SAMPLE DESIGN

APPENDIX A

A.1 INTRODUCTION

The principal objective of the 2003 NDHS is to provide current and reliable data on fertility and family planning behaviour, child mortality, children's nutritional status, the utilization of maternal and child health services, and knowledge and attitudes towards HIV/AIDS. A related objective is to provide as many of these key indicators as possible for urban and rural areas separately, as well as for each of Nigeria's six geopolitical zones (see Table A.1).

The population covered by the 2003 NDHS is defined as the universe of all women age 15-49 and all men age 15-59 in Nigeria. A probability sample of households was selected and all women age 15-49 identified in the households were eligible to be interviewed. In addition, in a subsample of one-third of the households selected for the survey, all men age 15-59 were eligible to be interviewed.

A.2 SAMPLE FRAME

The sample frame for this survey was the list of enumeration areas (EAs) developed for the 1991 Population Census. Administratively, at the time the survey was planned, Nigeria was divided into 36 states and the Federal Capital Territory (FCT) of Abuja. Each state was subdivided into local government area (LGA) units and each LGA was divided into localities. In addition to these administrative units, for implementation of the 1991 Population Census, each locality was subdivided into enumeration areas (EAs). The list of approximately 212,080 EAs, with household and population information (from the 1991census) for each EA, was evaluated as a potential sampling frame for the 2003 NDHS. The EAs are grouped by states, by LGAs within a state, and by localities within an LGA, stratified separately by urban and rural areas. Any locality with less than 20,000 population constitutes a rural area. Also available from the 1991 census were maps showing the location of the EAs. These maps needed to be updated in the field before the final household selection. After a careful evaluation, the EA list was used as the sample frame.

A.3 SAMPLE ALLOCATION

The primary sampling unit (PSU), or cluster, for the 2003 NDHS is defined as one or more EAs from the 1991 census frame. A minimum requirement of 50 households per cluster was imposed on the design; in the case of less than 50 households, a contiguous EA was added. The number of clusters in each state was not allocated in proportion to the state's population because of the need to obtain estimates for each of the six zones. Since Nigeria is a country where the majority of the population resides in rural areas, the number of clusters allocated to the urban areas in five out of the six zones was increased in order to obtain reasonable urban estimates.

The target of the 2003 NDHS sample was to obtain completed interviews with about 8,250 women. Based on the level of nonresponse found in the 1999 Nigeria DHS survey, a target of 7,935 households was set. When the sample was implemented, three clusters could not be visited because of communal clashes, so 7,864 households were selected, in which all women age 15-49 were eligible to be interviewed. To obtain estimates of fertility and child mortality with a reasonable level of precision, a minimum of 1,200 completed interviews with women was desired in each zone. In each state, the number of households was not distributed proportionally between urban and rural areas. Also, in six designated states, a minimum of 350 completed interviews were targeted to provide selected indicators.

Table A.1 Allocation of the sample

Number of expected women's interviews and number of clusters covered, by state, Nigeria 2003

Region/ state	Expected number of women's interviews			Number of clusters selected		
	Urban	Rural	Total	Urban	Rural	Total
North Central	530	755	1,285	26	30	56
Plateau	54	147	201	3	6	9
Benue	89	261	350	4	10	14
Nasarawa	30	86	116	1	3	4
Kogi	126	87	213	6	3	9
Kwara	134	15	149	7	1	8
Niger	84	140	224	4	6	10
FCT	13	18	32	1	1	2
North East	500	811	1,311	25	32	57
Taraba	32	121	153	2	5	7
Adamawa	80	134	214	4	5	9
Gombe	44	106	151	2	4	6
Borno	185	67	253	9	3	12
Bauchi	90	310	400	5	12	17
Yobe	68	72	140	3	3	6
North West	500	1,233	1,733	27	49	76
Jigawa	14	186	200	1	7	8
Kano	252	150	402	13	6	19
Kebbi	22	124	146	1	5	6
Kaduna	93	307	400	5	12	17
Katsina	53	214	267	3	9	12
Zamfara	33	115	149	2	5	7
Sokoto	33	137	170	2	5	7
South East	500	747	1,247	25	30	55
Ebonyi	104	63	167	5	3	8
Anambra	140	210	350	7	8	15
Enugu	151	89	240	8	4	12
Abia	86	123	209	4	5	9
Imo	19	262	281	1	10	11
South South	500	774	1,274	25	31	56
Bayelsa	6	90	97	0	4	4
Cross River	59	113	172	3	5	8
Akwa Ibom	23	201	223	1	8	9
Rivers	127	223	350	6	9	15
Delta	118	119	237	7	4	11
Edo	167	28	195	8	1	9
South West	750	650	1,400	40	25	65
Lagos	363	76	439	20	1	21
Oyo	138	144	281	7	6	13
Osun	57	124	180	3	5	8
Ogun	75	117	192	4	5	9
Ekiti	54	72	125	3	3	6
Ondo	64	118	182	3	5	8
Total	3,280	4,970	8,250	165	200	365

A.4 SAMPLE SELECTION

The 2003 NDHS sample was selected using a stratified, two-stage cluster design. A total of 365 clusters were selected, 165 in urban and 200 in rural areas. Table A.1 shows the distribution of clusters selected for the 2003 NDHS. Once the number of households was allocated to each state by urban and rural areas, the numbers of clusters was calculated based on an average sample take of 20 completed

women's interviews (in 19 selected households) in urban areas, and 25 completed interviews (in 24 selected households) in rural areas. In each urban or rural area in a given state, clusters were selected systematically with equal probability. The selection was done using the following formula:

$$P_{1i} = (a / A)$$

where

a: is the number of clusters to be selected in the given combination of residence area and state,

A: is the total number of clusters in the given combination of residence area and state.

In each selected cluster, a complete household listing operation was carried out and households were selected to achieve a fixed sample take per cluster. Since the 2003 NDHS sample is unbalanced (disproportional) by urban-rural residence and state, it requires sampling weights to provide estimates at every domain of study.

In a given state, if *c* is the fixed number of households selected out of the total households (L_i)—found in the 2003 listing process—for the i^{th} cluster, then the household probability in the selected i^{th} cluster can be expressed as

$$P_{2i} = (c / L_i)$$

The final household overall probability in the i^{th} cluster could be calculated as

$$f_i = P_{1i} * P_{2i}$$

and the sampling design weight for the i^{th} cluster is given as

$$1/ f_i = 1 / (P_{1i} * P_{2i})$$

A.5 Sample for Male Survey

In every third household selected, all men age 15-59 listed in the household were eligible to be interviewed. Based on data from the 1999 NDHS, this was expected to produce a total of about 2,800 successfully completed male interviews in the 2003 NDHS.

A.6 Response Rates

Tables A.2 and A.3 present information on the results of the household and individual interviews. Household interviews were completed for 99 percent of the occupied households. A total of 7,985 eligible women were found in these households, and 95 percent of them were successfully interviewed. The overall response rate for women was 94 percent. A total of 2,572 eligible men from every third household were identified for the individual interviews; 91 percent were successfully interviewed. The overall response rate for men was 90 percent. The principal reason for nonresponse among eligible women and men was the failure to find them at home despite repeated visits to the household. The refusal rate was low.

There was no difference by urban-rural residence in overall response rates for eligible women and men. By region, the overall response rates for eligible women varied little, with the exception of South South, which had the lowest response rate for women (88 percent). The lowest overall response rate for men was in the South South and South East (83 percent each).

Table A.2 Sample implementation: women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women, and overall response rates, according to urban-rural residence and region, Nigeria 2003

	Residence		Region						
Result	Urban	Rural	North Central	North East	North West	South East	South South	South West	Total
Selected households									
Completed (C)	92.7	91.3	95.4	95.9	93.3	86.6	87.1	91.9	91.9
Household present but no competent respondent at home (HP)	0.5	0.6	0.4	0.2	0.7	0.3	0.9	0.8	0.6
Refused (R)	0.9	0.3	0.2	0.2	0.4	1.0	0.9	0.4	0.5
Dwelling not found (DNF)	0.1	0.2	0.1	0.0	0.1	0.0	0.7	0.3	0.2
Household absent (HA)	3.3	3.9	1.7	2.0	3.6	4.6	6.3	4.0	3.7
Dwelling vacant/address not a dwelling (DV)	2.3	3.1	2.0	1.4	1.7	6.7	3.2	2.3	2.8
Dwelling destroyed (DD)	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.2
Other (O)	0.1	0.3	0.0	0.0	0.1	0.6	0.4	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	3,163	4,701	1,214	1,242	1,689	1,195	1,159	1,365	7,864
Household response rate (HRR)[1]	98.4	98.8	99.2	99.5	98.8	98.6	97.1	98.4	98.6
Eligible women									
Completed (EWC)	96.1	95.0	95.8	94.7	97.2	95.3	90.4	97.8	95.4
Not at home (EWNH)	1.8	2.5	2.3	2.3	1.3	2.2	5.4	0.9	2.3
Postponed (EWP)	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1
Refused (EWR)	0.9	0.8	0.6	1.3	0.2	1.2	1.4	0.7	0.8
Partly completed (EWPC)	0.3	0.1	0.1	0.3	0.1	0.1	0.3	0.3	0.2
Incapacitated (EWI)	0.6	0.7	0.7	0.8	0.6	0.7	0.6	0.3	0.6
Other (EWO)	0.3	0.9	0.5	0.5	0.6	0.4	1.8	0.1	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,181	4,804	1,311	1,492	1,843	1,134	1,038	1,167	7,985
Eligible women response rate (EWRR)[2]	96.1	95.0	95.8	94.7	97.2	95.3	90.4	97.8	95.4
Overall response rate (ORR)[3]	94.6	93.8	95.1	94.2	96.0	94.0	87.8	96.2	94.1

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 * EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

[3] The overall response rate (ORR) is calculated as: ORR = HRR * EWRR/100

Table A.3 Sample implementation: men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men, and overall response rates, according to urban-rural residence and region Nigeria 2003

	Residence		Region						
Result	Urban	Rural	North Central	North East	North West	South East	South South	South West	Total
Selected households									
Completed (C)	92.7	91.3	96.5	97.0	92.8	85.9	85.8	92.3	91.9
Household present but no competent respondent at home (HP)	0.5	0.6	0.5	0.2	0.9	0.5	0.8	0.2	0.5
Refused (R)	1.1	0.3	0.0	0.2	0.0	1.5	1.1	0.9	0.6
Dwelling not found (DNF)	0.1	0.1	0.0	0.0	0.0	0.0	0.5	0.2	0.1
Household absent (HA)	3.4	4.0	1.3	1.7	3.8	4.1	6.9	4.7	3.7
Dwelling vacant/address not a dwelling (DV)	1.9	3.1	1.3	0.7	2.3	6.9	3.7	1.1	2.6
Dwelling destroyed (DD)	0.1	0.4	0.5	0.0	0.2	0.3	0.8	0.0	0.3
Other (O)	0.2	0.3	0.0	0.0	0.0	0.8	0.5	0.5	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	1,003	1,566	396	406	554	391	379	443	2,569
Household response rate (HRR)[1]	98.2	99.0	99.5	99.5	99.0	97.7	97.3	98.6	98.7
Eligible men									
Completed (EMC)	91.9	90.7	97.2	88.9	93.3	84.9	85.8	94.3	91.2
Not at home (EMNH)	3.7	5.3	1.6	2.9	3.9	7.1	10.7	3.5	4.6
Postponed (EMP)	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Refused (EMR)	1.2	0.5	0.0	1.5	0.9	2.2	0.3	0.0	0.8
Partly completed (EMPC)	0.4	0.3	0.5	0.0	0.3	1.3	0.0	0.0	0.3
Incapacitated (EMI)	0.9	0.5	0.7	1.3	0.2	1.3	0.5	0.2	0.7
Other (EMO)	1.9	2.7	0.0	5.5	1.2	3.2	2.7	2.0	2.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	1,073	1,499	428	476	586	312	365	405	2,572
Eligible men response rate (EMRR)[2]	91.9	90.7	97.2	88.9	93.3	84.9	85.8	94.3	91.2
Overall response rate (ORR)[3]	90.2	89.8	96.7	88.4	92.4	83.0	83.4	93.0	90.0

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + R + DNF}$$

[2] Using the number of eligible men falling into specific response categories, the eligible man response rate (EMRR) is calculated as:

$$\frac{100 * EMC}{EMC + EMNH + EMP + EMR + EMPC + EMI + EMO}$$

[3] The overall response rate (ORR) is calculated as: ORR = HRR * EMRR/100

ESTIMATES OF SAMPLING ERRORS

APPENDIX B

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 2003 Nigeria Demographic and Health Survey (NDHS) 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 2003 NDHS 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 2003 NDHS 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 2003 NDHS 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:

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

in which

$$z_{hi} = y_{hi} - rx_{hi} \text{ , and } \quad z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H,

m_h is the total number of clusters selected in the h^{th} stratum,
y_{hi} is the sum of the weighted values of variable y in the i^{th} cluster in the h^{th} stratum,
x_{hi} is the sum of the weighted number of cases in the i^{th} cluster in the h^{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 2003 NDHS, there were 362 non-empty clusters. Hence, 361 replications were created. The variance of a rate r is calculated as follows:

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

in which

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

where r is the estimate computed from the full sample of 362 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 361 clusters (i^{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 2003 NDHS are calculated for selected variables considered to be of primary interest for woman's survey and for man's surveys, respectively. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for each of the 6 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.10 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±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 childbearing.

The confidence interval (e.g., as calculated for *children ever born to women aged 40-49*) can be interpreted as follows: the overall average from the national sample is 6.808 and its standard error is 0.134. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 6.808±2×0.134. There is a high probability (95 percent) that the *true* average number of children ever born to all women aged 40 to 49 is between 6.540 and 7.077.

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 1.1 percent and 32.7 percent with an average of 6.36 percent; the highest relative standard errors are for estimates of very low values (e.g., *currently using*

female sterilization). If estimates of very low values (less than 10 percent) were removed, then the average drops to 4.2 percent. So in general, the relative standard error 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, 2.5 percent. However, for the mortality rates, the average relative standard error is much higher, 6.04 percent.

There are differentials in the relative standard error for the estimates of sub-populations. For example, for the variable *want no more children*, the relative standard errors as a percent of the estimated mean for the whole country, and for the urban areas are 4.9 percent and 6.1 percent, respectively.

For the total sample, the value of the design effect (DEFT), averaged over all variables, is 1.78 which means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.78 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Nigeria 2003

Variable	Estimate	Base population
	WOMEN	
Urban residence	Proportion	All women
Literate	Proportion	All women
No education	Proportion	All women
Secondary education or higher	Proportion	All women
Net attendance ratio for primary school	Ratio	Children 6-11 years
Never married	Proportion	All women
Currently married/in union	Proportion	All women
Married before age 20	Proportion	All women age 20-49
Currently pregnant	Proportion	All women
Children ever born	Mean	All women
Children surviving	Mean	All women
Children ever born to women age 40-49	Mean	Women age 40-49
Total fertility rate (3 years)	Proportion	All women
Knows any contraceptive method	Proportion	Currently married women
Ever using any contraceptive method	Proportion	Currently married women
Currently using any contraceptive method	Proportion	Currently married women
Currently using a modern method	Proportion	Currently married women
Currently using pill	Proportion	Currently married women
Currently using IUD	Proportion	Currently married women
Currently using condom	Proportion	Currently married women
Currently using female sterilization	Proportion	Currently married women
Currently using periodic abstinence	Proportion	Currently married women
Obtained method from public sector source	Proportion	Current users of modern methods
Wanting no more children	Proportion	Currently married women
Wanting to delay birth at least 2 years	Proportion	Currently married women
Ideal family size	Mean	All women
Neonatal mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Postneonatal mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Infant mortality rate (0-4 years)	Rate	Children exposed to the risk of mortality
Infant mortality rate (5-9 years)	Rate	Children exposed to the risk of mortality
Infant mortality rate (10-14 years)	Rate	Children exposed to the risk of mortality
Child mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Under-five mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Mothers received tetanus injection for last birth	Proportion	Women with at least one live birth in five years before the survey
Mothers received medical assistance at delivery	Proportion	Births in past 5 years[1]
Had diarrhoea in two weeks before survey	Proportion	Children age 0-59 months
Treated with oral rehydration salts (ORS)	Proportion	Children with diarrhoea in two weeks before the survey
Taken to a health provider	Proportion	Children with diarrhoea in two weeks before the survey
Vaccination card seen	Proportion	Children age 12-23 months
Receiving vaccinations:	Proportion	Children age 12-23 months
BCG		
DPT (3 doses)		
Polio (3 doses)		
Measles		
Fully immunized		
Height-for-age (below -2SD)	Proportion	Children age 0-59 months
Weight-for-height (below -2SD)	Proportion	Children age 0-59 months
Weight-for-age (below -2SD)	Proportion	Children age 0-59 months
BMI <18.5	Proportion	All women
Circumcised	Proportion	All women
Has heard of HIV/AIDS	Proportion	All women
Knows about condoms	Proportion	All women
Knows about limiting partners	Proportion	All women
	MEN	
Urban residence	Proportion	All men
Literate	Proportion	All men
No education	Proportion	All men
Secondary education or higher	Proportion	All men
Never married	Proportion	All men
Currently married/in union	Proportion	All men
Knows any contraceptive method	Proportion	All men
Ideal family size	Mean	All men
Has heard of HIV/AIDS	Proportion	All men age 15-49
Knows about condoms	Proportion	All men age 15-49
Knows about limiting partners	Proportion	All men age 15-49

[1] Births occurring 1-59 months before interview

Table B.2 Sampling errors for national sample, Nigeria 2003

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.345	0.018	7620	7620	3.325	0.052	0.309	0.381
Literate	0.482	0.017	7620	7620	3.017	0.036	0.447	0.516
No education	0.416	0.017	7620	7620	2.970	0.040	0.383	0.450
Secondary education or higher	0.370	0.016	7620	7620	2.861	0.043	0.339	0.402
Net attendance ratio for primary school	0.601	0.016	5896	6111	2.044	0.027	0.568	0.634
Never married	0.253	0.010	7620	7620	2.002	0.039	0.233	0.273
Currently married/in union	0.700	0.011	7620	7620	2.014	0.015	0.679	0.721
Married before age 20	0.663	0.012	5871	5904	2.019	0.019	0.638	0.688
Currently pregnant	0.114	0.005	7620	7620	1.385	0.044	0.104	0.124
Children ever born	3.094	0.056	7620	7620	1.517	0.018	2.983	3.206
Children surviving	2.381	0.038	7620	7620	1.346	0.016	2.306	2.457
Children ever born to women age 40-49	6.808	0.134	1313	1271	1.508	0.020	6.540	7.077
Total fertility rate (3 years)	5.655	0.142	na	21194	1.696	0.025	5.372	5.939
Knows any contraceptive method	0.784	0.011	5157	5336	1.976	0.014	0.762	0.807
Ever using contraceptive method	0.307	0.013	5157	5336	2.076	0.043	0.281	0.334
Currently using any contraceptive method	0.126	0.007	5157	5336	1.451	0.053	0.112	0.139
Currently using a modern method	0.082	0.005	5157	5336	1.184	0.055	0.073	0.092
Currently using pill	0.018	0.002	5157	5336	1.247	0.128	0.013	0.023
Currently using IUD	0.007	0.001	5157	5336	1.023	0.165	0.005	0.010
Currently using condom	0.019	0.003	5157	5336	1.495	0.148	0.014	0.025
Currently using female sterilization	0.002	0.001	5157	5336	1.056	0.327	0.001	0.003
Currently using periodic abstinence	0.021	0.003	5157	5336	1.544	0.147	0.015	0.027
Obtained method from public sector source	0.228	0.022	616	597	1.287	0.095	0.185	0.272
Wanting no more children	0.183	0.009	5157	5336	1.658	0.049	0.165	0.201
Wanting to delay birth at least 2 years	0.338	0.010	5157	5336	1.569	0.031	0.318	0.359
Ideal family size	6.668	0.088	6783	6795	2.324	0.013	6.491	6.844
Neonatal mortality (0-4 years)	48.370	3.527	6101	6310	1.191	0.073	41.317	55.423
Postneonatal mortality (0-4 years)	51.587	4.234	6135	6343	1.430	0.082	43.119	60.054
Infant mortality (0-4 years)	99.956	6.202	6135	6343	1.481	0.062	87.552	112.360
Infant mortality (5-9 years)	119.858	5.482	5442	5574	1.123	0.046	108.894	130.822
Infant Mortality (10-14 years)	113.346	6.144	4436	4515	1.141	0.054	101.058	125.634
Child mortality (0-4 years)	111.693	6.819	6309	6530	1.404	0.061	98.056	125.331
Under-five mortality (0-4 years)	200.485	8.942	6343	6563	1.554	0.045	182.601	218.370
Mothers received tetanus injection for last birth	0.508	0.018	3775	3911	2.284	0.036	0.471	0.544
Mothers received medical assistance at delivery	0.362	0.019	6029	6219	2.464	0.053	0.324	0.401
Had diarrhoea in two weeks before survey	0.188	0.011	5186	5345	1.869	0.056	0.167	0.209
Treated with oral rehydration salts (ORS)	0.182	0.016	929	1006	1.173	0.086	0.151	0.213
Taken to a health provider	0.215	0.027	929	1006	1.916	0.128	0.160	0.270
Vaccination card seen	0.213	0.019	1015	999	1.407	0.087	0.176	0.250
Received BCG	0.483	0.025	1015	999	1.564	0.052	0.433	0.533
Received DPT (3 doses)	0.214	0.022	1015	999	1.696	0.104	0.169	0.258
Received polio (3 doses)	0.294	0.023	1015	999	1.576	0.078	0.249	0.340
Received measles	0.359	0.025	1015	999	1.636	0.070	0.309	0.409
Fully immunized	0.129	0.017	1015	999	1.629	0.135	0.094	0.164
Height-for-age (below -2SD)	0.383	0.011	4610	4789	1.501	0.030	0.360	0.406
Weight-for-height (below -2SD)	0.092	0.006	4610	4789	1.326	0.062	0.081	0.104
Weight-for-age (below -2SD)	0.287	0.013	4610	4789	1.774	0.044	0.262	0.312
BMI <18.5	0.152	0.008	6426	6362	1.736	0.051	0.136	0.167
Circumcised	0.190	0.014	7620	7620	3.012	0.071	0.163	0.217
Has heard of HIV/AIDS	0.863	0.010	7620	7620	2.488	0.011	0.844	0.883
Knows about condoms	0.446	0.011	7620	7620	1.938	0.025	0.424	0.468
Knows about limiting partners	0.599	0.013	7620	7620	2.241	0.021	0.574	0.624
MEN								
Urban residence	0.372	0.021	2346	2346	2.078	0.056	0.330	0.413
Literate	0.725	0.014	2346	2346	1.486	0.019	0.697	0.752
No education	0.216	0.014	2346	2346	1.598	0.063	0.189	0.243
Secondary education or higher	0.527	0.019	2346	2346	1.801	0.035	0.490	0.564
Never married	0.447	0.017	2346	2346	1.628	0.037	0.413	0.480
Currently married/in union	0.531	0.017	2346	2346	1.606	0.031	0.498	0.564
Knows any contraceptive method	0.902	0.011	2346	2346	1.843	0.013	0.879	0.924
Ideal family size	8.590	0.291	1992	1982	1.624	0.034	8.008	9.171
Has heard of HIV/AIDS	0.970	0.005	2086	2093	1.457	0.006	0.960	0.981
Knows about condoms	0.634	0.019	2086	2093	1.824	0.030	0.595	0.672
Knows about limiting partners	0.802	0.013	2086	2093	1.520	0.017	0.775	0.828

na = Not applicable

Table B.3 Sampling errors for urban sample, Nigeria 2003

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	1.000	0.000	3057	2629	na	0.000	1.000	1.000
Literate	0.675	0.023	3057	2629	2.679	0.034	0.630	0.721
No education	0.249	0.021	3057	2629	2.718	0.085	0.206	0.291
Secondary education or higher	0.556	0.025	3057	2629	2.795	0.045	0.505	0.606
Net attendance ratio for primary school	0.695	0.019	2241	1956	1.549	0.028	0.657	0.734
Never married	0.321	0.015	3057	2629	1.759	0.046	0.291	0.351
Currently married/in union	0.621	0.017	3057	2629	1.974	0.028	0.587	0.656
Married before age 20	0.524	0.019	2368	2049	1.861	0.036	0.485	0.562
Currently pregnant	0.094	0.006	3057	2629	1.212	0.068	0.081	0.107
Children ever born	2.658	0.077	3057	2629	1.419	0.029	2.504	2.812
Children surviving	2.185	0.056	3057	2629	1.283	0.026	2.073	2.297
Children ever born to women age 40-49	6.248	0.176	507	418	1.327	0.028	5.896	6.599
Total fertility rate (3 years)	4.861	0.202	na	7369	1.651	0.042	4.456	5.266
Knows any contraceptive method	0.910	0.010	1870	1633	1.561	0.011	0.890	0.931
Ever using contraceptive method	0.449	0.023	1870	1633	2.017	0.052	0.402	0.495
Currently using any contraceptive method	0.202	0.014	1870	1633	1.501	0.069	0.174	0.230
Currently using a modern method	0.139	0.010	1870	1633	1.265	0.073	0.119	0.160
Currently using pill	0.033	0.005	1870	1633	1.228	0.153	0.023	0.043
Currently using IUD	0.019	0.004	1870	1633	1.161	0.192	0.012	0.026
Currently using condom	0.040	0.008	1870	1633	1.678	0.190	0.025	0.055
Currently using female sterilization	0.003	0.001	1870	1633	0.970	0.392	0.001	0.006
Currently using periodic abstinence	0.029	0.005	1870	1633	1.169	0.155	0.020	0.039
Obtained method from public sector source	0.207	0.027	354	322	1.262	0.131	0.153	0.262
Wanting no more children	0.218	0.013	1870	1633	1.389	0.061	0.192	0.245
Wanting to delay birth at least 2 years	0.323	0.017	1870	1633	1.604	0.054	0.288	0.357
Ideal family size	6.023	0.148	2746	2409	2.699	0.025	5.727	6.320
Neonatal mortality (10 years)	36.679	4.256	4017	3393	1.305	0.116	28.167	45.191
Postneonatal mortality (10 years)	44.109	4.752	4023	3397	1.352	0.108	34.605	53.612
Infant mortality (10 years)	80.788	7.678	4023	3397	1.576	0.095	65.432	96.144
Child mortality (10 years)	78.464	7.803	4073	3437	1.383	0.099	62.859	94.069
Under five mortality (10 years)	152.913	11.956	4079	3441	1.770	0.078	129.000	176.826
Mothers received tetanus injection for last birth	0.734	0.026	1350	1144	2.176	0.036	0.681	0.787
Mothers received medical assistance at delivery	0.588	0.035	2118	1795	2.529	0.060	0.518	0.658
Had diarrhoea in two weeks before survey	0.145	0.020	1902	1620	2.226	0.137	0.105	0.185
Treated with oral rehydration salts (ORS)	0.229	0.027	281	235	0.968	0.119	0.174	0.283
Taken to a health provider	0.303	0.089	281	235	2.798	0.293	0.125	0.481
Vaccination card seen	0.356	0.032	395	312	1.266	0.090	0.292	0.421
Received BCG	0.701	0.043	395	312	1.760	0.062	0.614	0.788
Received DPT (3 doses)	0.402	0.036	395	312	1.377	0.089	0.331	0.474
Received polio (3 doses)	0.420	0.047	395	312	1.801	0.112	0.326	0.514
Received measles	0.521	0.047	395	312	1.749	0.089	0.428	0.614
Fully immunized	0.251	0.035	395	312	1.527	0.140	0.181	0.322
Height-for-age (below -2SD)	0.288	0.020	1748	1553	1.665	0.068	0.249	0.327
Weight-for-height (below -2SD)	0.083	0.009	1748	1553	1.379	0.111	0.064	0.101
Weight-for-age (below -2SD)	0.222	0.022	1748	1553	2.020	0.100	0.178	0.267
BMI <18.5	0.131	0.010	2642	2258	1.552	0.078	0.111	0.152
Circumcised	0.283	0.017	3057	2629	2.085	0.060	0.249	0.317
Has heard of HIV/AIDS	0.947	0.005	3057	2629	1.269	0.005	0.937	0.957
Knows about condoms	0.575	0.014	3057	2629	1.546	0.024	0.548	0.603
Knows about limiting partners	0.730	0.014	3057	2629	1.740	0.019	0.702	0.758
MEN								
Urban residence	1.000	0.000	986	872	na	0.000	1.000	1.000
Literate	0.868	0.012	986	872	1.145	0.014	0.843	0.893
No education	0.112	0.013	986	872	1.319	0.118	0.085	0.139
Secondary education or higher	0.658	0.027	986	872	1.766	0.041	0.604	0.711
Never married	0.510	0.024	986	872	1.526	0.048	0.461	0.558
Currently married/in union	0.460	0.024	986	872	1.515	0.052	0.412	0.508
Knows any contraceptive method	0.949	0.010	986	872	1.443	0.011	0.929	0.969
Ideal family size	6.567	0.301	817	729	1.557	0.046	5.964	7.170
Has heard of HIV/AIDS	0.990	0.004	887	792	1.118	0.004	0.982	0.997
Knows about condoms	0.706	0.022	887	792	1.420	0.031	0.663	0.750
Knows about limiting partners	0.831	0.017	887	792	1.352	0.020	0.797	0.865

na = Not applicable

Table B.4 Sampling errors for rural sample, Nigeria 2003

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.000	0.000	4563	4991	na	na	0.000	0.000
Literate	0.380	0.022	4563	4991	3.096	0.059	0.335	0.424
No education	0.504	0.022	4563	4991	2.986	0.044	0.460	0.548
Secondary education or higher	0.273	0.018	4563	4991	2.690	0.065	0.237	0.308
Net attendance ratio for primary school	0.557	0.023	3655	4155	2.184	0.040	0.512	0.602
Never married	0.217	0.013	4563	4991	2.092	0.059	0.191	0.242
Currently married/in union	0.742	0.013	4563	4991	1.966	0.017	0.716	0.767
Married before age 20	0.737	0.015	3503	3855	2.026	0.020	0.706	0.767
Currently pregnant	0.124	0.007	4563	4991	1.426	0.056	0.110	0.138
Children ever born	3.324	0.073	4563	4991	1.501	0.022	3.177	3.470
Children surviving	2.485	0.050	4563	4991	1.367	0.020	2.386	2.584
Children ever born to women age 40-49	7.083	0.176	806	853	1.513	0.025	6.731	7.435
Total fertility rate (3 years)	6.075	0.182	na	13887	1.670	0.030	5.710	6.439
Knows any contraceptive method	0.729	0.015	3287	3703	1.894	0.020	0.700	0.758
Ever using contraceptive method	0.245	0.015	3287	3703	2.058	0.063	0.214	0.276
Currently using any contraceptive method	0.092	0.007	3287	3703	1.457	0.080	0.077	0.107
Currently using a modern method	0.057	0.005	3287	3703	1.166	0.082	0.048	0.067
Currently using pill	0.011	0.002	3287	3703	1.342	0.218	0.006	0.016
Currently using IUD	0.002	0.001	3287	3703	0.952	0.351	0.001	0.004
Currently using condom	0.010	0.002	3287	3703	1.159	0.197	0.006	0.015
Currently using female sterilization	0.001	0.001	3287	3703	1.149	0.522	0.000	0.003
Currently using periodic abstinence	0.017	0.004	3287	3703	1.765	0.234	0.009	0.025
Obtained method from public sector source	0.253	0.036	262	275	1.323	0.141	0.181	0.324
Wanting no more children	0.167	0.011	3287	3703	1.727	0.067	0.145	0.190
Wanting to delay birth at least 2 years	0.345	0.013	3287	3703	1.548	0.037	0.320	0.371
Ideal family size	7.021	0.108	4037	4387	2.139	0.015	6.805	7.237
Neonatal mortality (10 years)	59.979	3.944	7499	8463	1.205	0.066	52.091	67.866
Postneonatal mortality (10 years)	60.758	4.105	7520	8487	1.350	0.068	52.549	68.967
Infant mortality (10 years)	120.736	5.790	7520	8487	1.324	0.048	109.157	132.316
Child mortality (10 years)	138.678	8.578	7672	8674	1.704	0.062	121.521	155.835
Under five mortality (10 years)	242.671	9.006	7693	8699	1.496	0.037	224.659	260.683
Mothers received tetanus injection for last birth	0.414	0.022	2425	2766	2.200	0.052	0.371	0.457
Mothers received medical assistance at delivery	0.271	0.020	3911	4424	2.288	0.075	0.230	0.311
Had diarrhoea in two weeks before survey	0.207	0.012	3284	3726	1.686	0.059	0.182	0.231
Treated with oral rehydration salts (ORS)	0.168	0.018	648	771	1.179	0.107	0.132	0.204
Taken to a health provider	0.188	0.020	648	771	1.240	0.106	0.148	0.227
Vaccination card seen	0.148	0.020	620	687	1.386	0.137	0.107	0.188
Received BCG	0.384	0.030	620	687	1.517	0.078	0.324	0.444
Received DPT (3 doses)	0.128	0.027	620	687	1.950	0.209	0.075	0.181
Received polio (3 doses)	0.237	0.024	620	687	1.376	0.100	0.190	0.285
Received measles	0.285	0.028	620	687	1.555	0.100	0.228	0.342
Fully immunized	0.074	0.018	620	687	1.742	0.247	0.037	0.110
Height-for-age (below -2SD)	0.429	0.014	2862	3236	1.445	0.033	0.401	0.457
Weight-for-height (below -2SD)	0.097	0.007	2862	3236	1.275	0.073	0.083	0.111
Weight-for-age (below -2SD)	0.318	0.015	2862	3236	1.621	0.047	0.288	0.347
BMI <18.5	0.163	0.011	3784	4105	1.804	0.067	0.141	0.184
Circumcised	0.140	0.019	4563	4991	3.613	0.132	0.103	0.178
Has heard of HIV/AIDS	0.819	0.015	4563	4991	2.593	0.018	0.789	0.848
Knows about condoms	0.378	0.015	4563	4991	2.109	0.040	0.348	0.409
Knows about limiting partners	0.530	0.018	4563	4991	2.404	0.034	0.494	0.565
MEN								
Urban residence	0.000	0.000	1360	1474	na	na	0.000	0.000
Literate	0.640	0.020	1360	1474	1.515	0.031	0.600	0.679
No education	0.278	0.020	1360	1474	1.622	0.071	0.238	0.317
Secondary education or higher	0.450	0.025	1360	1474	1.870	0.056	0.399	0.500
Never married	0.410	0.023	1360	1474	1.709	0.056	0.364	0.455
Currently married/in union	0.573	0.023	1360	1474	1.690	0.040	0.527	0.618
Knows any contraceptive method	0.874	0.017	1360	1474	1.881	0.019	0.840	0.908
Ideal family size	9.767	0.414	1175	1253	1.591	0.042	8.940	10.594
Has heard of HIV/AIDS	0.959	0.008	1199	1301	1.455	0.009	0.942	0.975
Knows about condoms	0.590	0.029	1199	1301	2.007	0.048	0.533	0.647
Knows about limiting partners	0.784	0.019	1199	1301	1.591	0.024	0.746	0.822

na = Not applicable

Table B.5 Sampling errors for North Central sample, Nigeria 2003

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.251	0.030	1256	1121	2.484	0.121	0.190	0.312
Literate	0.434	0.040	1256	1121	2.879	0.093	0.353	0.515
No education	0.359	0.034	1256	1121	2.537	0.096	0.291	0.428
Secondary education or higher	0.341	0.031	1256	1121	2.349	0.092	0.278	0.404
Net attendance ratio for primary school	0.702	0.033	1067	978	1.951	0.046	0.637	0.767
Never married	0.280	0.027	1256	1121	2.154	0.098	0.225	0.334
Currently married/in union	0.673	0.025	1256	1121	1.874	0.037	0.623	0.723
Married before age 20	0.635	0.023	996	879	1.503	0.036	0.590	0.681
Currently pregnant	0.094	0.012	1256	1121	1.466	0.128	0.070	0.119
Children ever born	2.976	0.111	1256	1121	1.264	0.037	2.754	3.198
Children surviving	2.404	0.077	1256	1121	1.111	0.032	2.250	2.559
Children ever born to women age 40-49	7.354	0.338	202	169	1.690	0.046	6.677	8.030
Total fertility rate (3 years)	5.704	0.335	na	3146	1.445	0.059	5.035	6.374
Knows any contraceptive method	0.774	0.032	848	754	2.198	0.041	0.711	0.837
Ever using contraceptive method	0.324	0.032	848	754	1.958	0.097	0.261	0.387
Currently using any contraceptive method	0.133	0.015	848	754	1.276	0.112	0.103	0.163
Currently using a modern method	0.103	0.012	848	754	1.133	0.115	0.080	0.127
Currently using pill	0.022	0.005	848	754	1.062	0.245	0.011	0.032
Currently using IUD	0.001	0.001	848	754	0.747	0.713	0.000	0.003
Currently using condom	0.015	0.005	848	754	1.121	0.316	0.005	0.024
Currently using female sterilization	0.008	0.003	848	754	0.955	0.371	0.002	0.014
Currently using periodic abstinence	0.019	0.007	848	754	1.429	0.349	0.006	0.033
Obtained method from public sector source	0.330	0.068	121	97	1.588	0.206	0.194	0.467
Wanting no more children	0.241	0.020	848	754	1.392	0.085	0.200	0.282
Wanting to delay birth at least 2 years	0.358	0.019	848	754	1.168	0.054	0.320	0.397
Ideal family size	6.194	0.197	1184	1060	2.273	0.032	5.800	6.589
Neonatal mortality (10 years)	53.260	8.562	1898	1680	1.398	0.161	36.136	70.384
Postneonatal mortality (10 years)	49.379	7.317	1899	1680	1.332	0.148	34.745	64.013
Infant mortality (10 years)	102.638	10.125	1899	1680	1.235	0.099	82.389	122.887
Child mortality (10 years)	69.698	10.853	1916	1699	1.500	0.156	47.992	91.403
Under five mortality (10 years)	165.18	13.746	1917	1699	1.335	0.083	137.691	192.674
Mothers received tetanus injection for last birth	0.626	0.037	645	575	1.967	0.060	0.551	0.701
Mothers received medical assistance at delivery	0.501	0.033	1015	897	1.648	0.066	0.435	0.567
Had diarrhoea in two weeks before survey	0.149	0.022	895	781	1.712	0.145	0.106	0.192
Treated with oral rehydration salts (ORS)	0.223	0.059	138	116	1.432	0.262	0.106	0.340
Taken to a health provider	0.397	0.039	138	116	0.846	0.098	0.319	0.476
Vaccination card seen	0.229	0.046	181	149	1.384	0.199	0.138	0.321
Received BCG	0.634	0.057	181	149	1.485	0.090	0.520	0.748
Received DPT (3 doses)	0.238	0.048	181	149	1.366	0.200	0.143	0.334
Received polio (3 doses)	0.368	0.049	181	149	1.288	0.134	0.269	0.467
Received measles	0.446	0.067	181	149	1.675	0.150	0.312	0.580
Fully immunized	0.124	0.033	181	149	1.274	0.264	0.059	0.189
Height-for-age (below -2SD)	0.314	0.027	850	758	1.625	0.087	0.260	0.369
Weight-for-height (below -2SD)	0.055	0.009	850	758	1.130	0.163	0.037	0.073
Weight-for-age (below -2SD)	0.196	0.021	850	758	1.481	0.108	0.154	0.238
BMI <18.5	0.066	0.009	1069	944	1.229	0.142	0.047	0.085
Circumcised	0.096	0.035	1256	1121	4.165	0.361	0.027	0.165
Has heard of HIV/AIDS	0.845	0.037	1256	1121	3.611	0.044	0.771	0.919
Knows about condoms	0.347	0.027	1256	1121	1.985	0.077	0.293	0.400
Knows about limiting partners	0.556	0.041	1256	1121	2.946	0.074	0.474	0.639
MEN								
Urban residence	0.278	0.041	416	348	1.853	0.147	0.197	0.360
Literate	0.752	0.032	416	348	1.496	0.042	0.689	0.816
No education	0.134	0.027	416	348	1.600	0.199	0.081	0.188
Secondary education or higher	0.631	0.037	416	348	1.553	0.058	0.558	0.705
Never married	0.495	0.042	416	348	1.693	0.084	0.412	0.579
Currently married/in union	0.499	0.041	416	348	1.682	0.083	0.417	0.582
Knows any contraceptive method	0.930	0.018	416	348	1.418	0.019	0.895	0.966
Ideal family size	8.042	0.498	407	339	1.342	0.062	7.045	9.039
Has heard of HIV/AIDS	0.971	0.010	374	313	1.125	0.010	0.951	0.990
Knows about condoms	0.681	0.029	374	313	1.205	0.043	0.623	0.739
Knows about limiting partners	0.838	0.024	374	313	1.273	0.029	0.789	0.886

na = Not applicable

Table B.6 Sampling errors for North East sample, Nigeria 2003

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.275	0.025	1413	1368	2.094	0.090	0.225	0.325
Literate	0.256	0.030	1413	1368	2.590	0.118	0.196	0.316
No education	0.678	0.032	1413	1368	2.552	0.047	0.615	0.742
Secondary education or higher	0.157	0.021	1413	1368	2.201	0.136	0.114	0.199
Net attendance ratio for primary school	0.444	0.040	1301	1278	2.018	0.089	0.365	0.523
Never married	0.124	0.017	1413	1368	1.949	0.138	0.090	0.158
Currently married/in union	0.821	0.020	1413	1368	1.941	0.024	0.781	0.860
Married before age 20	0.855	0.016	1108	1074	1.477	0.018	0.823	0.886
Currently pregnant	0.142	0.013	1413	1368	1.379	0.090	0.117	0.168
Children ever born	3.927	0.125	1413	1368	1.368	0.032	3.677	4.178
Children surviving	2.859	0.108	1413	1368	1.616	0.038	2.644	3.075
Children ever born to women age 40-49	7.412	0.364	247	241	1.587	0.049	6.683	8.140
Total fertility rate (3 years)	7.027	0.299	na	3808	1.985	0.043	6.428	7.626
Knows any contraceptive method	0.635	0.022	1133	1122	1.535	0.035	0.591	0.679
Ever using contraceptive method	0.123	0.013	1133	1122	1.307	0.104	0.098	0.149
Currently using any contraceptive method	0.042	0.006	1133	1122	1.038	0.147	0.030	0.055
Currently using a modern method	0.030	0.004	1133	1122	0.851	0.143	0.022	0.039
Currently using pill	0.007	0.003	1133	1122	1.246	0.434	0.001	0.014
Currently using IUD	0.002	0.001	1133	1122	1.100	0.757	0.000	0.005
Currently using condom	0.002	0.001	1133	1122	1.014	0.654	0.000	0.005
Currently using female sterilization	0.000	0.000	1133	1122	0.551	1.018	0.000	0.001
Currently using periodic abstinence	0.006	0.003	1133	1122	1.316	0.486	0.000	0.013
Obtained method from public sector source	0.535	0.107	32	29	1.189	0.199	0.322	0.748
Wanting no more children	0.163	0.020	1133	1122	1.794	0.121	0.123	0.202
Wanting to delay birth at least 2 years	0.344	0.024	1133	1122	1.692	0.069	0.296	0.391
Ideal family size	7.817	0.178	1107	1060	1.651	0.023	7.462	8.173
Neonatal mortality (10 years)	60.637	7.661	2842	2802	1.417	0.126	45.316	75.959
Postneonatal mortality (10 years)	64.856	5.691	2850	2809	1.108	0.088	53.474	76.238
Infant mortality (10 years)	125.493	8.204	2850	2809	1.201	0.065	109.086	141.900
Child mortality (10 years)	153.707	10.692	2915	2884	1.274	0.070	132.322	175.092
Under five mortality (10 years)	259.911	11.454	2923	2891	1.177	0.044	237.002	282.820
Mothers received tetanus injection for last birth	0.431	0.036	867	862	2.178	0.084	0.358	0.503
Mothers received medical assistance at delivery	0.220	0.027	1487	1472	2.100	0.123	0.166	0.275
Had diarrhoea in two weeks before survey	0.351	0.018	1239	1225	1.331	0.052	0.314	0.387
Treated with oral rehydration salts (ORS)	0.138	0.020	403	430	1.162	0.148	0.097	0.179
Taken to a health provider	0.076	0.017	403	430	1.298	0.228	0.041	0.111
Vaccination card seen	0.171	0.037	236	219	1.435	0.219	0.096	0.246
Received BCG	0.311	0.048	236	219	1.525	0.154	0.215	0.407
Received DPT (3 doses)	0.091	0.026	236	219	1.361	0.287	0.039	0.143
Received polio (3 doses)	0.248	0.044	236	219	1.521	0.178	0.160	0.336
Received measles	0.225	0.035	236	219	1.242	0.155	0.156	0.295
Fully immunized	0.060	0.018	236	219	1.171	0.310	0.023	0.096
Height-for-age (below -2SD)	0.430	0.022	1099	1089	1.375	0.052	0.386	0.475
Weight-for-height (below -2SD)	0.079	0.011	1099	1089	1.298	0.133	0.058	0.100
Weight-for-age (below -2SD)	0.331	0.023	1099	1089	1.449	0.069	0.285	0.376
BMI <18.5	0.230	0.021	1120	1095	1.687	0.092	0.188	0.273
Circumcised	0.013	0.003	1413	1368	1.069	0.250	0.006	0.019
Has heard of HIV/AIDS	0.757	0.018	1413	1368	1.547	0.023	0.722	0.793
Knows about condoms	0.347	0.032	1413	1368	2.496	0.091	0.284	0.410
Knows about limiting partners	0.506	0.021	1413	1368	1.557	0.041	0.465	0.548
MEN								
Urban residence	0.286	0.031	423	421	1.426	0.110	0.223	0.349
Literate	0.599	0.031	423	421	1.284	0.051	0.538	0.661
No education	0.419	0.041	423	421	1.727	0.099	0.336	0.502
Secondary education or higher	0.357	0.044	423	421	1.902	0.124	0.268	0.446
Never married	0.300	0.048	423	421	2.147	0.160	0.204	0.395
Currently married/in union	0.672	0.048	423	421	2.116	0.072	0.575	0.769
Knows any contraceptive method	0.780	0.042	423	421	2.103	0.054	0.695	0.865
Ideal family size	12.484	1.173	297	284	1.831	0.094	10.138	14.830
Has heard of HIV/AIDS	0.973	0.008	376	377	0.954	0.008	0.957	0.989
Knows about condoms	0.475	0.055	376	377	2.131	0.116	0.365	0.585
Knows about limiting partners	0.802	0.026	376	377	1.254	0.032	0.750	0.853

na = Not applicable

Table B.7 Sampling errors for North West sample, Nigeria 2003

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.278	0.029	1791	2095	2.699	0.103	0.221	0.335
Literate	0.209	0.017	1791	2095	1.779	0.082	0.175	0.243
No education	0.750	0.017	1791	2095	1.645	0.022	0.717	0.784
Secondary education or higher	0.131	0.011	1791	2095	1.370	0.083	0.109	0.153
Net attendance ratio for primary school	0.417	0.034	1459	1834	2.131	0.082	0.349	0.485
Never married	0.069	0.008	1791	2095	1.375	0.119	0.053	0.086
Currently married/in union	0.897	0.011	1791	2095	1.494	0.012	0.876	0.919
Married before age 20	0.908	0.009	1406	1675	1.180	0.010	0.889	0.926
Currently pregnant	0.162	0.009	1791	2095	1.028	0.055	0.144	0.180
Children ever born	3.778	0.096	1791	2095	1.235	0.025	3.586	3.970
Children surviving	2.699	0.066	1791	2095	1.178	0.024	2.567	2.830
Children ever born to women age 40-49	6.734	0.238	315	372	1.152	0.035	6.258	7.209
Total fertility rate (3 years)	6.687	0.254	na	5907	1.471	0.038	6.179	7.196
Knows any contraceptive method	0.751	0.020	1556	1880	1.812	0.026	0.711	0.791
Ever using contraceptive method	0.151	0.011	1556	1880	1.156	0.069	0.130	0.172
Currently using any contraceptive method	0.049	0.007	1556	1880	1.224	0.136	0.036	0.063
Currently using a modern method	0.033	0.005	1556	1880	1.048	0.144	0.024	0.043
Currently using pill	0.006	0.002	1556	1880	1.228	0.405	0.001	0.011
Currently using IUD	0.001	0.001	1556	1880	0.775	0.594	0.000	0.002
Currently using condom	0.001	0.000	1556	1880	0.733	0.732	0.000	0.002
Currently using female sterilization	0.001	0.001	1556	1880	1.039	1.007	0.000	0.002
Currently using periodic abstinence	0.002	0.002	1556	1880	1.467	0.752	0.000	0.006
Obtained method from public sector source	0.477	0.102	40	38	1.276	0.214	0.272	0.681
Wanting no more children	0.065	0.009	1556	1880	1.436	0.138	0.047	0.083
Wanting to delay birth at least 2 years	0.360	0.020	1556	1880	1.635	0.055	0.321	0.400
Ideal family size	8.563	0.106	1522	1793	1.283	0.012	8.351	8.776
Neonatal mortality (10 years)	55.259	4.247	3462	4150	0.990	0.077	46.765	63.753
Postneonatal mortality (10 years)	58.608	6.380	3472	4162	1.410	0.109	45.849	71.367
Infant mortality (10 years)	113.867	8.167	3472	4162	1.250	0.072	97.533	130.201
Child mortality (10 years)	175.610	12.271	3569	4280	1.437	0.070	151.068	200.152
Under five mortality (10 years)	269.481	13.639	3579	4292	1.471	0.051	242.203	296.758
Mothers received tetanus injection for last birth	0.262	0.022	1125	1341	1.698	0.084	0.218	0.306
Mothers received medical assistance at delivery	0.130	0.016	1821	2161	1.623	0.120	0.099	0.162
Had diarrhoea in two weeks before survey	0.189	0.019	1529	1818	1.775	0.099	0.152	0.226
Treated with oral rehydration salts (ORS)	0.205	0.025	265	343	0.962	0.121	0.155	0.255
Taken to a health provider	0.298	0.062	265	343	2.069	0.210	0.173	0.423
Vaccination card seen	0.096	0.015	311	356	0.874	0.154	0.066	0.126
Received BCG	0.275	0.029	311	356	1.131	0.106	0.217	0.333
Received DPT (3 doses)	0.058	0.013	311	356	0.990	0.230	0.031	0.084
Received polio (3 doses)	0.164	0.025	311	356	1.179	0.153	0.113	0.214
Received measles	0.156	0.027	311	356	1.282	0.171	0.103	0.210
Fully immunized	0.037	0.012	311	356	1.094	0.319	0.013	0.061
Height-for-age (below -2SD)	0.553	0.022	1188	1452	1.419	0.039	0.510	0.596
Weight-for-height (below -2SD)	0.125	0.013	1188	1452	1.287	0.100	0.100	0.150
Weight-for-age (below -2SD)	0.429	0.023	1188	1452	1.555	0.054	0.382	0.475
BMI <18.5	0.197	0.016	1404	1630	1.499	0.081	0.166	0.229
Circumcised	0.004	0.002	1791	2095	1.122	0.399	0.001	0.008
Has heard of HIV/AIDS	0.866	0.019	1791	2095	2.316	0.022	0.828	0.903
Knows about condoms	0.488	0.018	1791	2095	1.499	0.036	0.452	0.523
Knows about limiting partners	0.598	0.022	1791	2095	1.910	0.037	0.554	0.642
MEN								
Urban residence	0.350	0.038	547	602	1.860	0.108	0.274	0.426
Literate	0.557	0.027	547	602	1.282	0.049	0.503	0.612
No education	0.415	0.030	547	602	1.429	0.073	0.354	0.475
Secondary education or higher	0.322	0.029	547	602	1.437	0.089	0.264	0.379
Never married	0.355	0.031	547	602	1.535	0.088	0.293	0.418
Currently married/in union	0.618	0.032	547	602	1.515	0.051	0.555	0.681
Knows any contraceptive method	0.940	0.013	547	602	1.313	0.014	0.913	0.967
Ideal family size	12.755	0.703	362	417	1.388	0.055	11.349	14.160
Has heard of HIV/AIDS	0.993	0.003	477	529	0.887	0.003	0.986	1.000
Knows about condoms	0.698	0.036	477	529	1.699	0.051	0.627	0.770
Knows about limiting partners	0.831	0.025	477	529	1.456	0.030	0.781	0.881

na = Not applicable

Table B.8 Sampling errors for South East sample, Nigeria 2003

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.404	0.103	1081	737	6.890	0.255	0.198	0.610
Literate	0.856	0.021	1081	737	2.009	0.025	0.813	0.899
No education	0.077	0.015	1081	737	1.850	0.194	0.047	0.107
Secondary education or higher	0.675	0.039	1081	737	2.758	0.058	0.596	0.754
Net attendance ratio for primary school	0.802	0.037	670	437	2.251	0.046	0.729	0.875
Never married	0.462	0.023	1081	737	1.485	0.049	0.417	0.507
Currently married/in union	0.499	0.025	1081	737	1.666	0.051	0.449	0.550
Married before age 20	0.345	0.027	803	557	1.606	0.078	0.291	0.398
Currently pregnant	0.068	0.005	1081	737	0.706	0.080	0.057	0.079
Children ever born	2.241	0.075	1081	737	0.820	0.034	2.090	2.392
Children surviving	1.934	0.074	1081	737	0.962	0.038	1.786	2.082
Children ever born to women age 40-49	6.572	0.503	219	128	2.562	0.077	5.566	7.579
Total fertility rate (3 years)	4.106	0.368	na	2108	1.771	0.090	3.371	4.841
Knows any contraceptive method	0.871	0.031	509	368	2.073	0.035	0.810	0.933
Ever using contraceptive method	0.559	0.057	509	368	2.574	0.101	0.445	0.672
Currently using any contraceptive method	0.225	0.028	509	368	1.493	0.123	0.169	0.280
Currently using a modern method	0.130	0.019	509	368	1.305	0.150	0.091	0.169
Currently using pill	0.015	0.007	509	368	1.361	0.496	0.000	0.029
Currently using IUD	0.007	0.004	509	368	1.067	0.550	0.000	0.015
Currently using condom	0.089	0.020	509	368	1.551	0.221	0.050	0.128
Currently using female sterilization	0.001	0.001	509	368	0.635	0.763	0.000	0.003
Currently using periodic abstinence	0.033	0.011	509	368	1.379	0.333	0.011	0.054
Obtained method from public sector source	0.174	0.049	90	78	1.220	0.282	0.076	0.272
Wanting no more children	0.316	0.032	509	368	1.545	0.101	0.252	0.379
Wanting to delay birth at least 2 years	0.223	0.034	509	368	1.825	0.151	0.156	0.291
Ideal family size	5.314	0.154	999	693	2.812	0.029	5.005	5.623
Neonatal mortality (10 years)	33.975	13.372	1086	706	2.042	0.394	7.231	60.719
Postneonatal mortality (10 years)	31.652	10.193	1088	707	1.704	0.322	11.266	52.037
Infant mortality (10 years)	65.626	21.848	1088	707	2.375	0.333	21.931	109.321
Child mortality (10 years)	39.771	10.797	1096	710	1.652	0.271	18.176	61.365
Under five mortality (10 years)	102.787	28.906	1098	711	2.660	0.281	44.975	160.599
Mothers received tetanus injection for last birth	0.897	0.035	329	222	2.061	0.039	0.828	0.967
Mothers received medical assistance at delivery	0.876	0.043	524	371	2.310	0.049	0.791	0.962
Had diarrhoea in two weeks before survey	0.086	0.026	466	347	2.073	0.301	0.034	0.139
Treated with oral rehydration salts (ORS)	0.174	0.064	45	30	1.124	0.370	0.045	0.302
Taken to a health provider	0.249	0.108	45	30	1.670	0.433	0.034	0.464
Vaccination card seen	0.431	0.081	91	74	1.697	0.188	0.269	0.592
Received BCG	0.834	0.050	91	74	1.402	0.060	0.733	0.934
Received DPT (3 doses)	0.585	0.067	91	74	1.407	0.114	0.452	0.719
Received polio (3 doses)	0.574	0.105	91	74	2.208	0.183	0.364	0.784
Received measles	0.641	0.097	91	74	2.109	0.152	0.447	0.836
Fully immunized	0.446	0.068	91	74	1.429	0.153	0.309	0.582
Height-for-age (below -2SD)	0.197	0.015	439	338	0.811	0.074	0.168	0.226
Weight-for-height (below -2SD)	0.049	0.013	439	338	1.299	0.254	0.024	0.074
Weight-for-age (below -2SD)	0.085	0.029	439	338	2.170	0.343	0.027	0.143
BMI <18.5	0.082	0.021	985	648	2.418	0.263	0.039	0.124
Circumcised	0.408	0.030	1081	737	2.021	0.074	0.347	0.468
Has heard of HIV/AIDS	0.955	0.013	1081	737	2.121	0.014	0.928	0.982
Knows about condoms	0.436	0.024	1081	737	1.619	0.056	0.387	0.485
Knows about limiting partners	0.773	0.027	1081	737	2.085	0.034	0.720	0.826
MEN								
Urban residence	0.462	0.113	265	207	3.682	0.244	0.236	0.688
Literate	0.929	0.024	265	207	1.503	0.026	0.881	0.976
No education	0.025	0.011	265	207	1.105	0.422	0.004	0.047
Secondary education or higher	0.714	0.058	265	207	2.103	0.082	0.597	0.831
Never married	0.517	0.050	265	207	1.618	0.096	0.418	0.617
Currently married/in union	0.478	0.050	265	207	1.637	0.105	0.378	0.579
Knows any contraceptive method	0.955	0.020	265	207	1.561	0.021	0.915	0.995
Ideal family size	5.309	0.288	259	205	1.751	0.054	4.733	5.885
Has heard of HIV/AIDS	0.993	0.005	233	192	0.967	0.005	0.982	1.000
Knows about condoms	0.794	0.050	233	192	1.898	0.063	0.694	0.895
Knows about limiting partners	0.851	0.017	233	192	0.723	0.020	0.818	0.885

na = Not applicable

Table B.9 Sampling errors for South South sample, Nigeria 2003

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.291	0.055	938	1342	3.733	0.190	0.180	0.402
Literate	0.750	0.031	938	1342	2.216	0.042	0.687	0.813
No education	0.081	0.022	938	1342	2.418	0.267	0.038	0.124
Secondary education or higher	0.617	0.039	938	1342	2.433	0.063	0.539	0.694
Net attendance ratio for primary school	0.822	0.023	704	969	1.538	0.029	0.775	0.868
Never married	0.431	0.024	938	1342	1.453	0.055	0.384	0.478
Currently married/in union	0.495	0.024	938	1342	1.447	0.048	0.447	0.542
Married before age 20	0.481	0.029	693	980	1.520	0.060	0.424	0.539
Currently pregnant	0.090	0.013	938	1342	1.438	0.149	0.063	0.117
Children ever born	2.513	0.164	938	1342	1.634	0.065	2.184	2.841
Children surviving	2.064	0.113	938	1342	1.395	0.055	1.838	2.290
Children ever born to women age 40-49	6.894	0.315	153	214	1.466	0.046	6.264	7.524
Total fertility rate (3 years)	4.630	0.274	na	3698	1.084	0.059	4.083	5.178
Knows any contraceptive method	0.942	0.020	467	664	1.822	0.021	0.902	0.981
Ever using contraceptive method	0.613	0.031	467	664	1.380	0.051	0.551	0.675
Currently using any contraceptive method	0.254	0.028	467	664	1.381	0.110	0.199	0.310
Currently using a modern method	0.138	0.021	467	664	1.294	0.150	0.097	0.179
Currently using pill	0.040	0.012	467	664	1.330	0.300	0.016	0.065
Currently using IUD	0.007	0.006	467	664	1.391	0.747	0.000	0.018
Currently using condom	0.024	0.008	467	664	1.142	0.336	0.008	0.040
Currently using female sterilization	0.004	0.004	467	664	1.169	0.824	0.000	0.011
Currently using periodic abstinence	0.073	0.017	467	664	1.397	0.231	0.039	0.106
Obtained method from public sector source	0.126	0.027	141	186	0.967	0.215	0.072	0.180
Wanting no more children	0.316	0.022	467	664	1.027	0.070	0.272	0.360
Wanting to delay birth at least 2 years	0.304	0.030	467	664	1.429	0.100	0.243	0.365
Ideal family size	5.538	0.152	901	1290	2.068	0.027	5.234	5.841
Neonatal mortality (10 years)	52.656	10.561	1072	1542	1.156	0.201	31.534	73.778
Postneonatal mortality (10 years)	67.568	9.922	1075	1548	1.256	0.147	47.725	87.412
Infant mortality (10 years)	120.224	18.027	1075	1548	1.580	0.150	84.170	156.279
Child mortality (10 years)	63.423	5.753	1084	1556	0.761	0.091	51.917	74.928
Under five mortality (10 years)	176.022	17.272	1087	1562	1.373	0.098	141.479	210.566
Mothers received tetanus injection for last birth	0.710	0.043	380	544	1.859	0.061	0.623	0.797
Mothers received medical assistance at delivery	0.559	0.058	560	789	2.185	0.104	0.442	0.676
Had diarrhoea in two weeks before survey	0.080	0.016	484	684	1.215	0.201	0.048	0.113
Treated with oral rehydration salts (ORS)	0.277	0.072	37	55	0.909	0.261	0.132	0.421
Taken to a health provider	0.268	0.071	37	55	0.973	0.267	0.125	0.410
Vaccination card seen	0.379	0.077	92	120	1.418	0.202	0.226	0.532
Received BCG	0.761	0.059	92	120	1.268	0.078	0.643	0.880
Received DPT (3 doses)	0.325	0.084	92	120	1.624	0.257	0.158	0.492
Received polio (3 doses)	0.400	0.069	92	120	1.281	0.173	0.262	0.538
Received measles	0.669	0.071	92	120	1.353	0.107	0.526	0.811
Fully immunized	0.208	0.054	92	120	1.224	0.262	0.099	0.317
Height-for-age (below -2SD)	0.209	0.023	464	643	1.259	0.112	0.163	0.256
Weight-for-height (below -2SD)	0.111	0.020	464	643	1.315	0.182	0.071	0.152
Weight-for-age (below -2SD)	0.180	0.027	464	643	1.426	0.149	0.127	0.234
BMI <18.5	0.111	0.013	811	1173	1.201	0.119	0.084	0.137
Circumcised	0.347	0.049	938	1342	3.169	0.142	0.248	0.446
Has heard of HIV/AIDS	0.903	0.023	938	1342	2.408	0.026	0.857	0.950
Knows about condoms	0.488	0.029	938	1342	1.784	0.060	0.430	0.546
Knows about limiting partners	0.580	0.031	938	1342	1.933	0.054	0.518	0.643
MEN								
Urban residence	0.264	0.057	313	445	2.282	0.216	0.150	0.377
Literate	0.805	0.033	313	445	1.478	0.041	0.738	0.871
No education	0.030	0.011	313	445	1.130	0.363	0.008	0.052
Secondary education or higher	0.656	0.047	313	445	1.735	0.071	0.563	0.749
Never married	0.600	0.033	313	445	1.189	0.055	0.534	0.666
Currently married/in union	0.386	0.032	313	445	1.168	0.083	0.322	0.450
Knows any contraceptive method	0.861	0.032	313	445	1.635	0.037	0.797	0.925
Ideal family size	6.692	0.411	305	432	1.366	0.061	5.871	7.514
Has heard of HIV/AIDS	0.921	0.023	276	385	1.394	0.025	0.875	0.966
Knows about condoms	0.504	0.054	276	385	1.781	0.107	0.397	0.611
Knows about limiting partners	0.682	0.047	276	385	1.657	0.068	0.589	0.775

na = Not applicable

Table B.10 Errors for biomarkers in South West sample, Nigeria 2003

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.732	0.035	1141	958	2.668	0.048	0.662	0.802
Literate	0.791	0.017	1141	958	1.419	0.022	0.757	0.825
No education	0.108	0.013	1141	958	1.381	0.117	0.083	0.134
Secondary education or higher	0.652	0.025	1141	958	1.766	0.038	0.602	0.702
Net attendance ratio for primary school	0.828	0.017	695	615	1.120	0.021	0.793	0.862
Never married	0.396	0.015	1141	958	1.050	0.038	0.366	0.427
Currently married/in union	0.571	0.018	1141	958	1.236	0.032	0.535	0.608
Married before age 20	0.342	0.022	865	740	1.351	0.064	0.298	0.385
Currently pregnant	0.060	0.009	1141	958	1.252	0.146	0.043	0.078
Children ever born	2.019	0.076	1141	958	1.073	0.038	1.868	2.171
Children surviving	1.768	0.062	1141	958	1.023	0.035	1.643	1.892
Children ever born to women age 40-49	5.459	0.190	177	147	1.118	0.035	5.079	5.840
Total fertility rate (3 years)	4.122	0.234	na	2631	1.318	0.057	3.654	4.591
Knows any contraceptive method	0.970	0.009	644	548	1.406	0.010	0.951	0.989
Ever using contraceptive method	0.657	0.018	644	548	0.981	0.028	0.620	0.694
Currently using any contraceptive method	0.327	0.023	644	548	1.238	0.070	0.282	0.373
Currently using a modern method	0.231	0.021	644	548	1.263	0.091	0.189	0.273
Currently using pill	0.052	0.012	644	548	1.371	0.231	0.028	0.076
Currently using IUD	0.049	0.009	644	548	1.047	0.182	0.031	0.067
Currently using condom	0.074	0.011	644	548	1.054	0.147	0.052	0.096
Currently using female sterilization	0.000	0.000	644	548	na	na	0.000	0.000
Currently using periodic abstinence	0.044	0.009	644	548	1.139	0.208	0.026	0.063
Obtained method from public sector source	0.199	0.038	192	170	1.302	0.189	0.124	0.275
Wanting no more children	0.299	0.020	644	548	1.097	0.066	0.259	0.338
Wanting to delay birth at least 2 years	0.343	0.023	644	548	1.215	0.066	0.297	0.388
Ideal family size	4.757	0.066	1070	901	1.337	0.014	4.626	4.889
Neonatal mortality (10 years)	39.077	7.515	1156	976	1.122	0.192	24.048	54.107
Postneonatal mortality (10 years)	30.112	5.561	1159	979	1.060	0.185	18.991	41.234
Infant mortality (10 years)	69.190	9.048	1159	979	1.092	0.131	51.094	87.285
Child mortality (10 years)	46.690	9.827	1165	983	1.339	0.210	27.037	66.344
Under five mortality (10 years)	112.650	14.172	1168	985	1.297	0.126	84.305	140.994
Mothers received tetanus injection for last birth	0.864	0.022	429	367	1.353	0.026	0.820	0.909
Mothers received medical assistance at delivery	0.816	0.019	622	529	0.982	0.023	0.778	0.853
Had diarrhoea in two weeks before survey	0.064	0.012	573	489	1.185	0.193	0.039	0.089
Treated with oral rehydration salts (ORS)	0.233	0.070	41	31	0.944	0.302	0.092	0.374
Taken to a health provider	0.389	0.094	41	31	1.127	0.242	0.201	0.577
Vaccination card seen	0.364	0.056	104	81	1.124	0.155	0.251	0.476
Received BCG	0.850	0.046	104	81	1.173	0.054	0.759	0.942
Received DPT (3 doses)	0.678	0.055	104	81	1.095	0.080	0.569	0.788
Received polio (3 doses)	0.448	0.064	104	81	1.226	0.142	0.321	0.575
Received measles	0.731	0.048	104	81	1.007	0.066	0.635	0.828
Fully immunized	0.325	0.060	104	81	1.226	0.184	0.205	0.444
Height-for-age (below -2SD)	0.246	0.016	570	510	0.793	0.064	0.214	0.277
Weight-for-height (below -2SD)	0.086	0.012	570	510	0.996	0.138	0.062	0.110
Weight-for-age (below -2SD)	0.191	0.021	570	510	1.177	0.109	0.149	0.233
BMI <18.5	0.167	0.020	1037	872	1.760	0.122	0.126	0.207
Circumcised	0.569	0.025	1141	958	1.715	0.044	0.518	0.619
Has heard of HIV/AIDS	0.903	0.013	1141	958	1.507	0.015	0.876	0.929
Knows about condoms	0.563	0.025	1141	958	1.674	0.044	0.514	0.613
Knows about limiting partners	0.674	0.019	1141	958	1.394	0.029	0.636	0.713
MEN								
Urban residence	0.717	0.043	382	322	1.867	0.060	0.631	0.803
Literate	0.930	0.014	382	322	1.057	0.015	0.903	0.958
No education	0.048	0.013	382	322	1.149	0.263	0.023	0.073
Secondary education or higher	0.721	0.024	382	322	1.060	0.034	0.672	0.770
Never married	0.501	0.039	382	322	1.526	0.078	0.423	0.579
Currently married/in union	0.451	0.036	382	322	1.407	0.080	0.379	0.522
Knows any contraceptive method	0.980	0.009	382	322	1.238	0.009	0.962	0.998
Ideal family size	4.766	0.163	362	305	1.568	0.034	4.439	5.092
Has heard of HIV/AIDS	0.977	0.009	350	296	1.091	0.009	0.959	0.994
Knows about condoms	0.735	0.028	350	296	1.175	0.038	0.679	0.790
Knows about limiting partners	0.834	0.023	350	296	1.149	0.027	0.789	0.880

na = Not applicable

DATA QUALITY TABLES

APPENDIX C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Nigeria 2003

	Male		Female			Male		Female	
Age	Number	Percentage	Number	Percentage	Age	Number	Percentage	Number	Percentage
0	703	4.0	678	3.8	37	101	0.6	121	0.7
1	553	3.2	516	2.9	38	107	0.6	186	1.0
2	568	3.3	592	3.3	39	68	0.4	88	0.5
3	626	3.6	583	3.3	40	400	2.3	391	2.2
4	523	3.0	498	2.8	41	61	0.4	62	0.4
5	486	2.8	487	2.7	42	134	0.8	143	0.8
6	554	3.2	553	3.1	43	80	0.5	84	0.5
7	594	3.4	536	3.0	44	49	0.3	56	0.3
8	593	3.4	520	2.9	45	294	1.7	240	1.4
9	433	2.5	431	2.4	46	71	0.4	72	0.4
10	546	3.1	544	3.1	47	89	0.5	63	0.4
11	334	1.9	369	2.1	48	109	0.6	133	0.8
12	480	2.8	523	3.0	49	50	0.3	76	0.4
13	453	2.6	428	2.4	50	310	1.8	208	1.2
14	331	1.9	312	1.8	51	23	0.1	103	0.6
15	433	2.5	414	2.3	52	99	0.6	170	1.0
16	287	1.6	305	1.7	53	62	0.4	92	0.5
17	335	1.9	342	1.9	54	56	0.3	80	0.5
18	421	2.4	476	2.7	55	144	0.8	192	1.1
19	260	1.5	295	1.7	56	59	0.3	68	0.4
20	526	3.0	634	3.6	57	45	0.3	45	0.3
21	198	1.1	210	1.2	58	83	0.5	68	0.4
22	320	1.8	334	1.9	59	41	0.2	30	0.2
23	242	1.4	247	1.4	60	229	1.3	218	1.2
24	188	1.1	183	1.0	61	24	0.1	021	0.1
25	453	2.6	588	3.3	62	78	0.4	41	0.2
26	176	1.0	240	1.4	63	40	0.2	34	0.2
27	211	1.2	211	1.2	64	40	0.2	26	0.1
28	237	1.4	294	1.7	65	163	0.9	113	0.6
29	118	0.7	149	0.8	66	18	0.1	13	0.1
30	497	2.8	513	2.9	67	36	0.2	17	0.1
31	102	0.6	110	0.6	68	48	0.3	39	0.2
32	174	1.0	171	1.0	69	13	0.1	16	0.1
33	128	0.7	139	0.8	70+	482	2.8	396	2.2
34	128	0.7	99	0.6	Don't know/ missing	20	0.1	10	0.1
35	408	2.3	359	2.0					
36	111	0.6	114	0.6					
					Total	17,459	100.0	17,714	100.0

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), by five-year age groups, Nigeria 2003

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percent	
10-14	2,176	na	na	na
15-19	1,832	1,730	22.4	94.4
20-24	1,609	1,540	19.9	95.7
25-29	1,481	1,416	18.3	95.6
30-34	1,031	979	12.6	94.9
25-39	867	825	10.7	95.1
40-44	736	701	9.1	95.2
45-49	584	549	7.1	94.0
50-54	653	na	na	na
15-49	8,141	7,740	100.0	95.1

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household schedule.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men aged 10-64, interviewed men aged 15-59 and percent of eligible men who were interviewed (weighted), Nigeria 2003

Age group	Household population of men age 10-64	Interviewed men age 15-59		Percentage of eligible men interviewed
		Number	Percent	
10-14	741	na	na	na
15-19	517	457	19.4	88.5
20-24	474	431	18.3	91.0
25-29	346	326	13.8	94.2
30-34	305	291	12.3	95.5
25-39	239	221	9.4	92.7
40-44	233	210	8.9	89.9
45-49	188	173	7.3	92.1
50-54	164	135	5.7	82.4
55-59	125	117	4.9	93.0
60-64	134	na	na	na
15-59	2,591	2,362	100.0	91.2

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of men and interviewed men are household weights. Age is based on the household schedule.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Nigeria 2003

Subject	Reference group	Percentage with missing information	Number of cases
Birth date	Births in the 15 years preceding the survey		
Month only		8.19	16,330
Month and year		0.26	16,330
Age at death	Deceased children born in the 15 years preceding the survey	0.97	3,359
Age/date at first union[1]	Ever-married women age 15-49	0.77	5,694
Respondent's education	All women age 15-49	0.14	7,620
Diarrhoea in last 2 weeks	Living children age 0-59 months	2.18	5,345
Anthropometry	Living children age 0-59 months (from the household questionnaire)		
Height		6.54	5,842
Weight		6.15	5,842
Height or weight		6.54	5,842

[1] Both year and age missing

Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio, by calendar year and survival status of children (weighted), Nigeria 2003

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
Year	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
2003	604	37	641	99.6	100.0	99.6	119.2	89.2	117.2	na	na	na
2002	1,257	148	1,405	97.4	89.1	96.5	93.0	127.3	96.1	na	na	na
2001	1,011	144	1,155	97.5	86.1	96.1	104.1	143.2	108.3	85.7	77.8	84.6
2000	1,101	222	1,323	95.1	85.3	93.5	107.1	96.4	105.2	110.2	123.6	112.3
1999	987	215	1,202	94.2	89.2	93.3	103.2	125.3	106.8	98.5	93.6	97.6
1998	904	238	1,142	95.8	90.3	94.6	111.6	113.6	112.0	98.5	95.2	97.8
1997	848	285	1,133	93.9	77.4	89.8	88.2	88.5	88.3	92.4	117.5	97.6
1996	933	247	1,180	90.7	87.2	89.9	99.3	118.3	103.0	108.8	82.9	102.1
1995	866	310	1,177	90.1	81.5	87.8	108.0	106.1	107.5	99.3	128.7	105.7
1994	811	236	1,047	92.3	76.9	88.8	103.3	110.7	104.9	97.7	86.5	94.9
1999-2003	4,960	767	5,726	96.6	88.0	95.4	103.3	117.4	105.1	na	na	na
1994-1998	4,362	1,316	5,678	92.5	82.5	90.2	101.8	106.2	102.8	na	na	na
1989-1993	3,353	1,152	4,505	91.4	80.5	88.6	101.0	100.5	100.8	na	na	na
1984-1988	2,600	972	3,573	90.7	79.9	87.7	102.5	125.5	108.3	na	na	na
< 1984	2,871	1,225	4,096	89.4	81.9	87.1	110.5	138.6	118.1	na	na	na
All	18,147	5,431	23,578	92.7	82.2	90.3	103.5	116.4	106.3	na	na	na

na = Not applicable
[1] Both year and month of birth given
[2] $(B_m/B_f)*100$, where B_m and B_f are the numbers of male and female births, respectively
[3] $[2B_x/(B_{x-1}+B_{x+1})]*100$, where B_x is the number births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods preceding the survey (weighted), Nigeria 2003

Age at death (days)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1	49	71	45	36	200
1	78	82	51	34	245
2	21	26	17	13	77
3	26	26	19	14	85
4	15	11	9	10	45
5	10	13	23	18	63
6	16	12	9	4	41
7	6	13	16	10	45
8	6	8	4	1	19
9	5	8	6	7	26
10	2	3	4	8	17
11	2	7	1	0	10
12	8	6	4	1	18
13	0	0	2	0	2
14	19	9	12	12	51
15	5	10	0	4	19
16	0	7	1	1	10
17	0	0	1	2	3
18	7	1	1	0	9
20	2	4	6	1	12
21	12	10	6	5	33
22	0	0	1	0	1
23	0	0	0	1	1
24	1	1	1	0	3
25	0	0	2	0	2
26	0	1	1	0	2
27	0	2	0	0	2
28	0	2	0	0	3
29	1	4	0	0	4
30	0	6	2	2	10
31+	4	10	5	2	22
Total 0-30	289	342	245	182	1,057
Percent early neonatal[1]	74.1	70.4	70.9	70.4	71.5

[1] 0-6 days/0-30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods preceding the survey, Nigeria 2003

Age at death (months)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1[a]	289	342	245	182	1,057
1	29	38	31	12	109
2	24	41	16	19	101
3	31	36	26	36	129
4	12	30	22	15	80
5	34	35	16	11	96
6	15	15	36	13	79
7	28	36	29	25	117
8	28	31	16	24	99
9	28	27	22	14	90
10	25	21	22	16	83
11	14	37	12	18	81
12	26	37	28	35	126
13	18	13	21	21	73
14	14	22	14	8	58
15	7	16	12	13	48
16	15	8	8	2	33
17	8	15	24	7	54
18	22	19	24	23	87
19	3	20	11	1	35
20	4	9	7	6	26
21	5	3	1	1	11
22	1	13	1	3	18
23	5	13	7	5	30
24+	9	9	16	9	43
Missing	0	0	0	1	1
1 year	49	75	47	56	227
Total 0-11	555	689	493	385	2,121
Percent neonatal[1]	52.1	49.6	49.6	47.4	49.8

[a] Includes deaths under one month reported in days

[1] Under one month/under one year