APPENDIX A

SAMPLE DESIGN

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Albert Marckwardt

A.1 Objectives of the Survey Design

At the national level, the principal objective of the 1996 Demographic and Health Survey (DHS) was to generate reliable and current information on fertility, infant and child mortality, contraceptive knowledge and use, and maternal and child health indicators. This information was also to be representative at the level of urban-rural residence, and at the level of the four geographic regions: Southern, Highlands, Momase and Islands. At the provincial level, the survey was designed to provide planners with both demographic data (especially fertility and mortality) and socio-economic data on education, employment and housing. To meet these objectives, two different kinds of questionnaire were developed for use in the data collection: a household questionnaire to collect the data needed at the provincial level, and an individual woman's questionnaire used to collect information from women of childbearing age, representative at the regional and national levels.

The sample design utilised to meet these objectives was constructed by Mr. John Palmer, of the Australian Bureau of Statistics in Adelaide, with inputs from the author and staff at the NSO. The NSO and the author express their deep appreciation to Mr. Palmer.

A.2 Sampling Frame

The PNG National Statistical Office (NSO) maintains a complete list of all Census Units (CUs) with population and household statistics from the 1980 and 1990 National Population Censuses, called the CU register. Before the register was used as the sampling frame for the DHS, certain growth areas were re-listed in order to update the number of households. The areas re-listed were parts of Port Moresby, Lae, Goroka, Mt. Hagen, Madang, Wewak and Rabaul towns. The CU register is stratified into two main strata, urban and rural.

A.3 Sample Design and Allocation

The 1996 DHS sample consists of two phases. The first phase (household survey) was a two stage self-weighting systematic cluster sample for each province, with the first stage being census units (CUs) and the second stage, households. It was determined that sufficient funding was available to permit aiming for a sample of 25,000 completed household interviews, assuming a 90 percent response rate.

The sample was allocated between provinces on a 50/50 equal/proportional basis, based upon the projected number of households in 1996, so that reliable data would be

produced for all provinces, as well as for the nation as a whole. A systematic sample of CUs/villages was then selected from each province, with probability proportional to the number of households existing at the time of the 1990 Census. The expected 'take' from each CU was 20 households. If a CU contained less than 20 households according to the 1990 Census, it was combined with its nearest neighbour. In all, 1,250 clusters were selected from the 19 provinces included in the survey universe (which excludes North Solomons.).

All households in selected CUs were then listed, in a massive listing operation organised within each of the 19 provinces, which, due to delays inevitable in a decentralised operation such as this, took about six months to complete. The listings were sent to headquarters in Port Moresby for sample selection. Within each of the selected CUs a sample of approximately 22 households was then selected systematically, taking into account an expected 10 percent non-response rate. If the current size of a CU was greater than the 1996 projected size, more than 22 households would be selected; and if the CU was smaller, fewer than 22 would be selected. In fact, as in many countries using this methodology, the number of selected households varied greatly from CU to CU, from about 7 to 60; factors such as drought, floods and tribal warfare contribute to the mobility of the population. The average number of households selected per CU in the provinces varied from 19 to 25, depending upon either the accuracy of the 1990 Census in that province, or how assiduously the current listers pursued their task, or both. Note, however, that it is quite possible that the assumed *population* growth rate since 1990 does not translate directly into the rate of growth of *households*. Doubling-up of families often translates into a slower growth rate for households. In this case, the assumed number of 22 might be unrealistic. (No further allusion to this problem will be made here). The group of selected households is referred to as a cluster. The design ensured an equal probability sample of households for each province (ie. a self-weighting design at the provincial level). Details of the selection procedure, and the sampling fractions utilised are shown in Table A.1.

For the second phase, the women's survey, it was determined that a national sample of approximately of 5,000 women of childbearing age would be sufficient, taking into consideration that it was necessary to have results representative at the level of only 4 regions, and also considering the costs involved and the available manpower (actually woman-power) to carry out the necessary interviewing. Experience in many countries backed the decision for a sample of 5,000 women. To achieve this, a sub-sample of 250 clusters was required. It was therefore decided that the second phase would be a one-stage national self-weighting (ie. equal probability) systematic sample selected from the first phase of sample clusters, maintaining the geographic ordering of the phase-one sample from each province. The decision to adopt an equal probability sample means that no weights have to be attached to each sample case prior to tabulation, and greatly simplifies the data-processing stage. The skip interval used in selecting clusters within each province for the second phase was therefore chosen to produce a self-weighting sample at the national level, based upon the proportional representation of each province in the 1996 censal projection (the second column of figures in Table A.1). In this phase of the survey, all women of ages 15 to 49 years in each selected household would be eligible to be interviewed.

Table A.1 Sampling Parameters for the 1996 Papua New Guinea D. H. S.

Province	1990 H-H Population	1996 Estimated H - H	No. of Phase 1 sample points	First stage intv'l	Overall phase 1 sampling fraction	No. of phase 2 sample points	Phase 2 sampling fraction
Western	18208	21762	50	364.2	0.051052	7	-
Gulf	11580	12082	44	263.2	0.074491	4	-
Central	23344	26181	54	432.3	0.045835	9	-
NCD	31739	38805	64	495.9	0.036253	13	-
Milne Bay	29035	33104	60	483.9	0.040267	11	-
Northern	16450	18799	48	342.7	0.056758	6	-
S. Highlands	52660	62732	84	626.9	0.029762	20	-
Enga	39829	49216	74	538.2	0.033404	16	-
W. Highlands	66031	75780	96	687.8	0.028147	25	-
Simbu	41493	42271	68	610.2	0.032646	14	-
E. Highlands	67466	70989	92	733.3	0.027258	24	-
Morobe	68509	77148	96	713.6	0.027648	25	-
Madang	44077	49242	74	595.6	0.033386	16	-
East Sepik	50057	54387	78	641.7	0.030890	18	-
West Sepik	25717	29098	56	459.2	0.042752	9	-
Manus	6051	6964	38	159.2	0.121195	2	-
New Ireland	17846	21087	50	356.9	0.052686	7	-
E. New Britain	32277	42605	68	474.7	0.035465	14	-
W. New Britain	22579	28405	56	403.2	0.043795	10	-
TOTAL	664948	760657	1250			250	0.007213

A.4 Sample Implementation

Table A.2 provides a summary of the sample implementation of the phase-two national sample. Despite the recency of the household listings, approximately 11 percent of households could not be contacted due to prolonged absence, or because their dwellings were vacant or had been destroyed. Among the households contacted, a response rate of 90 percent was achieved. Within the 4,319 successfully interviewed households, a total of 5,550 women of ages 15 to 49 years were eligible to be interviewed, roughly 1.3 per household. Successful interviews were conducted with 89 percent of eligible women (4,917). The most common cause of non-response was absence (6 percent). The overall response rate, calculated as the product of the household and individual response rates, was 80 percent. Among the regions, the rate of success was highest in Southern (86 percent), and lowest in the Highlands (74 percent). Response rates were significantly better in urban areas (85 percent) than in rural areas (78 percent). The designers of the sample had optimistically expected a somewhat higher rate of response, 90 rather than 80. But the results recorded here are not untypical of those in many countries.

Percent distribution of Households (HH) and Eligible Women (EW) in the DHS National Sample by Result of the Interview; and Household, Eligible Women and Overall response rates, according to Region and Urban/Rural Residence.

HH & EW Results &	Region				Place of residence		
Response Rate	Southern	Highlands	Momase	Islands	Urban	Rural	Total
HH/Completed	84.7	77.9	79.3	82.0	84.8	79.3	80.1
HH/No competent respondent	1.1	3.7	2.2	2.0	1.4	2.7	2.5
HH/Postponed	-	0.2	-	-	-	0.1	0.1
HH/Refused	1.5	3.1	2.0	1.6	1.8	2.4	2.3
HH/Dwelling not found	0.5	0.3	1.4	0.9	0.6	0.8	0.7
HH/Absent**	4.0	7.5	7.2	8.2	3.3	7.5	6.8
HH/Dwelling vacant**	5.2	2.3	2.9	2.4	4.9	2.7	3.1
HH/Dwelling destroy**	0.3	1.6	0.9	0.3	0.2	1.1	0.9
HH/Other	2.7	3.3	4.1	2.6	2.9	3.4	3.3
HH-----> Total percent	100	100	100	100	100	100	100
HH -----> Number	1033	2046	1614	696	829	4560	5389
HH -----> Response rate	93.6	87.9	89.0	92.1	92.6	89.4	89.9
EW/Completed	92.1	84.3	90.8	90.2	92.2	87.7	88.6
EW/Not at home	4.4	7.1	4.8	7.3	4.8	6.1	5.9
EW/Postponed	-	0.3	0.1	0.5	-	0.2	0.2
EW/Refused	0.9	2.9	1.9	0.5	0.9	2.1	1.9
EW/Partly Completed	0.2	0.7	0.1	-	0.1	0.4	0.3
EW/Incapacitated	0.9	0.5	0.5	0.5	0.8	0.6	0.6
EW/Other	1.5	4.2	1.8	1.1	1.2	2.9	2.5
EW----->Total percent	100	100	100	100	100	100	100
EW-----> Number	1305	2078	1524	643	1094	4456	5550
EW-----> Response rate	92.1	84.3	90.8	90.2	92.2	87.7	88.6
Overall resp. rate	86.2	74.1	80.8	83.1	85.4	78.4	79.6

** These categories are excluded from the denominator in calculating the household response rate.

APPENDIX B

SAMPLING VARIABILITY

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The results from sample surveys are affected by two types of errors, nonsampling error and sampling error. Nonsampling error is due to mistakes made in carrying out field activities, such as failure to locate and interview the correct household, errors in the way the questions are asked, misunderstanding on the part of either the interviewer or the respondent, data entry errors, etc. Although efforts were made during the design and implementation of the 1996 DHS 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 measured statistically. The sample of households selected for the 1996 DHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each one would have yielded results that differed somewhat from the actual sample selected. The sampling error is a measure of the variability between all possible samples; although it is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of *standard error* of a particular statistic (mean, percentage, etc.), which is the square root of the variance of the statistic. The standard error can be used to calculate confidence intervals within which, apart from nonsampling errors, 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 same statistic as measured in 95 percent of all possible samples with the same design (and expected size) will fall within a range of plus or minus two times the standard error of that statistic.

If the sample of households had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 1996 DHS sample design depended on stratification, stages and clusters. Consequently, it is necessary to utilize more complex formulas. The computer package CLUSTERS, developed for the World Fertility Survey programme by the International Statistical Institute, has been used to assist in computing the sampling errors with the proper statistical methodology.

The CLUSTERS program 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:

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

in which

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

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

                m_h is the total number of clusters selected in stratum 'h',

                y_{hi} is the sum of the values of variable y in cluster 'i' in stratum 'h',

                x_{hi} is the sum of the number of cases in cluster 'i' in stratum 'h',

                f is the overall sampling fraction, which is so small that CLUSTERS ignores it.

In addition to the standard errors, CLUSTERS computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and 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, whereas 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. CLUSTERS also computes the relative error and confidence limits for the estimates.

Sampling errors are presented in Tables B.2 - B.15 for variables considered to be of major interest. Results are presented for the whole country, for urban and rural areas separately, for each of the four regions, for each of four education groups, and for each of three age groups. For each variable, the type of statistic (percentage or mean) and the base population are given in Table B.1. For each variable, Tables B.2 -B.15 present the value of the statistic (R), its standard error (SE), the number of cases (N), the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R-2SE, R+2SE)

The confidence limits have the following interpretation. For the percentage of women in union currently using a contraceptive method (CUAM), the overall average from the sample is 25.9%, and its standard error is 1.17%. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, which means that there is a high probability (95 percent) the true percentage currently using is between 23.6% and 28.2%.

The relative standard errors for most estimates for the country as a whole are small, except for estimates of very small percentages. The magnitude of the error increases as estimates for sub-populations such as geographical areas are considered. For the variable CUAM, for instance, the relative standard error (as a percentage of the estimated parameter) for the whole country and for urban and rural areas is 4.5 percent, 5.5 percent, and 5.8 percent, respectively. The relative standard error of CUAM averages out at approximately 8 percent for the four regions.

Table B.1	List of Selected Variables for Sampling Error, Papua New Guinea, 1996	
Variable	Description	Base Population
LRAD	% listening to radio weekly	All women
CEB	Mean number of children ever born	All women
CMAR	% currently in union	All women
CUAM	% currently using any method	Women in union
CUMM	% currently using modern method	Women in union
CUFS	% using female sterilization	Women in union
CUIN	% currently using injections	Women in union
IDCH	Mean ideal number of children	Women with numeric response
WNMC	% who want no more children	Women in union
AIDS	% who have heard of AIDS	All women
PRENAT	% with antenatal care before birth	Births last 3 years
TETAN	% mother received tetanus injection	Births last 3 years
DELIV	% delivered in health facility	Births last 3 years
VACARD	% vaccin. card seen by interviewer	Children 12-23 months
MEAVAC	% who have received measles vaccine	Children 12-23 months
FULVAC	% fully vaccinated	Children 12-23 months
ARI	% with respir. infect. last 2 weeks	Children under 3 years
FEVER	% with fever last 2 weeks	Children under 3 years
DIAR	% with diarrhoea last 2 weeks	Children under 3 years

Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits	
						R-2SE	R+2SE
LRAD	43.685	1.479	4917	2.091	0.034	40.726	46.644
CEB	2.647	0.047	4917	1.275	0.018	2.553	2.742
CMAR	72.870	0.736	4917	1.160	0.010	71.398	74.341
CUAM	25.900	1.167	3583	1.594	0.045	23.566	28.234
CUMM	19.620	1.073	3583	1.617	0.055	17.474	21.767
CUFS	7.619	0.601	3583	1.356	0.079	6.417	8.821
CUIN	6.782	0.621	3583	1.479	0.092	5.540	8.024
IDCH	3.501	0.035	3569	1.327	0.010	3.432	3.570
WNMC	45.995	1.061	3583	1.275	0.023	43.872	48.118
AIDS	64.613	1.420	4917	2.082	0.022	61.773	67.452
PRENAT	79.962	1.720	2096	1.967	0.022	76.522	83.402
TETAN	68.750	1.916	2096	1.892	0.028	64.917	72.583
DELIV	51.002	2.282	2096	2.090	0.045	46.437	55.566
VACARD	67.847	2.481	706	1.410	0.037	62.886	72.808
MEAVAC	75.637	2.381	706	1.473	0.031	70.876	80.399
FULVAC	38.669	2.523	706	1.374	0.065	33.623	43.715
ARI	12.551	0.901	1968	1.206	0.072	10.749	14.353
FEVER	34.299	1.419	1968	1.325	0.041	31.461	37.136
DIAR	16.463	1.127	1968	1.348	0.068	14.209	18.717

Table B.2   Sampling Errors – National Sample, Papua New Guinea, 1996

		Standard	No. of	Design	Relative		
	Value	error	cases	effect	error	Confidence Limits	
Variable	(R)	(SE)	(N)	(DEFT)	(SE/R)	R-2SE	R+2SE
LRAD	71.060	3.245	1009	2.272	0.046	64.570	77.551
CEB	2.194	0.100	1009	1.454	0.045	1.995	2.394
CMAR	69.177	1.745	1009	1.200	0.025	65.688	72.667
CUAM	35.817	1.961	698	1.080	0.055	31.895	39.738
CUMM	30.946	1.916	698	1.094	0.062	27.113	34.778
CUFS	13.181	1.588	698	1.239	0.120	10.005	16.356
CUIN	8.883	0.968	698	0.898	0.109	6.947	10.818
IDCH	3.334	0.083	854	1.634	0.025	3.167	3.500
WNMC	45.559	2.302	698	1.221	0.051	40.954	50.164
AIDS	76.115	2.905	1009	2.163	0.038	70.305	81.925
PRENAT	95.288	1.512	382	1.393	0.016	92.263	98.313
TETAN	85.602	2.129	382	1.183	0.025	81.345	89.859
DELIV	87.435	3.323	382	1.957	0.038	80.788	94.081
VACARD	88.235	2.886	119	0.973	0.033	82.464	94.007
MEAVAC	94.958	2.266	119	1.125	0.024	90.426	99.490
FULVAC	69.748	4.887	119	1.165	0.069	59.974	79.522
ARI	10.840	1.733	369	1.070	0.160	7.373	14.307
FEVER	31.707	3.077	369	1.268	0.097	25.554	37.860
DIAR	12.466	1.790	369	1.040	0.144	8.886	16.047

Table B.3   Sampling Errors - Urban Areas, Papua New Guinea, 1996

Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits R-2SE	R+2SE
						Table B.4 Sampling Errors - Rural Areas, Papua New Guinea, 1996	
LRAD	36.617	1.507	3908	1.956	0.041	33.603	39.632
CEB	2.764	0.053	3908	1.231	0.019	2.658	2.870
CMAR	73.823	0.836	3908	1.188	0.011	72.151	75.495
CUAM	23.501	1.359	2885	1.721	0.058	20.783	26.219
CUMM	16.880	1.198	2885	1.717	0.071	14.485	19.276
CUFS	6.274	0.591	2885	1.309	0.094	5.092	7.456
CUIN	6.274	0.725	2885	1.606	0.116	4.824	7.724
IDCH	3.554	0.042	2715	1.395	0.012	3.470	3.638
WNMC	46.101	1.251	2885	1.348	0.027	43.599	48.602
AIDS	61.643	1.734	3908	2.229	0.028	58.175	65.111
PRENAT	76.546	2.072	1714	2.024	0.027	72.402	80.690
TETAN	64.994	2.274	1714	1.973	0.035	60.446	69.542
DELIV	42.882	2.302	1714	1.925	0.054	38.278	47.487
VACARD	63.714	2.872	587	1.446	0.045	57.970	69.457
MEAVAC	71.721	2.739	587	1.472	0.038	66.243	77.198
FULVAC	32.368	2.620	587	1.355	0.081	27.129	37.607
ARI	12.946	0.989	1599	1.178	0.076	10.968	14.924
FEVER	34.897	1.581	1599	1.326	0.045	31.736	38.058
DIAR	17.386	1.314	1599	1.386	0.076	14.758	20.014

		Standard	No. of	Design	Relative		
	Value	error	cases	effect	error	Confidence Limits	
Variable	(R)	(SE)	(N)	(DEFT)	(SE/R)	R-2SE	R+2SE
LRAD	60.982	2.503	1202	1.778	0.041	55.975	65.988
CEB	2.538	0.088	1202	1.219	0.035	2.362	2.714
CMAR	68.053	1.315	1202	0.977	0.019	65.423	70.683
CUAM	37.164	3.134	818	1.853	0.084	30.897	43.431
CUMM	29.340	2.529	818	1.588	0.086	24.282	34.398
CUFS	10.758	1.503	818	1.386	0.140	7.753	13.763
CUIN	11.125	1.528	818	1.389	0.137	8.068	14.181
IDCH	3.417	0.064	993	1.239	0.019	3.289	3.544
WNMC	49.267	2.277	818	1.302	0.046	44.713	53.820
AIDS	58.902	2.771	1202	1.952	0.047	53.359	64.445
PRENAT	87.054	2.614	533	1.796	0.030	81.827	92.282
TETAN	72.045	3.596	533	1.848	0.050	64.853	79.237
DELIV	59.850	5.382	533	2.532	0.090	49.086	70.614
VACARD	80.220	3.235	182	1.093	0.040	73.750	86.690
MEAVAC	82.418	4.247	182	1.501	0.052	73.924	90.911
FULVAC	43.407	5.143	182	1.394	0.117	33.121	53.693
ARI	10.196	1.746	510	1.301	0.171	6.705	13.687
FEVER	33.333	2.771	510	1.326	0.083	27.790	38.876
DIAR	14.314	1.716	510	1.106	0.120	10.881	17.746

Table B.5   Sampling Errors - Southern Region, Papua New Guinea, 1996

Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits	
						R-2SE	R+2SE
LRAD	31.582	2.005	1751	1.804	0.063	27.573	35.591
CEB	2.647	0.079	1751	1.287	0.030	2.488	2.806
CMAR	78.184	1.103	1751	1.117	0.014	75.978	80.389
CUAM	15.851	1.383	1369	1.401	0.087	13.084	18.618
CUMM	12.856	1.279	1369	1.413	0.099	10.299	15.414
CUFS	4.018	0.491	1369	0.924	0.122	3.036	4.999
CUIN	5.332	0.843	1369	1.387	0.158	3.647	7.017
IDCH	3.585	0.056	1016	1.266	0.016	3.473	3.697
WNMC	43.316	1.673	1369	1.249	0.039	39.971	46.662
AIDS	74.300	2.103	1751	2.014	0.028	70.094	78.507
PRENAT	76.242	2.606	644	1.553	0.034	71.030	81.454
TETAN	64.752	2.969	644	1.576	0.046	58.813	70.691
DELIV	41.770	3.420	644	1.758	0.082	34.931	48.609
VACARD	45.833	4.148	216	1.221	0.091	37.537	54.129
MEAVAC	70.833	3.750	216	1.210	0.053	63.333	78.333
FULVAC	33.333	4.510	216	1.403	0.135	24.314	42.353
ARI	14.655	1.532	580	1.042	0.105	11.591	17.719
FEVER	34.483	2.365	580	1.197	0.069	29.753	39.212
DIAR	21.724	2.731	580	1.594	0.126	16.262	27.186

Table B.6   Sampling Errors - Highlands Region, Papua New Guinea, 1996

Table B.7 Sampling Errors - Momase Region, Papua New Guinea, 1996						
Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits
						R-2SE	R+2SE
LRAD	38.945	3.418	1384	2.607	0.088	32.109	45.781
CEB	2.615	0.093	1384	1.330	0.035	2.429	2.800
CMAR	70.737	1.515	1384	1.239	0.021	67.706	73.768
.CUAM	24.515	1.861	979	1.353	0.076	20.792	28.237
CUMM	17.773	2.138	979	1.749	0.120	13.497	22.049
CUFS	7.559	1.204	979	1.424	0.159	5.152	9.966
CUIN	4.699	1.058	979	1.563	0.225	2.583	6.814
IDCH	3.509	0.070	1089	1.532	0.020	3.368	3.649
WNMC	44.637	2.047	979	1.288	0.046	40.542	48.732
AIDS	50.361	3.175	1384	2.361	0.063	44.012	56.711
PRENAT	72.387	4.155	641	2.351	0.057	64.076	80.698
TETAN	64.431	4.272	641	2.258	0.066	55.886	72.975
DELIV	44.774	3.983	641	2.027	0.089	36.807	52.740
VACARD	76.056	5.856	213	1.998	0.077	64.343	87.769
MEAVAC	69.014	5.446	213	1.715	0.079	58.122	79.906
FULVAC	38.028	4.722	213	1.416	0.124	28.583	47.473
ARI	13.674	1.652	607	1.184	0.121	10.369	16.978
FEVER	34.596	2.959	607	1.531	0.086	28.679	40.514
DIAR	13.509	1.995	607	1.437	0.148	9.519	17.499

Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits	
						R-2SE	R+2SE
LRAD	55.690	4.004	580	1.940	0.072	47.681	63.698
CEB	2.950	0.135	580	1.145	0.046	2.680	3.220
CMAR	71.897	2.651	580	1.419	0.037	66.595	77.198
CUAM	40.048	3.064	417	1.275	0.077	33.920	46.176
CUMM	27.098	3.211	417	1.474	0.118	20.676	33.521
CUFS	13.429	2.540	417	1.519	0.189	8.349	18.509
CUIN	7.914	2.129	417	1.609	0.269	3.655	12.172
IDCH	3.482	0.093	471	1.129	0.027	3.296	3.668
WNMC	51.559	2.851	417	1.163	0.055	45.858	57.260
AIDS	81.207	3.114	580	1.918	0.038	74.978	87.436
PRENAT	92.446	2.853	278	1.797	0.031	86.739	98.153
TETAN	81.655	3.881	278	1.669	0.048	73.892	89.417
DELIV	69.784	7.588	278	2.750	0.109	54.609	84.960
VACARD	75.789	4.571	95	1.035	0.060	66.647	84.932
MEAVAC	88.421	2.242	95	0.679	0.025	83.937	92.905
FULVAC	43.158	6.778	95	1.327	0.157	29.603	56.713
ARI	9.963	2.877	271	1.578	0.289	4.210	15.717
FEVER	35.055	2.960	271	1.019	0.084	29.135	40.975
DIAR	15.867	1.706	271	0.767	0.108	12.454	19.280

Table B.8   Sampling Errors - Islands Region, Papua New Guinea, 1996

Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits	
						R-2SE	R+2SE
LRAD	22.599	1.361	1916	1.424	0.060	19.877	25.322
CEB	3.374	0.089	1916	1.444	0.026	3.195	3.552
CMAR	83.768	0.994	1916	1.180	0.012	81.780	85.757
CUAM	18.629	1.386	1605	1.426	0.074	15.856	21.402
CUMM	14.642	1.340	1605	1.519	0.092	11.961	17.323
CUFS	5.545	0.672	1605	1.176	0.121	4.201	6.890
CUIN	5.794	0.826	1605	1.415	0.142	4.143	7.446
IDCH	3.775	0.053	1202	1.196	0.014	3.670	3.881
WNMC	50.280	1.559	1605	1.249	0.031	47.163	53.398
AIDS	54.384	2.256	1916	1.982	0.041	49.873	58.895
PRENAT	67.766	2.831	819	1.733	0.042	62.103	73.428
TETAN	56.899	2.838	819	1.639	0.050	51.222	62.576
DELIV	33.089	2.389	819	1.452	0.072	28.311	37.867
VACARD	56.667	3.957	270	1.310	0.070	48.753	64.581
MEAVAC	63.333	3.910	270	1.331	0.062	55.512	71.154
FULVAC	24.074	3.017	270	1.157	0.125	18.040	30.109
ARI	14.514	1.563	751	1.216	0.108	11.387	17.641
FEVER	37.150	2.405	751	1.363	0.065	32.340	41.961
DIAR	17.976	1.919	751	1.369	0.107	14.138	21.814

Table B.9   Sampling Errors - Women with no Education, Papua New Guinea, 1996

Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits	
						R-2SE	R+2SE
LRAD	42.159	2.277	880	1.367	0.054	37.604	46.714
CEB	2.569	0.112	880	1.191	0.044	2.345	2.794
CMAR	68.636	1.675	880	1.070	0.024	65.286	71.987
CUAM	25.000	1.888	604	1.071	0.076	21.225	28.775
CUMM	18.709	1.718	604	1.082	0.092	15.273	22.144
CUFS	9.934	1.469	604	1.206	0.148	6.996	12.872
CUIN	4.801	1.029	604	1.182	0.214	2.743	6.860
IDCH	3.556	0.076	649	1.110	0.021	3.404	3.708
WNMC	45.861	2.399	604	1.182	0.052	41.062	50.659
AIDS	60.909	2.414	880	1.466	0.040	56.082	65.736
PRENAT	81.214	2.667	346	1.268	0.033	75.880	86.548
TETAN	70.809	3.297	346	1.347	0.047	64.215	77.403
DELIV	50.867	3.707	346	1.377	0.073	43.452	58.282
VACARD	67.227	6.042	119	1.398	0.090	55.144	79.310
MEAVAC	78.151	4.703	119	1.236	0.060	68.746	87.557
FULVAC	45.378	5.318	119	1.160	0.117	34.742	56.015
ARI	12.226	1.849	319	1.006	0.151	8.528	15.923
FEVER	33.542	3.143	319	1.187	0.094	27.256	39.829
DIAR	16.614	2.060	319	0.987	0.124	12.494	20.735

Table B.10   Sampling Errors - Women with Grades 1 - 5, Papua New Guinea, 1996

Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits R-2SE	R+2SE
						Table B.11 Sampling Errors - Women with Grade 6, Papua New Guinea, 1996	
LRAD	53.828	1.808	1280	1.297	0.034	50.213	57.443
CEB	2.202	0.074	1280	1.137	0.034	2.053	2.350
CMAR	68.594	1.560	1280	1.202	0.023	65.474	71.713
CUAM	29.271	2.134	878	1.389	0.073	25.003	33.539
CUMM	21.526	1.680	878	1.211	0.078	18.166	24.886
CUFS	7.403	1.029	878	1.164	0.139	5.346	9.461
CUIN	7.973	1.191	878	1.302	0.149	5.591	10.354
IDCH	3.337	0.053	1000	1.118	0.016	3.230	3.444
WNMC	41.116	1.823	878	1.097	0.044	37.470	44.762
AIDS	66.172	1.951	1280	1.475	0.029	62.269	70.075
PRENAT	87.013	2.229	616	1.644	0.026	82.555	91.471
TETAN	74.351	2.685	616	1.524	0.036	68.982	79.720
DELIV	57.955	3.647	616	1.832	0.063	50.660	65.249
VACARD	75.587	2.927	213	0.992	0.039	69.734	81.440
MEAVAC	81.221	2.713	213	1.012	0.033	75.794	86.647
FULVAC	40.376	3.814	213	1.130	0.093	32.748	48.004
ARI	10.438	1.484	594	1.182	0.142	7.470	13.406
FEVER	34.007	2.300	594	1.182	0.068	29.408	38.606
DIAR	15.993	1.589	594	1.056	0.099	12.815	19.172

Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits	
						R-2SE	R+2SE
LRAD	77.883	2.139	841	1.494	0.027	73.606	82.161
CEB	1.751	0.090	841	1.292	0.051	1.572	1.931
CMAR	58.977	2.281	841	1.344	0.039	54.415	63.540
CUAM	44.556	2.254	496	1.009	0.051	40.048	49.065
CUMM	33.468	2.073	496	0.977	0.062	29.321	37.614
CUFS	11.895	1.207	496	0.829	0.101	9.482	14.309
CUIN	10.282	1.554	496	1.139	0.151	7.173	13.391
IDCH	3.221	0.063	718	1.216	0.020	3.095	3.348
WNMC	40.927	1.938	496	0.877	0.047	37.052	44.803
AIDS	89.417	1.008	841	0.950	0.011	87.401	91.434
PRENAT	96.508	1.324	315	1.278	0.014	93.860	99.156
TETAN	86.349	2.085	315	1.076	0.024	82.180	90.518
DELIV	84.127	2.567	315	1.245	0.031	78.993	89.261
VACARD	81.731	3.924	104	1.031	0.048	73.883	89.578
MEAVAC	93.269	2.473	104	1.002	0.027	88.324	98.215
FULVAC	65.385	4.935	104	1.053	0.075	55.514	75.255
ARI	12.171	1.960	304	1.043	0.161	8.252	16.090
FEVER	28.618	2.434	304	0.938	0.085	23.749	33.487
DIAR	13.487	2.211	304	1.127	0.164	9.065	17.909

Table B.12   Sampling Errors - Women with Grades 7 or more, Papua New Guinea, 1996

	Table B.13		Sampling Errors - Women age 15 - 24 years,			Papua New Guinea, 1996	
Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits R-2SE	R+2SE
LRAD	51.036	1.945	1785	1.643	0.038	47.146	54.926
CEB	0.588	0.026	1785	1.144	0.043	0.537	0.639
CMAR	44.818	1.438	1785	1.221	0.032	41.942	47.694
CUAM	17.875	1.494	800	1.102	0.084	14.887	20.863
CUMM	11.875	1.099	800	0.960	0.093	9.677	14.073
CUFS	0.500	0.249	800	0.996	0.497	0.003	0.997
CUIN	5.375	0.696	800	0.872	0.129	3.983	6.767
IDCH	2.857	0.038	1401	1.122	0.013	2.781	2.934
WNMC	16.125	1.439	800	1.106	0.089	13.246	19.004
AIDS	66.443	1.587	1785	1.419	0.024	63.269	69.616
PRENAT	82.704	2.240	636	1.492	0.027	78.225	87.184
TETAN	70.126	2.557	636	1.408	0.036	65.011	75.240
DELIV	56.761	2.900	636	1.475	0.051	50.962	62.560
VACARD	64.530	3.224	234	1.029	0.050	58.081	70.979
MEAVAC	76.923	3.434	234	1.244	0.045	70.056	83.790
FULVAC	40.171	4.008	234	1.248	0.100	32.155	48.186
ARI	12.167	1.748	600	1.309	0.144	8.670	15.663
FEVER	32.500	2.382	600	1.245	0.073	27.735	37.265
DIAR	15.833	1.599	600	1.072	0.101	12.636	19.031

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Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits	
						R-2SE	R+2SE
LRAD	42.823	1.649	1651	1.354	0.039	39.525	46.120
CEB	2.824	0.062	1651	1.365	0.022	2.700	2.949
CMAR	88.007	0.980	1651	1.225	0.011	86.047	89.967
CUAM	25.465	1.482	1453	1.296	0.058	22.501	28.428
CUMM	18.858	1.339	1453	1.304	0.071	16.180	21.535
CUFS	5.093	0.604	1453	1.047	0.119	3.885	6.301
CUIN	7.226	0.805	1453	1.184	0.111	5.617	8.836
IDCH	3.582	0.044	1214	1.085	0.012	3.494	3.669
WNMC	36.339	1.484	1453	1.176	0.041	33.371	39.306
AIDS	68.686	1.823	1651	1.596	0.027	65.041	72.331
PRENAT	80.849	1.848	1060	1.528	0.023	77.153	84.545
TETAN	70.189	2.141	1060	1.523	0.030	65.907	74.470
DELIV	51.321	2.518	1060	1.639	0.049	46.285	56.357
VACARD	70.674	2.966	341	1.201	0.042	64.743	76.606
MEAVAC	80.059	2.551	341	1.177	0.032	74.957	85.160
FULVAC	42.522	2.910	341	1.085	0.068	36.702	48.342
ARI	12.513	1.094	999	1.044	0.087	10.325	14.700
FEVER	33.534	1.749	999	1.170	0.052	30.035	37.032
DIAR	17.317	1.408	999	1.175	0.081	14.501	20.133

Table B.14   Sampling Errors - Women age 25 - 34 years, Papua New Guinea, 1996

Variable	Value (R)	Standard error (SE)	No. of cases (N)	Design effect (DEFT)	Relative error (SE/R)	Confidence Limits	
						R-2SE	R+2SE
LRAD	35.787	1.679	1481	1.348	0.047	32.428	39.146
CEB	4.932	0.093	1481	1.335	0.019	4.746	5.117
CMAR	89.804	0.751	1481	0.954	0.008	88.303	91.306
CUAM	31.203	1.749	1330	1.376	0.056	27.705	34.701
CUMM	25.113	1.658	1330	1.393	0.066	21.798	28.428
CUFS	14.662	1.311	1330	1.351	0.089	12.039	17.284
CUIN	7.143	0.976	1330	1.382	0.137	5.190	9.096
IDCH	4.345	0.062	954	1.141	0.014	4.221	4.469
WNMC	74.511	1.567	1330	1.311	0.021	71.377	77.646
AIDS	57.866	1.820	1481	1.418	0.031	54.226	61.507
PRENAT	73.250	2.755	400	1.243	0.038	67.741	78.759
TETAN	62.750	3.152	400	1.302	0.050	56.446	69.054
DELIV	41.000	3.527	400	1.432	0.086	33.947	48.053
VACARD	66.412	4.793	131	1.157	0.072	56.825	75.999
MEAVAC	61.832	4.928	131	1.157	0.080	51.975	71.689
FULVAC	26.718	4.167	131	1.074	0.156	18.384	35.051
ARI	13.279	1.903	369	1.076	0.143	9.473	17.086
FEVER	39.295	2.773	369	1.089	0.071	33.750	44.841
DIAR	15.176	2.190	369	1.171	0.144	10.796	19.556

Table B.15   Sampling Errors - Women age 35 - 49 years, Papua New Guinea, 1996

APPENDIX C

QUALITY OF THE DATA: NONSAMPLING ERROR

APPENDIX C

QUALITY OF THE DATA: NONSAMPLING ERROR

Alohai Pochapon

This appendix provides data users with an overview of the quality of the data of the DHS. Nonsampling errors arise in surveys (and in censuses) from a variety of causes. Below are some of these causes:

(a) Failure to locate and interview the selected household
(b) Mistakes in the way questions were asked
(c) Misunderstanding on the part of either the interviewer or respondent
(d) Coding errors
(e) Data entry errors, etc.

Although it is impossible to avoid nonsampling errors entirely, great efforts were expended in the DHS to keep them under control. These efforts included:

(a) Careful questionnaire design
(b) Pretest of survey instruments to guarantee their functionality
(c) A three- week interviewers' and supervisors' training course
(d) Careful fieldwork supervision including field visits by headquarters' personnel
(e) A swift editing process prior to data entry, and
(f) The use of interactive data entry software to keep key errors to a minimum.

Nevertheless, there is still a need to investigate content errors such as misreporting of ages, ignorance of dates of birth, and other recall problems.

Table C.1 shows the distribution of the household population by single years of age. There is rather a substantial heaping of ages ending in 0 and 5 throughout the distribution, and it is slightly more pronounced for males than for females. The heaping occurs more evidently in latter ages of 30 years and over (30, 35, 40, 45, etc.).

In the next table of this appendix, Table C.2, errors are particularly notable in the age reporting of females around the border of eligibility for the individual questionnaire, i.e., ages 15 and 49. When crosschecked against the previous table, there is an evident deficit of women at ages 15-17 years and a corresponding surplus at ages 12-14. At the other extreme, many women of ages 45-49 have been classified as being 50-54 years old. Little difference can be seen between the age distribution of women recorded in the household schedule and those interviewed with the individual questionnaire, indicating that response rates vary little across the age of respondents (Table C.2). The only exception would be for women at ages 15-19 whose percentage decreased by 0.8 percent. One can only speculate that this could be due to the mobility at such age, nil births leading to individual questionnaire neglect, etc.

Information on the completeness of reporting in connection with a set of important variables is provided in Table C.3. It is alarmingly evident that, though most variables have low percentage of missing information, the month of birth for both "births in the past 15 years" and "all respondents" have very high percentage missing information.

Table C.4 shows the distribution of births by calendar year by various characteristics. According to this table, information on month and year of birth is available for 66 percent of all children included in the birth history; the figure for living children is 70 percent, and for dead children is only 36 percent. However, reporting is much better for recent births. For children born since 1992, complete dates are given for 86 percent; the figure reaches 88 percent for living children, but falls to 59 percent for dead children.

This table also shows that the overall sex ratio at birth is 110; from year to year there are random fluctuations around this value without any indication of a trend. The sex ratio for dead children (126) is much higher than for surviving children (108), indicating higher mortality among male children.

The overall sex ratio of 110 is higher than for most countries, where it is generally in the range of 104-106. This may indicate a small but persistent omission of female births from the birth history.

From Table C.4 and the accompanying graph, a small amount of displacement of births from 1994 and 1993 into 1992 is evident. This is probably due to a temptation among interviewers to lessen their interviewing load by pushing births back to 1992, thereby not having to ask the long Section D of the questionnaire, which applied only to births since January, 1993.

C.1 Household Age Distribution

Single Year Age Distribution of the Household Population by Sex

Age	Males Number	Males Percentage	Females Number	Females Percentage	Age	Males Number	Males Percentage	Females Number	Females Percentage
0	369	2.9	326	2.7	36	175	1.4	158	1.3
1	409	3.2	346	2.9	37	94	0.7	106	0.9
2	369	3.9	342	2.9	38	165	1.3	151	1.3
3	399	3.1	347	2.9	39	101	0.8	119	1.0
4	407	3.2	384	3.2	40	252	2.0	184	1.5
5	410	3.2	359	3.0	41	52	0.4	75	0.6
6	405	3.2	384	3.2	42	134	1.1	103	0.9
7	381	3.0	379	3.2	43	81	0.6	67	0.6
8	358	2.8	382	3.2	44	80	0.6	74	0.6
9	360	2.8	341	2.9	45	161	1.3	100	0.8
10	398	3.1	340	2.9	46	80	0.6	91	0.8
11	296	2.3	292	2.5	47	59	0.5	51	0.4
12	389	3.1	346	2.9	48	105	0.8	114	1.0
13	299	2.4	314	2.6	49	71	0.6	100	0.8
14	342	2.7	305	2.6	50	163	1.3	15	0.1
15	276	2.2	172	1.4	51	46	0.4	110	0.9
16	270	2.1	232	2.0	52	68	0.5	155	1.3
17	225	1.8	212	1.8	53	37	0.3	65	0.5
18	258	2.0	207	1.7	54	97	0.8	115	1.0
19	212	1.7	212	1.8	55	100	0.8	90	0.8
20	264	2.1	250	2.1	56	77	0.6	102	0.9
21	182	1.4	176	1.5	57	37	0.3	36	0.3
22	195	1.5	209	1.8	58	67	0.5	64	0.5
23	143	1.1	170	1.4	59	47	0.4	36	0.3
24	240	1.9	223	1.9	60	128	1.0	107	0.9
25	239	1.9	230	1.9	61	27	0.2	13	0.1
26	202	1.6	230	1.9	62	40	0.3	24	0.2
27	176	1.4	172	1.4	63	22	0.2	17	0.1
28	224	1.8	219	1.8	64	22	0.2	18	0.2
29	112	0.9	149	1.3	65	58	0.5	33	0.3
30	291	2.3	246	2.1	66	14	0.1	16	0.1
31	105	0.8	136	1.1	67	13	0.1	8	0.1
32	208	1.6	175	1.5	68	22	0.2	14	0.1
33	120	0.9	118	1.0	69	18	0.1	13	0.1
34	154	1.2	156	1.3	70+	110	0.9	84	0.7
35	197	1.5	162	1.4					
					DK. Missing	7	0.1	3	0.0
					Totals	12,714	100	11,874	100

C.2 Age Distribution of Eligible and Interviewed Women

Percent distribution in five-year age groups of the household population of women aged 10-54 and of interviewed women aged 15-49, and percentage of eligible women who were interviewed

Age	Household population		Interviewed women aged 15-49		Percent interviewed
	Number	Percent	Number	Percent	
10-14	1597	-	-	-	-
15-19	1035	18.7	882	17.9	85.2
20-24	1028	18.5	905	18.4	88.0
25-29	1000	18.0	892	18.1	89.2
30-34	831	15.0	758	15.4	91.2
25-39	696	12.5	623	12.7	89.5
40-44	503	9.1	447	9.1	88.9
45-49	456	8.2	410	8.3	89.9
50-54	460	-	-	-	-
15-49	5549	-	4917	-	88.6

C.3 Completeness of Reporting

Percentage of observations missing information for selected demographic and health questions

Subject	Reference group	Percent missing information	Number of cases
Month of birth	Births in past 15 years	28.4	9589
Both month and year	Births in past 15 years	0.4	9589
Month of birth	All respondents	70.2	4917
Both month and year	All respondents	1.1	4917
Educational level	All respondents	0.4	4917
Diarrhoea in last 2 weeks	Living children < 36 mon	1.3	1968

C.4 Births by Calender Year of Birth

Distribution of births by calender year of birth for living (L), dead (D), all (T) children, according to reporting completeness, sex ratio at birth, and ratio of births by calender year.

Year	Number of births			Percentage with complete birth date1			Sex ratio at birth2			Calender ratio3			Male			Female		
	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T
96	481	10	491	96.3	50.0	95.3	111.9	42.9	109.8	-	-	-	254	3	257	227	7	234
95	744	62	806	93.8	82.3	92.9	113.2	121.4	113.8	136.5	203.3	140.1	395	34	429	349	28	377
94	609	51	660	88.8	51.0	85.9	111.5	112.5	111.5	88.5	92.7	88.8	321	27	348	288	24	312
93	633	48	681	86.6	64.6	85.0	111.0	152.6	113.5	98.0	66.2	94.8	333	29	362	300	19	319
92	683	94	777	78.5	44.7	74.4	108.9	176.5	115.2	108.0	172.5	113.1	356	60	416	327	34	361
91	632	61	693	78.6	42.6	75.5	107.9	177.3	112.6	94.2	66.3	90.8	328	39	367	304	22	326
90	659	90	749	72.8	34.4	68.2	106.6	87.5	104.1	109.1	142.9	112.3	340	42	382	319	48	367
89	576	65	641	70.3	32.3	66.5	100.0	109.7	100.9	92.8	81.8	91.5	288	34	322	288	31	319
88	583	69	652	66.4	31.9	62.7	88.1	137.9	92.3	104.7	92.6	103.2	273	40	313	310	29	339
87	538	84	622	66.0	36.9	62.1	104.6	133.3	108.0	-	-	-	275	48	323	263	36	299
92-96	3150	265	3415	38.4	58.5	86.1	111.3	136.6	113.0	-	-	-	1659	153	1812	1491	112	1603
87-91	2988	369	3357	71.1	35.5	67.2	101.3	122.3	103.5	-	-	-	1504	203	1707	1484	166	1650
82-86	2441	289	2730	63.2	29.8	59.7	104.1	135.0	107.0	-	-	-	1245	166	1411	1196	123	1319
77-81	1608	228	1836	59.1	26.3	55.0	113.8	107.3	113.0	-	-	-	856	118	974	752	110	862
< 77	1423	253	1676	50.1	26.5	46.5	115.9	130.0	117.9	-	-	-	764	143	907	659	110	769
All	11610	1404	13014	69.9	35.5	66.2	108.0	126.1	109.8	-	-	-	6028	783	6811	5582	621	6203

- Not applicable

1Both year and month of birth given

2(Bm/Bf)*100, where Bm and Bf are the numbers of male and female births, respectively

3[2Bx/(Bx-1+Bx+1)*100, where Bx is the number of births in a calender year x

160

Figure C.1 Number of births by calender year of birth

Number of Births by Calendar Year of Birth

Y-axis: Number of Births (0 to 900)
X-axis: Year of Birth (96, 95, 94, 93, 92, 91, 90, 89, 88, 87)
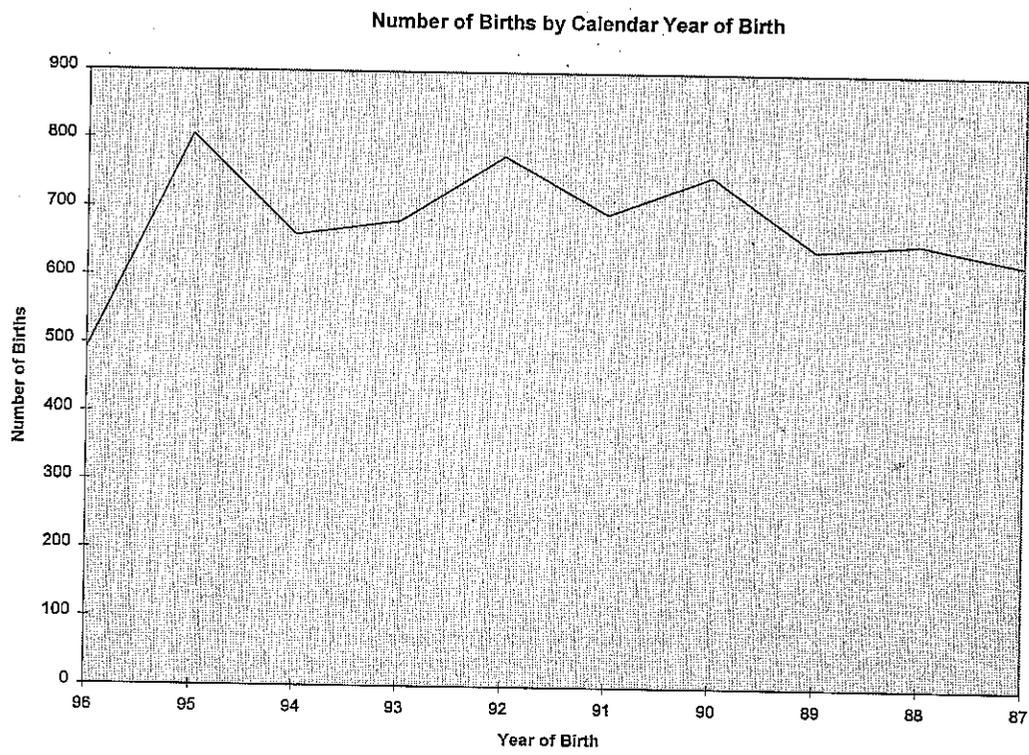
APPENDIX D

WORLD SUMMIT FOR CHILDREN INDICATORS

APPENDIX D

WORLD SUMMIT FOR CHILDREN INDICATORS

Basic Goals		
Goal	**Indicator**	**Value**
Infant Mortality	Infant Mortality Rate (0-9 years before survey)	77
	Under -Five Mortality Rate (0-9 years before survey)	100
Maternal Mortality	Maternal Mortality Ratio	370
Clean Water Supply	Percent of Households within 15 minutes of a safe water supply [3]	27.4
Sanitary Excreta Disposal	Percent of Households with Flush Toilets or VIP Latrines	13.4
Basic Education	Percent of Women 15-49 with Completed Primary Education	42.2
	Percent of Men 15-49 with Completed Primary Education	55.2
	Percent of Girls 6-12 Attending school	40.2
	Percent of Boys 6-12 Attending School	40.0
	Percent of Women 15-49 who are Literate	56.1
Children in an Especially Difficult Situation	Percent of Children under 5 years of Age who Do Not Live with their Natural Mother	3.3
	Percent of Children 5-9 years of Age who Do Not Live with their Natural Mothers	6.8

---

[3] Includes tap water, well water, communal tank and tanker truck; excludes spring, river/stream, pond/lake/dam, rainwater, and others.

Supporting Goals:		
Goal	**Indicator**	**Value**
Women's Health		
Birth Spacing	Percent of Births Within 24 Months of a Previous Birth	25.1
Safe Motherhood	Percent of Births with Medical Prenatal Care	77.5
	Percent of Births with Medical Assistance at Delivery	53.2
	Percent of Births in a Medical Facility	51.0
	Percent of Births at High Risk.[4]	55.4
Family Planning	Contraceptive Prevalence Rate (all women)	19.8
	Percent of Currently Married Women with an Unmet Demand for Family Planning.[5]	45.9
Child Health		
Vaccinations	Percent of Children whose Mothers received Tetanus Toxoid Vaccination During Pregnancy	68.8
	Percent of Children 12-23 months with Measles Vaccination	75.6
	Percent of Children 12-23 months Fully Vaccinated	38.7
Diarrhoea Control	Percent of Children with Diarrhoea in Preceding 2 weeks who Received Oral Rehydration Therapy	16.7
Acute Respiratory Infection	Percent of Children with Acute Respiratory Infection in Preceding 2 weeks who were Seen by Medical Personnel	74.9

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[4] See Chapter 7 for the definition of a high-risk birth.

[5] Off all currently married women, those who say they want no more children, or are unsure, but are not using any method of contraception.
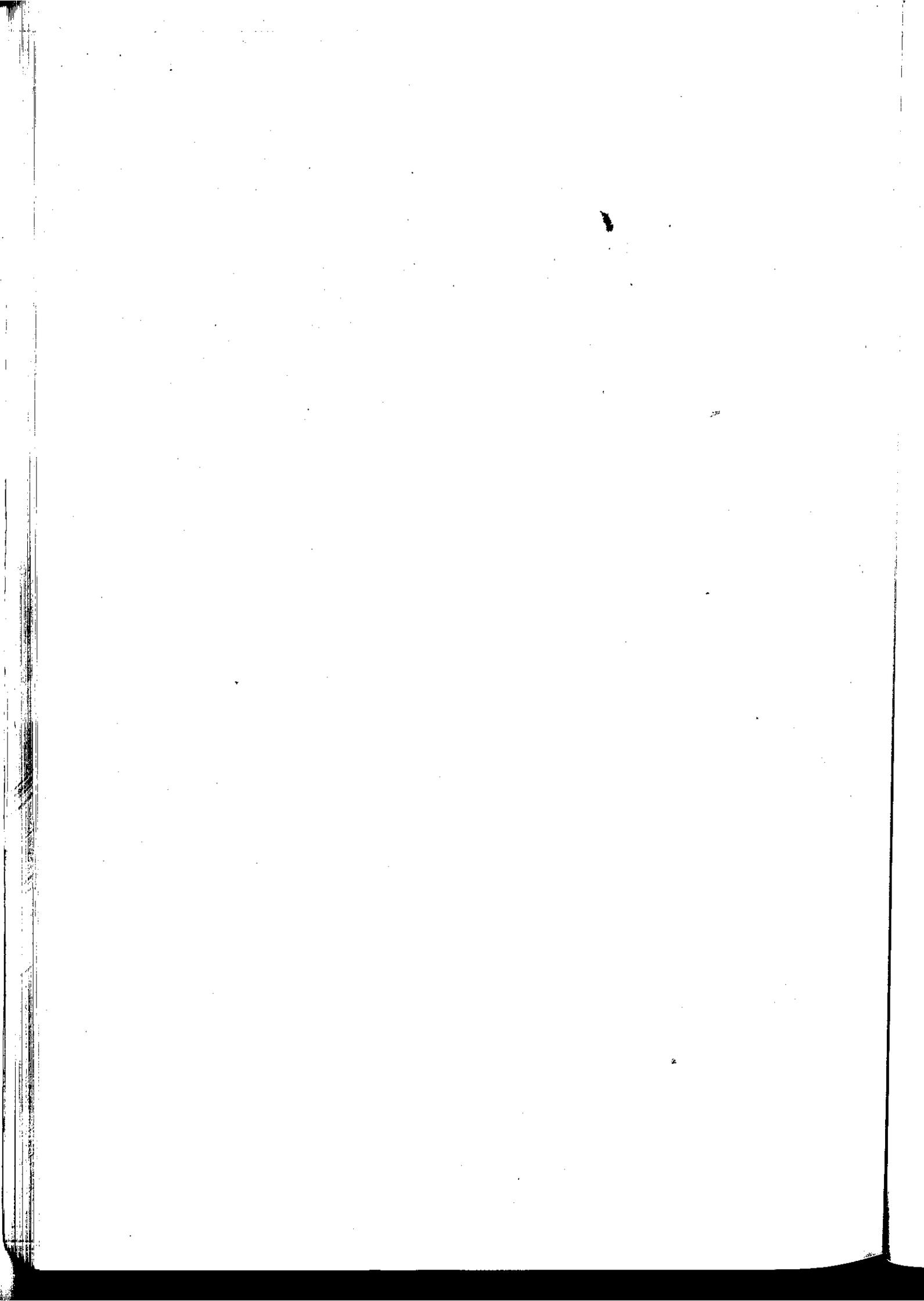
APPENDIX E

QUESTIONNAIRES

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Date

Result
Interv
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NATIONAL STATISTICAL OFFICE

1996 DEMOGRAPHIC AND HEALTH SURVEY

Household Form B: Without Fertility Questions

Form		2
Cluster		
Province		
District		
CD no.		
CU no.		
Dwelling no.		
Household no.		

Address of dwelling /Name of H/H Head

INTERVIEWER VISITS

	1	2	3	Final visit	
Date				Day	
				Month	
				Year	
Result *	_____	_____	_____	Result	
Interviewer's name	_____	_____	_____		
Next visit: Date	_____	_____		Total number of visits	
Time	_____	_____			

Result codes:
1 Completed
2 No household member/No competent respondent at home
3 Entire household absent for extended period
4 Postponed
5 Refused
6 Dwelling vacant/Address not a dwelling
7 Dwelling destroyed
8 Dwelling not found
9 Other (*Specify*) _____

Total persons in H/H	
Total women age 15 to 50	
Person No. of resp. to H/H form	

INTERVIEWER	FIELD EDITOR	OFFICE EDITOR	KEYER

SECTION A: HOUSEHOLD FORM

Person No.	A1. NAME WHAT ARE THE NAMES OF ALL THE PEOPLE WHO STAYED HERE LAST NIGHT? Start with the HEAD of the household. If a baby has no name yet, enter as "BABY".	A2. RELATIONSHIP WHAT IS (Name) RELATIONSHIP TO THE HEAD OF THIS HOUSEHOLD? 01=Head 02=Wife/husband 03=Own son /daughter 04=Son/daughter in-law 05=Grandchild 06=Parent 07=Parent-in-law 08=Brother/sister 09=Other relative 10=Adopted/foster /step child 11=Not related	A3. SEX WHAT IS (Name)'s SEX? 1=Male 2=Female	A4. AGE WHAT WAS (Name)'s AGE LAST BIRTHDAY? Please estimate age if exact age is not known. 00=Less than 1	A5. MAR. STATUS WHAT IS (Name)'s MARITAL STATUS? If child is less than 15 years, then code 1 1=Never married 2=Married 3=Divorced 4=Separated 5=Widowed	A6. MOTHER ALIVE IS (Name)'s OWN MOTHER STILL ALIVE? 1=Yes 2=No →A8 8=Don't know →A8	A7. If A6=1 DOES (Name)'s NATURAL MOTHER LIVE IN THIS HOUSE-HOLD? If Yes, record mother's person number. If No, enter "00".	A8. FATHER IS (Name)'s OWN FATHER STILL ALIVE? 1=Yes 2=No 8=Don't know
01								
02								
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								

A1A. ARE THERE ANY OTHER PEOPLE SUCH AS SMALL CHILDREN OR INFANTS OR ANY FRIENDS OR VISITORS WHO STAYED IN YOUR HOUSEHOLD LAST NIGHT?

Yes   (Enter each in table)   ☐

No   ☐

A8. FATHER	A9.	A10. EDUCATION	A11.	A12.	A13.	A14. ECONOMIC ACTIVITY		A15.
						If A12/13=1		If A13=2
IS (Name)'s OWN FATHER STILL ALIVE?	HAS (Name) EVER BEEN TO SCHOOL?	IS (Name) ATTENDING A SCHOOL NOW?	WHAT IS (Name's) HIGHEST EDUCATIONAL LEVEL COMPLETED/ ATTENDED?	DID (Name) DO ANY WORK LAST WEEK FOR SALARY OR WAGES OR PROFIT?	DID (Name) DO ANY WORK LAST WEEK TO GROW FOOD OR CATCH FISH OR MAKE ARTICLES FOR OWN USE OR FOR SALE?	WHAT KIND OF WORK DID (Name) DO MOST OF THE TIME LAST WEEK? *Interviewer:* *Describe the kind of work.*		WHAT DID (Name) DO MOST OF THE TIME LAST WEEK?
1=Yes 2=No 8=Don't know	1=Yes 2=No →A12 8=Don't know →A12	1=Yes 2=No 8=Don't know	00=No grade completed 01-12=School years 13=Trade certificate 14=Other certificate 15=Diploma 16=Bachelor's degree 17=Postgraduate 98=Don't know	1=Yes →A14 2=No	1=Yes 2=No →A15			1=Full time student 2=Home duties 3=Looking for work 4=No work available 5=Too old/sick/ handicapped 6=Other 8=Don't know

Please circle the person number of all women aged 15 to 50 years.
Complete an Individual Questionnaire for each of these women.

HOUSEHOLD AMENITIES AND SERVICES

A24. WHAT IS THE MAIN SOURCE OF DRINKING WATER YOUR HOUSEHOLD USES?

Piped water:

    01. piped into household/yard ⟶ *A27* .... ☐ 1

    02. piped into neighbourhood (communal) .... ☐ 2

Well water:

    03. well in yard ⟶ *A27* .... ☐ 3

    04. public well .... ☐ 4

Surface water:

    05. spring .... ☐ 5

    06. river/stream .... ☐ 6

    07. pond/lake/dam .... ☐ 7

Other:

    08. communal tank .... ☐ 8

    09. rain water ⟶ *A27* ...... ☐ 9

    10. tanker truck ⟶ *A27* .... ☐ 10

    11. other (*Specify*) .... ☐ 96

    ....

A25. HOW LONG DOES IT TAKE TO GO THERE, GET WATER AND COME BACK?

    Minutes .... ☐☐☐

    On premises .... ☐ 996

A26. WHO **USUALLY** FETCHES WATER?

Interviewer:

Classify as follow:

    Female child .... ☐ 1

    Other female .... ☐ 2

    Male child .... ☐ 3

    Other male .... ☐ 4

A27. WHAT KIND OF TOILET FACILITY DOES YOUR HOUSEHOLD HAVE?

Flush toilet

    own flush toilet .... ☐ 1

    shared flush toilet .... ☐ 2

Pit/latrine toilet

    traditional pit latrine .... ☐ 3

    improved latrine .... ☐ 4

Other

    bucket system .... ☐ 5

    closet over sea/river .... ☐ 6

No facility/bush/seashore .... ☐ 7

A28	DOES YOUE HOUSEHOLD HAVE:		

A28 DOES YOUE HOUSEHOLD HAVE:

A. Electricity

Yes .... □ 1

No .... □ 2

B. Radio

Yes .... □ 1

No .... □ 2

C. Television

Yes .... □ 1

No .... □ 2

D. Refrigerator

Yes .... □ 1

No .... □ 2

E. Motor vehicle

Yes .... □ 1

No .... □ 2

F. Telephone

Yes .... □ 1

No .... □ 2

A29. HOW MANY ROOMS IN YOUR HOUSEHOLD ARE USED FOR SLEEPING?

Number of rooms .... □□

A30. WHAT TYPE OF FUEL DOES YOUR HOUSEHOLD MAINLY USE FOR COOKING?

Electricity .... □ 1

Gas .... □ 2

Kerosene .... □ 3

Charcoal .... □ 4

Firewood .... □ 5

Other (Specify) .... □ 6

....

A31. WHAT IS THE MAIN SOURCE OF LIGHTING YOUR HOUSEHOLD USES?

Electricity .... □ 1

Pressure lamp (Coleman) .... □ 2

Kerosene lamp .... □ 3

Candles .... □ 4

Open fire .... □ 5

Other (Specify) .... □ 6

....

A32. MAIN MATERIAL OF FLOOR?

Interviewer:

Record observation

Natural floor

Earth floor .... □ 11

Sand .... □ 12

Rudimentary floor

Wood planks .... □ 21

Palm/bamboo .... □ 22

Finished floor

Polished wood .... □ 31

Vinyl/asphalt strips .... □ 32

Ceramic tiles .... □ 33

Cement .... □ 34

Carpet .... □ 35

Other (Specify) .... □ 96

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NATIONAL STATISTICAL OFFICE

1996 DEMOGRAPHIC AND HEALTH SURVEY

Individual Questionnaire

Address of dwelling /Name of H/H Head

Respondent's Name _____

Cluster	
Province	
District	
CD no.	
CU no.	
Dwelling no.	
Household no.	
Person no.	

INTERVIEWER VISITS					
	1	2	3	Final visit	
Date				Day	
				Month	
				Year	
Result *	_____	_____	_____	Result	
Interviewer's name	_____	_____	_____		
Next visit: Date	_____	_____		Total number of visits	
Time	_____	_____			

*Result codes:
   1 Completed
   2 Not at home
   3 Postponed
   4 Refused
   5 Partly completed
   6 Incapacitated
   7 Other (*Specify*) _____

INTERVIEWER	FIELD EDITOR	OFFICE EDITOR	KEYER

T
W
T.
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B I

B2.

B3.

INDIVIDUAL QUESTIONNAIRE

This questionnaire is ONLY for women aged 15 to 50 years old.

THE FOLLOWING QUESTIONS ARE ABOUT WOMEN 'S AND CHILDREN'S HEALTH. THE INFORMATION WILL BE USED TO HELP REDUCE ILLNESS AND PREVENT PREMATURE DEATH AMONG PNG WOMEN AND CHILDREN.

SECTION B: RESPONDENT'S BACKGROUND

B1. IN WHAT MONTH AND YEAR WERE YOU BORN?

Month.............................. ☐☐

Don't know.......................... ☐ 98

Year.............................. ☐☐

Don't know.......................... ☐ 98

B2. HOW OLD WERE YOU AT YOUR LAST BIRTHDAY?

Age in completed years........... ☐☐

Interviewer

Compare and correct B1 and/or B2 if inconsistent.

B3. HAVE YOU EVER BEEN MARRIED OR LIVED WITH A MAN?

Yes.............................. ☐ 1

No ➡ *B11*.................... ☐ 2

B4. ARE YOU NOW MARRIED OR LIVING WITH A MAN, OR ARE YOU NOW WIDOWED, DIVORCED, OR NO LONGER LIVING TOGETHER?

Married.............................. ☐ 1

Informal union .... ☐ 2

Divorced ➡ *B9*............ ☐ 3

Separated ➡ *B9*............. ☐ 4

Widowed ➡ *B9*.............. ☐ 5

B5. IS YOUR HUSBAND/PARTNER LIVING WITH YOU NOW OR IS HE STAYING ELSEWHERE?

Living with her.................... ☐ 1

Staying elsewhere .... ☐ 2

B6. DOES YOUR HUSBAND/PARTNER HAVE ANY OTHER WIVES BESIDES YOURSELF?

Yes.................................... ☐ 1

No ➡ *B9*...................... ☐ 2

Don't know ➡ *B9*........... ☐ 8

B7. HOW MANY OTHER WIVES DOES HE HAVE?

Number............................. ☐☐

Don't know ➡ *B9*........... ☐ 98

B8. ARE YOU FIRST, SECOND,...WIFE?

Rank.................................. ☐☐

B9. HAVE YOU BEEN MARRIED OR LIVED WITH A MAN ONLY ONCE, OR MORE THAN ONCE?

Once.............................. ☐ 1

More than once..................... ☐ 2

B10. HOW OLD WERE YOU WHEN YOU STARTED LIVING WITH YOUR (FIRST) HUSBAND/PARTNER?

Age...................

☐☐

B11. CAN YOU READ AND UNDERSTAND A LETTER OR NEWS PAPER EASILY, WITH DIFFICULTY, OR NOT AT ALL IN ANY LANGUAGE?

Easily............................... ☐ 1

With difficulty...................... ☐ 2

Not at all ——▶ *B13*............ ☐ 3

B12 DO YOU USUALLY READ A NEWSPAPER OR MAGAZINE AT LEAST ONCE A WEEK?

Yes................................... ☐ 1

No .... ☐ 2

B13. DO YOU USUALLY LISTEN TO A RADIO AT LEAST ONCE A WEEK?

Yes................................... ☐ 1

No .... ☐ 2

B14. DO YOU USUALLY WATCH TELEVISION AT LEAST ONCE A WEEK?

Yes................................... ☐ 1

No .... ☐ 2

B15. WHAT IS YOUR RELIGIOUS DENOMINATION (PREFERENCE)?

Christian

Anglican .... ☐ 01

Evangelical Alliance.............. ☐ 02

Pentecostal .... ☐ 03

Evangelical Lutheran .... ☐ 04

Roman Catholic .... ☐ 05

Salvation Army.................... ☐ 06

Seventh Day Adventist........... ☐ 07

United Church............,........ ☐ 08

Other Christian Church.......... ☐ 09

Non-christian (*Specify*)................. ☐ 10

....

No religion .... ☐ 20

B16. HAVE YOU USED A HEALTH SERVICE IN THE LAST TWO YEARS?

Yes................................... ☐ 1

No ——▶ *C1* .... ☐ 2

B17. WHY DID YOU GO TO THE SERVICE THE LAST TIME YOU WENT?

Antenatal care..................... ☐ 01

Delivery............................ ☐ 02

Postnatal care .... ☐ 03

Illness.............................. ☐ 04

Accident/trauma................... ☐ 05

Health check up.................... ☐ 06

Other (*Specify*)..................... ☐ 96

....

B18. WHERE DID YOU GO TO RECEIVE THE SERVICE?	
Public sector	
Gov't. hospital/clinic.............	☐ 01
Gov't. health center	☐ 02
Gov't. aid post.....................	☐ 03
Mobile clinic......................	☐ 04
Comm. health worker.............	☐ 05
Private medical sector	
Church hospital....................	☐ 06
Church health center ....:........	☐ 07
Church aid post....................	☐ 08
Other private hospital	☐ 09
Chemist/drug store	☐ 10
Private clinic	☐ 11
Other private sector	
Traditional practitioner..........	☐ 12
Other (Specify).........................	☐ 96
....	

B19. HOW DID YOU GET THERE?	
On foot.......................	☐ 1
PMV...........................	☐ 2
Car/truck......................	☐ 3
Boat/canoe.....................	☐ 4
Airplane.......................	☐ 5
Other (Specify)..................	☐ 6
....	

B20. HOW LONG DID IT TAKE TO GET THERE?	
Minutes.............................	☐☐☐
Don't know.........................	☐ 998

SECTION C: REPRODUCTION

C1. HAVE YOU EVER HAD A BABY?	
Yes....................................	☐ 1
No ──► C6.....................	☐ 2

C2. I WOULD NOW LIKE TO ASK YOU ABOUT ALL THE TIMES YOU HAVE GIVEN BIRTH DURING YOUR LIFE. DO YOU HAVE ANY SONS OR DAUGHTERS THAT YOU HAVE GIVEN BIRTH TO WHO ARE NOW LIVING WITH YOU?	
Yes.................................:	☐ 1
No ──► C4.....................	☐ 2

C3. HOW MANY OF YOUR OWN SONS AND DAUGHTERS LIVE WITH YOU?	
Sons at home	a ☐☐
Nil	☐ 00
Daughters at home.................	b ☐☐
Nil	☐ 00

C4. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE ALIVE BUT DO NOT LIVE WITH YOU?	
Yes....................................	☐ 1
No ──► C6......................	☐ 2

C5. HOW MANY SONS AND HOW MANY DAUGHTERS THAT YOU HAVE GIVEN BIRTH TO ARE ALIVE BUT DO NOT LIVE WITH YOU?	
Sons elsewhere.....................	a ☐☐
Nil	☐ 00
Daughters elsewhere...............	b ☐☐
Nil	☐ 00

(left margin boxes: ☐ 01, ☐ 02, ☐ 03, ☐ 04, ☐ 05, ☐ 06, ☐ 07, ☐ 08, ☐ 09, ☐ 10, ☐ 20, ☐ 1, ☐ 2, ☐ 01, ☐ 02, ☐ 03, ☐ 04, ☐ 05, ☐ 06, ☐ 96)

C6. HAVE YOU EVER GIVEN BIRTH TO ANY SONS OR DAUGHTERS WHO WERE BORN ALIVE BUT LATER DIED?

Yes .... ☐ 1

No ⟶ *C8* .... ☐ 2

If No,
Probe: Any baby who cried or showed signs of life but lived only a few minutes/hours/days.

C7. HOW MANY SONS OR DAUGHTERS THAT YOU GAVE BIRTH TO HAVE DIED?

Sons ....   *a* ☐☐

Nil....................................   ☐ 00

Daughters ....   *b* ☐☐

Nil....................................   ☐ 00

C8. *Interviewer:*

Sum the responses for C.3, C.5, C.7 .

Total number of births ....   ☐☐

C9. IN TOTAL YOU HAVE HAD *(number in C.8)* BIRTHS DURING YOUR LIFE, IS THAT CORRECT?

Interviewer:

If not correct, probe and correct answers above.

Yes ....   ☐ 1

No ....   ☐ 2

C10. *Sequence guide*

One or more births ⟶ *C11.*

No births ⟶ *Enter "0" in C22 then ask C23.*

C11. NOW I WOULD LIKE US TO TALK ABOUT ALL OF YOUR BIRTHS, WHETHER STILL ALIVE OR NOT, STARTING WITH THE FIRST ONE YOU HAD.
Record names of all births. Record twins and triplets on separate lines. Then ask questions C14-C20 about each child in turn, and circle or record responses.

	C12.	C13.	C14.	C15.	C16.	C17.	C18.	C19.	C20.
							If alive		*If dead*
	WHAT NAME WAS GIVEN TO YOUR (FIRST, NEXT) CHILD?	*Record single or multiple birth status.* Single=1 Mult.=2	WAS (*Name*) A MALE OR A FEMALE? Male =1 Female =2	IN WHAT MONTH AND YEAR WAS (*Name*) BORN? *Probe: What is his/her birthday?* Month Year	IS (*Name*) STILL ALIVE? Yes=1 No=2 (*Go to C20*)	HOW OLD WAS (*Name*) AT HIS/HER LAST BIRTHDAY? *Record age in completed years.* 00=less than 1 year	IS (*Name*) LIVING WITH YOU? Yes=1 (*Go to next birth*) No=2	WITH WHOM DOES (*Name*) LIVE? Father=1 Relative=2 Someone else=3 Alone=4 (*Go to next birth*)	HOW OLD WAS (*Name*) WHEN HE/SHE DIED? *If "1 year" probe: How many months old was (Name)?* Days = 1 Months = 2 Years = 3
01		1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐☐ Months 2 ☐☐ Years 3 ☐☐
02		1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐☐ Months 2 ☐☐ Years 3 ☐☐
03		1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐☐ Months 2 ☐☐ Years 3 ☐☐
04		1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐☐ Months 2 ☐☐ Years 3 ☐☐
05		1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐☐ Months 2 ☐☐ Years 3 ☐☐
06		1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐☐ Months 2 ☐☐ Years 3 ☐☐
07		1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐☐ Months 2 ☐☐ Years 3 ☐☐
08		1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐☐ Months 2 ☐☐ Years 3 ☐☐

C12.	C13.	C14.	C15.	C16.	C17.	C18.	C19.	C20.
							If alive	*If dead*
WHAT NAME WAS GIVEN TO YOUR (FIRST, NEXT) CHILD?	*Record single or multiple birth status.*	WAS (*Name*) A MALE OR A FEMALE?	IN WHAT MONTH AND YEAR WAS (*Name*) BORN? *Probe: what is his/her birtn day*	IS (*Name*) STILL ALIVE? Yes= 1 No=2 (*Go to C20*)	HOW OLD WAS (*Name*) AT HIS/HER LAST BIRTHDAY? *Record age in completed years.* 00=less than 1 year	IS (*Name*) LIVING WITH YOU? Yes= 1 (*Go to next birth*) No=2	WITH WHOM DOES (*Name*) LIVE? Father=1 Relative=2 Someone else=3 Alone=4 (*Go to next birth*)	HOW OLD WAS (*Name*) WHEN HE/SHE DIED? *If "1 year" probe: How many months old was (Name)?* Days = 1 Months =2 Years =3
	Single=1 Mult.=2	Male =1 Female =2	Month Year					
09	1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐ / Months 2 ☐ / Years 3 ☐
10	1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐ / Months 2 ☐ / Years 3 ☐
11	1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐ / Months 2 ☐ / Years 3 ☐
12	1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐ / Months 2 ☐ / Years 3 ☐
13	1 2	1 2		1 2		1 2	1 2 3 4	Days 1 ☐ / Months 2 ☐ / Years 3 ☐

C21. *Interviewer:*
Compare C8 with number of births in history above and mark:
Numbers are same ☐
    Check:
        For each birth: year of birth is recorded. ☐
        For each living child: Current age is recorded. ☐
        For each dead child: Age at death is recorded. ☐
        For age at death 12 months: probe to determine exact number of months. ☐

Numbers are different (*Probe and reconcile*). ☐

C22. *Interviewer:*
Check C15 and enter the number of births since January, 1993 If none, record 0. ☐

C23. ARE YOU PREGNANT NOW?		
Yes................................	☐ 1	
No ———▶ C26....................	☐ 2	
Unsure ———▶ C26..............	☐ 3	
C24. HOW MANY MONTHS PREGNANT ARE YOU?		
Months	☐☐	
Don't know........................	☐ 98	
C25. AT THE TIME YOU BECAME PREGNANT, DID YOU WANT TO BECOME PREGNANT THEN, DID YOU WANT TO WAIT UNTIL LATER, OR DID YOU NOT WANT TO HAVE ANY MORE CHILDREN AT ALL?		
Then................................	☐ 1	
Later................................	☐ 2	
No more............................	☐ 3	
Indifferent..........................	☐ 4	
C26. HAVE YOU EVER HAD A PREGNANCY THAT MISCARRIED, WAS ABORTED, OR ENDED IN A STILLBIRTH?		
Yes................................	☐ 1	
No ———▶ C28....................	☐ 2	
Don't know ———▶ C28.........	☐ 8	
C27. HOW MANY TIMES DID THIS HAPPEN TO YOU?		
Number..............................	☐☐	
Don't know.........................	☐ 98	
C28. Interviewer		
Check C22.		
One or more births since January 1993 ———▶ D1....	☐ 1	
No births since January 1993 ———▶ E1................	☐ 2	

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SECTION D: MATERNAL AND CHILD HEALTH

D1. *Interviewer:*

Enter the line number , name and survival status of each birth since January 1993 in the table. Ask the questions about all of these births. Begin with the last birth. If there are more than two births, use additional forms or the space at the right.

NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH OF ALL OF YOUR CHILDREN BORN IN THE PAST THREE YEARS. (We will talk about one child at a time).

	Last birth	Next-to-last birth
Interviewer: Copy line number from C12.	☐☐	☐☐
Interviewer: Copy name from C12 and survival status from C16.	Name .... Alive ☐ 1 Dead ☐ 2	Name .... Alive ☐ 1 Dead ☐ 2
D2. AT THE TIME YOU BECAME PREGNANT WITH (*Name*); DID YOU WANT TO BECOME PREGNANT THEN, DID YOU WANT TO WAIT UNTIL LATER, OR DID YOU WANT NO (MORE) CHILDREN AT ALL?	Then ☐ 1 Later ☐ 2 No more ☐ 3 Indifferent ☐ 4	Then ☐ 1 Later ☐ 2 No more ☐ 3 Indifferent ☐ 4
D3. WHEN YOU WERE PREGNANT WITH (*Name*), DID YOU SEE ANYONE FOR ANTENATAL CARE FOR THIS PREGNANCY? If yes: WHOM DID YOU SEE? ANYONE ELSE? *Probe for all type of person and record all persons seen.* *If No, go to D5*	Doctor ☐ A Nurse/Midwife ☐ B Auxiliary (village) midwife ☐ C Traditional birth attendant ☐ D Other (*Specify*): ☐ X .... No one ⟹ D5 ☐ Y	Doctor ☐ A Nurse/Midwife ☐ B Auxiliary (village) midwife ☐ C Traditional birth attendant ☐ D Other (*Specify*): ☐ X .... No one ⟹ D5 ☐ Y
D4. HOW MANY TIMES DID YOU RECEIVE ANTENATAL CARE DURING THIS PREGNANCY?	No. of times ☐☐ Don't know ☐ 98	No. of times ☐☐ Don't know ☐ 98
D5. WHEN YOU WERE PREGNANT WITH (*Name*), WERE YOU GIVEN AN INJECTION IN THE ARM TO PREVENT THE BABY FROM GETTING TETANUS, THAT IS, CONVULSIONS OR FITS AFTER BIRTH?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8	Yes ☐ 1 No ☐ 2 Don't know ☐ 8
D6. WHERE DID YOU GIVE BIRTH TO (*Name*)?	Your home ☐ 11 Other home ☐ 12 Gov't. hospital ☐ 21 Gov't. health center ☐ 22 Gov't. aid post ☐ 23 Other government ☐ 26 Church hospital ☐ 31 Church health center ☐ 32 Church aid post ☐ 33 Other private medical ☐ 41 Other (*Specify*) ☐ 96	Your home ☐ 11 Other home ☐ 12 Gov't. hospital ☐ 21 Gov't. health center ☐ 22 Gov't. aid post ☐ 23 Other government ☐ 26 Church hospital ☐ 31 Church health center ☐ 32 Church aid post ☐ 33 Other private medical ☐ 41 Other (*Specify*) ☐ 96 ....

	Name	Name ....
D14. WHY DID YOU STOP BREASTFEEDING (*Name*)?	Mother ill/weak ☐ 01 Child ill/weak ☐ 02 Child died ☐ 03 Nipple/breast problem ☐ 04 Not enough milk ☐ 05 Mother working ☐ 06 Child refused ☐ 07 Weaning age/age to stop ☐ 08 Became pregnant ☐ 09 Started contraception ☐ 10 Other (*Specify*) ☐ 96	Mother ill/weak ☐ 01 Child ill/weak ☐ 02 Child died ☐ 03 Nipple/breast problem ☐ 04 Not enough milk ☐ 05 Mother working ☐ 06 Child refused ☐ 07 Weaning age/age to stop ☐ 08 Became pregnant ☐ 09 Started contraception ☐ 10 Other (*Specify*) ☐ 96 ....
D15. *Interviewer:* *Check D1.* *Child alive?*	Alive ☐ 1 Dead ⟹ *next column or, if no more births go to E1.* ☐ 2	Alive ☐ 1 Dead ⟹ *next column or, if no more births go to E1.* ☐ 2
D16. DO YOU HAVE A CARD WHERE (*Name's*) VACCINATIONS ARE WRITTEN DOWN? If yes: MAY I SEE IT PLEASE?	Yes, seen ⟹ *D18* ☐ 1 Yes, not seen ⟹*D19* ☐ 2 No card ☐ 3	Yes, seen ⟹ *D18* ☐ 1 Yes, not seen ⟹*D19* ☐ 2 No card ☐ 3
D17. DID YOU EVER HAVE A VACCINATION CARD FOR (*Name*)?	Yes ⟹ *D19* ☐ 1 No ⟹ *D19* ☐ 2	Yes ⟹ *D19* ☐ 1 No ⟹ *D19* ☐ 2
D18. *Interviewer:* **Copy informatiom from the vaccination card, then skip to D20** BCG Polio 1/DPT1 (Sabin/T.A) Polio 2 /DPT2 Polio 3/DPT3 Hepatitis B1 Hepatitis B2 Hepatitis B3 Measles	*Received* *Not received* BCG ☐ 1 ☐ 2 P1/D1 ☐ 1 ☐ 2 P2/D2 ☐ 1 ☐ 2 P3/D3 ☐ 1 ☐ 2 HB1 ☐ 1 ☐ 2 HB2 ☐ 1 ☐ 2 HB3 ☐ 1 ☐ 2 MEA ☐ 1 ☐ 2 *Skip to D20*	*Received* *Not received* BCG ☐ 1 ☐ 2 P1/D1 ☐ 1 ☐ 2 P2/D2 ☐ 1 ☐ 2 P3/D3 ☐ 1 ☐ 2 HB1 ☐ 1 ☐ 2 HB2 ☐ 1 ☐ 2 HB3 ☐ 1 ☐ 2 MEA ☐ 1 ☐ 2 *Skip to D20*

Left margin (partial):

□ 01
□ 02
□ 03
□ 04
□ 05
□ 06
□ 07
□ 08
□ 09
□ 10
□ 96

□ 1
□ 2

□ 1
□ 2
□ 3

□ 1
□ 2

received
□ 2
□ 2
□ 2
□ 2
□ 2
□ 2
□ 2
□ 2

020

		Name		*Name*	
D19.	PLEASE TELL ME IF (Name) HAS RECEIVED ANY OF THE FOLLOWING VACCINATIONS:				
D19A.	A BCG VACCINATION AGAINST TUBERCULOSIS, THAT IS, AN INJECTION IN THE LEFT ARM THAT CAUSED A SCAR?	Yes □ 1 No □ 2 Don't know □ 8		Yes □ 1 No □ 2 Don't know □ 8	
D19B.	POLIO VACCINE, THAT IS, DROPS IN THE MOUTH AND DPT VACCINATION, THAT IS, AN INJECTION GIVEN AT THE SAME TIME?	Yes □ 1 No ⟹ D19D □ 2 Don't know □ 8 ⟹ D19D		Yes □ 1 No ⟹ D19D □ 2 Don't know □ 8 ⟹ D19D	
D19C.	HOW MANY TIMES?	Number of times ⟹ □		Number of times ⟹ □	
D19D.	HEPATITIS VACCINATION, THAT IS, AN INJECTION USUALLY GIVEN IN THE BUTTOCK?	Yes □ 1 No ⟹ D19F □ 2 Don't know □ 8 ⟹ D19F		Yes □ 1 No ⟹ D19F □ 2 Don't know □ 8 ⟹ D19F	
D19E.	HOW MANY TIMES?	Number of times ⟹ □		Number of times ⟹ □	
D19F.	AN INJECTION TO PREVENT MEASLES?	Yes □ 1 No □ 2 Don't know □ 8		Yes □ 1 No □ 2 Don't know □ 8	
D20.	HAS (Name) BEEN ILL WITH A FEVER AT ANY TIME IN THE LAST 2 WEEKS ?	Yes □ 1 No □ 2 Don't know □ 8		Yes □ 1 No □ 2 Don't know □ 8	
D21.	HAS (Name) BEEN ILL WITH A COUGH AT ANY TIME IN THE LAST 2 WEEKS ?	Yes □ 1 No ⟹ D27 □ 2 Don't know □ 8 ⟹ D27		Yes □ 1 No ⟹ D27 □ 2 Don't know □ 8 ⟹ D27	
D22.	WHEN (Name) WAS ILL WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, FAST BREATHS?	Yes □ 1 No □ 2 Don't know □ 8		Yes □ 1 No □ 2 Don't know □ 8	
D23.	WAS ANYTHING GIVEN TO TREAT THE COUGH?	Yes □ 1 No ⟹ D25 □ 2 Don't know □ 8 ⟹ D25		Yes □ 1 No ⟹ D25 □ 2 Don't know □ 8 ⟹ D25	

	Name		Name	
D24. WHAT WAS GIVEN TO TREAT THE COUGH? *Probe*: ANYTHING ELSE? *Record all mentioned*	Injection ☐ A Antibiotic (pill/syrup) ☐ B Antimalaria (pill/syrup) ☐ C Cough syrup ☐ D Other pill/syrup ☐ E Unknown pill/syrup ☐ F Home remedy/herbs ☐ G Other (*Specify*): ☐ X		Injection ☐ A Antibiotic (pill/syrup) ☐ B Antimalaria (pill/syrup) ☐ C Cough syrup ☐ D Other pill/syrup ☐ E Unknown pill/syrup ☐ F Home remedy/herbs ☐ G Other (*Specify*): ☐ X	
D25. DID YOU SEEK ADVICE OR TREATMENT FOR THE COUGH?	Yes ☐ 1 No ⟹ D27 ☐ 2 Don't know ⟹ D27 ☐ 8		Yes ☐ 1 No ⟹ D27 ☐ 2 Don't know ⟹ D27 ☐ 8	
D26. WHERE DID YOU SEEK ADVICE OR TREATMENT? *Probe*: ANYWHERE ELSE? *Record all mentioned.*	PUBLIC SECTOR Govt. hospital/clinic ☐ A Govt. health center ☐ B Govt. aid post ☐ C Mobile clinic ☐ D Comm. health worker ☐ E PRIVATE MEDICAL SECTOR Church hospital ☐ F Church health center ☐ G Church aid post ☐ H Other private hospital ☐ I Chemist/drug store ☐ J Private doctor/clinic ☐ K Traditional practitioner ☐ L OTHER (*Specify*) ☐ X		PUBLIC SECTOR Govt. hospital/clinic ☐ A Govt. health center ☐ B Govt. aid post ☐ C Mobile clinic ☐ D Comm. health worker ☐ E PRIVATE MEDICAL SECTOR Church hospital ☐ F Church health center ☐ G Church aid post ☐ H Other private hospital ☐ I Chemist/drug store ☐ J Private doctor/clinic ☐ K Traditional practitioner ☐ L OTHER (*Specify*) ☐ X	
D27. HAS (*Name*) HAD DIARRHOEA IN THE LAST TWO WEEKS?	Yes ☐ 1 No ⟹ *next column or, if no more births go to E1* ☐ 2 Don't know ⟹ *next column or, if no more births go to E1* ☐ 8		Yes ☐ 1 No ⟹ *next column or, if no more births go to E1* ☐ 2 Don't know ⟹ *next column or, if no more births go to E1* ☐ 8	
D28. HAS (*Name*) HAD DIARRHOEA IN THE LAST 24 HOURS?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8		Yes ☐ 1 No ☐ 2 Don't know ☐ 8	
D29. FOR HOW MANY DAYS (HAS THE DIARRHOEA LASTED/DID THE DIARRHOEA LAST)? *If less than 1 day, record 00*	Days ☐☐		Days ☐☐	

Left margin coding column:

A
B
C
D
E
F
G
X

1
2
8

A
B
C
D
E
CTOR
F
G
H
I
J
K
L
X

1
2
8

1
2
8

	Name	Name ....
D30. WAS THERE ANY BLOOD IN THE STOOLS?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8	Yes ☐ 1 No ☐ 2 Don't know ☐ 8
D31. WAS ANYTHING GIVEN TO TREAT THE DIARRHOEA?	Yes ☐ 1 No ⟹ D33 ☐ 2 Don't know ⟹ D33 ☐ 8	Yes ☐ 1 No ⟹ D33 ☐ 2 Don't know ⟹ D33 ☐ 8
D32. WHAT WAS GIVEN TO TREAT THE DIARRHOEA? *Probe:* ANYTHING ELSE? *Record all mentioned.*	Fluid from ORS packet ☐ A Recommended home fluid ☐ B Pill or syrup ☐ C Injection ☐ D Intravenous (I.V) ☐ E Home remedies/herbs ☐ F Other (*Specify*) ☐ X	Fluid from ORS packet ☐ A Recommended home fluid ☐ B Pill or syrup ☐ C Injection ☐ D Intravenous (I.V) ☐ E Home remedies/herbs ☐ F Other (*Specify*) ☐ X ....
D33. DID YOU SEEK ADVICE OR TREATMENT FOR DIARRHOEA?	Yes ☐ 1 No ⟹ *next column or, if no more births go to E1* ☐ 2 Don't know ⟹ *next column or, if no more births go to E1* ☐ 8	Yes ☐ 1 No ⟹ *next column or, if no more births go to E1* ☐ 2 Don't know ⟹ *next column or, if no more births go to E1* ☐ 8
D34. WHERE DID YOU SEEK ADVICE OR TREATMENT? *Probe:* ANYWHERE ELSE? *Record all mentioned*	PUBLIC SECTOR Govt. hospital/clinic ☐ A Govt. health center ☐ B Govt. aid post ☐ C Mobile clinic ☐ D Comm. health worker ☐ E PRIVATE MEDICAL SECTOR Church hospital ☐ F Church health center ☐ G Church aid post ☐ H Other private hospital ☐ I Chemist/drug store ☐ J Private doctor/clinic ☐ K OTHER PRIVATE SECTOR Traditional practitioner ☐ L OTHER (*Specify*) .... ☐ X	PUBLIC SECTOR Govt. hospital/clinic ☐ A Govt. health center ☐ B Govt. aid post ☐ C Mobile clinic ☐ D Comm. health worker ☐ E PRIVATE MEDICAL SECTOR Church hospital ☐ F Church health center ☐ G Church aid post ☐ H Other private hospital ☐ I Chemist/drug store ☐ J Private doctor/clinic ☐ K OTHER PRIVATE SECTOR Traditional practitioner ☐ L OTHER (*Specify*) .... ☐ X

SKIP INSTRUCTION: At this point, go back to D1 and ask the series of questions for the birth in the next column. If there are no other births, proceed to Section E.

SECTION E: FAMILY PLANNING

E1.   THERE ARE A NUMBER OF THINGS PEOPLE CAN DO TO DELAY OR AVOID HAVING CHILDREN. THE
FOLLOWING QUESTIONS ASK YOU ABOUT FAMILY PLANNING METHODS. WHICH WAYS OR METHODS
HAVE YOU HEARD ABOUT?

Circle code 1 in E2 for each method mentioned spontaneously.
Then proceed down the column, reading the name and description of each method not mentioned spontaneously. Circle code 2
if method is recognised, and code 3 if not recognised. **Then for each method with a 1 or 2 circled in E2, ask E3 and E4.**

METHODS	E2. HAVE YOU EVER HEARD OF (METHOD)? Yes/spont = 1 Yes/probed = 2 No = 3	E3. HAVE YOU AND YOUR PARTNER EVER USED (METHOD)? Yes = 1 No = 2	E4. DO YOU KNOW WHERE A PERSON COULD GO TO GET (METHOD)? Yes = 1 No = 2
01 **PILL** Women can take a pill every day.	1 2 3 ⇓	1 2	1 2
02 **IUD** Women can have a loop or coil placed inside them by a doctor or a nurse.	1 2 3 ⇓	1 2	1 2
03 **INJECTIONS** Women can have an injection by a doctor or a nurse which stops them from becoming pregnant for several months.	1 2 3 ⇓	1 2	1 2
04 **DIAPHRAGM/FOAM/JELLY** Women can place a sponge, diaphragm, jelly or cream inside them before intercourse.	1 2 3 ⇓	1 2	1 2
05 **CONDOM** Men can use a rubber sheath during sexual intercourse.	1 2 3 ⇓	1 2	1 2
06 **FEMALE STERILISATION** Women can have an operation to stop having any more children.	1 2 3 ⇓	Have you ever had an operation like this? 1 2	1 2
07 **MALE STERILISATION** Men can have an operation to stop having any more children.	1 2 3 ⇓	Has your husband ever had an operation like this? 1 2	1 2
08 **PERIODIC ABSTINENCE** Couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant.	1 2 3 ⇓	1 2	Do you know where a person can obtain advice on how to use periodic abstinence? 1 2
09 **WITHDRAWAL** Men can be careful and pull out before climax.	1 2 3 ⇓	1 2	
10 **OTHERS** Have you heard of any other ways or methods that women and men can use to avoid pregnancy. 1. .... (Specify) 2. .... (Specify) 3 .... (Specify)	1 3	 1 2 1 2 1 2	

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E5.	*Interviewer*		
	Check E3.		
	Woman sterilised → *E7 and tick 06*	☐	1
	Woman not sterilised	☐	2

E6. ARE YOU CURRENTLY DOING SOMETHING OR USING ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?

Yes .... ☐ 1

No ──▶ *E9* .... ☐ 2

E7. WHICH METHOD ARE YOU USING?

Pill .... ☐ 01

IUD (Loop) .... ☐ 02

Injection .... ☐ 03

Diaphragm/Foam/Jelly .... ☐ 04

Condom .... ☐ 05

Female Steril. ──▶ *E8b* ...... ☐ 06

Male Steril. ──▶ *E8b* .... ☐ 07

Periodic abstinence/Rhythm .... ☐ 08

──▶ *Section F*

Withdrawal ──▶ *Section F* .. ☐ 09

Other (*Specify*) ──▶ *Section F* .... ☐ 96

....

....

E8a. WHERE DID YOU OBTAIN (*Method*) THE LAST TIME?

FPA Clinic ──▶ *F1* .... ☐ 01

Aid Post ──▶ *F1* .... ☐ 02

Health Sub Centre ──▶ *F1* ... ☐ 03

Health Centre ──▶ *F1* .... ☐ 04

MCH Clinic ──▶ *F1* .... ☐ 05

Hospital ──▶ *F1* .... ☐ 06

Private doctor ──▶ *F1* .... ☐ 07

Comm. based distributor ──▶ *F1* .... ☐ 08

Pharmacy / chemist ──▶ *F1* .... ☐ 09

Shop ──▶ *F1* .... ☐ 10

Relative or friend ──▶ *F1* ... ☐ 11

Other (*Specify*)) ──▶ *F1* ..... ☐ 96

....

....

E8b. WHERE DID THE STERILISATION TAKE PLACE?

Health Sub Centre ──▶ *F1* ... ☐ 03

Health Centre ──▶ *F1* .... ☐ 04

Hospital ──▶ *F1* .... ☐ 06

Private doctor ──▶ *F1* .... ☐ 07

Other (*Specify*) ──▶ *F1* ...... ☐ 96

....

....

E9. *Interviewer:*

Check E3

Ever user .... ☐ 1

Never user ──▶ *E11* .... ☐ 2

E10	WHY AREN'T YOU CURRENTLY USING ANY METHOD TO DELAY OR AVOID PREGNANCY?	
	Pregnant............................	☐ 01
	Wants children	☐ 02
	Partner opposed....................	☐ 03
	Costs too much.....................	☐ 04
	Side effect/health concern........	☐ 05
	Hard to get methods	☐ 06
	Religion.............................	☐ 07
	Menopausal/had hysterectomy ——▶ Section F.................	☐ 08
	Not married..........................	☐ 09
	Other (Specify).....................	☐ 96
	....	
	....	

E11.	DO YOU INTEND TO USE A METHOD TO DELAY OR AVOID PREGNANCY AT ANY TIME IN THE FUTURE?	
	Yes ——▶ E13.	☐ 1
	No...................................	☐ 2
	Don't know ——▶ F1...........	☐ 8

E12.	WHY DON'T YOU INTEND TO USE A METHOD?	
	Lack of knowledge ——▶ F1	☐ 01
	Wants children ——▶ F1	☐ 02
	Partner opposed ——▶ F1	☐ 03
	Costs too much ——▶ F1	☐ 04
	Side effect/health concern ——▶ F1	☐ 05
	Hard to get methods ——▶ F1	☐ 06
	Religion ——▶ F1	☐ 07
	Fatalistic ——▶ F1	☐ 08
	Menopausal/had hysterectomy ——▶ F1	☐ 09
	Not married ——▶ F1	☐ 10
	Other (Specify) ——▶ F1	☐ 96
	....	
	Don't know ——▶ F1	☐ 98

E13.	WHAT METHOD DO YOU INTEND TO USE?	
	Pill	☐ 01
	IUD (Loop)	☐ 02
	Injection...............................	☐ 03
	Diaphragm/Foam/Jelly	☐ 04
	Condom................................	☐ 05
	Female Sterilisation..................	☐ 06
	Male Sterilisation.....................	☐ 07
	Periodic abstinence/Rhythm........	☐ 08
	Withdrawal	☐ 09
	Other (Specify)........................	☐ 96
	....	
	Don't know.............................	☐ 98

SECTION F: FERTILITY PREFERENCES

F1. *Sequence guide*

    Check E7.

    If male or female sterilisation used
    ➤ *F9* .... ☐ 1

    Check B3.

    If never married ➤ *F9* .... ☐ 2

    Otherwise ➤ *F2* .... ☐ 3

F2. *Seqeuence guide*

    Check C23.

    If currently pregnant
    ➤ *F3* .... ☐ 1

    If not pregnant ➤ *F4* .... ☐ 2

F3. AFTER THE CHILD YOU ARE EXPECTING, WOULD YOU LIKE ANOTHER OR WOULD YOU PREFER NOT TO HAVE ANY MORE CHILDREN?

    Have another child ➤ *F6* .... ☐ 1

    No (more) children ➤ *F7* .... ☐ 2

    Not up to me to decide/Not sure
    ➤ *F8* .... ☐ 3

    Don't know ➤ *F9* .... ☐ 8

F4. WOULD YOU LIKE TO HAVE A (ANOTHER) CHILD OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN?

    Have (another) child .... ☐ 1

    No (more) children ➤ *F7* .... ☐ 2

    Not up to me to decide/Not sure
    ➤ *F8* .... ☐ 3

    Don't know ➤ *F9* .... ☐ 8

F5. WOULD YOU LIKE TO HAVE A BOY OR A GIRL?

    A boy .... ☐ 1

    A girl .... ☐ 2

    No preference .... ☐ 3

F6. WHAT IS THE MAIN REASON YOU WOULD LIKE ANOTHER CHILD (AFTER THE ONE YOU ARE EXPECTING) ?

    Love for children ➤ *F9* .... ☐ 1

    Family wish ➤ *F9* .... ☐ 2

    Husband's wish ➤ *F9* ...... ☐ 3

    Old age security ➤ *F9* ..... ☐ 4

    Recent child death ➤ *F9* .. ☐ 5

    Other (*Specify*) ➤ *F9* ...... ☐ 6

    ....

    Don't know ➤ *F9* .... ☐ 8

F7. WHAT IS THE MAIN REASON WHY YOU WOULD NOT LIKE ANOTHER CHILD ?

    Medical reasons ➤ *F9* ..... ☐ 1

    Financial reasons ➤ *F9* ... ☐ 2

    Have enough children
    ➤ *F9* .... ☐ 3

    For career reasons ➤ *F9* ... ☐ 4

    Single parent ➤ *F9* .... ☐ 5

    Other (*Specify*) ➤ *F9* ...... ☐ 6

    ....

(Margin codes: 01 02 03 04 05 06 07 08 09 10 96 98 | 01 02 03 04 05 06 07 08 09 96 98)

F8. WHO WILL DECIDE HOW MANY CHILDREN YOU HAVE ?

Husband.............................. ☐ 1

Husband's clan..................... ☐ 2

My clan .... ☐ 3

My mother .... ☐ 4

God .... ☐ 5

Other (*Specify*)..................... ☐ 6

....

F9. *Sequence guide*

Check C16.

Has living children ──▶ *F10* ☐ 1

No living children ──▶ *F11* ☐ 2

F10. IF YOU COULD GO BACK TO THE TIME YOU DID NOT HAVE ANY CHILDREN AND COULD CHOOSE EXACTLY THE NUMBER OF CHILDREN TO HAVE IN YOUR WHOLE LIFE, HOW MANY WOULD THAT BE?

Number ──▶ *Section G.......* ☐☐

Other (*Specify*)
──▶ *Section G..................* ☐ 96

....

F11. IF YOU COULD CHOOSE EXACTLY THE NUMBER OF CHILDREN TO HAVE IN YOUR WHOLE LIFE, HOW MANY WOULD THAT BE?

Number............................. ☐☐

Other (*Specify*)..................... ☐ 96

....

SECTION G: AIDS

NOW I WOULD LIKE TO TALK TO YOU ABOUT SOMETHING ELSE.

G1. HAVE YOU EVER HEARD OF AN ILLNESS CALLED AIDS?

Yes.................................. ☐ 1

No ──▶ *Section H*............. ☐ 2

G2. FROM WHICH SOURCES OF INFORMATION HAVE YOU LEARNED MOST ABOUT AIDS?

Probe: ANY OTHER SOURCES?

Record all mentioned:

Radio................................... ☐ A

TV....................................... ☐ B

Newspapers/magazines........... ☐ C

Pamphlets/posters................. ☐ D

Health workers :.................... ☐ E

Churches.............................. ☐ F

Schools/teachers................... ☐ G

Community meetings............. ☐ H

Friends/relatives................... ☐ I

Workplace............................ ☐ J

Other (*Specify*)..................... ☐ X

....

....

G3. IS THERE ANYTHING A PERSON CAN DO TO AVOID GETTING AIDS OR THE VIRUS THAT CAUSES AIDS?

Yes.................................. ☐ 1

No ──▶ G7....................... ☐ 2

Don't know ──▶ G7.......... ☐ 8

G4.	WHAT CAN A PERSON DO?	

Probe: ANY OTHER WAYS?

Record all mentioned

Safe sex.................................	☐	A
Abstain from sex	☐	B
Use condoms	☐	C
Have only one sex partner........	☐	D
Avoid sex with prostitutes.......	☐	E
Avoid sex with homosexuals....	☐	F
Avoid blood transfusions........	☐	G
Avoid injections....................	☐	H
Avoid kissing.......................	☐	I
Avoid mosquito bites.............	☐	J
Seek protection from traditional healer	☐	K
Other (*Specify*).....................	☐	X
....		
Don't know	☐	Z

G5. *Sequence guide:*

Check G4

Mentioned safe sex ⟶ *G6.*
Did not mention safe sex
⟶ *G7.*

G6. WHAT DOES SAFE SEX MEAN TO YOU?

Probe: ANY OTHER WAYS?

Record all mentioned

Abstain from sex	☐	B
Use condoms	☐	C
Have only one sex partner.......	☐	D
Avoid sex with prostitutes.......	☐	E
Avoid sex with homosexuals....	☐	F
Other (*Specify*).....................	☐	X
....		
Don't know	☐	Z

G7. IS IT POSSIBLE FOR A HEALTHY-LOOKING PERSON TO HAVE THE AIDS VIRUS?

Yes	☐	1
No	☐	2
Don't know	☐	8

G8. DO YOU THINK THAT PERSONS WITH AIDS ALMOST NEVER DIE FROM THE DISEASE, SOMETIMES DIE, OR ALMOST ALWAYS DIE FROM THE DISEASE?

Almost never	☐	1
Sometimes..........................	☐	2
Almost always	☐	3
Don't know	☐	8

G9. DO YOU THINK YOUR CHANCE OF GETTING AIDS IS SMALL, MODERATE, GREAT, OR NO RISK AT ALL?

Small.................................	☐	1
Moderate	☐	2
Great	☐	3
No risk at all.......................	☐	4
Has AIDS............................	☐	5

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G10.	HAS YOUR KNOWLEDGE OF AIDS INFLUENCED OR CHANGED YOUR SEXUAL BEHAVIOUR?			**SECTION H: MATERNAL MORTALITY**	

	G10. HAS YOUR KNOWLEDGE OF AIDS INFLUENCED OR CHANGED YOUR SEXUAL BEHAVIOUR?		**SECTION H: MATERNAL MORTALITY**	

G10. HAS YOUR KNOWLEDGE OF AIDS INFLUENCED OR CHANGED YOUR SEXUAL BEHAVIOUR?

Yes................................... ☐ 1

No ➤ *G12*................... ☐ 2

G11 IN WHAT WAY HAS IT INFLUENCED OR CHANGED YOUR BEHAVIOUR?

Record all mentioned

Did not start sex.................... ☐ A

Stopped all sex..................... ☐ B

Started using condoms............ ☐ C

Restricted sex to one partner.... ☐ D

Reduced number of partners...... ☐ E

Other (*Specify*)..................... ☐ X

....

Don't know.......................... ☐ Z

G12. HAVE YOU HEARD OF OTHER DISEASES APART FROM AIDS WHICH COULD BE TRANSMITTED THROUGH SEXUAL CONTACT?

Yes................................... ☐ 1

No ➤ *Section H*............. ☐ 2

G13. COULD YOU NAME THE DISEASES?

Probe: ANY OTHER?

Record all mentioned

Gonorrhoea......................... ☐ A

Syphilis............................. ☐ B

Herpes.............................. ☐ C

Hepatitis............................ ☐ D

Other (*Specify*)..................... ☐ X

....

SECTION H: MATERNAL MORTALITY

I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT ALL YOUR SISTERS BORN TO YOUR NATURAL MOTHER.

H1. HOW MANY SISTERS DID YOU EVER HAVE, INCLUDING THOSE WHO ARE NOW DEAD?

Sisters........................... ☐☐

If 00, End of interview.

H2. HOW MANY OF YOUR SISTERS EVER REACHED AGE 12?

Reached age 12.................... ☐☐

If 00 End of interview.

H3. HOW MANY OF YOUR SISTERS WHO REACHED AGE 12 ARE ALIVE NOW?

Alive................................. ☐☐

H4. HOW MANY OF YOUR SISTERS WHO REACHED AGE 12 ARE DEAD?

Dead................................. ☐☐

H5. *Interviewer:*

Check that sum of *H3* and *H4* is equal to *H2*. IF H4 equals 00, end of interview.

H6. HOW MANY OF THESE DEAD SISTERS DIED DURING PREGNANCY?

During pregnancy.................. ☐☐

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H7.   HOW MANY OF THESE DEAD
       SISTERS DIED DURING
       CHILDBIRTH?

              During childbirth................ ☐☐

H8.   HOW MANY OF THESE DEAD
       SISTERS DIED DURING THE SIX
       WEEKS AFTER THE END OF A
       PREGNANCY?

              After pregnancy................... ☐☐

H9.   *Interviewer:*

       Sum answers to H6, H7 and H8

              Sum maternal deaths .... ☐☐

INTERVIEWER'S OBSERVATIONS

(To be filled in after completing interview)

Comments About Respondent: _____

_____

_____

_____

_____

Comments on Specific Questions: _____

_____

_____

_____

_____

SUPERVISOR'S OBSERVATIONS

_____

_____

_____

_____

_____

_____

Name of Supervisor: _____ Date: _____