0.497	0.046	316	173	1.637	0.093	0.405	0.589
Currently using any modern method	0.127	0.019	316	173	1.001	0.148	0.089	0.164
Currently using pill	0.003	0.003	316	173	1.000	1.000	0.000	0.009
Currently using IUD	0.057	0.016	316	173	1.234	0.283	0.025	0.089
Currently using condom	0.044	0.015	316	173	1.284	0.336	0.015	0.074
Currently using female sterilization	0.009	0.005	316	173	0.931	0.536	0.000	0.020
Currently using periodic abstinence	0.054	0.013	316	173	1.012	0.239	0.028	0.080
Currently using withdrawal	0.304	0.050	316	173	1.942	0.166	0.203	0.404
Obtained method in public source	0.889	0.049	36	20	0.926	0.055	0.791	0.987
Wants no more children	0.807	0.023	316	173	1.040	0.029	0.761	0.853
Wants to delay birth at least 2 years	0.089	0.010	316	173	0.596	0.108	0.070	0.108
Ideal family size	2.693	0.029	489	268	0.592	0.011	2.636	2.751
Medical assistance at delivery	0.991	0.008	114	63	0.942	0.008	0.975	1.008
Had diarrhea in two weeks before survey	0.054	0.026	112	61	1.214	0.484	0.002	0.105
Treated with ORS packets	0.167	0.130	6	3	0.855	0.782	0.000	0.427
Taken to a health provider	0.000	0.000	6	3	na	na	0.000	0.000
Child immunization card at facility	0.850	0.086	20	11	1.078	0.101	0.678	1.022
Child immunization card at home	0.250	0.075	20	11	0.774	0.300	0.100	0.400
Received BCG	0.941	0.060	17	9	1.053	0.064	0.821	1.061
Received DPT (3 doses)	0.882	0.077	17	9	0.983	0.087	0.729	1.036
Received Polio (3 doses)	1.000	0.000	17	9	na	0.000	1.000	1.000
Received Measles	0.882	0.077	17	9	0.983	0.087	0.729	1.036
Fully immunized	0.824	0.118	17	9	1.270	0.143	0.588	1.059
Weight-for-height 2SD below the median	0.000	0.000	97	53	na	na	0.000	0.000
Height-for-age 2SD below the median	0.155	0.031	97	53	0.823	0.202	0.092	0.217
Weight-for-age 2SD below the median	0.052	0.023	97	53	1.048	0.447	0.005	0.098
Prevalence of anemia in children	0.295	0.039	88	48	0.837	0.134	0.217	0.374
Prevalence of anemia in women	0.202	0.029	466	256	1.575	0.145	0.143	0.260
Body mass index below 18.5	0.040	0.011	454	249	1.190	0.275	0.018	0.061
Pregnancy outcome is induced abortion	0.560	0.043	166	91	1.005	0.077	0.474	0.646
Ever had an abortion	0.462	0.024	494	271	1.065	0.052	0.414	0.509
Knows about condoms	0.417	0.015	494	271	0.690	0.037	0.386	0.448
Knows about limiting partners	0.524	0.023	494	271	1.003	0.043	0.479	0.569
Prevalence of STIs or STI symptoms	0.284	0.018	359	197	0.762	0.064	0.248	0.320

na = Not applicable



Table B.14 Sampling errors for Vayots Dzor

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.345	0.038	458	113	1.716	0.111	0.269	0.421
Primary education	0.081	0.012	458	113	0.905	0.143	0.058	0.104
Secondary education	0.528	0.025	458	113	1.062	0.047	0.479	0.578
Secondary-special education	0.303	0.020	458	113	0.916	0.065	0.264	0.343
Higher education	0.087	0.011	458	113	0.832	0.126	0.065	0.109
Net attendance ratio	0.963	0.015	190	48	1.066	0.015	0.934	0.992
Never married	0.249	0.012	458	113	0.579	0.047	0.225	0.272
Currently married	0.699	0.017	458	113	0.776	0.024	0.665	0.732
Married before age 20	0.455	0.018	314	77	0.637	0.039	0.420	0.491
Had first sexual intercourse before age 18	0.159	0.018	314	77	0.884	0.115	0.123	0.196
Currently pregnant	0.031	0.007	458	113	0.911	0.240	0.016	0.045
Children ever born	1.987	0.046	458	113	0.594	0.023	1.894	2.080
Children surviving	1.847	0.045	458	113	0.640	0.024	1.758	1.937
Children ever born to women age 40-49	2.993	0.102	141	35	0.877	0.034	2.788	3.198
Knows any contraceptive method	0.966	0.008	320	79	0.781	0.008	0.950	0.982
Ever used any contraceptive method	0.763	0.016	320	79	0.655	0.020	0.731	0.794
Currently using any contraceptive method	0.659	0.025	320	79	0.927	0.037	0.610	0.709
Currently using any modern method	0.150	0.022	320	79	1.103	0.147	0.106	0.194
Currently using pill	0.006	0.004	320	79	1.002	0.708	0.000	0.015
Currently using IUD	0.025	0.009	320	79	1.017	0.356	0.007	0.043
Currently using condom	0.038	0.009	320	79	0.891	0.253	0.019	0.056
Currently using female sterilization	0.063	0.011	320	79	0.836	0.181	0.040	0.085
Currently using periodic abstinence	0.028	0.010	320	79	1.118	0.368	0.007	0.049
Currently using withdrawal	0.475	0.029	320	79	1.023	0.060	0.418	0.532
Obtained method in public source	0.953	0.030	43	11	0.919	0.031	0.894	1.013
Wants no more children	0.656	0.034	320	79	1.289	0.052	0.588	0.725
Wants to delay birth at least 2 years	0.084	0.018	320	79	1.161	0.214	0.048	0.121
Ideal family size	2.806	0.053	448	110	0.979	0.019	2.699	2.912
Medical assistance at delivery	0.993	0.007	136	33	0.974	0.007	0.978	1.007
Had diarrhea in two weeks before survey	0.069	0.020	130	32	0.840	0.296	0.028	0.110
Treated with ORS packets	0.556	0.131	9	2	0.726	0.235	0.294	0.817
Taken to a health provider	0.556	0.141	9	2	0.782	0.253	0.274	0.837
Child immunization card at facility	0.900	0.067	20	5	0.993	0.074	0.767	1.033
Child immunization card at home	0.350	0.124	20	5	1.162	0.354	0.102	0.598
Received BCG	0.947	0.049	19	5	0.957	0.052	0.849	1.046
Received DPT (3 doses)	0.895	0.098	19	5	1.393	0.110	0.698	1.091
Received Polio (3 doses)	0.947	0.049	19	5	0.957	0.052	0.849	1.046
Received Measles	0.579	0.131	19	5	1.155	0.226	0.317	0.841
Fully immunized	0.579	0.131	19	5	1.155	0.226	0.317	0.841
Weight-for-height 2SD below the median	0.017	0.011	117	29	0.954	0.667	0.000	0.040
Height-for-age 2SD below the median	0.111	0.041	117	29	1.334	0.367	0.030	0.193
Weight-for-age 2SD below the median	0.043	0.012	117	29	0.642	0.277	0.019	0.066
Prevalence of anemia in children	0.106	0.031	104	26	0.972	0.297	0.043	0.169
Prevalence of anemia in women	0.102	0.013	433	106	0.860	0.123	0.077	0.127
Body mass index below 18.5	0.024	0.008	414	102	1.106	0.346	0.007	0.041
Pregnancy outcome is induced abortion	0.422	0.041	154	38	0.895	0.096	0.341	0.503
Ever had an abortion	0.419	0.024	458	113	1.024	0.056	0.372	0.466
Knows about condoms	0.400	0.027	458	113	1.193	0.068	0.345	0.454
Knows about limiting partners	0.478	0.023	458	113	0.980	0.048	0.432	0.524
Prevalence of STIs or STI symptoms	0.282	0.023	344	85	0.966	0.083	0.235	0.329

**Table B.15 Sampling errors for Tavush**

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence intervals	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.321	0.021	496	278	1.005	0.066	0.278	0.363
Primary education	0.123	0.014	496	278	0.959	0.115	0.095	0.151
Secondary education	0.411	0.031	496	278	1.388	0.075	0.350	0.473
Secondary-special education	0.317	0.021	496	278	1.023	0.068	0.274	0.359
Higher education	0.149	0.015	496	278	0.960	0.103	0.118	0.180
Net attendance ratio	0.951	0.010	183	105	0.615	0.010	0.931	0.970
Never married	0.238	0.017	496	278	0.865	0.070	0.205	0.271
Currently married	0.714	0.016	496	278	0.773	0.022	0.682	0.745
Married before age 20	0.426	0.051	333	186	1.876	0.119	0.325	0.528
Had first sexual intercourse before age 18	0.177	0.031	333	186	1.459	0.173	0.116	0.238
Currently pregnant	0.044	0.009	496	278	0.932	0.194	0.027	0.062
Children ever born	1.847	0.072	496	278	1.084	0.039	1.702	1.991
Children surviving	1.754	0.068	496	278	1.091	0.039	1.618	1.890
Children ever born to women age 40-49	2.669	0.102	136	76	0.981	0.038	2.464	2.874
Knows any contraceptive method	0.992	0.006	354	198	1.249	0.006	0.979	1.004
Ever used any contraceptive method	0.839	0.012	354	198	0.618	0.014	0.815	0.863
Currently using any contraceptive method	0.638	0.030	354	198	1.159	0.046	0.579	0.698
Currently using any modern method	0.218	0.028	354	198	1.267	0.128	0.162	0.273
Currently using pill	0.011	0.006	354	198	1.013	0.504	0.000	0.023
Currently using IUD	0.065	0.016	354	198	1.182	0.239	0.034	0.096
Currently using condom	0.105	0.016	354	198	0.979	0.152	0.073	0.136
Currently using female sterilization	0.031	0.010	354	198	1.115	0.331	0.010	0.052
Currently using periodic abstinence	0.025	0.006	354	198	0.753	0.248	0.013	0.038
Currently using withdrawal	0.384	0.026	354	198	1.007	0.068	0.332	0.436
Obtained method in public source	0.949	0.025	78	44	0.996	0.026	0.899	0.999
Wants no more children	0.780	0.027	354	198	1.242	0.035	0.725	0.834
Wants to delay birth at least 2 years	0.065	0.016	354	198	1.221	0.247	0.033	0.097
Ideal family size	2.716	0.054	493	276	1.096	0.020	2.608	2.824
Medical assistance at delivery	0.994	0.006	157	88	0.973	0.006	0.981	1.006
Had diarrhea in two weeks before survey	0.039	0.021	152	85	1.332	0.539	0.000	0.082
Treated with ORS packets	0.333	0.261	6	3	1.353	0.782	0.000	0.854
Taken to a health provider	0.333	0.261	6	3	1.353	0.782	0.000	0.854
Child immunization card at facility	1.000	0.000	28	16	na	0.000	1.000	1.000
Child immunization card at home	0.107	0.062	28	16	1.056	0.577	0.000	0.231
Received BCG	1.000	0.000	28	16	na	0.000	1.000	1.000
Received DPT (3 doses)	0.929	0.055	28	16	1.130	0.059	0.818	1.039
Received Polio (3 doses)	0.893	0.039	28	16	0.670	0.044	0.814	0.971
Received Measles	0.679	0.068	28	16	0.764	0.099	0.544	0.814
Fully immunized	0.679	0.068	28	16	0.764	0.099	0.544	0.814
Weight-for-height 2SD below the median	0.007	0.007	144	81	0.957	0.950	0.000	0.020
Height-for-age 2SD below the median	0.104	0.038	144	81	1.269	0.363	0.029	0.180
Weight-for-age 2SD below the median	0.014	0.009	144	81	0.921	0.645	0.000	0.032
Prevalence of anemia in children	0.385	0.055	130	73	1.293	0.142	0.275	0.494
Prevalence of anemia in women	0.156	0.018	481	269	1.096	0.116	0.120	0.192
Body mass index below 18.5	0.026	0.005	462	259	0.695	0.198	0.016	0.036
Pregnancy outcome is induced abortion	0.480	0.038	198	111	0.883	0.079	0.404	0.556
Ever had an abortion	0.494	0.027	496	278	1.205	0.055	0.440	0.548
Knows about condoms	0.429	0.023	496	278	1.055	0.055	0.382	0.476
Knows about limiting partners	0.476	0.025	496	278	1.131	0.053	0.425	0.527
Prevalence of STIs or STI symptoms	0.262	0.027	378	212	1.211	0.105	0.207	0.317

na = Not applicable

**Table B.16 Sampling errors for fertility rates for the total population by residence and region**

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
<b>Residence</b>								
Urban	1.451	0.082	10025	11160	1.202	0.056	1.287	1.614
Rural	2.121	0.115	8112	7009	1.214	0.054	1.891	2.350
<b>Region</b>								
Yerevan	1.421	0.110	4539	6241	1.116	0.078	1.200	1.642
Aragatsotn	2.038	0.217	1354	781	0.991	0.107	1.604	2.473
Ararat	1.926	0.210	1596	1815	1.171	0.109	1.506	2.347
Armavir	1.706	0.215	1413	1580	1.093	0.126	1.275	2.136
Gegharkunik	2.542	0.322	1383	1368	1.214	0.127	1.897	3.186
Lori	2.101	0.325	1162	1388	1.257	0.155	1.451	2.751
Kotayk	1.261	0.196	1255	1424	1.156	0.155	0.870	1.653
Shirak	1.387	0.222	1387	1724	1.073	0.160	0.944	1.831
Syunik	1.568	0.279	1378	756	1.451	0.178	1.010	2.127
Vayots Dzor	2.387	0.298	1258	309	1.313	0.125	1.792	2.982
Tavush	2.247	0.251	1398	782	1.095	0.112	1.745	2.749
Total	1.708	0.070	18104	18170	1.283	0.041	1.567	1.848

**Table B.17 Sampling errors for the abortion rates for the total population by residence and region**

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
<b>Residence</b>								
Urban	2.130	0.117	10025	11160	1.017	0.055	1.89	2.364
Rural	3.391	0.209	8112	7009	1.353	0.062	2.97	3.810
<b>Region</b>								
Yerevan	1.920	0.150	4539	6241	0.921	0.078	1.61	2.221
Aragatsotn	4.091	0.580	1354	781	1.483	0.142	2.93	5.251
Ararat	2.715	0.282	1596	1815	1.009	0.104	2.15	3.280
Armavir	4.129	0.387	1413	1580	0.937	0.094	3.35	4.904
Gegharkunik	4.276	0.666	1383	1368	1.357	0.156	2.94	5.608
Lori	1.811	0.419	1162	1388	1.487	0.231	0.97	2.650
Kotayk	3.111	0.513	1255	1424	1.257	0.165	2.08	4.138
Shirak	2.415	0.311	1387	1724	0.908	0.129	1.79	3.037
Syunik	2.484	0.290	1378	756	1.051	0.117	1.90	3.064
Vayots Dzor	1.868	0.213	1258	309	0.857	0.114	1.44	2.294
Tavush	2.455	0.307	1398	782	1.006	0.125	1.84	3.068
Total	2.649	0.122	18104	18170	1.315	0.046	2.40	2.893

**Table B.18 Sampling errors for mortality rates for the total population**

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Mortality rate	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
<b>Mortality rates 0-4 years before the survey</b>								
Perinatal	28.917	4.727	1755	1681	1.028	0.163	19.463	38.370
Neonatal	19.474	3.936	1779	1705	0.987	0.202	11.601	27.347
Postneonatal	16.662	3.808	1779	1705	1.184	0.229	9.046	24.279
Infant	36.136	5.426	1779	1705	1.081	0.150	25.285	46.988
Child	3.005	1.209	1783	1710	1.032	0.402	0.587	5.423
Under-five	39.033	5.613	1783	1710	1.100	0.144	27.807	50.258
<b>Mortality rates 5-9 years before the survey</b>								
Infant	50.462	5.966	2327	2225	1.226	0.118	38.531	62.393
<b>Mortality rates 10-14 years before the survey</b>								
Infant	45.563	4.997	2739	2641	1.078	0.110	35.568	55.557

**Table B.19 Sampling errors for mortality rates for the total population by residence**

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Mortality rate	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
<b>Mortality rates 0-4 years preceding the survey</b>								
Perinatal (total)	28.917	4.727	1755	1681	1.028	0.163	19.463	38.370
Urban	19.512	5.392	768	849	0.976	0.276	8.729	30.296
Rural	38.507	7.735	987	833	1.103	0.201	23.036	53.977
<b>Mortality rates 0-9 years preceding the survey</b>								
Neonatal (total)	17.904	2.511	4002	3835	1.148	0.141	12.866	22.935
Urban	12.795	3.228	1799	1963	1.158	0.255	6.223	19.177
Rural	23.255	3.799	2203	1872	1.166	0.163	15.744	30.962
Postneonatal (total)	26.240	3.130	3998	3832	1.046	0.120	20.186	32.882
Urban	23.144	4.525	1798	1962	1.104	0.196	14.598	33.348
Rural	29.486	4.292	2200	1870	1.004	0.146	20.713	37.727
Infant (total)	44.144	4.195	4002	3835	1.149	0.095	35.982	52.840
Urban	35.939	5.458	1799	1963	1.124	0.152	25.500	47.812
Rural	52.741	6.247	2203	1872	1.185	0.118	40.128	64.955
Child (total)	3.995	1.049	4005	3837	1.065	0.258	2.111	6.624
Urban	1.385	0.898	1799	1963	1.072	0.652	0.000	3.517
Rural	6.848	1.941	2206	1874	1.117	0.276	3.290	11.397
Under-five (total)	47.963	4.236	4009	3841	1.128	0.088	39.491	56.436
Urban	37.274	5.533	1800	1964	1.126	0.148	26.208	48.339
Rural	59.228	6.190	2209	1877	1.126	0.105	46.84	71.608

