

**SOCIO-ECONOMIC DIFFERENCES
IN
HEALTH, NUTRITION, AND POPULATION**

**KENYA
1993, 1998, 2003**

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FOREWORD

The World Bank shares the desire of its member states and client countries to ensure that the poor partake fully in the health gains that the countries achieve. To assist in this, the Bank, in cooperation with the Dutch and Swedish Governments, has sponsored the set of reports providing basic information about health inequalities within countries to which this document belongs.

The information shows clearly that disparities in both health conditions and health service use are unacceptably large. As countries and the Bank work to reduce important inequalities among regions and countries, there is a clear need for equally vigorous efforts to lessen the inequity represented by intra-country differences among socio-economic groups.

My colleagues and I hope that all concerned with equity in health will find this information useful in making the case for effective actions to improve the health of the poor, and in designing programs to achieve this crucial objective.

Joy Phumaphi
Vice President
Human Development Network
The World Bank

INTRODUCTION

This report is one in a series that provides basic information about health, nutrition, and population (hnp) inequalities within fifty-six developing countries.

The series to which the report belongs is an expanded and updated version of a set covering forty-five countries that was published in 2000. The fifty-six reports in the current series cover almost all DHS surveys undertaken during the period beginning in 1990 and ending with the date of the last survey for which data were publicly available as of June 2006.¹

The report's contents are intended to facilitate preparation of country analyses and the development of activities to benefit poor people. To this end, the report presents data about hnp status, service use, and related matters among individuals belonging to different socio-economic classes. The principal focus is on differences among groups of individuals defined in terms of the wealth or assets of the households where they reside. The source of data is the Demographic and Health Survey (DHS) program, a large, multi-country household survey project.

The figures in this and the other reports in the series draw on responses to questions about household wealth or assets included in the DHS questionnaire, which were similar for all the surveys covered. These responses served as the basis for the construction of a wealth index, which was used to rank individuals according to the index value for the household to which they belonged. The individuals were then divided into quintiles, and the mean value for each of up to approximately 120 indicators was calculated for each quintile.

The report is organized in four principal parts:

- Parts one, two, and three, which constitute the report's core, consist of tables presenting quintile-specific data for each hnp indicator covered from the two most recent DHS surveys available at the time of the report's publication. In each part there are three sets of tables: the first provides quintile-specific information for the total population; the second presents data separately for quintiles of females and males; the third features quintile-specific information presented separately for rural and urban residents. Each of these sets is divided into four sections: one dealing with hnp status, the second with the use of hnp services, the third with hnp-related behavior, and the fourth with other hnp status determinants.

- Part four provides supplementary technical information designed to help readers understand the data presented in the three previous parts. This information deals with such issues as how the covered hnp indicators were defined and how the quintile-specific estimates were derived.

- Parts five, six, and seven present supporting tables that deal with three of the technical matters covered in part four: the size of the sample for each indicator covered; the

¹ The average interval of approximately two years between data collection and availability means that the latest surveys covered were conducted in 2005.

standard error for each quintile-specific estimate in the total population; and the items used in constructing the wealth index, along with the weight assigned to each.

An additional, eighth part consists of three annexes, for readers interested in applying the approach used in the report or in learning more about the other reports in this series. The first annex is an annotated bibliography containing further information about the technical issues concerning the approach used in the report, and about employing that approach to examine additional issues using DHS or other data sets. The second shows how the report's approach can be applied to monitor the distribution of benefits from other hnp programs, and provides a tool for doing so. The third annex is a list of all fifty-six countries for which reports are available, along with an indication of how to obtain copies of the reports dealing with them.

The authors thank the Dutch and Swedish Governments for the generous support that made production of this report possible.

PART I. BASIC TABLES, 2003

A. TOTAL POPULATION

B. FEMALE AND MALE POPULATIONS

C. RURAL AND URBAN POPULATIONS

Notes:

- Each of the three sections referred to above consists of four divisions, presenting data for: I) hnp status; II) hnp service use; III) hnp-related individual and household behavior; and IV) other, underlying determinants of hnp status.
- Full definitions of all indicators covered in the tables are provided in section A of the technical notes found in part II.
- “na” appears in the table cells when data are not available, usually because the DHS survey concerned did not collect information about the indicator(s) in question.
- Figures in the tables shown within parentheses indicate the absence of adequate observations to produce acceptably reliable values. Asterisks appear when the number of observations was too small to justify the presentation even of figures within parentheses. (For further information, see the section on “Sampling Errors” in the presentation of data and methods in part II.B.) Asterisks also will be found in columns showing statistical indices of inequality when the amount of quintile-specific information available is inadequate to permit computation of the value for the index concerned.
- Female/male tables include only indicators relevant for both sexes; those pertaining to only one sex (e.g., fertility, women’s nutritional status, antenatal care, attended deliveries) have been omitted.

Kenya
2003 - TOTAL POPULATION

Part I: HNP STATUS

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Childhood illness and mortality										
Infant mortality rate	95.8	75.2	81.9	53.1	62.2	75.5	1.54	33.58	-0.0979	0.0265
Under-five mortality rate	148.9	109.5	120.9	77.3	91.1	112.7	1.63	57.77	-0.1101	0.0299
Prevalence of fever	37.6	43.7	42.1	41.1	39.4	40.7	0.96	1.76	0.0146	0.0094
Prevalence of diarrhea	18.5	17.7	15.2	13.3	16.2	16.4	1.14	2.27	-0.0551	0.0176
Prevalence of acute respiratory infection (ARI)	18.1	22.9	17.5	17.5	15.7	18.4	1.15	2.37	-0.0347	0.0161
B. Fertility										
Total fertility rate	7.6	5.8	5.1	4.0	3.1	4.9	2.44	4.50	-0.1741	0.0361
Adolescent fertility rate	173.5	141.2	111.3	93.7	80.8	114.2	2.15	92.72	-0.1532	0.0274
C. Nutritional status (%)										
<i>Children:</i>										
Moderate stunting	24.8	21.4	19.1	17.8	13.4	19.8	1.85	11.38	-0.0966	0.0155
Severe stunting	13.8	11.2	11.1	10.3	6.1	10.8	2.26	7.66	-0.1628	0.0226
Moderate underweight	21.6	17.2	15.2	14.7	7.5	15.8	2.89	14.14	-0.1858	0.0181
Severe underweight	7.6	3.1	3.6	2.8	1.8	4.0	4.12	5.77	-0.3234	0.0433
Mild anemia	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na
<i>Women:</i>										
Malnutrition	21.4	15.8	11.9	9.3	4.6	11.8	4.64	16.77	-0.2815	0.0176
Mild anemia	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na
D. Female circumcision (%)										
<i>Prevalence of circumcision:</i>										
Girls	na	na	na	na	na	na	na	na	na	na
Women	na	na	na	na	na	na	na	na	na	na
<i>Prevalence of occlusion:</i>										
Girls	na	na	na	na	na	na	na	na	na	na
Women	na	na	na	na	na	na	na	na	na	na
E. Sexually transmitted disease										
<i>Prevalence of genital discharge:</i>										
Women	2.9	2.4	2.8	2.6	2.5	2.6	1.14	0.35	0.0352	0.0367
Men	2.6	2.2	1.3	1.4	1.6	1.8	1.62	0.98	-0.0743	0.0665
<i>Prevalence of genital ulcer:</i>										
Women	2.6	2.3	1.3	1.9	1.9	2.0	1.38	0.71	-0.0633	0.0408
Men	1.7	1.4	1.3	0.9	1.2	1.2	1.45	0.52	-0.0413	0.0891

Kenya

2003 - TOTAL POPULATION

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Childhood immunization										
BCG coverage	70.0	88.7	92.9	96.4	96.0	87.3	0.73	25.93	0.0648	0.0071
Measles coverage	54.0	67.9	80.0	80.6	87.6	72.3	0.62	33.61	0.1025	0.0099
DPT coverage	56.3	71.0	85.7	81.3	72.7	72.2	0.77	16.36	0.0753	0.0112
Full basic coverage	37.8	50.2	62.3	56.6	59.5	52.1	0.64	21.68	0.1114	0.0159
No basic coverage	19.7	5.3	4.1	1.1	3.1	7.6	6.45	16.67	-0.5321	0.0737
Hepatitis B coverage	na	na	na	na	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na	na	na	na	na
B. Treatment of childhood illnesses										
<i>Treatment of fever:</i>										
Medical treatment of fever	41.6	42.2	45.8	49.5	54.6	46.3	0.76	13.03	0.0688	0.0135
Treatment in a public facility	27.3	27.9	31.0	34.1	25.7	29.0	1.06	1.55	0.0072	0.0192
Treatment in a private facility	14.3	14.3	14.8	15.4	28.9	17.3	0.50	14.58	0.1726	0.0297
<i>Treatment of acute respiratory infection (ARI):</i>										
Medical treatment of ARI	43.7	41.5	46.1	57.4	63.8	49.1	0.69	20.04	0.0871	0.0190
Treatment in a public facility	31.7	27.0	31.0	38.4	33.6	31.7	0.94	1.85	0.0256	0.0275
Treatment in a private facility	12.0	14.5	15.2	19.1	30.2	17.3	0.40	18.20	0.1999	0.0417
<i>Treatment of diarrhea:</i>										
Use of oral rehydration therapy	46.6	48.0	53.1	50.2	57.8	50.6	0.81	11.16	0.0423	0.0192
Medical treatment of diarrhea	29.7	25.0	25.2	32.7	37.8	29.7	0.79	8.04	0.0571	0.0328
Treatment in a public facility	22.2	19.0	19.8	24.0	16.0	20.2	1.39	6.17	-0.0269	0.0390
Treatment in a private facility	7.6	6.0	5.5	8.7	21.8	9.5	0.35	14.21	0.2351	0.0729
C. Antenatal and delivery care										
<i>Antenatal care visits:</i>										
To a medically-trained person	75.1	87.4	92.4	93.0	94.0	88.1	0.80	18.81	0.0583	0.0039
To a doctor	15.6	16.4	17.3	14.8	24.9	17.9	0.63	9.33	0.1193	0.0212
To a nurse or trained midwife	59.5	71.0	75.1	78.2	69.0	70.2	0.86	9.48	0.0428	0.0066
Multiple visits to a medically-trained person	64.0	75.5	75.9	78.4	84.3	75.5	0.76	20.28	0.0713	0.0052
<i>Antenatal care content:</i>										
Tetanus toxoid	71.5	87.6	88.9	90.2	90.4	85.4	0.79	18.98	0.0512	0.0045
Prophylactic antimalarial treatment	20.2	18.7	21.0	17.9	19.5	19.5	1.03	0.68	0.0111	0.0179
Iron supplementation	46.3	47.0	46.9	42.0	45.8	45.7	1.01	0.48	0.0175	0.0100
<i>Delivery attendance:</i>										
By a medically-trained person	17.0	32.8	38.1	55.0	75.4	41.6	0.23	58.38	0.2989	0.0072
By a doctor	4.0	7.8	7.4	13.4	27.5	11.4	0.15	23.45	0.4228	0.0234
By a nurse or trained midwife	13.0	25.0	30.8	41.5	47.9	30.2	0.27	34.93	0.2521	0.0106
In a public facility	9.2	19.1	27.8	38.5	43.5	26.1	0.21	34.33	0.2644	0.0118
In a private facility	6.8	12.3	8.7	14.7	30.3	14.0	0.22	23.52	0.3806	0.0209
At home	82.9	66.7	62.3	45.8	25.8	58.7	3.22	57.12	-0.2060	0.0052
D. Contraceptive services										
<i>Contraceptive prevalence:</i>										
Women	11.8	24.2	33.4	41.0	44.5	31.5	0.27	32.68	0.2332	0.0104
Men	12.7	21.9	28.5	37.4	38.1	29.4	0.33	25.41	0.2020	0.0190

Kenya

2003 - TOTAL POPULATION

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE (Cont.)

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
D. Contraceptive services (cont.)										
<i>Source of contraception - public sector:</i>										
Women	67.9	64.1	65.4	57.9	38.6	54.7	1.76	29.33	-0.1316	0.0123
Men	na	na	na	na	na	na	na	na	na	na
<i>Source of contraception - private sector:</i>										
Women	32.1	35.9	34.4	41.8	61.3	45.1	0.52	29.25	0.1589	0.0149
Men	na	na	na	na	na	na	na	na	na	na
E. Treatment of adult illnesses										
<i>Treatment of genital discharge, ulcer, sore:</i>										
Women	(54.1)	59.1	(62.0)	58.5	72.2	61.7	0.75	126.27	0.0515	0.0273
Men	*	*	*	*	*	72.1	*	*	*	*
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>										
Women	(54.1)	59.1	(62.0)	58.5	72.2	61.7	0.75	126.27	0.0515	0.0271
Men	*	*	*	*	*	72.1	*	*	*	*
<i>Voluntary counseling and testing for HIV/AIDS:</i>										
Women	5.8	9.9	13.2	15.2	24.4	14.7	0.24	18.62	0.2905	0.0145
Men	9.9	11.2	12.1	13.7	25.2	15.5	0.39	15.24	0.2626	0.0236

Kenya

2003 - TOTAL POPULATION

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Hygienic practices										
<i>Disposal of children's stools:</i>										
Sanitary disposal	37.7	61.8	66.8	65.0	66.6	59.1	0.57	28.98	0.1088	0.0074
<i>Handwashing:</i>										
Wash hands prior to preparing food	na	na	na	na	na	na	na	na	na	na
Handwashing facilities in household	na	na	na	na	na	na	na	na	na	na
B. Bednet ownership and use										
<i>Bednet ownership:</i>										
Bednet ownership	11.2	11.4	14.0	24.5	39.3	21.9	0.28	28.15	0.3277	0.0121
Treated bednet ownership	na	na	na	na	na	na	na	na	na	na
<i>Bednet use:</i>										
By children	8.1	9.3	13.5	20.3	36.3	16.7	0.22	28.21	0.3597	0.0201
By pregnant women	5.6	6.3	8.7	17.5	27.5	13.3	0.21	21.90	0.3937	0.0632
C. Breastfeeding										
Exclusive breastfeeding	21.9	18.1	15.5	14.3	17.4	17.6	1.26	4.50	-0.0505	0.0677
Timely complementary feeding	na	na	na	na	na	na	na	na	na	na
Bottle-feeding	22.8	24.2	23.9	33.2	35.2	27.5	0.65	12.37	0.1147	0.0258
D. Micronutrient consumption										
<i>Iodized salt:</i>										
Availability of iodized salt in household	na	na	na	na	na	na	na	na	na	na
<i>Vitamin A:</i>										
Children	28.1	31.1	29.4	35.3	36.6	31.8	0.77	8.43	0.0725	0.0118
Women	9.7	13.6	11.9	13.9	21.9	14.3	0.44	12.25	0.1392	0.0227
E. Tobacco and alcohol use										
<i>Tobacco:</i>										
Women	6.1	3.0	2.2	0.8	1.4	2.5	4.46	4.76	-0.3617	0.0487
Men	22.8	24.7	22.7	28.9	23.7	24.7	0.96	0.85	0.0040	0.0165
<i>Alcohol:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
F. Sexual practices										
<i>Non-regular sexual partnerships:</i>										
Women	0.7	1.2	1.0	1.4	1.1	1.1	0.64	0.42	0.0369	0.0555
Men	8.1	10.1	4.9	10.0	13.0	9.6	0.62	4.88	0.1282	0.0290
<i>Condom usage with non-regular partner:</i>										
Women	*	*	*	*	*	28.1	*	*	*	*
Men	(58.0)	47.8	(43.2)	56.3	73.1	60.0	0.79	131.09	0.1068	0.0247
G. Domestic violence										
Ever experienced violence	na	na	na	na	na	na	na	na	na	na
Experienced violence in past year	21.8	20.1	17.9	13.1	10.5	16.0	2.07	11.24	-0.1555	0.0133

Kenya

2003 - TOTAL POPULATION

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Education										
<i>School completion:</i>										
Women	48.6	72.5	77.5	86.3	90.6	77.0	0.54	41.97	0.1189	0.0034
Men	61.3	78.4	83.1	86.7	91.3	81.9	0.67	30.09	0.0807	0.0033
<i>School participation:</i>										
Girls	73.1	90.1	93.3	96.8	96.3	89.0	0.76	23.15	0.0742	0.0048
Boys	86.0	95.5	97.4	98.3	97.2	94.5	0.88	11.28	0.0367	0.0028
B. Exposure to mass media										
<i>Newspaper readership:</i>										
Women	5.8	8.2	12.1	25.8	48.0	22.6	0.12	42.23	0.4447	0.0108
Men	19.6	27.8	32.8	50.3	71.7	44.5	0.27	52.11	0.2691	0.0091
<i>Radio listenership:</i>										
Women	44.4	71.6	77.4	85.3	87.5	75.2	0.51	43.13	0.1143	0.0038
Men	71.8	89.5	92.2	94.9	95.5	90.1	0.75	23.66	0.0451	0.0038
<i>Television viewership:</i>										
Women	2.8	6.4	14.2	35.3	65.9	28.8	0.04	63.05	0.5142	0.0079
Men	13.2	19.2	30.3	47.4	68.2	39.9	0.19	55.01	0.3262	0.0096
C. Knowledge and attitudes about HIV/AIDS										
<i>Knowledge about sexual transmission of HIV/AIDS:</i>										
Women	72.6	82.0	85.4	89.3	90.5	84.8	0.80	17.84	0.0583	0.0030
Men	82.2	88.5	92.1	92.9	95.3	91.1	0.86	13.13	0.0392	0.0035
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>										
Women	74.3	85.7	89.0	91.3	92.1	87.3	0.81	17.80	0.0488	0.0028
Men	78.6	87.3	87.7	89.4	94.4	88.5	0.83	15.85	0.0403	0.0039
<i>Attitudes toward HIV/AIDS:</i>										
Women	59.8	68.6	71.5	79.4	85.9	74.5	0.70	26.06	0.0787	0.0036
Men	61.1	63.9	70.7	76.3	81.7	72.4	0.75	20.53	0.0574	0.0054
D. Status of women										
<i>Household decisionmaking:</i>										
Can seek own health care	29.1	30.4	38.0	43.9	54.1	40.6	0.54	24.91	0.1357	0.0073
Can seek children's health care	na	na	na	na	na	na	na	na	na	na
Can make daily household purchases	45.8	45.7	45.7	45.8	53.4	47.8	0.86	7.67	0.0396	0.0062
Can make large household purchases	30.1	28.7	30.2	31.1	39.4	32.5	0.76	9.32	0.0637	0.0088
Can make meal-related decisions	61.7	59.3	58.5	57.0	62.6	59.9	0.99	0.89	-0.0094	0.0050
<i>Freedom of movement:</i>										
Can travel to visit family, relatives	23.2	22.4	24.8	24.2	35.6	26.8	0.65	12.34	0.0964	0.0105
<i>Other decisionmaking, attitudes:</i>										
Can decide how to spend own money	62.6	63.3	63.9	60.2	74.0	66.3	0.85	11.37	0.0477	0.0063
Can decide whether to have sex	89.6	90.5	91.6	93.9	96.7	92.9	0.93	7.08	0.0194	0.0018
Justifies domestic violence	80.0	75.6	72.9	69.1	50.4	67.9	1.59	29.54	-0.0972	0.0043
E. Orphanhood										
Paternal orphan prevalence	9.7	10.0	9.6	9.0	7.2	9.3	1.36	2.56	-0.0283	0.0145
Maternal orphan prevalence	4.0	3.2	4.4	4.5	4.1	4.0	0.97	0.12	0.0334	0.0224
Double orphan prevalence	1.9	1.8	2.7	2.6	1.5	2.1	1.26	0.40	0.0452	0.0281

Kenya
2003 - FEMALE / MALE POPULATIONS

Part I: HNP STATUS

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood mortality and morbidity												
Infant mortality rate	87.3	68.2	81.6	35.2	52.9	66.9	103.8	82.2	82.1	70.4	71.4	83.7
Under-five mortality rate	138.0	104.5	117.2	59.0	82.9	103.3	159.0	114.5	124.4	95.0	99.2	121.8
Prevalence of fever	35.7	41.1	45.7	42.0	38.1	40.3	39.5	46.6	38.6	40.2	40.6	41.1
Prevalence of diarrhea	17.6	15.9	13.1	12.3	14.4	14.9	19.4	19.7	17.3	14.3	18.0	17.9
Prevalence of acute respiratory infection (ARI)	16.8	22.4	18.1	18.2	14.5	18.1	19.4	23.5	16.9	16.8	16.9	18.8
B. Nutritional status												
<i>Children:</i>												
Moderate stunting	20.3	20.9	17.2	16.1	11.8	17.7	29.1	22.0	21.0	19.4	14.8	21.8
Severe stunting	13.5	11.5	10.4	7.9	4.6	10.0	14.0	10.8	11.7	12.7	7.5	11.5
Moderate underweight	18.2	15.6	13.9	13.4	6.1	13.9	25.0	18.9	16.4	16.0	8.8	17.6
Severe underweight	6.3	2.4	3.2	2.9	1.4	3.4	8.9	3.7	3.9	2.6	2.3	4.6
Mild anemia	na	na	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na	na	na
C. Sexually transmitted disease												
<i>Prevalence of genital discharge:</i>												
Women	na	na	na	na	na	na						
Men							1.1	0.7	1.3	1.3	1.3	1.1
<i>Prevalence of genital ulcer:</i>												
Women	na	na	na	na	na	na						
Men							0.8	0.7	0.4	1.6	1.1	0.9

Kenya

2003 - FEMALE / MALE POPULATIONS

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood immunization												
BCG coverage	74.2	87.2	91.1	97.4	97.5	88.1	65.7	90.0	94.6	95.6	94.3	86.6
Measles coverage	53.4	65.8	79.2	80.1	90.8	72.0	54.6	69.9	80.8	81.1	84.1	72.5
DPT coverage	59.3	70.5	80.1	85.2	81.0	73.8	53.2	71.4	91.0	77.7	63.7	70.6
Full basic coverage	37.4	50.5	60.6	55.5	68.9	53.2	38.3	49.8	63.9	57.7	49.3	51.0
No basic coverage	17.2	5.6	6.1	0.6	1.1	7.1	22.4	5.0	2.2	1.6	5.2	8.2
Hepatitis B coverage	na	na	na	na	na	na	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na	na	na	na	na	na	na
B. Treatment of childhood illnesses												
<i>Treatment of fever:</i>												
Medical treatment of fever	43.4	37.3	44.3	51.6	56.4	46.0	40.0	46.9	47.4	47.5	53.0	46.6
Treatment in a public facility	26.9	22.7	31.0	38.9	22.0	28.1	27.6	32.9	30.9	29.4	29.2	30.0
Treatment in a private facility	16.6	14.6	13.3	12.6	34.4	17.9	12.4	14.0	16.5	18.1	23.8	16.6
<i>Treatment of acute respiratory infection (ARI):</i>												
Medical treatment of ARI	50.1	36.8	48.1	55.4	58.9	48.4	38.4	46.4	44.2	59.5	67.9	49.7
Treatment in a public facility	32.3	22.1	37.1	41.8	29.3	31.6	31.2	32.0	24.7	34.8	37.1	31.9
Treatment in a private facility	17.8	14.7	11.0	13.6	29.6	16.8	7.1	14.4	19.5	24.7	30.7	17.8
<i>Treatment of diarrhea:</i>												
Use of oral rehydration therapy	52.1	43.2	57.4	56.5	58.4	52.6	41.9	52.2	49.8	45.2	57.4	49.0
Medical treatment of diarrhea	34.7	19.0	30.8	45.9	44.1	33.5	25.4	30.3	21.1	22.0	32.9	26.6
Treatment in a public facility	25.5	13.6	23.2	35.9	19.2	22.7	19.2	23.8	17.3	14.3	13.6	18.1
Treatment in a private facility	9.2	5.4	7.6	10.0	24.9	10.9	6.1	6.5	3.8	7.7	19.4	8.5
C. Contraceptive services												
<i>Contraceptive prevalence:</i>												
Women	22.5	27.7	31.5	41.8	49.3	34.9						
Men							14.6	17.7	26.5	40.2	38.0	27.3
<i>Source of contraception - public sector:</i>												
Women	73.0	71.1	58.2	50.1	40.5	54.9						
Men							na	na	na	na	na	na
<i>Source of contraception - private sector:</i>												
Women	7.8	18.5	32.6	42.7	55.1	36.4						
Men							na	na	na	na	na	na
D. Treatment of adult illnesses												
<i>Treatment of genital discharge, ulcer, sore:</i>												
Women	na	na	na	na	na	na						
Men							*	*	*	(72.0)	(72.0)	62.1
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>												
Women	na	na	na	na	na	na						
Men							*	*	*	(72.0)	(72.0)	62.1
<i>Voluntary counseling and testing for HIV/AIDS:</i>												
Women	na	na	na	na	na	na						
Men							0.4	1.0	2.9	6.3	13.7	5.3

Kenya

2003 - FEMALE / MALE POPULATIONS

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Hygienic practices												
<i>Disposal of children's stools:</i>												
Sanitary disposal	37.7	61.8	66.8	65.0	66.6	59.1						
<i>Handwashing:</i>												
Wash hands prior to preparing food	na	na	na	na	na	na						
Handwashing facilities in household	na	na	na	na	na	na						
B. Bednet ownership and use												
<i>Bednet use:</i>												
By children	8.1	9.3	13.5	20.3	36.3	16.7						
C. Breastfeeding												
Exclusive breastfeeding	(18.5)	(23.4)	(14.4)	(9.6)	(18.8)	17.0	(25.7)	(12.2)	(16.8)	(20.2)	(16.1)	18.3
Timely complementary feeding	na	na	na	na	na	na	na	na	na	na	na	na
Bottle-feeding	23.9	23.3	17.0	34.7	41.6	27.6	21.4	25.3	30.6	31.8	29.5	27.5
D. Micronutrient consumption												
<i>Vitamin A:</i>												
Children	28.3	28.4	26.4	33.3	34.8	30.0	28.0	33.9	32.3	37.2	38.3	33.5
E. Tobacco and alcohol use												
<i>Tobacco:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
<i>Alcohol:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
F. Sexual practices												
<i>Non-regular sexual partnerships:</i>												
Women	1.3	0.8	0.8	0.9	1.2	1.0						
Men							4.7	7.3	6.1	8.1	12.7	8.0
<i>Condom usage with non-regular partner:</i>												
Women	(2.4)	(9.1)	(16.4)	(15.4)	35.6	18.2						
Men							(15.9)	26.3	29.5	48.8	47.6	38.4

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2003 - FEMALE / MALE POPULATIONS

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Education												
<i>School completion:</i>												
Women	36.4	57.1	73.5	84.6	93.3	72.6	60.5	78.5	88.0	93.1	97.9	85.2
Men												
<i>School participation:</i>												
Girls	41.9	39.5	58.7	77.4	85.4	57.1						
Boys							86.0	82.9	88.0	96.0	97.4	89.3
B. Exposure to mass media												
<i>Newspaper readership:</i>												
Women	6.4	20.8	38.7	53.6	71.5	42.4						
Men							11.6	32.1	56.9	67.4	83.4	53.0
<i>Radio listenership:</i>												
Women	62.0	82.5	85.6	89.7	91.0	83.8						
Men							78.0	91.4	92.5	94.1	90.9	89.9
<i>Television viewership:</i>												
Women	6.5	41.8	83.7	94.0	98.3	71.0						
Men							10.6	49.7	86.0	95.3	98.5	71.4
C. Knowledge and attitudes about HIV/AIDS												
<i>Knowledge about sexual transmission of HIV/AIDS:</i>												
Women	72.6	82.0	85.4	89.3	90.5	84.8						
Men							82.2	88.5	92.1	92.9	95.3	91.1
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>												
Women	74.3	85.7	89.0	91.3	92.1	87.3						
Men							78.6	87.3	87.7	89.4	94.4	88.5
<i>Attitudes toward HIV/AIDS:</i>												
Women	59.8	68.6	71.5	79.4	85.9	74.5						
Men							61.1	63.9	70.7	76.3	81.7	72.4
D. Orphanhood												
Paternal orphan prevalence	9.0	9.5	10.8	8.9	7.1	9.2	10.4	10.5	8.5	9.1	7.3	9.3
Maternal orphan prevalence	3.7	3.4	4.4	4.2	4.6	4.0	4.2	3.0	4.4	4.7	3.6	4.0
Double orphan prevalence	1.4	1.8	2.4	2.4	1.6	1.9	2.5	1.7	2.9	2.7	1.4	2.3

Kenya
2003 - RURAL / URBAN POPULATIONS

Part I: HNP STATUS

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood illness and mortality												
Infant mortality rate	95.9	75.3	82.1	53.6	66.3	78.7	92.3	69.8	76.6	50.2	61.0	61.1
Under-five mortality rate	148.8	109.0	122.0	77.0	85.2	116.9	151.4	132.6	92.6	78.7	92.9	93.5
Prevalence of fever	37.7	43.7	42.3	41.3	36.6	40.9	(32.3)	*	(35.7)	39.8	40.1	39.9
Prevalence of diarrhea	18.5	17.6	14.8	11.3	16.2	16.0	(17.2)	*	(26.7)	24.7	16.3	18.0
Prevalence of acute respiratory infection	18.0	23.0	17.6	17.5	14.7	18.9	(24.5)	*	(13.9)	17.3	16.0	16.4
B. Fertility												
Total fertility rate	7.6	5.8	5.0	4.0	3.6	5.4	7.0	5.4	5.4	4.1	3.0	3.3
Adolescent fertility rate	171.5	142.5	111.6	91.8	73.1	122.9	263.0	86.8	104.6	106.0	82.7	88.5
C. Nutritional status												
<i>Children:</i>												
Moderate stunting	24.9	21.4	19.0	17.6	13.3	20.8	*	*	(23.3)	18.5	13.4	14.9
Severe stunting	13.8	11.3	11.3	8.9	2.7	11.2	*	*	(5.9)	19.3	7.1	8.9
Moderate underweight	21.9	17.0	15.3	14.2	6.8	17.1	*	*	(13.3)	17.7	7.7	9.8
Severe underweight	7.4	3.0	3.6	2.4	2.5	4.3	*	*	(2.8)	5.4	1.7	2.8
Mild anemia	na	na	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na	na	na
<i>Women:</i>												
Malnutrition	21.2	15.8	12.2	9.7	4.8	13.9	(27.2)	(15.5)	5.6	6.8	4.5	5.4
Mild anemia	na	na	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na	na	na
D. Female circumcision												
<i>Prevalence of circumcision:</i>												
Girls	na	na	na	na	na	na	na	na	na	na	na	na
Women	na	na	na	na	na	na	na	na	na	na	na	na
<i>Prevalence of occlusion:</i>												
Girls	na	na	na	na	na	na	na	na	na	na	na	na
Women	na	na	na	na	na	na	na	na	na	na	na	na
E. Sexually transmitted disease												
<i>Prevalence of genital discharge:</i>												
Women	3.0	2.4	2.9	2.6	2.2	2.7	0.0	(2.5)	0.7	2.8	2.6	2.5
Men	2.6	2.3	1.4	1.1	2.6	1.9	*	*	*	2.8	1.3	1.4
<i>Prevalence of genital ulcer:</i>												
Women	2.6	2.3	1.3	1.9	1.8	2.0	0.0	0.0	0.7	1.9	1.9	1.8
Men	1.7	1.4	1.3	0.7	0.4	1.2	*	*	*	1.6	1.4	1.4

Kenya

2003 - RURAL / URBAN POPULATIONS

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood immunization												
BCG coverage	70.1	88.7	92.9	96.8	(91.3)	85.6	*	*	*	(94.6)	97.4	95.7
Measles coverage	54.4	68.1	79.6	81.7	(79.2)	69.5	*	*	*	(74.1)	90.1	85.6
DPT coverage	56.6	71.1	86.2	85.8	(74.0)	72.9	*	*	*	(55.6)	72.2	68.7
Full basic coverage	38.6	50.1	62.4	60.7	(59.9)	51.8	*	*	*	(33.2)	59.4	53.7
No basic coverage	19.5	5.1	4.0	0.4	(8.7)	8.5	*	*	*	(5.4)	1.4	3.3
Hepatitis B coverage	na	na	na	na	na	na	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na	na	na	na	na	na	na
B. Treatment of childhood diseases												
<i>Treatment of fever:</i>												
Medical treatment of fever	41.3	41.7	45.2	48.9	62.1	44.7	*	*	*	52.9	52.7	53.4
Treatment in a public facility	26.7	27.5	30.5	33.7	25.2	29.0	*	*	*	36.5	25.9	29.2
Treatment in a private facility	14.6	14.2	14.7	15.2	36.9	15.6	*	*	*	16.3	26.9	24.2
<i>Treatment of acute respiratory infection (ARI):</i>												
Medical treatment of ARI	43.6	41.4	45.2	59.3	(53.5)	46.2	*	*	*	(47.4)	66.4	62.8
Treatment in a public facility	31.2	26.7	30.3	38.6	(25.2)	30.6	*	*	*	(36.9)	35.7	37.1
Treatment in a private facility	12.4	14.7	14.8	20.7	(28.3)	15.6	*	*	*	(10.5)	30.7	25.7
<i>Treatment of diarrhea:</i>												
Use of oral rehydration therapy	46.4	48.3	52.4	56.6	(59.8)	50.1	*	*	*	(34.2)	57.3	52.4
Medical treatment of diarrhea	29.4	25.4	25.0	37.6	(50.8)	29.5	*	*	*	(20.4)	34.1	30.7
Treatment in a public facility	21.7	19.4	19.8	26.9	(17.0)	21.1	*	*	*	(16.6)	15.7	16.6
Treatment in a private facility	7.7	6.0	5.2	10.7	(33.8)	8.4	*	*	*	(3.8)	18.4	14.2
C. Antenatal and delivery care												
<i>Antenatal care visits:</i>												
To a medically-trained person	75.4	87.3	92.4	93.5	91.7	86.8	*	*	(92.2)	89.8	94.6	93.2
To a doctor	15.4	16.1	16.9	14.3	32.7	16.7	*	*	(28.3)	17.9	22.8	22.5
To a nurse or trained midwife	60.0	71.2	75.5	79.3	59.0	70.1	*	*	(63.9)	71.9	71.8	70.7
Multiple visits to a medically-trained person	64.1	75.4	75.8	78.3	82.3	73.5	*	*	(77.9)	78.9	84.8	83.1
<i>Antenatal care content:</i>												
Tetanus toxoid	71.5	87.6	88.9	90.0	91.4	84.3	*	*	(88.7)	91.2	90.2	89.8
Prophylactic antimalarial treatment	20.1	18.8	20.5	17.8	22.2	19.6	*	*	(33.8)	18.4	18.8	19.3
Iron supplementation	46.7	47.4	46.3	41.5	44.8	45.7	*	*	(61.8)	45.2	46.1	45.9
<i>Delivery attendance:</i>												
By a medically-trained person	16.7	32.7	37.5	54.6	66.4	34.5	(32.6)	*	(53.9)	56.9	77.9	72.0
By a doctor	3.8	7.8	7.3	12.6	30.6	8.5	(13.3)	*	(9.3)	18.0	26.6	24.0
By a nurse or trained midwife	12.9	24.9	30.2	42.0	35.9	26.0	(19.4)	*	(44.6)	38.8	51.3	48.0
In a public facility	9.2	19.0	27.2	37.8	30.9	21.8	(10.5)	*	(44.8)	42.3	47.1	44.9
In a private facility	6.6	12.4	8.7	15.1	34.0	11.4	(15.7)	*	(9.1)	12.4	29.2	25.3
At home	83.1	66.7	62.9	46.2	34.6	65.5	(72.6)	*	(46.1)	43.5	23.3	29.2
D. Contraceptive services												
<i>Contraceptive prevalence:</i>												
Women	11.8	24.5	33.6	41.4	54.6	29.2	*	*	(27.4)	38.8	41.7	39.9
Men	12.8	22.1	28.9	37.1	39.6	26.7	*	*	*	38.5	37.6	36.8

Kenya

2003 - RURAL / URBAN POPULATIONS

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE (Cont.)

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
D. Contraceptive services (cont.)												
<i>Source of contraception - public sector:</i>												
Women	67.2	64.1	65.2	56.6	32.5	58.6	*	*	*	66.1	40.8	44.9
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Source of contraception - private sector:</i>												
Women	32.8	35.9	34.6	43.0	67.5	41.3	*	*	*	33.9	59.1	55.0
Men	na	na	na	na	na	na	na	na	na	na	na	na
E. Treatment of adult illnesses												
<i>Treatment of genital discharge, ulcer, sore:</i>												
Women	(54.1)	60.0	(63.4)	55.1	*	58.9	*	*	*	73.1	na	71.4
Men	*	*	*	*	*	72.2	*	*	*	*	*	*
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>												
Women	(54.1)	60.0	(63.4)	55.1	*	58.9	*	*	*	73.1	na	71.4
Men	*	*	*	*	*	72.2	*	*	*	*	*	*
<i>Voluntary counseling and testing for HIV/AIDS:</i>												
Women	5.8	9.9	12.9	14.5	21.3	11.7	(7.0)	(8.5)	19.9	19.7	25.2	23.9
Men	10.1	11.0	11.9	13.1	22.8	12.6	*	*	*	16.7	25.9	24.1

Kenya

2003 - RURAL / URBAN POPULATIONS

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Hygienic practices												
<i>Disposal of children's stools:</i>												
Sanitary disposal	37.7	61.8	67.0	66.7	65.4	57.7	*	*	(63.5)	55.8	67.0	64.6
<i>Handwashing:</i>												
Wash hands prior to preparing food	na	na	na	na	na	na	na	na	na	na	na	na
Handwashing facilities in household	na	na	na	na	na	na	na	na	na	na	na	na
B. Bednet ownership and use												
<i>Bednet ownership:</i>												
Bednet ownership	10.7	11.4	13.7	23.9	36.9	16.6	(34.9)	(14.0)	21.3	27.9	40.0	37.6
Treated bednet ownership	na	na	na	na	na	na	na	na	na	na	na	na
<i>Bednet use:</i>												
By children	7.6	9.4	12.8	19.8	31.6	12.6	(31.5)	*	(30.9)	22.9	37.7	34.5
By pregnant women	5.5	6.2	8.8	15.9	*	9.9	*	*	*	*	26.2	25.7
C. Breastfeeding												
Exclusive breastfeeding	22.4	17.9	15.3	15.1	*	17.9	*	*	*	*	17.7	16.6
Timely complementary feeding	na	na	na	na	na	na	na	na	na	na	na	na
Bottle-feeding	23.1	24.3	22.8	35.0	30.6	25.9	*	*	*	(24.5)	36.5	34.3
D. Micronutrient consumption												
<i>Iodized salt:</i>												
Availability of iodized salt in household	na	na	na	na	na	na	na	na	na	na	na	na
<i>Vitamin A:</i>												
Children	27.8	30.9	29.2	35.1	26.9	30.1	(43.6)	*	(35.5)	36.7	39.2	38.9
Women	9.6	13.8	11.4	14.1	24.0	12.8	*	*	(27.2)	12.6	21.4	20.0
E. Tobacco and alcohol use												
<i>Tobacco:</i>												
Women	6.3	2.8	2.1	0.7	1.4	2.8	0.0	(12.8)	5.0	1.3	1.4	1.7
Men	22.9	24.0	22.6	28.8	26.6	24.9	*	*	*	29.4	22.8	24.2
<i>Alcohol:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
F. Sexual practices												
<i>Non-regular sexual partnerships:</i>												
Women	0.7	1.2	1.0	1.3	0.8	1.1	(1.2)	(0.9)	0.2	1.9	1.2	1.3
Men	8.2	9.9	4.8	9.1	13.1	8.4	*	*	*	15.1	13.0	13.0
<i>Condom usage with non-regular partner:</i>												
Women	*	*	*	*	*	21.8	*	*	*	*	*	(43.7)
Men	(58.2)	49.8	(42.3)	55.9	(70.9)	55.0	*	*	*	*	73.8	69.6
G. Domestic violence												
Ever experienced violence	na	na	na	na	na	na	na	na	na	na	na	na
Experienced violence in past year	21.9	20.3	18.1	12.7	11.6	17.7	(14.9)	(9.5)	13.0	15.6	10.2	11.0

Kenya

2003 - RURAL / URBAN POPULATIONS

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Education												
<i>School completion:</i>												
Women	49.0	72.7	78.0	87.4	90.3	73.6	(30.1)	(63.7)	65.1	80.1	90.6	87.2
Men	61.6	78.5	83.3	86.7	89.8	79.0	(46.1)	(73.8)	77.9	86.4	91.8	90.0
<i>School participation:</i>												
Girls	73.6	90.1	93.2	97.6	98.6	88.2	*	*	(95.5)	91.7	95.4	93.2
Boys	86.4	95.5	97.3	98.9	100.0	94.4	(64.6)	*	(99.4)	94.5	96.2	95.0
B. Exposure to mass media												
<i>Newspaper readership:</i>												
Women	5.5	7.9	11.5	26.2	52.3	15.9	(18.9)	(18.8)	24.9	23.5	46.8	42.6
Men	19.6	27.0	31.6	47.9	63.5	35.1	*	*	*	63.2	74.4	72.0
<i>Radio listenership:</i>												
Women	44.7	71.8	77.7	86.6	89.2	72.1	(32.0)	(64.4)	70.0	77.8	87.1	84.3
Men	72.0	89.8	91.9	94.4	95.5	88.4	*	*	*	97.7	95.5	95.3
<i>Television viewership:</i>												
Women	2.7	6.1	14.2	37.0	68.3	19.3	(9.1)	(16.0)	14.6	24.6	65.2	57.3
Men	13.0	18.8	29.8	46.9	62.6	31.2	*	*	*	50.4	69.9	65.8
C. Knowledge and attitudes about HIV/AIDS												
<i>Knowledge about sexual transmission of HIV/AIDS:</i>												
Women	73.1	82.4	85.6	90.1	89.4	83.5	(52.0)	(69.1)	81.1	84.4	90.7	88.8
Men	82.4	88.6	92.1	93.1	96.6	90.0	*	*	*	91.8	95.0	94.1
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>												
Women	74.5	85.6	89.2	92.1	88.7	85.8	(63.2)	(86.2)	85.4	86.4	93.0	91.5
Men	78.7	87.3	87.7	88.8	96.7	86.9	*	*	*	92.9	93.7	93.1
<i>Attitudes toward HIV/AIDS:</i>												
Women	59.7	68.5	71.2	79.1	86.3	71.2	(65.2)	(70.4)	78.2	80.9	85.7	84.4
Men	61.1	64.4	70.2	76.3	79.7	69.5	*	*	*	76.3	82.3	80.9
D. Status of women												
<i>Household decisionmaking:</i>												
Can seek own health care	29.4	30.2	38.4	43.1	54.6	36.8	(18.5)	(39.3)	28.4	48.8	53.9	51.8
Can seek children's health care	na	na	na	na	na	na	na	na	na	na	na	na
Can make daily household purchases	45.9	45.7	46.0	45.0	50.0	46.0	(38.9)	(47.5)	40.3	50.3	54.4	53.1
Can make large household purchases	30.0	28.4	30.0	29.3	35.0	29.8	(33.5)	(39.8)	34.3	41.5	40.6	40.4
Can make meal-related decisions	61.7	59.4	59.1	55.2	61.3	59.0	(60.8)	(56.2)	44.7	67.8	62.9	62.8
<i>Freedom of movement:</i>												
Can travel to visit family, relatives	23.1	22.2	24.9	22.1	27.9	23.4	(28.5)	(31.1)	24.2	36.9	37.6	36.9
<i>Other decisionmaking, attitudes:</i>												
Can decide how to spend own money	62.6	62.9	63.6	59.5	62.6	62.2	*	*	*	63.9	77.0	75.4
Can decide whether to have sex	89.7	90.5	91.7	93.7	96.4	91.8	(84.6)	(89.2)	88.3	94.9	96.8	96.0
Justifies domestic violence	80.0	75.6	72.9	68.4	53.6	72.6	(77.8)	(77.8)	74.3	73.6	49.6	54.0
E. Orphanhood												
Paternal orphan prevalence	9.7	9.9	9.3	8.7	9.4	9.4	10.6	17.0	17.1	11.3	6.4	8.2
Maternal orphan prevalence	4.0	3.1	4.1	4.2	3.2	3.8	3.1	5.3	11.5	6.5	4.4	5.1
Double orphan prevalence	2.0	1.8	2.6	2.4	1.3	2.1	0.4	2.3	3.9	3.4	1.6	2.0

PART II. BASIC TABLES, 1998

A. TOTAL POPULATION

B. FEMALE AND MALE POPULATIONS

C. RURAL AND URBAN POPULATIONS

Notes:

– Each of the three sections referred to above consists of four divisions, presenting data for: I) hnp status; II) hnp service use; III) hnp-related individual and household behavior; and IV) other, underlying determinants of hnp status.

– Full definitions of all indicators covered in the tables are provided in section A of the technical notes found in part II.

– “na” appears in the table cells when data are not available, usually because the DHS survey concerned did not collect information about the indicator(s) in question.

– Figures in the tables shown within parentheses indicate the absence of adequate observations to produce acceptably reliable values. Asterisks appear when the number of observations was too small to justify the presentation even of figures within parentheses. (For further information, see the section on “Sampling Errors” in the presentation of data and methods in part II.B.) Asterisks also will be found in columns showing statistical indices of inequality when the amount of quintile-specific information available is inadequate to permit computation of the value for the index concerned.

– Female/male tables include only indicators relevant for both sexes; those pertaining to only one sex (e.g., fertility, women’s nutritional status, antenatal care, attended deliveries) have been omitted.

Kenya
1998 - TOTAL POPULATION

Part I: HNP STATUS

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Childhood illness and mortality										
Infant mortality rate	95.8	82.9	58.5	61.0	40.2	70.7	2.38	55.60	-0.1533	0.0010
Under-five mortality rate	136.2	130.4	92.3	84.9	60.7	105.2	2.24	75.50	-0.1486	0.0010
Prevalence of fever	45.5	43.3	42.7	40.7	38.0	42.3	1.20	7.50	-0.0307	0.0121
Prevalence of diarrhea	19.4	18.7	17.8	15.4	13.1	17.1	1.48	6.30	-0.0748	0.0222
Prevalence of acute respiratory infection (ARI)	23.1	21.0	19.4	20.6	15.2	20.1	1.52	7.90	-0.0618	0.0200
B. Fertility										
Total fertility rate	6.5	5.6	4.7	4.2	3.0	4.7	2.17	3.50	-0.1514	0.0006
Adolescent fertility rate	163.0	143.0	108.0	103.0	63.0	111.0	2.59	100.00	-0.1780	0.0016
C. Nutritional status (%)										
<i>Children:</i>										
Moderate stunting	26.7	21.5	19.1	20.8	10.5	20.3	2.54	16.20	-0.1159	0.0171
Severe stunting	17.4	16.0	11.1	9.7	6.6	12.7	2.64	10.80	-0.1881	0.0240
Moderate underweight	24.5	20.5	16.2	13.7	8.2	17.3	2.99	16.30	-0.1674	0.0187
Severe underweight	7.1	6.2	3.8	3.4	2.1	4.8	3.38	5.00	-0.2149	0.0397
Mild anemia	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na
<i>Women:</i>										
Malnutrition	17.6	15.5	11.5	8.1	5.5	11.9	3.20	12.10	-0.1758	0.0280
Mild anemia	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na
D. Female circumcision (%)										
<i>Prevalence of circumcision:</i>										
Girls	16.0	15.4	16.3	10.3	6.8	13.0	2.35	9.20	-0.1241	0.0226
Women	45.4	42.9	44.4	35.5	24.1	37.6	1.88	21.30	-0.1093	0.0087
<i>Prevalence of occlusion:</i>										
Girls	na	na	na	na	na	na	na	na	na	na
Women	na	na	na	na	na	na	na	na	na	na
E. Sexually transmitted disease										
<i>Prevalence of genital discharge:</i>										
Women	1.4	1.1	1.1	0.5	1.4	1.1	1.00	0.00	-0.0728	0.0711
Men	4.0	5.9	5.5	5.2	3.0	4.6	1.33	1.00	-0.0245	0.0465
<i>Prevalence of genital ulcer:</i>										
Women	0.3	0.6	0.9	0.4	0.5	0.5	0.60	0.20	0.0545	0.0755
Men	3.2	4.1	3.7	3.2	1.5	2.9	2.13	1.70	-0.0848	0.0551

Kenya

1998 - TOTAL POPULATION

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Childhood immunization										
BCG coverage	93.5	92.7	98.3	97.4	99.0	95.9	0.94	5.50	0.0129	0.0035
Measles coverage	64.3	79.6	84.7	83.8	88.7	79.2	0.72	24.40	0.0632	0.0089
DPT coverage	67.4	78.2	85.9	84.0	84.1	79.2	0.80	16.70	0.0418	0.0095
Full basic coverage	48.1	57.6	71.0	64.6	59.9	59.5	0.80	11.80	0.0577	0.0148
No basic coverage	4.8	3.0	1.1	2.6	1.0	2.7	4.80	3.80	-0.2791	0.1079
Hepatitis B coverage	na	na	na	na	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na	na	na	na	na
B. Treatment of childhood illnesses										
<i>Treatment of fever:</i>										
Medical treatment of fever	54.8	60.8	61.7	62.3	73.3	61.7	0.75	18.50	0.0636	0.0126
Treatment in a public facility	39.3	33.9	37.8	35.1	34.2	36.3	1.15	5.10	0.0016	0.0200
Treatment in a private facility	13.6	22.6	21.7	24.3	35.8	22.5	0.38	22.20	0.1686	0.0277
<i>Treatment of acute respiratory infection (ARI):</i>										
Medical treatment of ARI	54.9	53.6	51.6	55.1	78.5	57.3	0.70	23.60	0.0473	0.0210
Treatment in a public facility	37.9	30.6	34.0	37.4	41.2	35.9	0.92	3.30	0.0163	0.0335
Treatment in a private facility	16.0	22.4	17.7	17.7	35.2	20.6	0.45	19.20	0.1073	0.0494
<i>Treatment of diarrhea:</i>										
Use of oral rehydration therapy	78.1	84.3	79.2	85.0	86.7	82.0	0.90	8.60	0.0166	0.0112
Medical treatment of diarrhea	41.4	50.2	37.1	45.9	48.5	44.3	0.85	7.10	0.0434	0.0292
Treatment in a public facility	26.3	29.6	24.8	30.5	24.0	27.1	1.10	2.30	0.0199	0.0420
Treatment in a private facility	15.1	20.6	11.6	15.4	22.0	16.7	0.69	6.90	0.1023	0.0624
C. Antenatal and delivery care										
<i>Antenatal care visits:</i>										
To a medically-trained person	88.5	90.0	93.2	95.3	96.2	92.3	0.92	7.70	0.0168	0.0036
To a doctor	23.7	23.2	25.8	32.7	38.8	28.3	0.61	15.10	0.1307	0.0177
To a nurse or trained midwife	64.7	66.8	67.3	62.5	57.5	64.0	1.13	7.20	-0.0330	0.0083
Multiple visits to a medically-trained person	77.4	78.5	82.4	84.3	86.5	81.4	0.89	9.10	0.0188	0.0052
<i>Antenatal care content:</i>										
Tetanus toxoid	87.2	87.8	91.0	92.4	92.3	89.9	0.94	5.10	0.0132	0.0037
Prophylactic antimalarial treatment	na	na	na	na	na	na	na	na	na	na
Iron supplementation	na	na	na	na	na	na	na	na	na	na
<i>Delivery attendance:</i>										
By a medically-trained person	23.2	33.3	41.9	56.1	79.6	44.4	0.29	56.40	0.2419	0.0104
By a doctor	5.1	8.0	11.6	13.5	28.0	12.3	0.18	22.90	0.3403	0.0286
By a nurse or trained midwife	18.1	25.3	30.3	42.7	51.6	32.0	0.35	33.50	0.2042	0.0141
In a public facility	15.9	24.9	33.3	40.2	48.2	30.9	0.33	32.30	0.2076	0.0146
In a private facility	4.4	5.5	7.7	13.2	30.1	11.2	0.15	25.70	0.4028	0.0315
At home	78.2	68.0	58.1	45.1	21.3	56.6	3.67	56.90	-0.1878	0.0079
D. Contraceptive services										
<i>Contraceptive prevalence:</i>										
Women	12.6	24.1	30.7	39.7	50.1	31.5	0.25	37.50	0.2312	0.0115
Men	17.9	28.3	40.4	44.7	54.6	39.1	0.33	36.70	0.1898	0.0166

Kenya

1998 - TOTAL POPULATION

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE (Cont.)

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
D. Contraceptive services (cont.)										
<i>Source of contraception - public sector:</i>										
Women	74.6	72.2	72.0	63.8	52.1	63.5	1.43	22.50	-0.0962	0.0119
Men	na	na	na	na	na	na	na	na	na	na
<i>Source of contraception - private sector:</i>										
Women	25.4	26.7	27.4	35.0	47.0	35.7	0.54	21.60	0.1823	0.0221
Men	na	na	na	na	na	na	na	na	na	na
E. Treatment of adult illnesses										
<i>Treatment of genital discharge, ulcer, sore:</i>										
Women	*	(88.8)	(81.9)	*	*	87.9	*	*	*	*
Men	*	(68.5)	(52.5)	68.0	(55.2)	63.2	*	*	*	*
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	*	(81.9)	(69.5)	78.5	(64.1)	75.5	*	*	*	*
<i>Voluntary counseling and testing for HIV/AIDS:</i>										
Women	6.5	9.5	12.1	17.5	22.8	14.2	0.29	16.30	0.2050	0.0167
Men	9.2	14.9	13.4	16.2	25.0	16.8	0.37	15.80	0.1558	0.0244

Kenya

1998 - TOTAL POPULATION

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Hygienic practices										
<i>Disposal of children's stools:</i>										
Sanitary disposal	na	na	na	na	na	na	na	na	na	na
<i>Handwashing:</i>										
Wash hands prior to preparing food	na	na	na	na	na	na	na	na	na	na
Handwashing facilities in household	na	na	na	na	na	na	na	na	na	na
B. Bednet ownership and use										
<i>Bednet ownership:</i>										
Bednet ownership	na	na	na	na	na	na	na	na	na	na
Treated bednet ownership	na	na	na	na	na	na	na	na	na	na
<i>Bednet use:</i>										
By children	na	na	na	na	na	na	na	na	na	na
By pregnant women	na	na	na	na	na	na	na	na	na	na
C. Breastfeeding										
Exclusive breastfeeding	15.2	21.0	20.1	13.4	16.2	16.9	0.94	1.00	-0.0151	0.0672
Timely complementary feeding	86.1	94.6	84.8	94.1	86.1	89.3	1.00	0.00	-0.0079	0.0132
Bottle-feeding	20.7	19.6	25.2	27.2	33.7	25.2	0.61	13.00	0.1173	0.0321
D. Micronutrient consumption										
<i>Iodized salt:</i>										
Availability of iodized salt in household	na	na	na	na	na	na	na	na	na	na
<i>Vitamin A:</i>										
Children	na	na	na	na	na	na	na	na	na	na
Women	na	na	na	na	na	na	na	na	na	na
E. Tobacco and alcohol use										
<i>Tobacco:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
<i>Alcohol:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
F. Sexual practices										
<i>Non-regular sexual partnerships:</i>										
Women	1.6	0.8	1.0	0.7	0.6	0.9	2.67	1.00	-0.2152	0.0741
Men	20.9	22.1	20.6	22.7	20.3	21.3	1.03	0.60	-0.0061	0.0196
<i>Condom usage with non-regular partner:</i>										
Women	*	*	*	*	*	25.6	*	*	*	*
Men	28.8	39.2	45.7	43.9	63.6	46.2	0.45	34.80	0.1289	0.0232
G. Domestic violence										
Ever experienced violence	na	na	na	na	na	na	na	na	na	na
Experienced violence in past year	na	na	na	na	na	na	na	na	na	na

Kenya

1998 - TOTAL POPULATION

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Education										
<i>School completion:</i>										
Women	58.8	69.0	76.0	84.9	90.8	76.8	0.65	32.00	0.0856	0.0036
Men	72.1	80.3	86.0	88.3	92.6	85.1	0.78	20.50	0.0435	0.0029
<i>School participation:</i>										
Girls	69.2	82.4	86.7	87.9	90.5	82.5	0.76	21.30	0.0500	0.0053
Boys	71.9	79.9	83.9	88.2	91.4	82.2	0.79	19.50	0.0512	0.0051
B. Exposure to mass media										
<i>Newspaper readership:</i>										
Women	17.1	23.4	28.8	41.5	65.0	36.9	0.26	47.90	0.2543	0.0085
Men	30.3	45.5	53.4	67.8	85.6	60.6	0.35	55.30	0.1719	0.0074
<i>Radio listenership:</i>										
Women	30.6	44.2	60.9	68.4	79.5	58.2	0.38	48.90	0.1709	0.0058
Men	61.8	75.1	84.6	85.0	89.5	81.0	0.69	27.70	0.0624	0.0052
<i>Television viewership:</i>										
Women	6.9	9.6	11.6	21.4	66.5	25.7	0.10	59.60	0.4517	0.0120
Men	17.7	24.3	38.0	51.0	76.1	45.9	0.23	58.40	0.2546	0.0101
C. Knowledge and attitudes about HIV/AIDS										
<i>Knowledge about sexual transmission of HIV/AIDS:</i>										
Women	94.5	96.3	97.0	97.9	98.6	97.0	0.96	4.10	0.0094	0.0014
Men	98.5	98.6	99.4	99.3	99.6	99.2	0.99	1.10	0.0023	0.0012
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>										
Women	84.0	83.4	84.6	89.6	89.3	85.1	0.94	5.30	0.0264	0.0029
Men	81.9	81.4	82.4	85.9	88.1	84.5	0.93	6.20	0.0143	0.0042
<i>Attitudes toward HIV/AIDS:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
D. Status of women										
<i>Household decisionmaking:</i>										
Can seek own health care	na	na	na	na	na	na	na	na	na	na
Can seek children's health care	na	na	na	na	na	na	na	na	na	na
Can make daily household purchases	na	na	na	na	na	na	na	na	na	na
Can make large household purchases	na	na	na	na	na	na	na	na	na	na
Can make meal-related decisions	na	na	na	na	na	na	na	na	na	na
<i>Freedom of movement:</i>										
Can travel to visit family, relatives	na	na	na	na	na	na	na	na	na	na
<i>Other decisionmaking, attitudes:</i>										
Can decide how to spend own money	33.8	36.8	45.4	45.3	56.9	44.5	0.59	23.10	0.0988	0.0105
Can decide whether to have sex	na	na	na	na	na	na	na	na	na	na
Justifies domestic violence	na	na	na	na	na	na	na	na	na	na
E. Orphanhood										
Paternal orphan prevalence	8.2	7.9	7.8	6.6	6.3	7.4	1.30	1.90	-0.0729	0.0176
Maternal orphan prevalence	1.9	2.5	3.5	2.9	3.6	2.8	0.53	1.70	0.1011	0.0278
Double orphan prevalence	0.5	0.8	1.2	0.8	1.2	0.9	0.42	0.70	0.1384	0.0507

Kenya
1998 - FEMALE / MALE POPULATIONS

Part I: HNP STATUS

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood mortality and morbidity												
Infant mortality rate	85.5	81.3	49.7	55.4	50.7	66.8	105.1	84.6	67.0	66.4	29.8	74.5
Under-five mortality rate	128.5	131.5	88.0	76.9	68.7	102.6	143.1	129.4	96.5	92.5	52.7	107.8
Prevalence of fever	45.4	44.0	42.7	41.1	36.5	42.2	45.6	42.5	42.8	40.4	39.6	42.4
Prevalence of diarrhea	16.4	18.9	20.7	12.9	12.7	16.4	22.1	18.6	15.1	17.7	13.5	17.8
Prevalence of acute respiratory infection (ARI)	24.9	18.8	17.5	20.5	16.6	19.9	21.4	23.3	21.1	20.7	13.6	20.3
B. Nutritional status												
<i>Children:</i>												
Moderate stunting	23.7	21.2	18.2	19.3	8.0	18.6	29.5	21.9	19.9	22.2	13.0	22.0
Severe stunting	16.1	13.3	13.4	9.4	6.4	12.1	18.6	18.8	8.9	10.0	6.8	13.2
Moderate underweight	22.3	20.7	18.6	11.5	8.7	17.0	26.5	20.2	14.0	15.6	7.7	17.6
Severe underweight	7.3	5.9	5.1	3.1	2.3	5.0	6.9	6.5	2.4	3.7	2.0	4.6
Mild anemia	na	na	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na	na	na
C. Sexually transmitted disease												
<i>Prevalence of genital discharge:</i>												
Women	1.4	1.1	1.1	0.5	1.4	1.1						
Men							4.0	5.9	5.5	5.2	3.0	4.6
<i>Prevalence of genital ulcer:</i>												
Women	0.3	0.6	0.9	0.4	0.5	0.5						
Men							3.2	4.1	3.7	3.2	1.5	2.9

Kenya

1998 - FEMALE / MALE POPULATIONS

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood immunization												
BCG coverage	94.3	93.9	97.7	98.5	100.0	96.7	92.6	91.6	98.9	96.3	97.8	95.0
Measles coverage	63.0	77.9	85.6	86.6	86.6	79.1	65.5	81.1	83.8	80.8	91.2	79.4
DPT coverage	65.6	74.2	84.8	83.3	84.8	77.8	69.3	81.7	86.9	84.7	83.2	80.5
Full basic coverage	46.1	54.7	72.5	67.5	55.6	58.4	50.1	60.1	69.6	61.6	65.2	60.7
No basic coverage	5.4	5.1	1.8	1.5	0.0	2.9	4.3	1.2	0.5	3.7	2.2	2.4
Hepatitis B coverage	na	na	na	na	na	na	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na	na	na	na	na	na	na
B. Treatment of childhood illnesses												
<i>Treatment of fever:</i>												
Medical treatment of fever	55.8	58.8	61.3	61.9	72.6	61.3	53.9	62.9	62.0	62.7	74.1	62.0
Treatment in a public facility	38.9	34.1	37.5	33.1	38.0	36.4	39.7	33.8	38.0	36.9	30.4	36.2
Treatment in a private facility	13.6	22.6	20.5	26.4	29.6	21.7	13.6	22.7	22.9	22.4	42.0	23.3
<i>Treatment of acute respiratory infection (ARI):</i>												
Medical treatment of ARI	51.3	61.3	53.6	54.1	(79.0)	58.6	58.7	47.3	50.2	55.9	(77.9)	56.0
Treatment in a public facility	39.5	37.5	33.9	37.5	(44.3)	38.6	36.2	24.9	34.0	37.3	(37.1)	33.5
Treatment in a private facility	9.9	23.8	19.7	16.7	(30.8)	18.8	22.5	21.3	16.2	18.7	(40.8)	22.3
<i>Treatment of diarrhea:</i>												
Use of oral rehydration therapy	74.6	75.1	85.2	(84.3)	(85.5)	80.1	80.4	94.0	(71.8)	85.6	(87.9)	83.7
Medical treatment of diarrhea	33.4	43.3	38.7	(38.8)	(49.6)	40.2	46.9	57.4	(35.1)	50.6	(47.5)	47.9
Treatment in a public facility	20.9	29.4	21.3	(26.9)	(31.1)	25.4	29.9	29.7	(29.1)	32.9	(16.8)	28.6
Treatment in a private facility	12.4	13.9	17.3	(11.9)	(13.5)	14.0	17.0	27.7	(4.5)	17.8	(30.6)	19.0
C. Contraceptive services												
<i>Contraceptive prevalence:</i>												
Women	12.6	24.1	30.7	39.7	50.1	31.5						
Men							17.9	28.3	40.4	44.7	54.6	39.1
<i>Source of contraception - public sector:</i>												
Women	74.6	72.2	72.0	63.8	52.1	63.5						
Men							na	na	na	na	na	na
<i>Source of contraception - private sector:</i>												
Women	25.4	26.7	27.4	35.0	47.0	35.7						
Men							na	na	na	na	na	na
D. Treatment of adult illnesses												
<i>Treatment of genital discharge, ulcer, sore:</i>												
Women	*	(88.8)	(81.9)	*	*	87.9						
Men							*	(68.5)	(52.5)	68.0	(55.2)	0.0
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	75.5
<i>Voluntary counseling and testing for HIV/AIDS:</i>												
Women	6.5	9.5	12.1	17.5	22.8	14.2						
Men							9.2	14.9	13.4	16.2	25.0	16.8

Kenya

1998 - FEMALE / MALE POPULATIONS

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Hygienic practices												
<i>Disposal of children's stools:</i>												
Sanitary disposal	na	na	na	na	na	na						
<i>Handwashing:</i>												
Wash hands prior to preparing food	na	na	na	na	na	na						
Handwashing facilities in household	na	na	na	na	na	na						
B. Bednet ownership and use												
<i>Bednet use:</i>												
By children	na	na	na	na	na	na						
C. Breastfeeding												
Exclusive breastfeeding	(9.7)	(24.6)	(25.1)	(11.4)	(11.5)	15.5	(19.7)	(17.7)	(17.1)	(14.5)	(21.3)	18.0
Timely complementary feeding	(86.5)	(94.6)	(80.3)	(93.0)	(83.7)	88.1	(85.7)	(94.6)	(88.8)	(95.2)	(88.0)	90.4
Bottle-feeding	24.2	17.4	25.7	30.4	31.5	25.6	17.2	22.2	24.9	24.3	35.6	24.8
D. Micronutrient consumption												
<i>Vitamin A:</i>												
Children	na	na	na	na	na	na	na	na	na	na	na	na
E. Tobacco and alcohol use												
<i>Tobacco:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
<i>Alcohol:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
F. Sexual practices												
<i>Non-regular sexual partnerships:</i>												
Women	1.6	0.8	1.0	0.7	0.6	0.9						
Men							20.9	22.1	20.6	22.7	20.3	21.3
<i>Condom usage with non-regular partner:</i>												
Women	*	*	*	*	*	25.6						
Men							28.8	39.2	45.7	43.9	63.6	46.2

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1998 - FEMALE / MALE POPULATIONS

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Education												
<i>School completion:</i>												
Women	58.8	69.0	76.0	84.9	90.8	76.8	72.1	80.3	86.0	88.3	92.6	85.1
Men												
<i>School participation:</i>												
Girls	69.2	82.4	86.7	87.9	90.5	82.5	71.9	79.9	83.9	88.2	91.4	82.2
Boys												
B. Exposure to mass media												
<i>Newspaper readership:</i>												
Women	17.1	23.4	28.8	41.5	65.0	36.9	30.3	45.5	53.4	67.8	85.6	60.6
Men												
<i>Radio listenership:</i>												
Women	30.6	44.2	60.9	68.4	79.5	58.2	61.8	75.1	84.6	85.0	89.5	81.0
Men												
<i>Television viewership:</i>												
Women	6.9	9.6	11.6	21.4	66.5	25.7	17.7	24.3	38.0	51.0	76.1	45.9
Men												
C. Knowledge and attitudes about HIV/AIDS												
<i>Knowledge about sexual transmission of HIV/AIDS:</i>												
Women	94.5	96.3	97.0	97.9	98.6	97.0	98.5	98.6	99.4	99.3	99.6	99.2
Men												
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>												
Women	84.0	83.4	84.6	89.6	89.3	85.1	81.9	81.4	82.4	85.9	88.1	84.5
Men												
<i>Attitudes toward HIV/AIDS:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men												
D. Orphanhood												
Paternal orphan prevalence	7.2	8.7	7.9	6.8	6.9	7.5	9.1	7.2	7.8	6.3	5.6	7.4
Maternal orphan prevalence	2.1	2.2	3.1	3.0	4.7	2.9	1.7	2.8	3.8	2.7	2.5	2.7
Double orphan prevalence	0.4	0.8	1.1	0.9	1.7	0.9	0.6	0.7	1.3	0.8	0.6	0.8

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1998 - RURAL / URBAN POPULATIONS

Part I: HNP STATUS

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood illness and mortality												
Infant mortality rate	96.2	83.4	56.5	55.8	37.7	73.8	*	*	*	(80.1)	41.8	55.4
Under-five mortality rate	136.7	129.9	90.0	75.6	48.7	108.6	*	*	*	(119.7)	68.2	88.3
Prevalence of fever	45.6	43.5	41.9	38.5	37.3	42.4	*	(39.0)	(49.9)	47.8	38.4	41.7
Prevalence of diarrhea	19.3	18.5	15.9	14.3	13.8	17.1	*	(22.8)	(34.5)	19.2	12.7	17.1
Prevalence of acute respiratory infection	23.2	21.4	18.9	18.6	18.0	20.7	*	(13.4)	(23.4)	27.2	13.5	17.6
B. Fertility												
Total fertility rate	6.5	5.6	4.7	4.3	(3.6)	5.2	*	*	*	*	2.7	3.1
Adolescent fertility rate	164.0	142.0	104.0	91.0	(52.0)	118.7	*	*	*	*	68.0	89.7
C. Nutritional status												
<i>Children:</i>												
Moderate stunting	26.7	21.8	18.9	18.7	7.9	21.0	*	(15.0)	21.9	28.3	12.2	17.3
Severe stunting	17.4	16.2	11.3	9.8	7.8	13.8	*	(11.1)	9.3	9.4	5.8	7.4
Moderate underweight	24.4	20.1	16.5	13.8	8.6	18.6	*	(30.3)	12.8	13.2	8.0	10.9
Severe underweight	7.1	6.4	3.3	3.9	3.1	5.3	*	(1.3)	8.7	1.8	1.5	2.3
Mild anemia	na	na	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na	na	na
<i>Women:</i>												
Malnutrition	17.3	15.1	11.4	8.7	5.5	13.0	*	*	11.9	6.5	5.5	7.5
Mild anemia	na	na	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na	na	na
D. Female circumcision												
<i>Prevalence of circumcision:</i>												
Girls	16.1	15.5	16.7	11.7	10.9	14.8	*	(12.7)	12.6	4.8	4.5	5.5
Women	45.7	42.7	45.4	38.4	31.6	42.0	(10.7)	46.3	35.6	24.8	20.4	23.1
<i>Prevalence of occlusion:</i>												
Girls	84.4	90.0	78.9	81.0	(78.7)	83.8	*	*	*	*	*	(85.5)
Women	na	na	na	na	na	na	na	na	na	na	na	na
E. Sexually transmitted disease												
<i>Prevalence of genital discharge:</i>												
Women	1.5	1.0	1.0	0.3	1.3	1.0	*	2.7	1.2	1.1	1.4	1.3
Men	4.0	5.6	5.7	4.3	4.1	4.8	*	(11.9)	(4.4)	7.0	2.4	4.0
<i>Prevalence of genital ulcer:</i>												
Women	0.3	0.6	0.7	0.2	0.2	0.4	*	0.0	2.6	1.1	0.7	0.9
Men	3.2	3.6	4.2	3.4	1.6	3.3	*	(11.9)	0.0	2.7	1.4	1.9

Kenya

1998 - RURAL / URBAN POPULATIONS

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood immunization												
BCG coverage	93.7	92.2	98.1	97.7	100.0	95.3	*	*	*	(96.6)	98.6	98.0
Measles coverage	63.9	78.4	84.8	80.4	80.5	76.1	*	*	*	(95.5)	92.4	92.8
DPT coverage	67.1	79.1	87.1	86.4	88.7	79.2	*	*	*	(75.8)	82.0	79.0
Full basic coverage	47.9	58.1	71.7	64.6	68.5	59.8	*	*	*	(64.7)	56.0	58.3
No basic coverage	4.9	3.2	1.3	2.3	0.0	2.9	*	*	*	(3.4)	1.4	1.6
Hepatitis B coverage	na	na	na	na	na	na	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na	na	na	na	na	na	na
B. Treatment of childhood diseases												
<i>Treatment of fever:</i>												
Medical treatment of fever	54.5	59.2	58.8	59.5	71.3	58.5	*	*	*	69.6	74.5	75.6
Treatment in a public facility	38.9	32.9	35.9	31.2	42.6	35.9	*	*	*	45.1	29.5	38.3
Treatment in a private facility	13.7	21.9	20.5	25.6	26.0	19.9	*	*	*	21.0	41.3	34.2
<i>Treatment of acute respiratory infection (ARI):</i>												
Medical treatment of ARI	54.8	53.2	48.1	53.4	(70.4)	54.0	*	*	*	(58.8)	(84.8)	73.9
Treatment in a public facility	38.0	30.2	33.0	34.8	(42.7)	34.9	*	*	*	(43.1)	(40.0)	41.3
Treatment in a private facility	15.8	22.5	15.1	18.6	(27.7)	18.6	*	*	*	(15.7)	(40.9)	30.9
<i>Treatment of diarrhea:</i>												
Use of oral rehydration therapy	77.8	84.6	74.2	81.1	(78.6)	79.4	*	*	*	*	(91.7)	93.4
Medical treatment of diarrhea	41.0	48.8	36.7	43.3	(32.1)	41.9	*	*	*	*	(58.7)	54.3
Treatment in a public facility	25.7	28.9	21.9	27.5	(23.3)	25.9	*	*	*	*	(24.5)	32.4
Treatment in a private facility	15.3	19.9	13.9	15.8	(8.9)	15.9	*	*	*	*	(30.2)	20.0
C. Antenatal and delivery care												
<i>Antenatal care visits:</i>												
To a medically-trained person	88.3	90.1	93.1	95.2	94.9	91.4	*	(87.4)	(94.0)	95.6	97.0	95.9
To a doctor	23.3	22.3	25.3	32.8	33.6	25.9	*	(42.3)	(30.4)	32.6	41.5	39.0
To a nurse or trained midwife	65.1	67.8	67.8	62.4	61.3	65.6	*	(45.2)	(63.5)	63.0	55.4	56.9
Multiple visits to a medically-trained person	77.2	78.6	81.1	84.6	82.0	80.0	*	(76.5)	(94.7)	83.2	88.9	87.6
<i>Antenatal care content:</i>												
Tetanus toxoid	87.1	87.8	90.3	93.5	91.8	89.4	*	(87.4)	(97.3)	88.4	92.6	92.0
Prophylactic antimalarial treatment	na	na	na	na	na	na	na	na	na	na	na	na
Iron supplementation	na	na	na	na	na	na	na	na	na	na	na	na
<i>Delivery attendance:</i>												
By a medically-trained person	23.1	32.5	40.9	56.3	73.8	38.4	*	(49.3)	50.2	55.7	83.0	70.8
By a doctor	5.2	8.1	11.5	13.4	21.8	9.8	*	(5.7)	11.6	13.8	31.6	23.6
By a nurse or trained midwife	17.9	24.4	29.4	42.9	52.0	28.6	*	(43.6)	38.6	41.9	51.3	47.2
In a public facility	15.7	24.5	32.2	37.8	39.8	26.8	*	(32.8)	42.9	47.6	53.0	49.3
In a private facility	4.4	5.7	8.2	15.6	32.1	9.5	*	0.0	2.9	5.9	29.0	18.9
At home	78.4	68.1	58.6	45.4	27.4	62.4	*	(67.2)	54.2	44.0	17.8	31.0
D. Contraceptive services												
<i>Contraceptive prevalence:</i>												
Women	12.7	24.2	32.0	41.7	55.1	29.0	*	(21.1)	17.3	32.9	47.6	41.0
Men	18.2	28.3	41.0	47.0	54.1	35.2	*	*	(37.2)	41.2	54.8	48.2

Kenya

1998 - RURAL / URBAN POPULATIONS

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE (Cont.)

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
D. Contraceptive services (cont.)												
<i>Source of contraception - public sector:</i>												
Women	74.6	73.4	71.8	64.9	53.1	67.3	*	*	*	59.1	51.5	53.3
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Source of contraception - private sector:</i>												
Women	25.4	25.5	27.5	34.2	46.5	32.0	*	*	*	38.8	47.3	45.5
Men	na	na	na	na	na	na	na	na	na	na	na	na
E. Treatment of adult illnesses												
<i>Treatment of genital discharge, ulcer, sore:</i>												
Women	*	*	(82.2)	*	*	85.6	*	*	*	*	*	(92.4)
Men	*	(70.0)	(52.8)	(62.9)	*	63.0	*	*	*	*	*	(63.9)
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	*	(80.8)	(75.4)	(77.4)	*	76.1	*	*	*	*	*	(73.3)
<i>Voluntary counseling and testing for HIV/AIDS:</i>												
Women	6.4	9.3	11.5	15.4	16.4	11.1	(10.7)	13.2	17.7	25.4	25.9	24.7
Men	na	na	na	na	na	na	na	na	na	na	na	na

Kenya

1998 - RURAL / URBAN POPULATIONS

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Hygienic practices												
<i>Disposal of children's stools:</i>												
Sanitary disposal	na	na	na	na	na	na	na	na	na	na	na	na
<i>Handwashing:</i>												
Wash hands prior to preparing food	na	na	na	na	na	na	na	na	na	na	na	na
Handwashing facilities in household	na	na	na	na	na	na	na	na	na	na	na	na
B. Bednet ownership and use												
<i>Bednet ownership:</i>												
Bednet ownership	na	na	na	na	na	na	na	na	na	na	na	na
Treated bednet ownership	na	na	na	na	na	na	na	na	na	na	na	na
<i>Bednet use:</i>												
By children	na	na	na	na	na	na	na	na	na	na	na	na
By pregnant women	na	na	na	na	na	na	na	na	na	na	na	na
C. Breastfeeding												
Exclusive breastfeeding	15.3	20.1	19.2	15.0	(16.1)	17.0	*	*	*	*	(16.3)	16.3
Timely complementary feeding	86.0	94.4	84.0	93.0	*	89.5	*	*	*	*	(84.0)	88.5
Bottle-feeding	20.6	20.5	26.2	25.8	34.7	24.0	*	*	*	(31.0)	33.1	29.7
D. Micronutrient consumption												
<i>Iodized salt:</i>												
Availability of iodized salt in household	na	na	na	na	na	na	na	na	na	na	na	na
<i>Vitamin A:</i>												
Children	na	na	na	na	na	na	na	na	na	na	na	na
Women	na	na	na	na	na	na	na	na	na	na	na	na
E. Tobacco and alcohol use												
<i>Tobacco:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Alcohol:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
F. Sexual practices												
<i>Non-regular sexual partnerships:</i>												
Women	1.7	0.8	0.9	0.4	0.4	0.9	0.0	0.8	2.7	1.8	0.6	1.0
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Condom usage with non-regular partner:</i>												
Women	*	*	*	*	*	18.0	*	*	*	*	*	*
Men	28.9	39.7	47.3	47.6	55.5	43.2	*	(24.6)	(37.5)	35.7	69.6	54.6
G. Domestic violence												
Ever experienced violence	na	na	na	na	na	na	na	na	na	na	na	na
Experienced violence in past year	na	na	na	na	na	na	na	na	na	na	na	na

Kenya

1998 - RURAL / URBAN POPULATIONS

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Education												
<i>School completion:</i>												
Women	58.9	69.1	75.7	85.0	90.4	73.5	(47.1)	67.9	78.8	84.5	91.0	88.0
Men	72.0	80.1	86.0	87.8	89.8	82.6	*	83.5	86.2	89.4	94.1	92.1
<i>School participation:</i>												
Girls	69.3	83.3	86.6	88.8	94.3	82.1	*	(61.2)	(89.4)	81.8	87.6	84.6
Boys	72.5	80.6	83.6	89.0	93.5	81.5	*	*	*	82.7	90.1	86.2
B. Exposure to mass media												
<i>Newspaper readership:</i>												
Women	17.2	23.1	28.1	39.2	56.4	29.5	*	30.7	35.6	50.3	69.2	61.6
Men	30.0	44.4	52.0	65.2	75.7	52.1	*	(68.7)	(65.1)	73.9	91.5	83.9
<i>Radio listenership:</i>												
Women	30.7	44.1	63.1	69.7	81.1	54.1	*	46.8	40.0	63.6	78.7	71.6
Men	61.9	75.3	86.7	88.7	89.7	80.1	*	(72.3)	(68.1)	76.2	89.4	83.6
<i>Television viewership:</i>												
Women	6.9	9.3	11.0	19.5	57.1	16.1	*	16.5	17.3	28.3	71.1	57.3
Men	17.6	24.2	35.8	47.9	66.1	36.4	*	(27.9)	(55.9)	58.2	82.0	71.8
C. Knowledge and attitudes about HIV/AIDS												
<i>Knowledge about sexual transmission of HIV/AIDS:</i>												
Women	94.5	96.2	97.1	97.8	98.1	96.5	(93.4)	99.2	96.6	98.1	98.9	98.5
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>												
Women	77.3	83.3	84.6	88.4	86.9	83.6	(73.5)	86.6	84.6	94.2	90.4	90.4
Men	81.7	80.8	81.4	83.2	84.2	82.1	*	(94.4)	(90.8)	92.2	90.4	91.0
<i>Attitudes toward HIV/AIDS:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
D. Status of women												
<i>Household decisionmaking:</i>												
Can seek own health care	na	na	na	na	na	na	na	na	na	na	na	na
Can seek children's health care	na	na	na	na	na	na	na	na	na	na	na	na
Can make daily household purchases	na	na	na	na	na	na	na	na	na	na	na	na
Can make large household purchases	na	na	na	na	na	na	na	na	na	na	na	na
Can make meal-related decisions	na	na	na	na	na	na	na	na	na	na	na	na
<i>Freedom of movement:</i>												
Can travel to visit family, relatives	na	na	na	na	na	na	na	na	na	na	na	na
<i>Other decisionmaking, attitudes:</i>												
Can decide how to spend own money	33.8	36.7	43.2	40.9	50.0	39.5	*	(39.2)	67.7	58.4	60.3	59.7
Can decide whether to have sex	na	na	na	na	na	na	na	na	na	na	na	na
Justifies domestic violence	na	na	na	na	na	na	na	na	na	na	na	na
E. Orphanhood												
Paternal orphan prevalence	8.2	8.0	7.6	7.3	7.8	7.8	11.6	6.0	10.9	2.5	5.2	5.3
Maternal orphan prevalence	1.9	2.5	3.6	3.1	3.9	2.8	5.2	2.8	2.1	1.4	3.4	2.9
Double orphan prevalence	0.5	0.7	1.2	1.0	1.8	0.9	0.0	2.8	1.4	0.0	0.7	0.7

PART III. BASIC TABLES, 1993

A. TOTAL POPULATION

B. FEMALE AND MALE POPULATIONS

C. RURAL AND URBAN POPULATIONS

Notes:

- Each of the three sections referred to above consists of four divisions, presenting data for: I) hnp status; II) hnp service use; III) hnp-related individual and household behavior; and IV) other, underlying determinants of hnp status.
- Full definitions of all indicators covered in the tables are provided in section A of the technical notes found in part II.
- “na” appears in the table cells when data are not available, usually because the DHS survey concerned did not collect information about the indicator(s) in question.
- Figures in the tables shown within parentheses indicate the absence of adequate observations to produce acceptably reliable values. Asterisks appear when the number of observations was too small to justify the presentation even of figures within parentheses. (For further information, see the section on “Sampling Errors” in the presentation of data and methods in part II.B.) Asterisks also will be found in columns showing statistical indices of inequality when the amount of quintile-specific information available is inadequate to permit computation of the value for the index concerned.
- Female/male tables include only indicators relevant for both sexes; those pertaining to only one sex (e.g., fertility, women’s nutritional status, antenatal care, attended deliveries) have been omitted.

Kenya
1993 - TOTAL POPULATION

Part I: HNP STATUS

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Childhood illness and mortality										
Infant mortality rate	90.0	79.3	52.7	39.1	43.3	62.5	2.08	46.76	-0.1757	0.0184
Under-five mortality rate	129.3	120.2	81.2	61.5	61.9	93.2	2.09	67.44	-0.1684	0.0205
Prevalence of fever	44.2	44.7	40.1	39.2	39.4	41.7	1.12	4.83	-0.0324	0.0095
Prevalence of diarrhea	8.2	10.7	8.7	8.0	6.8	8.6	1.21	1.40	-0.0470	0.0245
Prevalence of acute respiratory infection (ARI)	5.8	7.0	5.9	8.2	6.2	6.6	0.94	0.40	0.0166	0.0290
B. Fertility										
Total fertility rate	7.2	6.2	5.6	5.3	3.3	5.4	2.17	3.91	-0.1351	0.0444
Adolescent fertility rate	156.5	109.6	120.3	122.1	66.8	110.4	2.34	89.69	-0.1173	0.0641
C. Nutritional status (%)										
<i>Children:</i>										
Moderate stunting	23.1	23.6	20.3	22.4	12.1	20.7	1.91	10.98	-0.0828	0.0160
Severe stunting	18.3	13.2	10.8	12.4	6.2	12.5	2.93	12.05	-0.1536	0.0218
Moderate underweight	19.7	18.2	16.0	17.9	11.0	16.8	1.79	8.68	-0.0876	0.0184
Severe underweight	9.9	6.4	5.1	3.6	2.8	5.8	3.49	7.07	-0.2217	0.0359
Mild anemia	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na
<i>Women:</i>										
Malnutrition	13.2	10.5	9.4	7.8	5.0	9.3	2.64	8.17	-0.1549	0.0288
Mild anemia	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na
D. Female circumcision (%)										
<i>Prevalence of circumcision:</i>										
Girls	na	na	na	na	na	na	na	na	na	na
Women	na	na	na	na	na	na	na	na	na	na
<i>Prevalence of occlusion:</i>										
Girls	na	na	na	na	na	na	na	na	na	na
Women	na	na	na	na	na	na	na	na	na	na
E. Sexually transmitted disease										
<i>Prevalence of genital discharge:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
<i>Prevalence of genital ulcer:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na

Kenya

1993 - TOTAL POPULATION

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Childhood immunization										
BCG coverage	93.3	94.6	95.7	99.1	99.1	96.2	0.94	5.77	0.0120	0.0031
Measles coverage	69.7	88.5	82.6	90.4	89.8	83.8	0.78	20.13	0.0392	0.0078
DPT coverage	76.7	86.2	86.4	92.8	93.6	86.8	0.82	16.86	0.0302	0.0068
Full basic coverage	64.8	78.0	77.1	86.7	86.4	78.2	0.75	21.59	0.0487	0.0090
No basic coverage	6.2	3.7	4.3	0.9	0.9	3.3	6.67	5.23	-0.2873	0.0870
Hepatitis B coverage	na	na	na	na	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na	na	na	na	na
B. Treatment of childhood illnesses										
<i>Treatment of fever:</i>										
Medical treatment of fever	37.8	47.3	42.1	55.1	58.4	47.3	0.65	20.60	0.1082	0.0124
Treatment in a public facility	26.8	34.9	28.3	42.8	31.4	32.6	0.85	4.68	0.0778	0.0175
Treatment in a private facility	11.0	12.4	13.8	12.3	26.9	14.7	0.41	15.92	0.1761	0.0315
<i>Treatment of acute respiratory infection (ARI):</i>										
Medical treatment of ARI	45.1	64.9	43.2	61.9	58.0	55.3	0.78	12.91	0.0570	0.0291
Treatment in a public facility	31.1	45.5	31.7	52.8	40.5	41.3	0.77	9.40	0.0679	0.0387
Treatment in a private facility	14.0	19.4	11.5	9.1	17.5	14.1	0.80	3.51	0.0227	0.0850
<i>Treatment of diarrhea:</i>										
Use of oral rehydration therapy	49.8	45.8	40.8	66.4	50.1	50.0	0.99	0.34	0.0345	0.0283
Medical treatment of diarrhea	31.6	50.4	47.4	46.2	40.8	43.7	0.77	9.23	0.0251	0.0299
Treatment in a public facility	21.1	38.8	27.5	40.9	24.6	31.2	0.86	3.47	0.0297	0.0379
Treatment in a private facility	10.4	11.6	19.9	5.3	16.2	12.5	0.64	5.77	0.0148	0.0736
C. Antenatal and delivery care										
<i>Antenatal care visits:</i>										
To a medically-trained person	89.0	96.1	96.1	95.9	97.6	94.8	0.91	8.64	0.0141	0.0024
To a doctor	21.1	22.5	23.1	19.1	31.8	23.4	0.66	10.67	0.0723	0.0172
To a nurse or trained midwife	67.9	73.6	73.0	76.8	65.8	71.4	1.03	2.03	-0.0050	0.0061
Multiple visits to a medically-trained person	76.3	85.1	83.9	84.9	87.7	83.4	0.87	11.36	0.0247	0.0042
<i>Antenatal care content:</i>										
Tetanus toxoid	83.6	89.3	89.6	91.5	92.0	89.1	0.91	8.43	0.0163	0.0034
Prophylactic antimalarial treatment	na	na	na	na	na	na	na	na	na	na
Iron supplementation	na	na	na	na	na	na	na	na	na	na
<i>Delivery attendance:</i>										
By a medically-trained person	23.1	33.1	45.7	56.7	76.5	45.1	0.30	53.40	0.2270	0.0076
By a doctor	5.7	9.4	11.8	13.6	23.6	12.2	0.24	17.87	0.2891	0.0218
By a nurse or trained midwife	17.3	23.7	33.9	43.1	52.8	32.9	0.33	35.53	0.2040	0.0108
In a public facility	17.7	26.8	34.7	44.0	51.9	33.8	0.34	34.23	0.2021	0.0104
In a private facility	4.8	5.1	9.6	11.3	22.5	10.0	0.21	17.66	0.3198	0.0256
At home	75.8	66.1	54.4	43.8	24.3	54.7	3.12	51.51	-0.1795	0.0064
D. Contraceptive services										
<i>Contraceptive prevalence:</i>										
Women	10.3	15.7	27.3	37.5	45.1	27.3	0.23	34.87	0.2638	0.0134
Men	9.4	20.5	34.7	41.0	45.4	31.9	0.21	35.93	0.2261	0.0194

Kenya

1993 - TOTAL POPULATION

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE (Cont.)

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
D. Contraceptive services (cont.)										
<i>Source of contraception - public sector:</i>										
Women	77.8	82.6	66.2	78.5	59.6	70.0	1.30	18.16	-0.0691	0.0113
Men	na	na	na	na	na	na	na	na	na	na
<i>Source of contraception - private sector:</i>										
Women	16.4	12.1	25.6	15.9	33.2	23.3	0.49	16.85	0.1941	0.0319
Men	na	na	na	na	na	na	na	na	na	na
E. Treatment of adult illnesses										
<i>Treatment of genital discharge, ulcer, sore:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
<i>Voluntary counseling and testing for HIV/AIDS:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na

Kenya

1993 - TOTAL POPULATION

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Hygienic practices										
<i>Disposal of children's stools:</i>										
Sanitary disposal	na	na	na	na	na	na	na	na	na	na
<i>Handwashing:</i>										
Wash hands prior to preparing food	na	na	na	na	na	na	na	na	na	na
Handwashing facilities in household	na	na	na	na	na	na	na	na	na	na
B. Bednet ownership and use										
<i>Bednet ownership:</i>										
Bednet ownership	na	na	na	na	na	na	na	na	na	na
Treated bednet ownership	na	na	na	na	na	na	na	na	na	na
<i>Bednet use:</i>										
By children	na	na	na	na	na	na	na	na	na	na
By pregnant women	na	na	na	na	na	na	na	na	na	na
C. Breastfeeding										
Exclusive breastfeeding	na	na	na	na	na	na	na	na	na	na
Timely complementary feeding	na	na	na	na	na	na	na	na	na	na
Bottle-feeding	11.9	7.9	13.9	9.9	23.2	12.7	0.52	11.21	0.1812	0.0527
D. Micronutrient consumption										
<i>Iodized salt:</i>										
Availability of iodized salt in household	na	na	na	na	na	na	na	na	na	na
<i>Vitamin A:</i>										
Children	28.3	28.5	32.6	38.1	44.4	33.7	0.64	16.08	0.0829	0.0160
Women	na	na	na	na	na	na	na	na	na	na
E. Tobacco and alcohol use										
<i>Tobacco:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
<i>Alcohol:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
F. Sexual practices										
<i>Non-regular sexual partnerships:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
<i>Condom usage with non-regular partner:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
G. Domestic violence										
Ever experienced violence	na	na	na	na	na	na	na	na	na	na
Experienced violence in past year	na	na	na	na	na	na	na	na	na	na

Kenya

1993 - TOTAL POPULATION

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles						Low/High Ratio	Low-High Diff. (Abs. Val.)	Concentration Index	
	Low	2nd	3rd	4th	High	Avg.			Value	Standard Errors
A. Education										
<i>School completion:</i>										
Women	44.8	60.7	69.3	73.9	85.1	68.1	0.53	40.35	0.1057	0.0042
Men	65.7	74.7	83.0	84.5	89.2	80.9	0.74	23.52	0.0506	0.0034
<i>School participation:</i>										
Girls	50.0	63.5	69.9	75.4	77.9	66.3	0.64	27.93	0.0792	0.0069
Boys	54.1	61.0	67.8	77.8	76.7	67.0	0.71	22.60	0.0735	0.0071
B. Exposure to mass media										
<i>Newspaper readership:</i>										
Women	15.9	20.3	23.5	31.0	57.7	31.4	0.28	41.80	0.2584	0.0099
Men	27.3	42.4	57.2	68.1	81.5	59.1	0.34	54.22	0.1909	0.0089
<i>Radio listenership:</i>										
Women	30.8	54.4	68.7	73.8	86.5	64.7	0.36	55.74	0.1605	0.0046
Men	na	na	na	na	na	na	na	na	na	na
<i>Television viewership:</i>										
Women	2.5	3.2	7.0	9.4	43.6	14.9	0.06	41.07	0.5620	0.0205
Men	11.1	14.6	22.5	29.7	56.2	30.7	0.20	45.08	0.3476	0.0176
C. Knowledge and attitudes about HIV/AIDS										
<i>Knowledge about sexual transmission of HIV/AIDS:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	35.1	38.0	43.0	45.1	50.4	43.4	0.70	15.26	0.0814	0.0137
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
<i>Attitudes toward HIV/AIDS:</i>										
Women	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na
D. Status of women										
<i>Household decisionmaking:</i>										
Can seek own health care	na	na	na	na	na	na	na	na	na	na
Can seek children's health care	na	na	na	na	na	na	na	na	na	na
Can make daily household purchases	na	na	na	na	na	na	na	na	na	na
Can make large household purchases	na	na	na	na	na	na	na	na	na	na
Can make meal-related decisions	na	na	na	na	na	na	na	na	na	na
<i>Freedom of movement:</i>										
Can travel to visit family, relatives	na	na	na	na	na	na	na	na	na	na
<i>Other decisionmaking, attitudes:</i>										
Can decide how to spend own money	na	na	na	na	na	na	na	na	na	na
Can decide whether to have sex	na	na	na	na	na	na	na	na	na	na
Justifies domestic violence	na	na	na	na	na	na	na	na	na	na
E. Orphanhood										
Paternal orphan prevalence	7.5	5.3	5.3	4.6	3.9	5.4	1.94	3.65	-0.1194	0.0189
Maternal orphan prevalence	2.6	1.5	1.3	2.0	1.4	1.8	1.78	1.13	-0.0775	0.0356
Double orphan prevalence	0.3	0.1	0.2	0.3	0.4	0.3	0.56	0.19	0.1974	0.1001

Kenya
1993 - FEMALE / MALE POPULATIONS

Part I: HNP STATUS

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood mortality and morbidity												
Infant mortality rate	77.1	83.0	45.7	38.7	40.7	58.6	103.2	75.5	59.8	39.4	45.9	66.6
Under-five mortality rate	115.3	124.6	77.0	62.8	55.2	89.3	143.7	115.7	85.6	60.2	68.8	97.1
Prevalence of fever	42.1	43.4	41.3	37.4	39.4	40.8	46.4	46.0	38.8	40.8	39.3	42.5
Prevalence of diarrhea	9.4	11.2	6.7	7.0	6.4	8.3	7.0	10.2	10.8	8.9	7.3	8.9
Prevalence of acute respiratory infection (ARI)	7.1	6.6	5.5	7.3	6.2	6.6	4.4	7.4	6.3	8.9	6.3	6.7
B. Nutritional status												
<i>Children:</i>												
Moderate stunting	19.8	22.9	18.3	20.3	9.9	18.6	26.6	24.3	22.4	24.3	14.5	22.9
Severe stunting	16.7	11.6	10.4	12.6	6.0	11.7	20.0	14.6	11.3	12.2	6.5	13.3
Moderate underweight	17.0	15.9	15.3	15.8	10.2	15.1	22.4	20.4	16.6	19.7	11.9	18.6
Severe underweight	8.8	5.0	5.9	3.7	3.2	5.5	11.1	7.7	4.3	3.5	2.4	6.0
Mild anemia	na	na	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na	na	na
C. Sexually transmitted disease												
<i>Prevalence of genital discharge:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
<i>Prevalence of genital ulcer:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na

Kenya

1993 - FEMALE / MALE POPULATIONS

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood immunization												
BCG coverage	94.2	90.3	97.1	98.0	100.0	95.9	92.4	98.5	94.5	100.0	98.1	96.6
Measles coverage	71.1	89.3	85.7	91.7	87.2	84.4	68.3	87.8	80.0	89.2	92.6	83.2
DPT coverage	74.3	86.9	90.7	91.7	92.2	86.7	79.2	85.5	82.8	93.8	95.1	87.0
Full basic coverage	63.2	77.5	80.9	89.9	83.0	78.2	66.5	78.4	73.9	83.8	90.0	78.1
No basic coverage	4.8	7.8	2.9	2.0	0.0	3.5	7.6	0.0	5.5	0.0	1.9	3.1
Hepatitis B coverage	na	na	na	na	na	na	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na	na	na	na	na	na	na
B. Treatment of childhood illnesses												
<i>Treatment of fever:</i>												
Medical treatment of fever	36.5	44.4	37.8	53.4	59.6	45.3	39.1	49.9	46.7	56.4	57.1	49.2
Treatment in a public facility	23.7	33.7	24.8	42.0	36.4	31.4	29.7	35.9	32.2	43.4	26.2	33.8
Treatment in a private facility	12.7	10.6	13.1	11.4	23.2	13.9	9.3	14.0	14.5	13.0	30.9	15.4
<i>Treatment of acute respiratory infection (ARI):</i>												
Medical treatment of ARI	49.6	59.6	46.5	40.9	56.6	50.5	37.1	69.6	40.2	77.5	59.4	60.2
Treatment in a public facility	34.3	38.2	33.5	28.5	46.0	35.7	25.4	51.9	30.1	70.8	34.8	46.8
Treatment in a private facility	15.2	21.4	12.9	12.3	10.7	14.8	11.7	17.7	10.1	6.7	24.6	13.4
<i>Treatment of diarrhea:</i>												
Use of oral rehydration therapy	53.5	46.2	46.0	63.5	59.1	52.5	44.5	45.4	37.5	68.4	41.7	47.7
Medical treatment of diarrhea	27.3	48.3	26.7	44.6	49.1	38.7	37.7	52.5	60.8	47.3	32.9	48.3
Treatment in a public facility	20.7	39.4	10.1	44.0	30.7	29.1	21.8	38.1	38.8	38.8	18.8	33.1
Treatment in a private facility	6.6	9.0	16.6	0.6	18.4	9.6	15.9	14.4	22.0	8.5	14.2	15.2
C. Contraceptive services												
<i>Contraceptive prevalence:</i>												
Women	10.3	15.7	27.3	37.5	45.1	27.3						
Men							9.4	20.5	34.7	41.0	45.4	31.9
<i>Source of contraception - public sector:</i>												
Women	77.8	82.6	66.2	78.5	59.6	70.0						
Men							na	na	na	na	na	na
<i>Source of contraception - private sector:</i>												
Women	16.4	12.1	25.6	15.9	33.2	23.3						
Men							na	na	na	na	na	na
D. Treatment of adult illnesses												
<i>Treatment of genital discharge, ulcer, sore:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
<i>Voluntary counseling and testing for HIV/AIDS:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na

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1993 - FEMALE / MALE POPULATIONS

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Hygienic practices												
<i>Disposal of children's stools:</i>												
Sanitary disposal	na	na	na	na	na	na						
<i>Handwashing:</i>												
Wash hands prior to preparing food	na	na	na	na	na	na						
Handwashing facilities in household	na	na	na	na	na	na						
B. Bednet ownership and use												
<i>Bednet use:</i>												
By children	na	na	na	na	na	na						
C. Breastfeeding												
Exclusive breastfeeding	na	na	na	na	na	na	na	na	na	na	na	na
Timely complementary feeding	na	na	na	na	na	na	na	na	na	na	na	na
Bottle-feeding	13.0	8.4	12.5	14.7	28.9	14.8	10.5	7.5	15.2	4.6	16.2	10.4
D. Micronutrient consumption												
<i>Vitamin A:</i>												
Children	29.9	29.7	30.0	41.7	48.6	35.2	26.7	27.4	35.4	35.1	39.7	32.2
E. Tobacco and alcohol use												
<i>Tobacco:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
<i>Alcohol:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
F. Sexual practices												
<i>Non-regular sexual partnerships:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
<i>Condom usage with non-regular partner:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na

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1993 - FEMALE / MALE POPULATIONS

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles - Female						Wealth Quintiles - Male					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Education												
<i>School completion:</i>												
Women	44.8	60.7	69.3	73.9	85.1	68.1	65.7	74.7	83.0	84.5	89.2	80.9
Men												
<i>School participation:</i>												
Girls	50.0	63.5	69.9	75.4	77.9	66.3						
Boys							54.1	61.0	67.8	77.8	76.7	67.0
B. Exposure to mass media												
<i>Newspaper readership:</i>												
Women	15.9	20.3	23.5	31.0	57.7	31.4						
Men							27.3	42.4	57.2	68.1	81.5	59.1
<i>Radio listenership:</i>												
Women	30.8	54.4	68.7	73.8	86.5	64.7						
Men							na	na	na	na	na	na
<i>Television viewership:</i>												
Women	2.5	3.2	7.0	9.4	43.6	14.9						
Men							11.1	14.6	22.5	29.7	56.2	30.7
C. Knowledge and attitudes about HIV/AIDS												
<i>Knowledge about sexual transmission of HIV/AIDS:</i>												
Women	na	na	na	na	na	na						
Men							35.1	38.0	43.0	45.1	50.4	43.4
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
<i>Attitudes toward HIV/AIDS:</i>												
Women	na	na	na	na	na	na						
Men							na	na	na	na	na	na
D. Orphanhood												
Paternal orphan prevalence	7.2	5.0	5.5	5.2	3.5	5.4	7.9	5.7	5.2	4.0	4.3	5.5
Maternal orphan prevalence	2.5	1.4	1.1	2.0	1.1	1.7	2.7	1.7	1.6	1.9	1.8	1.9
Double orphan prevalence	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.1	0.2	0.2	0.6	0.3

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1993 - RURAL / URBAN POPULATIONS

Part I: HNP STATUS

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood illness and mortality												
Infant mortality rate	90.0	79.2	50.4	37.8	49.6	64.9	*	*	*	(80.1)	41.8	45.5
Under-five mortality rate	129.3	119.4	77.1	60.1	62.4	95.6	*	*	*	(119.7)	68.2	75.4
Prevalence of fever	44.2	44.9	40.4	39.0	39.6	42.1	na	30.6	34.1	40.3	39.1	38.8
Prevalence of diarrhea	8.2	10.8	8.8	7.0	8.5	8.7	na	6.2	6.7	15.5	5.3	7.4
Prevalence of acute respiratory infection	5.8	7.0	5.8	8.6	7.5	6.8	na	6.0	8.0	5.3	5.0	5.3
B. Fertility												
Total fertility rate	7.2	6.2	5.6	5.3	3.8	5.8	3.3	5.4	5.1	3.0	3.4	3.4
Adolescent fertility rate	109.7	119.2	118.7	79.7	118.9	156.5	105.2	143.1	143.5	57.1	73.6	74.0
C. Nutritional status												
<i>Children:</i>												
Moderate stunting	23.1	23.7	20.0	21.1	14.3	21.4	na	15.7	25.8	33.8	9.9	15.5
Severe stunting	18.3	13.1	10.9	13.3	7.2	13.4	na	19.6	9.1	4.4	5.3	5.7
Moderate underweight	19.7	18.1	16.0	18.5	12.9	17.7	na	23.5	15.0	12.0	9.1	10.4
Severe underweight	9.9	6.4	5.2	3.8	3.0	6.2	na	3.9	3.9	1.6	2.7	2.6
Mild anemia	na	na	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na	na	na
<i>Women:</i>												
Malnutrition	13.2	10.5	9.4	8.3	7.0	10.1	na	10.1	9.6	4.7	3.2	4.0
Mild anemia	na	na	na	na	na	na	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na	na	na	na	na	na	na
D. Female circumcision												
<i>Prevalence of circumcision:</i>												
Girls	na	na	na	na	na	na	na	na	na	na	na	na
Women	na	na	na	na	na	na	na	na	na	na	na	na
<i>Prevalence of occlusion:</i>												
Girls	na	na	na	na	na	na	na	na	na	na	na	na
Women	na	na	na	na	na	na	na	na	na	na	na	na
E. Sexually transmitted disease												
<i>Prevalence of genital discharge:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Prevalence of genital ulcer:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na

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1993 - RURAL / URBAN POPULATIONS

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Childhood immunization												
BCG coverage	93.3	94.5	95.4	98.9	100.0	95.8	na	100.0	100.0	100.0	98.4	98.9
Measles coverage	69.7	88.4	82.8	92.0	96.3	83.7	na	90.2	79.9	81.6	84.9	84.0
DPT coverage	76.7	86.1	86.3	92.3	95.4	85.8	na	90.2	88.7	95.4	92.2	92.5
Full basic coverage	64.8	77.9	77.6	87.6	92.1	77.7	na	80.5	68.6	81.6	82.0	80.9
No basic coverage	6.2	3.8	4.6	1.1	0.0	3.7	na	0.0	0.0	0.0	1.6	1.1
Hepatitis B coverage	na	na	na	na	na	na	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na	na	na	na	na	na	na
B. Treatment of childhood diseases												
<i>Treatment of fever:</i>												
Medical treatment of fever	37.8	47.1	40.9	54.8	56.7	45.6	61.0	68.6	56.5	59.9	na	59.8
Treatment in a public facility	26.8	34.9	27.2	42.2	33.0	32.3	29.3	53.9	46.5	30.0	na	35.0
Treatment in a private facility	11.0	12.2	13.7	12.7	23.6	13.3	31.7	14.7	10.0	29.9	na	24.9
<i>Treatment of acute respiratory infection (ARI):</i>												
Medical treatment of ARI	45.1	65.1	43.8	58.4	61.4	54.8	50.0	34.6	100.0	53.5	na	60.3
Treatment in a public facility	31.1	45.5	31.5	50.4	42.2	40.7	50.0	34.6	79.6	38.3	na	46.2
Treatment in a private facility	14.0	19.7	12.3	8.0	19.2	14.1	0.0	0.0	20.4	15.2	na	14.1
<i>Treatment of diarrhea:</i>												
Use of oral rehydration therapy	49.8	45.4	41.8	60.1	42.4	47.7	100.0	14.0	87.5	61.6	na	69.5
Medical treatment of diarrhea	31.6	50.0	48.7	42.6	39.1	43.1	100.0	14.0	58.2	43.3	na	48.4
Treatment in a public facility	21.1	38.3	28.0	35.8	19.6	29.8	100.0	14.0	58.2	32.1	na	42.7
Treatment in a private facility	10.4	11.7	20.6	6.8	19.5	13.3	0.0	0.0	0.0	11.2	na	5.7
C. Antenatal and delivery care												
<i>Antenatal care visits:</i>												
To a medically-trained person	89.0	96.1	96.2	95.6	97.3	94.4	100.0	93.9	97.9	97.9	na	97.6
To a doctor	21.1	22.2	23.0	18.7	29.2	22.1	39.5	25.0	22.1	33.9	na	31.3
To a nurse or trained midwife	67.9	73.9	73.2	76.9	68.1	72.3	60.5	68.9	75.8	64.0	na	66.3
Multiple visits to a medically-trained person	76.3	85.0	84.1	84.3	87.8	82.8	89.9	81.0	89.2	87.5	na	87.3
<i>Antenatal care content:</i>												
Tetanus toxoid	83.6	89.3	89.6	91.0	92.0	88.6	89.1	90.9	94.9	92.1	na	92.4
Prophylactic antimalarial treatment	na	na	na	na	na	na	na	na	na	na	na	na
Iron supplementation	na	na	na	na	na	na	na	na	na	na	na	na
<i>Delivery attendance:</i>												
By a medically-trained person	23.1	33.0	44.7	54.1	67.5	40.1	na	45.8	62.6	74.3	84.4	79.7
By a doctor	5.7	9.4	11.3	13.0	20.7	10.6	na	13.5	19.7	17.8	26.3	23.7
By a nurse or trained midwife	17.3	23.6	33.4	41.1	46.9	29.5	na	32.3	42.9	56.6	58.2	55.9
In a public facility	17.7	26.6	33.4	41.0	46.5	30.3	na	35.5	56.0	64.7	56.7	57.7
In a private facility	4.8	5.2	9.9	11.8	18.9	8.6	na	0.0	4.3	7.8	25.6	19.7
At home	75.8	66.1	55.7	46.3	33.0	59.6	na	64.5	33.4	26.7	16.5	21.1
D. Contraceptive services												
<i>Contraceptive prevalence:</i>												
Women	10.3	16.0	28.3	38.6	46.9	25.4	na	4.7	10.1	28.4	43.6	37.9
Men	9.4	20.5	35.2	42.8	44.3	28.6	na	20.8	30.2	32.7	46.0	42.4

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1993 - RURAL / URBAN POPULATIONS

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE (Cont.)

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
D. Contraceptive services (cont.)												
<i>Source of contraception - public sector:</i>												
Women	77.8	82.5	66.4	78.3	66.6	73.6	na	100.0	57.7	80.7	53.2	56.5
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Source of contraception - private sector:</i>												
Women	16.4	12.2	25.2	15.5	30.3	20.5	na	0.0	42.3	19.3	36.0	34.1
Men	na	na	na	na	na	na	na	na	na	na	na	na
E. Treatment of adult illnesses												
<i>Treatment of genital discharge, ulcer, sore:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Voluntary counseling and testing for HIV/AIDS:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na

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1993 - RURAL / URBAN POPULATIONS

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Hygienic practices												
<i>Disposal of children's stools:</i>												
Sanitary disposal	na	na	na	na	na	na	na	na	na	na	na	na
<i>Handwashing:</i>												
Wash hands prior to preparing food	na	na	na	na	na	na	na	na	na	na	na	na
Handwashing facilities in household	na	na	na	na	na	na	na	na	na	na	na	na
B. Bednet ownership and use												
<i>Bednet ownership:</i>												
Bednet ownership	na	na	na	na	na	na	na	na	na	na	na	na
Treated bednet ownership	na	na	na	na	na	na	na	na	na	na	na	na
<i>Bednet use:</i>												
By children	na	na	na	na	na	na	na	na	na	na	na	na
By pregnant women	na	na	na	na	na	na	na	na	na	na	na	na
C. Breastfeeding												
Exclusive breastfeeding	na	na	na	na	na	na	na	na	na	na	na	na
Timely complementary feeding	na	na	na	na	na	na	na	na	na	na	na	na
Bottle-feeding	11.9	8.0	13.9	9.0	17.8	11.3	na	0.0	13.8	16.4	28.7	24.6
D. Micronutrient consumption												
<i>Iodized salt:</i>												
Availability of iodized salt in household	na	na	na	na	na	na	na	na	na	na	na	na
<i>Vitamin A:</i>												
Children	28.3	28.5	31.9	37.7	50.1	32.9	na	29.3	46.2	41.8	38.7	39.7
Women	na	na	na	na	na	na	na	na	na	na	na	na
E. Tobacco and alcohol use												
<i>Tobacco:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Alcohol:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
F. Sexual practices												
<i>Non-regular sexual partnerships:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Condom usage with non-regular partner:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
G. Domestic violence												
Ever experienced violence	na	na	na	na	na	na	na	na	na	na	na	na
Experienced violence in past year	na	na	na	na	na	na	na	na	na	na	na	na

Kenya

1993 - RURAL / URBAN POPULATIONS

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles - Rural						Wealth Quintiles - Urban					
	Low	2nd	3rd	4th	High	Avg.	Low	2nd	3rd	4th	High	Avg.
A. Education												
<i>School completion:</i>												
Women	44.8	60.6	69.0	74.5	82.8	64.9	na	64.8	74.1	69.2	87.0	83.3
Men	65.7	74.9	82.1	85.0	83.8	78.2	na	68.9	91.4	81.8	93.1	90.6
<i>School participation:</i>												
Girls	50.0	63.6	70.9	76.6	78.5	65.8	na	58.8	45.1	59.8	77.0	70.7
Boys	54.1	61.1	68.2	78.6	78.2	66.5	na	56.9	59.0	66.2	74.5	71.1
B. Exposure to mass media												
<i>Newspaper readership:</i>												
Women	15.9	20.2	23.1	30.5	51.6	26.2	na	25.5	30.8	34.9	62.4	55.8
Men	27.3	41.7	55.6	66.1	70.9	50.9	na	57.6	72.8	77.2	88.1	84.6
<i>Radio listenership:</i>												
Women	30.8	54.4	69.5	74.7	88.3	61.4	na	50.7	55.7	66.7	85.1	79.9
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Television viewership:</i>												
Women	2.5	3.2	6.6	8.0	30.2	8.3	na	2.8	13.8	19.9	53.9	45.5
Men	11.1	14.6	20.4	27.7	51.0	23.2	na	15.2	42.9	38.8	59.4	54.0
C. Knowledge and attitudes about HIV/AIDS												
<i>Knowledge about sexual transmission of HIV/AIDS:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	35.1	37.1	43.6	46.9	50.9	42.1	na	57.4	37.8	36.8	50.0	47.6
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
<i>Attitudes toward HIV/AIDS:</i>												
Women	na	na	na	na	na	na	na	na	na	na	na	na
Men	na	na	na	na	na	na	na	na	na	na	na	na
D. Status of women												
<i>Household decisionmaking:</i>												
Can seek own health care	na	na	na	na	na	na	na	na	na	na	na	na
Can seek children's health care	na	na	na	na	na	na	na	na	na	na	na	na
Can make daily household purchases	na	na	na	na	na	na	na	na	na	na	na	na
Can make large household purchases	na	na	na	na	na	na	na	na	na	na	na	na
Can make meal-related decisions	na	na	na	na	na	na	na	na	na	na	na	na
<i>Freedom of movement:</i>												
Can travel to visit family, relatives	na	na	na	na	na	na	na	na	na	na	na	na
<i>Other decisionmaking, attitudes:</i>												
Can decide how to spend own money	na	na	na	na	na	na	na	na	na	na	na	na
Can decide whether to have sex	na	na	na	na	na	na	na	na	na	na	na	na
Justifies domestic violence	na	na	na	na	na	na	na	na	na	na	na	na
E. Orphanhood												
Paternal orphan prevalence	7.5	5.4	5.0	4.5	4.2	5.5	na	4.3	13.1	5.1	3.4	4.5
Maternal orphan prevalence	2.6	1.6	1.3	2.0	1.1	1.8	na	0.7	1.0	1.2	1.8	1.6
Double orphan prevalence	0.3	0.1	0.2	0.3	0.2	0.2	na	0.0	1.0	0.0	0.7	0.6

PART IV. TECHNICAL NOTES

- A. INDICATOR DEFINITIONS**
- B. DATA AND METHODS**
- C. DISCUSSION**

INDICATOR DEFINITIONS

Part I: HNP STATUS

A. CHILDHOOD MORTALITY AND ILLNESS ²

Infant mortality rate: number of deaths to children under 12 months of age per 1,000 live births, based on experience during the ten years preceding the survey.

Under-five mortality rate: number of deaths to children under five years of age per 1,000 live births, based on experience during the ten years preceding the survey.

Prevalence of fever: percent of children who had fever, whether or not accompanied by cough or rapid breathing, in the two weeks before the survey.

Prevalence of diarrhea: percent of children who had diarrhea in the two weeks before the survey.

Prevalence of acute respiratory infection: percent of children who had a cough accompanied by rapid or difficult breathing in the two weeks before the survey.

B. FERTILITY

Total fertility rate (TFR): average number of births a woman could expect to have during her lifetime if she followed the levels of fertility currently observed at every age. The TFR is calculated as the sum of average annual age-specific fertility rates for all reproductive age groups (usually 15-49 years) in the three years before the survey.

Adolescent fertility rate: age-specific fertility rate for women 15-19 years of age. This is the average number of births among women aged 15-19 years per 1,000 women in that age group, based on births in the three years before the survey and expressed as annual averages.

² Figures for the prevalence of fever, diarrhea, and acute respiratory infection refer to percent of children under three, four, or five years of age, depending upon the country. (The specific ages covered for in particular country may be determined by consulting the full report on that country's DHS, which may be found at: www.measuredhs.com/countries.)

C. NUTRITIONAL STATUS

Children^{3, 4, 5}

Moderate stunting (height-for-age): percent of children with a height-for-age Z-score of between –2 and –3 standard deviations of the median reference standard for their age (as defined in fn. 4).

Severe stunting (height-for-age): percent of children with a height-for-age Z-score of below –3 standard deviations of the median reference standard for their age (as defined in fn. 4).

Moderate underweight (weight-for-age): percent of children with a weight-for-age Z-score of between –2 and –3 standard deviations of the median reference standard for their age (as defined in fn. 4).

Severe underweight (weight-for-age): percent of children with a weight-for-age Z-score of below –3 standard deviations of the median reference standard for their age (as defined in fn. 4).

Mild anemia: percent of children with a hemoglobin level of between 10.0g/dl and 10.9 g/dl, the World Health Organization criterion for mild anemia.

Moderate anemia: percent of children with a hemoglobin level of between 7.0g/dl and 9.9g/dl, the World Health Organization criterion for moderate anemia.

Severe anemia: percent of children with a hemoglobin level of below 7.0g/dl, the World Health Organization criterion for severe anemia.

Women^{6, 7}

Malnutrition: percent of women aged 15-49 years with a Body Mass Index (BMI) of less than 18.5, where BMI – commonly used to indicate adult nutritional status – is defined as weight in kilograms divided by the square of height in meters.

Mild anemia: percent of women aged 15-49 years with a hemoglobin level of between 10.0g/dl and 10.9g/dl for pregnant women and between 10.0g/dl and 11.9g/dl for non-pregnant women, the World Health Organization criterion for mild anemia.

Moderate anemia: percent of women aged 15-49 years with a hemoglobin level of between 7.0g/dl and 9.9g/dl, the World Health Organization criterion for moderate anemia.

Severe anemia: percent of women aged 15-49 years with a hemoglobin level of less than 7.0g/dl, the World Health Organization criterion for severe anemia.

³ All figures related to children's nutrition status refer to children under three, four, or five years of age, depending upon the country. (The specific ages covered for in particular country may be determined by consulting the full report on the DHS of the country concerned, which is available at: www.measuredhs.com/countries.)

⁴ The reference standards used for stunting and underweight are those established in the 1970s by the World Health Organization, the U.S. Centers for Disease Control, and the U.S. National Center for Health Statistics. Updated stunting and underweight figures based on the recently-released, 2006 World Health Organization reference standards are currently under preparation. When complete, they will be available at: www.worldbank.org/povertyandhealth/countrydata.

⁵ The anemia figures for children living at an altitude above 1,000 meters have been adjusted to reflect the higher level of hemoglobin required.

⁶ In some countries, the BMI is presented for all women; in others, the figure is available only for mothers of children under five years of age. The reference population for any given country can be determined by consulting the full report on the DHS for the country concerned. An electronic version of this report is located at: www.measuredhs.com/countries.

⁷ Anemia cut-off points for respondents who live at an altitude above 1,000 meters and/or who smoke have been adjusted to account for their higher hemoglobin requirements.

D. FEMALE CIRCUMCISION

Prevalence of Circumcision

Girls: percent of women aged 15-49 years with one or more daughters, at least one of whom had been circumcised.

Women: percent of women aged 15-49 years who had been circumcised.

Prevalence of Occlusion

Girls: percent of women aged 15-49 years with one or more daughters, at least one of whom had been circumcised with the vaginal area sewn closed.

Women: percent of women aged 15-49 years whose vaginal area had been sewn closed.

E. SEXUALLY TRANSMITTED DISEASES

Prevalence of Genital Discharge

Women: percent of women aged 15-49 years who had had abnormal genital discharge in the twelve months before the survey.

Men: percent of men aged 15-54 years who had had abnormal genital discharge in the twelve months before the survey.

Prevalence of Genital Ulcer or Sore

Women: percent of women aged 15-49 years who had had a genital ulcer or sore in the twelve months before the survey.

Men: percent of men aged 15-54 years who had had a genital ulcer or sore in the twelve months before the survey.

Part II: INTERMEDIATE DETERMINANTS OF HNP STATUS – HEALTH SERVICE USE

A. CHILDHOOD IMMUNIZATION ⁸

BCG coverage: percent of children who had received a dose of BCG vaccine by the time of the survey.

Measles coverage: percent of children who had received a dose of measles vaccine by the time of the survey.

DPT coverage: percent of children who had received three doses of DPT vaccine by the time of the survey.

Full basic coverage: percent of children who had received a dose of BCG vaccine, measles vaccine, and three doses of DPT and polio vaccines by the time of the survey, excluding polio vaccine given at birth.

No basic coverage: percent of children who had received no vaccination against the six early-childhood diseases (TB, measles, polio, diphtheria, pertusis, and tetanus) by the time of the survey.

Hepatitis B coverage: percent of children who had received three doses of hepatitis B vaccine by the time of the survey.

Yellow fever coverage: percent of children who had received a dose of yellow fever vaccine by the time of the survey.

B. TREATMENT OF CHILDHOOD ILLNESSES ⁹

Treatment of Fever

Medical treatment of fever: percent of children with fever, with or without cough or rapid breathing, in the two weeks before the survey who had sought medical advice for fever from any health facility or health provider, whether public or private.

Treatment in a public facility: percent of children with fever, with or without cough or rapid breathing, in the two weeks before the survey who had sought medical advice for fever from a public-sector health facility or provider (as defined in fn. 9).

Treatment in a private facility: percent of children with fever, with or without cough or rapid breathing, in the two weeks before the survey who had sought medical advice for fever from a private-sector health facility or provider (as defined in fn. 9).

⁸ Childhood immunization figures refer to rates among children 12-23 months of age in all countries except those in Latin America and the Caribbean. There, the figures refer to rates among children 18-29 months of age. All figures are based on information recorded on the child's vaccination card; or, in cases where a card was not seen by the interviewer, on the mother's report.

⁹ Figures for illness treatment in a public facility refer to treatment in government hospitals, health centers, health posts, or dispensaries; or in facilities operated by government-affiliated social securing programs. Figures for treatment in private facilities cover treatment in private hospitals or clinics, in private doctors' offices, or in facilities operated by other private medical providers (such as non-governmental organizations) as defined in the country concerned; but exclude treatment obtained in private pharmacies or shops.

Treatment of Acute Respiratory Infection (ARI)

Medical treatment of ARI: percent of children with a cough and rapid breathing in the two weeks before the survey who had been taken for treatment at any medical facility or provider, whether public or private.

Treatment in a public facility: percent of children with a cough and rapid breathing in the two weeks before the survey who had been taken for treatment at a public-sector health facility or provider (as defined in fn. 9).

Treatment in a private facility: percent of children with a cough and rapid breathing in the two weeks before the survey who had been taken for treatment at a private-sector health facility or provider (as defined in fn. 9).

Treatment of Diarrhea

Use of oral rehydration therapy: percent of children with diarrhea in the two weeks before the survey who had received oral rehydration therapy (ORT) (defined as including consumption of oral rehydration salts, other recommended home fluids, or other increased liquids).

Medical treatment of diarrhea: percent of children with diarrhea in the two weeks before the survey who had been taken for treatment at any medical facility or provider, whether public or private.

Treatment in a public facility: percent of children with diarrhea in the two weeks before the survey who had been taken for treatment at a public-sector health facility or provider (as defined in fn. 9).

Treatment in a private facility: percent of children with diarrhea in the two weeks before the survey who had been taken for treatment at a private-sector health facility or provider (as defined in fn. 9).

C. ANTENATAL AND DELIVERY CARE ¹⁰

Antenatal Care (ANC) Visits

To a medically-trained person: percent of women with one or more births in the five years before the survey who had received at least one antenatal care consultation from a medically-trained person (as defined in fn. 10) before her most recent birth.

To a doctor: percent of women with one or more births in the five years before the survey who had received at least one antenatal care consultation from a doctor before her most recent birth.

To a nurse or trained midwife: percent of women with one or more births in the five years before the survey who had received at least one antenatal care consultation from a nurse or trained midwife (as defined in fn. 10) before her most recent birth.

Multiple visits to a medically-trained person: percent of women with one or more births in the five years before the survey who had received at least three antenatal care consultations from any medically-trained provider (as defined in fn. 10) before her most recent birth.

¹⁰ When speaking of antenatal and delivery care, medically-trained persons are defined as doctors, nurses, and trained midwives. The definition excludes traditional midwives or other traditional birth attendants, whether trained or untrained.

Antenatal Care (ANC) Content

Tetanus toxoid: percent of women with one or more births in the five years before the survey who had received at least one tetanus toxoid injection during her most recent pregnancy.

Prophylactic antimalarial treatment: percent of women with one or more births in the five years before the survey who had received prophylactic treatment with any anti-malarial drug during her most recent pregnancy.

Iron supplementation: percent of women with one or more births in the five years before the survey who had taken iron tablets during her most recent pregnancy.

Delivery Attendance

By a medically-trained person: percent of births in the five years before the survey attended by a medically-trained person (as defined in fn. 10).

By a doctor: percent of births in the five years before the survey attended by a doctor.

By a nurse or trained midwife: percent of births in the five years before the survey attended to by a nurse or a trained midwife (as defined in fn. 10).

In a public facility: percent of all deliveries in the five years before the survey occurring in a public-sector health facility (as defined in fn. 9).

In a private facility: percent of all deliveries in the five years before the survey occurring in a private-sector health facility (as defined in fn. 9).

At home: percent of all deliveries in the five years before the survey occurring at home (defined as the woman's own or any other home).

D. CONTRACEPTIVE SERVICES

Contraceptive Prevalence¹¹

Women: percent of married or in-union women aged 15-49 years who used any modern means of contraception (as defined in fn. 11).

Men: percent of married or in-union men aged 15-54 years who used any modern means of contraception (as defined in fn. 11).

Source of Contraception - Public Sector

Women: percent of married women who obtained their current method of contraception from a public-sector health facility or provider (as defined in fn. 9).

Men: percent of married men who obtained their current method of contraception from a public-sector health facility or provider (as defined in fn. 9).

Source of Contraception - Private Sector

Women: percent of married women who obtained their current method of contraception from a private-sector health facility or provider (as defined in fn. 9, except that private pharmacies and shops are included rather than excluded).

¹¹ Figures refer to use of modern means of contraception, defined as male/female sterilization, oral contraceptive pill, contraceptive injection, intrauterine device, male/female condom, diaphragm, cervical cap, contraceptive jelly or foam, implant, or some country-specific modern method.

Men: percent of married women who obtained their current method of contraception from a private-sector health facility or provider (as defined in fn. 9, except that private pharmacies and shops are included rather than excluded).

E. TREATMENT OF ADULT ILLNESSES

Treatment of Genital Discharge, Ulcer, or Sore

Women: percent of women with genital discharge, ulcer, or sore who sought any medical treatment for resulting symptoms.

Men: percent of men with genital discharge, ulcer, or sore who sought any medical treatment for resulting symptoms.

Treatment of Genital Discharge, Ulcer, or Sore in a Public Facility

Women: percent of women with genital discharge, ulcer, or sore who sought treatment from a public-sector health facility or provider (as defined in fn. 9).

Men: percent of men with genital discharge, ulcer, or sore who sought treatment from a public-sector health facility or provider (as defined in fn. 9).

Voluntary Counseling and Testing for HIV/AIDS

Women: percent of women aged 15-49 years who had been tested for HIV at any time before the survey.

Men: percent of men aged 15-54 years who had been tested for HIV at any time before the survey.

Part III: INTERMEDIATE DETERMINANTS OF HNP STATUS – INDIVIDUAL AND HOUSEHOLD BEHAVIOR

A. HYGIENIC PRACTICES

Disposal of Children’s Stools

Sanitary disposal: percent of mothers with at least one child under five years of age who disposed of the stools of their youngest child in a sanitary manner (defined as dropping stool into a latrine, burying it, or using disposable diapers).

Handwashing

Wash hands prior to preparing food: percent of women aged 15-49 years preparing meals who washed hands before handling food.

Handwashing facilities in household: percent of households that had hand-washing materials or facilities, as determined by direct observation of interviewers.

B. BEDNET OWNERSHIP AND USE

Bednet Ownership

Bednet ownership: percent of households owning one or more bednets.

Treated bednet ownership: percent of households owning one or more bednets that had recently been treated with insecticides.

Bednet Use

By children: percent of households with at least one child under five years of age, some or all of whom had slept under a bednet the night before the survey.

By pregnant women: percent of currently pregnant women who had slept under a bednet the night before the survey.

C. BREASTFEEDING

Exclusive breastfeeding: percent of children 0-3 months of age who had received only breast milk in the 24 hours before the survey.

Timely complementary feeding: percent of children 6-9 months of age who had received breast milk and solid or semi-solid foods in the twenty-four hours before the survey.

Bottle-feeding: percent of children under 12 months of age who had received any food or drink from a bottle with a nipple in the twenty-four hours before the survey.

D. MICRONUTRIENT CONSUMPTION

Iodized Salt

Availability of iodized salt in household: percent of households with cooking salt testing positive for iodine/iodate at the recommended level of 15 or 25 parts per million or more (depending on the country).¹²

Vitamin A

Children: percent of children¹³ who had received at least one dose of vitamin A in the six months before the survey, as reported by the mothers.

Women: percent of women who had received a dose of vitamin A within two months of the last birth, in the five years before the survey.

E. TOBACCO AND ALCOHOL USE

Tobacco¹⁴

Women: percent of women aged 15-49 years who currently were smoking or chewing tobacco products.

Men: percent of men aged 15-54 years who currently were smoking or chewing tobacco products.

Alcohol

Women: percent of women aged 15-49 years who had gotten intoxicated due to excessive consumption of alcohol in the three months before the survey.

Men: percent of men aged 15-54 years who had gotten intoxicated due to excessive consumption of alcohol in the three months before the survey.

F. SEXUAL PRACTICES

Non-Regular Sexual Partnerships

Women: percent of women aged 15-49 years who had had sex with a non-regular partner at least once in the twelve months before the survey.

Men: percent of men aged 15-54 years who had had sex with a non-regular partner at least once in the twelve months before the survey.

¹² Which of these two levels is recommended in any particular country may be determined by consulting the full report on that country's DHS, which may be found at: www.measuredhs.com/countries.

¹³ Figures refer to children over six months of age and under three, four, or five years of age, depending upon the country. (The specific ages covered for in a particular country may be determined by consulting the full report on that country's DHS, which is available at: www.measuredhs.com/countries.)

¹⁴ Tobacco products include cigarettes, pipes, cigars, leaves, etc.

Condom Usage with Non-Regular Partner

Women: percent of women aged 15-49 years with non-regular sexual partner who had used a condom in the last sexual intercourse with such a partner in the twelve months before the survey.

Men: percent of men aged 15-54 years with non-regular sexual partner who had used a condom in the last sexual intercourse with such a partner in the twelve months before the survey.

G. DOMESTIC VIOLENCE

Ever experienced violence: percent of women aged 15-49 years who had ever been hit or beaten by current or former husband/partner.

Experienced violence in past year: percent of women aged 15-49 years who had been hit or beaten by current or former husband/partner in the twelve months before the survey.

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

A. EDUCATION

School Completion

Women: percent of women aged 15-49 years who had completed the fifth grade.

Men: percent of men aged 15-54 years who had completed the fifth grade.

School Participation

Girls: percent of girls aged 6-10 years who were attending school at the time of the survey.

Boys: percent of boys aged 6-10 years who were attending school at the time of the survey.

B. EXPOSURE TO MASS MEDIA

Newspaper Readership

Women: percent of women aged 15-49 years who read a newspaper at least once a week.

Men: percent of men aged 15-54 years who read a newspaper at least once a week.

Radio Listenership

Women: percent of women aged 15-49 years who listened to radio at least once a week.

Men: percent of men aged 15-54 years who listened to radio at least once a week.

Television Viewership

Women: percent of women aged 15-49 years who watched television at least once a week.

Men: percent of men aged 15-54 years who watched television at least once a week.

C. KNOWLEDGE AND ATTITUDES ABOUT HIV/AIDS

Knowledge about Sexual Transmission of HIV/AIDS¹⁵

Women: percent of women aged 15-49 years who knew of HIV/AIDS and of at least one of the following ways to avoid it through interruption of its sexual transmission route: abstinence; using a condom; avoiding multiple sex partners, sex with prostitutes, and unprotected homosexual sex.

Men: percent of men aged 15-54 years who knew of HIV/AIDS and of at least one of the ways to avoid HIV/AIDS referred to in the preceding definition.

Knowledge about Mother-to-Child Transmission of HIV/AIDS

¹⁵ In most countries, the survey sample included both married and unmarried individuals. Where this was the case, all respondents, regardless of marital status, were asked the question covered in this section. Where the survey covered only individuals who were or had been married, the data pertain only to individuals who had ever been married. (The marital status of people covered for in particular country is indicated in the full report on that country's DHS, which is located at: www.measuredhs.com/countries.)

Women: percent of women aged 15-49 years who knew of at least one way HIV/AIDS can be transmitted from mother to child during pregnancy, delivery, or breastfeeding.

Men: percent of men aged 15-54 years who knew of at least one way HIV/AIDS can be transmitted from mother to child during pregnancy, delivery, or breastfeeding.

Attitudes toward HIV/AIDS

Women: percent of women aged 15-49 years who believed that people with HIV/AIDS should be allowed to continue working or that HIV test results should remain confidential.

Men: percent of men aged 15-54 years who believed that people with HIV/AIDS should be allowed to continue working or that HIV test results should remain confidential.

D. STATUS OF WOMEN

Household Decisionmaking

Can seek own health care: percent of women age 15-49 years who could decide by themselves to seek their own health care.

Can seek children's health care: percent of women aged 15-49 years, whose children live with them, who could decide by themselves to seek health care for their children.

Can make daily household purchases: percent of women aged 15-49 years who could decide by themselves or jointly with others to make daily household purchases.

Can make large household purchases: percent of women aged 15-49 years who could decide by themselves or jointly with others to make large household purchases.

Can make meal-related decisions: percent of women aged 15-49 years who could decide by themselves what food to cook daily.

Freedom of Movement

Can travel to visit family, relatives: percent of women aged 15-49 years who could decide by themselves to visit family and relatives.

Other Decisionmaking, Attitudes

Can decide how to spend own money: percent of women aged 15-49 years who work for cash who could decide by themselves on how to use the money they earn.

Can decide whether to have sex: percent of women aged 15-49 years agreeing that they can refuse to have sex with their husband for at least one of the following reasons: he has a sexually-transmitted disease; he has had sexual relations with another woman; or the woman is tired, not in mood, or recently has given birth.

Justify domestic violence: percent of women aged 15-49 years believing that a husband/male partner would be justified in beating his wife/female partner for at least one of the following reasons: he suspects her of being unfaithful; she argues with him; she goes out without telling him; she neglects the children; she burns the food; or other, country-specific reasons (for example, she shows disrespect for her in-laws or her family does not give the expected dowry).

E. ORPHANHOOD

Maternal orphan prevalence: percent of children under 15 years of age whose natural mother had died before the survey.

Paternal orphan prevalence: percent of children under 15 years of age whose natural father had died before the survey.

Double orphan prevalence: percent of children under 15 years of age both of whose natural parents had died before the survey.

DATA AND METHODS

Any assessment of the figures featured in this report requires an appreciation of how they were prepared. The first need is to understand the basic features of the data and methods employed.

A. SOURCE OF FIGURES

The figures appearing in this report are all derived from data collected under the Demographic and Health Surveys (DHS) program conducted by ORC Macro, with support from the U.S. Agency for International Development and other external assistance organizations. Large DHS household surveys have been carried out, usually at periodic intervals, in approximately seventy-five countries across Africa, Asia, Latin America, the Middle East, and the former Soviet Union.¹⁶ This series of reports covers the fifty-six of those countries that had one or more DHS surveys undertaken since 1990, for which data were publicly available as of June 2006. (Annex C is a list of the countries for which reports have been prepared.)

In each country, the DHS program has gathered information on a large number of indicators about health, nutrition, and population (hnp) status and service use; about relevant behaviors of household members; and about household characteristics like those described below. It has done this through a set of questionnaires, similar in all countries, to collect data at the individual, household, and community levels.

The data presented here draw on responses to the individual and household questionnaires. In most cases, they are based on responses from women or other family members interviewed. The principal exceptions concern nutritional status, which is based on anthropometric measurement; immunization, which typically relies to the extent possible on record cards maintained at the household level; and those other items where a source other than interviewer response is specifically identified.

B. MEASUREMENT OF ECONOMIC STATUS

Wealth or Asset Approach

Economic status has been expressed in terms of wealth or assets: specifically, on the basis of information about household characteristics gathered through the DHS household questionnaire. (Such information was normally provided for at least 25-30, and often many more, characteristics like the presence, availability, or use of a fan, radio receiver, or automobile; housing materials like wood or concrete flooring, tile or tin roofing, or cement block walls; superior sources of water like piped or a protected well; and other attributes related to economic status.)

¹⁶ Further information about the DHS program is available at the program's website: www.measuredhs.com.

Index Construction

A single, consolidated index of living standards¹⁷ was constructed by using principal components analysis (PCA) to generate a weight for each household item with available information. A wealth index score was calculated for each household by weighting the response with respect to each item pertaining to that household by the coefficient of the first principal component as determined by application of principal components analysis, and summing the results. The resulting household scores were standardized in relation to a standard normal distribution with a mean of zero and a standard deviation of one.

All individuals usually present in each household were assigned the household's standardized wealth index score, and all individuals in the sample population were ranked according to that score. The sample population was then divided into quintiles of individuals, with all individuals in a single household being assigned to the same quintile.

The same standardized household wealth index scores originally derived for the total population sample, as just described, were also used in preparing the disaggregated estimates for female and male members of the sample population, and for rural and urban residents. In preparing those disaggregated estimates, the entire population sample was divided into quintiles of individuals; the females and males, and the rural and urban residents in each quintile of the entire sample were then separated from one another; and the mean for each of the ten resulting subgroups (five female, five male; or five rural, five urban) was calculated.

This procedure was carried out separately for each of the surveys covered.

C. CALCULATION AND PRESENTATION OF RATES

Use of Sampling Weights

Rates for all health, nutrition, and population indicators are calculated after applying the DHS sampling weights. (DHS surveys often over-sample certain small subgroups of interest – residents of a particular geographic area, for example – in order to get sample sizes large enough to produce statistically-significant results. The DHS sampling weights are used to compensate for such over-sampling in order to ensure that the results are representative of the population as a whole and not just of the DHS sample.)

Calculation of Total Population Averages

The average for the total population presented alongside the quintile-specific rates for each indicator is calculated without reference to quintile divisions. It thus equals the weighted mean of the quintile rates, with the weight assigned to each quintile rate being the proportion of the number of individuals at risk (as defined on p. 77) for the indicator concerned.

Sampling Errors

Information needed to assess the statistical significance of differences among the quintile-specific rates is presented in three ways:

- First, in all the basic tables presented in part I, rates are shown in parentheses or replaced by asterisks in cases where the standard error is likely to be unacceptably high because

¹⁷ Such an index is usually referred to as either an “asset index” or a “wealth index.” The two expressions are used interchangeably in this report; for ease of communication, “wealth index” appears more frequently despite the inexact correspondence between the items included in the index's construction and those appearing in more conventional, financially-based definitions of wealth.

of small sample size. The number of observations used to determine how to present the data for the different indicators covered were as follows:

Indicator	Unit of measure	Number of observations used to determine how quintile-specific rate was presented		
		<i>Without parentheses</i>	<i>With parentheses</i>	<i>Replaced by asterisk</i>
Infant and child mortality	Number of deaths	>500	250-499	<250
Total and adolescent fertility	Number of births	>250	125-249	<125
All other indicators	Number of individuals	>50	25-49	<25

- Second, the standard error for each quintile-specific rate (except for any rate replaced by an asterisk) appearing in the total population table is provided in part III.B. (Standard errors for the quintile-specific rates presented in the female-male and rural-urban tables are not available.)

- Third, the right-hand column of the total population table provides the standard error for the concentration index, one of the measures of inequality shown, as indicated below.

D. MEASUREMENT OF INEQUALITY

Accompanying each of the indicators presented in the total population table are the values for three statistical measures of inequality:

- *Low/High Quintile Ratio*: the ratio between the rate prevailing in the lowest (poorest) population quintile and that found in the highest (least poor) quintile.

- *Low-High Quintile Difference*: the value of the lowest quintile minus the value of the highest, expressed as an absolute value.

- *Concentration Index*: twice the area in a Lorenz-type diagram between the line of equality and the concentration curve for the indicator in question, the curve being the graph of the cumulative share of the indicator against the cumulative share in the asset distribution. (The value, which can range from -1 to +1, is negative when the hnp indicator is higher among the poor (e.g., fertility), positive when it is higher among the better-off (e.g., modern contraceptive use), and zero when on balance the indicator shows no systematic relationship with wealth.)¹⁸

¹⁸ Adam Wagstaff, Pierella Paci, and Eddy van Doorslaer, "On the Measurement of Inequalities of Health," *Social Science and Medicine* 33 (1991): 545-57. (See also chapter eight in the volume by O'Donnell, van Doorslaer, Wagstaff, and Lindelow described in the annotated bibliography that constitutes annex A.)

DISCUSSION

While a basic understanding of the data and methods employed is necessary to adequately appreciate the figures appearing in this report, it is not sufficient. For the application of the approach taken involves many subtleties that also need to be understood. Among the more important are:

A. DESCRIPTIVE NATURE OF THE RELATIONSHIPS

The hnp-poverty relationships shown in this report are no more than descriptive. They should not be taken to imply any direct causal relationships, for several reasons.

One reason is the possibility that it is not wealth or asset possession *per se* that determine a person's health condition. Rather, the determining factors could be other characteristics (such as education or ethnic background) that are simultaneously associated with both asset ownership and health status.

It is also possible that the health-poverty relationships shown are driven primarily by particular items included in the index (e.g., water and sanitation). Should this be the case, improvements in health conditions among the poor might be more effectively brought about by focusing on changing those particular components of the wealth index rather than by a general effort to increase economic status as measured by the index as a whole.

B. IMPLICATIONS OF A WEALTH/ASSET APPROACH

Wealth or Assets as a Measure of Economic Status

Reliance on a wealth index to measure economic status is a rather recent development in research on economic disparities, where such status traditionally has been defined in terms of consumption or income. The principal reason for the choice of the wealth index is pragmatic rather than conceptual: the DHS surveys, which are of interest because of the plethora of hnp information that they contain, do not collect consumption or income data; but they do have detailed information on households' physical characteristics, and on the household-level presence of and access to a wide range of goods and services. While there is some disagreement about the relative merits of using such wealth/asset information or consumption data to measure economic status, several recent studies suggest that the asset-consumption relationship is quite close.¹⁹ To the extent this is the case, an index of wealth or asset possession/availability can be taken as a

¹⁹ See, for example, Deon Filmer and Lant H. Pritchett, "Estimating Wealth Effects without Expenditure – or Tears: An Application to Educational Enrollments in States of India," *Demography* 38, no. 1 (February 2001): 115-32; Shea Rutstein and Kiersten Johnson, *The DHS Wealth Index*, DHS Comparative Reports No. 6 (Calverton, Maryland, USA: ORC Macro, August 2004) esp. 10-14; Adam Wagstaff and Naoko Watanabe, "What Difference Does the Choice of SES Make in Health Inequality Measurement?" *Health Economics* 12 (2003): 885-90.

reasonably satisfactory proxy for consumption, rather than or in addition to serving as an indicator of economic status in its own right.

C. ECONOMIC STATUS AS A MEASURE OF SOCIO-ECONOMIC WELL-BEING

Like consumption or income, a wealth index defines disparities that are primarily economic. This is by no means the only way to define inter-group inequalities that are of potential concern. Other possibilities include gender, place of residence, education, ethnic background, or other factors associated with social exclusion. Thus the economic perspective provides only a partial view of the multidimensional concepts of poverty, inequality, and inequity.

By including tables on female-male and rural-urban inequalities, this report pays adequate attention to two of inequality's other important dimensions to justify the use of the term "socio-economic" rather than simply "economic" in its title. However, the centrality of tabulations based on the wealth index means that the primary focus is on the economic dimension. The justification for this lies not in the greater importance of economic considerations, but rather in the recently-improved ability to analyze and thus begin dealing with them. Until the development of the wealth/asset approach, the assessment of economic status had been based on consumption, expenditures, or income, all of which are far more difficult to measure than such other, non-economic dimensions of inequality as gender, ethnic identity, educational level, and place of residence. As a result, assessments of health inequalities by economic status had lagged well behind measurements in terms of these other dimensions, especially gender and education. The focus on inequality's economic aspect applied here represents an effort to redress this imbalance.

D. INDEX CONSTRUCTION

Choice of Items

Use of a wealth index requires decisions about which items to include in it. In the case of secondary analyses like the one featured in this report, the choice is limited to those items included in the data sets being used. But even with this constraint, there nonetheless remains considerable room for choice, given the large number of items for which information is collected by the DHS.

The decision made in preparing this report was to include all items in each DHS household questionnaire that relate to ownership of household goods; to dwelling unit construction and characteristics; and to access to services and resources like electricity, water, and sanitation facilities. Also included were other potential indicators of wealth, such as live-in domestic servants. This decision, admittedly somewhat arbitrary, has both advantages and disadvantages.

The principal advantage is practical: use of a large number of assets increases the degree of variation across household asset scores and facilitates a more regular distribution of individuals across quintiles. It also reduces the possibility of subjectivity in selecting only some of the variables for inclusion on some *a priori* basis; and it may increase a wealth index's accuracy as a proxy for consumption.

However, including all variables is far from satisfying conceptually. For example, it means failing to discriminate with respect to the items' differing natures. It is not clear, for instance, whether access to water, sanitation, electricity, or other publicly-provided resources should be included in an index that purports to measure private household wealth.

Further, many items that are candidates for inclusion in a DHS-based wealth index might be seen as directly influencing health status: water and sanitation for infant and child mortality, for

example. It would be desirable to include quintile-specific estimates for such items; but to the extent that such items have large index coefficients, any estimates for those items would be suspect. Such items appear to be relatively few and of limited statistical significance in the index used here. However, for the sake of caution, quintile-specific estimates for items appearing in the index have nonetheless been excluded from the basic tables and appear only in supporting table III.C

Additional issues arise when comparing the findings for two different points in time covered in the basic tables. Because the nature and number of asset questions included in DHS surveys has been evolving, the items included in the wealth index differ somewhat for each of the surveys reported upon. As such, the results presented in the basic tables might differ to some extent from findings produced by some other approach, such as including in the index only those items appearing in each survey covered.

Weighting of Items

A further decision required in construction of an index concerns the weight to attach to each of the respective items. As noted earlier, the method used in this report is principal components analysis (PCA).

Adoption of this method was based on the findings, referred to earlier, that its use resulted in outcomes that approximated reasonably well those produced by taking a consumption or expenditure approach. Further, it often provides greater discrimination in economic status than does the use of consumption/expenditures. It has also emerged as the standard approach for use in analyses of the sort presented here, so that its adoption is largely non-controversial.

Yet this choice, too, is not without an arbitrary aspect; for alternative plausible methods exist. Examples include the “inverse possession” approach, which gives more weight to items possessed by only a few and less to those possessed by many;²⁰ or, perhaps, the common practice of simply assigning the same weight to each index item.

Also, the weights for any particular item vary from survey to survey, since the weights were determined separately for the population of each survey included in the basic tables. The results thus produced can be expected to differ from those generated in some other manner, such as generating common weights for all the surveys covered by pooling the data sets.

Use of Principal Components Analysis with Dichotomous Variables

An additional issue concerns the use of a technique like PCA, developed for use with continuous variables, in the construction of an index based primarily on dichotomous variables. While legitimate in principle, any reservations in this regard are of limited practical consequence, since the considerable experimentation undertaken in preparation for the tabulations presented here indicated that any inaccuracy introduced by applying PCA to the analysis of the dichotomous values used is minimal.

Economies of Scale

Calculating the values for a household wealth index also requires a decision concerning economies of scale that exist in the households covered. The calculations presented here assume complete economies of scale. The implicit assumption is that additional members do not add to household expenses on items included in the index.

²⁰ Saul S. Morris et al., “Validity of Rapid Estimates of Household Wealth and Income for Health Surveys in Rural Africa,” *Journal of Epidemiology and Community Health* 54 (2000): 381-87.

E. DEFINITION OF QUINTILES

Quintiles of Individuals

As noted earlier, the quintile-specific figures presented in this report refer to quintiles of individuals in the household population. Such quintiles need to be distinguished from quintiles of households or quintiles of only those people in the population who are “at risk”: that is, subject to the particular condition, eligible for the particular service, or capable of behaving in a particular way (children born alive for infant and under-five mortality, for example; or adult men and women for condom use or non-regular sexual partnerships).

The expression of findings in terms of quintiles of individuals has several implications:

- Because fertility is often higher in lower economic households than among better-off ones, the number of individuals per household will frequently be larger among the poor than among higher-income groups. In such cases, the number of households will vary systematically across quintiles of individuals, and the results expressed in terms of quintiles of households can differ significantly from those presented here.

- The proportion of individuals “at risk” with regard to a particular indicator is also likely to vary across quintiles in many cases. (For example, in cases where fertility is higher among poor people, a higher-than-average proportion of poor populations will consist of newborns at risk from infant mortality, young children subject to malnutrition, and pregnant women for whom antenatal care is relevant.) To facilitate the work of any investigators wishing to undertake calculations based on people at risk, the number of such people in each quintile of individuals is shown in part III.A.

- As previously indicated, the population average figure provided for each indicator is equivalent to the weighted sum of the quintile rates for that indicator, where the weight assigned to each quintile rate is the number of people at risk in each quintile as presented in part III.A. As a result of this weighting, the population average will usually differ from a simple mean of the population quintile estimates.

Quintiles of Males and Females, of Rural and Urban Residents

As also reported in the data and methods section, the tables on rural and urban residents and on men and women were prepared using the same asset scores as for the total population; and rural-urban residents and females-males were separated from one another only after the entire sample had been disaggregated into quintiles of individuals. This means that the figures given in the rural-urban and female-male tables refer to females-males and rural-urban residents belonging to each quintile of individuals in the total population, as distinct from quintiles of females, of males, of rural residents, or of urban residents alone.

The consequence of this distinction is particularly evident with regard to rural and urban residents. Since rural residents tend to be poorer than urban dwellers, they normally form a considerably higher proportion of individuals in the lower economic quintiles of the total population than in the higher ones. Conversely, urban residents tend to be concentrated in the higher economic groups. As a result, the number of individuals in each of the urban and rural quintiles usually varies greatly and systematically; and when this is the case, the figures presented in the rural-urban tables can differ significantly from those produced by a computation procedure that places the same number of rural and urban residents in each rural quintile or each urban quintile. (The results may also differ significantly from application of an approach featuring the separate calculation of index values for urban and for rural groups. While such separate index values may well be preferable conceptually, their calculation involves complexities that prevented their preparation for this report.)

F. COMPARISON OF QUINTILES ACROSS COUNTRIES

Reliance on population quintiles as basic presentational format for the data appearing in this report implicitly incorporates a relative concept of poverty. This differs from an absolute concept of poverty under which the population would be divided into groups of different sizes according to some absolute standard of living (such as people earning less than one dollar a day, between one and two dollars a day, and more than two dollars a day).

This means that, when comparing values of an indicator among people in a given quintile across countries, the comparison is between groups of people whose economic status can be quite different. The lowest quintile of a Latin American population, for example, will usually be considerably better-off than the lowest quintile in an African country.

G. COMPARISON OF QUINTILES OVER TIME

Another implication is that the wealth status of any given quintile within a particular country is likely to change over time. For instance, when a country is progressing economically, the wealth of the households in the population will tend to increase. This will raise the average asset score in most, possibly all population quintiles. As a result, the living standard enjoyed by individuals in any quintile covered by a recent survey is likely to be higher than that of individuals in that same quintile as measured in a prior survey.

H. STATISTICAL INDICATORS OF INEQUALITY

The available statistical indicators of inequality are far too numerous to permit use of more than a small proportion of them in presenting the findings featured in this report. The three indicators employed have been selected to provide a wide range of perspectives. Two are designed for ease of understanding, the third for greater technical accuracy.

The low/high quintile ratio and low-high quintile difference are the two presented for ease of understanding. The former is a relative measure, the latter an absolute measure that can produce a significantly different impression from that provided by the former.

The concentration index is provided for the benefit of technical specialists wishing greater accuracy. It measures the degree of inequality in an hnp indicator across the full wealth index distribution, rather than differences between only two of the five quintiles, and also reflects the relative size of the different asset-based divisions of the study population.

I. COMPARABILITY WITH OTHER REPORTS

Tabulations similar to those presented here can also be found in the initial series of hnp/poverty country reports, issued in 2000, and in the recent country reports issued by the DHS program. The figures presented in those reports normally resemble quite closely those appearing here for any given indicator; but there are often slight differences for one or more of several reasons. The most common is a difference in the definition of the indicator in question. (These differences are usually small and subtle. But there is one important exception: the definition of moderate malnutrition among children. In the 2000 reports, this was defined as second and third degree malnutrition taken together. Here, it is defined as second degree malnutrition alone.) Another reason, with respect to infant and child mortality, is that the figures in the DHS documents are typically based on experience during the five years before the survey in question, rather than

during the ten previous years as in this report. A further frequent reason is the use of an improved computational technique.

In addition, asset-based, quintile-specific tabulations of hnp indicators have begun to appear in an increasing number of other documents. Given the basic similarity of approach, such tabulations usually produce results that are generally congruent with those shown in part I of this report. However, significant divergences have occasionally been reported; and the absence of adequately detailed information about data and methods often prevents any fully-satisfying understanding of the approaches used. As a result, occasional doubts and frequent uncertainties about approach comparability remain.

PART V. SUPPORTING TABLES, 2003

- A. SAMPLE SIZES**
- B. STANDARD ERRORS**
- C. ASSET DISTRIBUTION AND WEIGHTS**

Kenya
2003 - SAMPLE SIZES

TOTAL SAMPLE

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Number of household members						
All	7,297	7,448	7,440	7,478	7,465	37,128
Urban	157	156	303	986	5,743	7,344
Rural	7,140	7,292	7,137	6,493	1,721	29,784
Female	3,667	3,830	3,839	3,790	3,712	18,837
Male	3,630	3,618	3,601	3,689	3,752	18,291

Part I: HNP STATUS

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Mortality rates						
All	2,805	2,388	2,196	1,961	2,042	11,392
Urban	63	45	80	317	1,577	2,081
Rural	2,742	2,343	2,116	1,644	466	9,311
Female	1,360	1,205	1,066	970	1,018	5,619
Male	1,444	1,183	1,130	991	1,024	5,773
Prevalence of fever, diarrhea, acute respiratory infection						
All	1,339	1,154	1,052	957	1,045	5,547
Urban	28	23	41	153	815	1,061
Rural	1,311	1,131	1,010	803	230	4,486
Female	658	600	516	466	519	2,759
Male	680	554	535	491	526	2,787
Total fertility rate						
All	1,364	1,475	1,503	1,711	2,141	8,195
Urban	29	37	61	241	1,687	2,056
Rural	1,334	1,438	1,443	1,470	454	6,139
Age-specific fertility rate 15-19						
All	316	360	380	401	398	1,856
Urban	7	9	16	46	310	388
Rural	309	351	364	356	88	1,467
Children's nutritional status						
All	1,202	1,054	952	836	841	4,885
Urban	23	20	36	117	652	849
Rural	1,179	1,034	915	719	188	4,036
Female	593	545	470	411	405	2,423
Male	609	509	482	425	436	2,461
Children's anemia status						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Female	na	na	na	na	na	na
Male	na	na	na	na	na	na

Kenya
2003 - SAMPLE SIZES

Part I: HNP STATUS (Cont.)

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Women's nutritional status						
All	1,301	1,406	1,420	1,619	1,973	7,718
Urban	27	37	58	219	1,553	1,894
Rural	1,274	1,369	1,362	1,399	420	5,824
Women's anemia status						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Girls' circumcision						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Women's circumcision						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Prevalence of genital discharge, ulcer, sore						
Female	1,356	1,472	1,498	1,711	2,139	8,176
Urban Female	29	37	61	241	1,686	2,055
Rural Female	1,327	1,434	1,437	1,470	453	6,121
Male	548	609	648	794	979	3,578
Urban Male	8	16	21	121	742	907
Rural Male	541	593	627	672	237	2,671

Kenya

2003 - SAMPLE SIZES

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Immunization coverage						
All	280	231	218	187	189	1,105
Urban	5	4	7	28	146	189
Rural	275	227	210	160	43	916
Female	143	112	106	91	98	550
Male	137	119	111	96	91	555
Treatment of fever						
All	504	505	442	393	412	2,255
Urban	9	11	15	61	327	423
Rural	495	494	428	332	84	1,833
Female	235	247	236	196	198	1,111
Male	269	258	206	197	214	1,145
Treatment of acute respiratory infection						
All	242	265	184	168	165	1,023
Urban	7	4	6	27	131	174
Rural	235	260	178	141	34	849
Female	110	134	93	85	76	499
Male	132	130	91	83	89	524
Treatment of diarrhea						
All	245	202	158	124	159	888
Urban	28	5	11	35	125	180
Rural	240	197	148	89	35	708
Female	114	94	67	56	69	400
Male	130	108	91	68	90	489
Antenatal and delivery care						
All	869	830	777	725	851	4,052
Urban	18	16	29	109	663	835
Rural	852	813	748	615	188	3,217
Contraceptive prevalence						
Female	947	954	915	965	1,139	4,919
Urban Female	18	18	30	134	891	1,091
Rural Female	929	936	885	831	247	3,828
Male	311	282	311	379	530	1,814
Urban Male	3	6	9	65	399	482
Rural Male	308	276	303	313	131	1,332
Contraceptive source						
Female	112	231	306	396	507	1,551
Urban Female	2	1	8	52	371	435
Rural Female	109	230	298	344	135	1,116
Male	na	na	na	na	na	na
Urban Male	na	na	na	na	na	na
Rural Male	na	na	na	na	na	na
Treatment of genital discharge, ulcer, sore						
Female	49	57	47	62	67	283
Urban Female	1	1	9	51	na	63
Rural Female	49	56	46	53	16	221
Male	23	15	11	15	25	89
Urban Male	0	5	18	na	na	24
Rural Male	23	15	11	10	7	66

Kenya

2003 - SAMPLE SIZES

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Sanitary disposal of stools						
All	816	785	726	679	745	3,752
Urban	16	16	27	101	580	740
Rural	800	769	700	578	165	3,012
Wash hands prior to preparing food						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Handwashing facilities in household?						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Bednet ownership						
All	1,391	1,529	1,653	1,723	2,260	8,555
Urban	28	30	56	260	1,763	2,137
Rural	1,363	1,499	1,597	1,463	497	6,418
Bednet use by children						
All	1,509	1,271	1,159	1,032	1,131	6,102
Urban	30	24	44	162	882	1,143
Rural	1,479	1,247	1,115	870	248	4,959
Bednet use by pregnant women						
All	128	137	119	117	139	640
Urban	1	1	3	15	115	136
Rural	1	1	3	15	115	136
Exclusive breastfeeding						
All	91	83	76	76	79	406
Urban	2	3	2	12	65	83
Rural	89	80	75	64	14	323
Female	48	44	41	43	40	216
Male	43	39	35	34	39	191
Timely complementary breastfeeding						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Female	na	na	na	na	na	na
Male	na	na	na	na	na	na
Bottle-feeding						
All	300	254	223	211	246	1,234
Urban	5	5	10	35	190	244
Rural	295	249	213	176	56	989
Female	165	132	110	106	115	628
Male	135	122	113	105	131	606

Kenya

2003 - SAMPLE SIZES

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR (Cont.)

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Iodized salt in household						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Vitamin A supplementation						
All	1,322	1,143	1,043	929	1,003	5,440
Urban	27	23	41	147	789	1,028
Rural	27	23	41	147	789	1,028
Female	675	551	531	474	509	2,740
Male	675	551	531	474	509	2,740
Tobacco and alcohol use, casual sexual partners, condom use for casual sex						
Female	1,362	1,474	1,503	1,711	2,140	8,192
Urban Female	29	37	61	241	1,686	2,055
Rural Female	1,333	1,437	1,443	1,470	454	6,137
Male	548	609	647	794	978	3,576
Urban Male	8	16	21	121	741	906
Rural Male	541	593	626	672	237	2,670
Domestic violence						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na

Kenya

2003 - SAMPLE SIZES

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
School completion (Grade 5)						
Female	1,492	1,614	1,650	1,858	2,319	8,932
Urban female	33	38	68	271	1,825	2,236
Rural female	1,459	1,576	1,582	1,586	494	6,696
Male	1,339	1,493	1,536	1,754	2,383	8,505
Urban male	na	na	na	na	na	na
Rural male	na	na	na	na	na	na
School participation						
Female	656	570	584	535	425	2,770
Urban female	14	12	29	71	307	433
Rural female	642	558	555	464	118	2,337
Male	1,201	1,173	1,127	1,009	793	5,304
Urban male	na	na	na	na	na	na
Rural male	na	na	na	na	na	na
Mass media exposure						
Female	1,362	1,474	1,501	1,709	2,139	8,185
Urban female	29	37	61	241	1,686	2,055
Rural female	1,333	1,437	1,440	1,468	452	6,130
Male	548	607	648	794	978	3,576
Urban male	8	16	21	121	741	906
Rural male	541	592	627	672	237	2,670
Knowledge of HIV/AIDS prevention						
Female	1,364	1,475	1,503	1,711	2,141	8,195
Urban female	29	37	61	241	1,687	2,056
Rural female	1,334	1,438	1,443	1,470	454	6,139
Male	548	609	648	794	979	3,578
Urban male	8	16	21	121	742	907
Rural male	541	593	627	672	237	2,671
Household decisionmaking and justification of violence						
All	1,364	1,475	1,503	1,711	2,141	8,195
Urban	29	37	61	241	1,687	2,056
Rural	29	37	61	241	1,687	2,056
Orphanhood						
All	4,026	3,622	3,461	3,160	2,583	16,852
Urban	86	73	140	419	1,940	2,658
Rural	3,940	3,549	3,321	2,741	643	14,194
Female	1,942	1,775	1,723	1,577	1,310	8,328
Male	2,084	1,847	1,738	1,583	1,272	8,524

Kenya

2003 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part I: HNP STATUS

Indicator	Wealth Quintiles					
	Low	2nd	3rd	4th	High	Avg.
A. Childhood illness and mortality						
Infant mortality rate	8.93	8.37	8.73	6.78	6.68	4.55
Under-five mortality rate	13.33	9.68	11.29	8.59	8.22	6.07
Prevalence of fever	2.01	2.02	2.03	2.37	1.80	1.09
Prevalence of diarrhea	1.45	1.60	1.37	1.41	1.62	0.78
Prevalence of acute respiratory infection	1.49	1.70	1.64	1.54	1.48	0.75
B. Fertility						
Total fertility rate	0.29	0.21	0.19	0.20	0.17	0.14
Adolescent fertility rate	15.82	13.30	10.78	10.41	9.10	5.69
C. Nutritional status						
<i>Children:</i>						
Moderate stunting	1.51	1.56	1.45	1.36	1.19	0.68
Severe stunting	1.21	1.17	1.27	1.43	1.29	0.58
Moderate underweight	1.29	1.43	1.34	1.34	0.98	0.65
Severe underweight	1.18	0.62	0.76	0.71	0.49	0.39
Mild anemia	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na
<i>Women:</i>						
Malnutrition	1.74	1.40	1.17	0.80	0.52	0.66
Mild anemia	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na
D. Female circumcision						
<i>Prevalence of circumcision:</i>						
Girls	na	na	na	na	na	na
Women	na	na	na	na	na	na
<i>Prevalence of occlusion:</i>						
Girls	na	na	na	na	na	na
Women	na	na	na	na	na	na
E. Sexually transmitted disease						
<i>Prevalence of genital discharge:</i>						
Women	0.59	0.47	0.53	0.42	0.32	0.22
Men	0.79	0.74	0.51	0.50	0.43	0.29
<i>Prevalence of genital ulcer:</i>						
Women	0.53	0.50	0.33	0.34	0.33	0.19
Men	0.80	0.57	0.50	0.37	0.32	0.25

Kenya

2003 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles					
	Low	2nd	3rd	4th	High	Avg.
A. Childhood immunization						
BCG coverage	3.92	2.33	2.02	1.49	1.35	1.46
Measles coverage	4.25	3.69	3.36	3.82	2.49	1.84
DPT coverage	4.52	3.71	2.83	4.10	3.88	2.02
Full basic coverage	4.03	4.16	3.77	4.99	3.98	2.05
No basic coverage	3.13	1.58	1.71	0.75	1.25	1.13
Hepatitis B coverage	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na
B. Treatment of childhood illnesses						
<i>Treatment of fever:</i>						
Medical treatment of fever	3.20	2.65	3.74	3.83	2.95	1.73
Treatment in a public facility	3.23	2.80	3.22	3.83	2.24	1.69
Treatment in a private facility	2.47	2.01	2.14	2.50	3.08	1.25
<i>Treatment of acute respiratory infection (ARI):</i>						
Medical treatment of ARI	3.79	3.62	4.68	4.82	3.80	1.96
Treatment in a public facility	4.02	3.67	4.86	5.15	3.72	1.95
Treatment in a private facility	3.16	2.93	2.99	3.90	3.63	1.55
<i>Treatment of diarrhea:</i>						
Use of oral rehydration therapy	4.07	4.77	4.83	5.59	4.63	2.14
Medical treatment of diarrhea	4.00	4.13	4.37	4.88	4.67	2.01
Treatment in a public facility	3.67	3.59	4.22	4.36	3.03	1.75
Treatment in a private facility	2.88	2.01	1.88	3.04	4.25	1.53
C. Antenatal and delivery care						
<i>Antenatal care (ANC) visits:</i>						
To a medically-trained person	2.55	1.47	1.15	1.09	1.04	0.85
To a doctor	1.69	2.01	1.82	1.60	2.07	1.00
To a nurse or trained midwife	2.57	2.29	1.89	1.94	2.27	1.18
Multiple visits to a medically-trained person	2.38	1.73	1.76	1.67	1.48	0.91
<i>Antenatal care content:</i>						
Tetanus toxoid	2.36	1.38	1.15	1.14	1.14	0.83
Prophylactic antimalarial treatment	2.02	1.92	1.91	1.80	1.63	0.93
Iron supplementation	2.39	2.42	2.48	2.05	2.35	1.29
<i>Delivery attendance:</i>						
By a medically-trained person	1.70	2.18	2.41	2.66	1.94	1.63
By a doctor	0.84	1.12	0.94	1.36	1.85	0.72
By a nurse or trained midwife	1.47	1.88	2.14	2.48	2.21	1.28
In a public facility	1.22	1.68	2.14	2.32	2.51	1.25
In a private facility	1.27	1.49	1.21	1.76	2.29	0.92
At home	1.63	2.20	2.41	2.70	1.99	1.61
D. Contraceptive services						
<i>Contraceptive prevalence:</i>						
Women	1.46	1.96	2.40	2.51	2.12	1.37
Men	2.39	2.87	3.05	3.28	2.53	1.45
<i>Source of contraception - public sector:</i>						
Women	5.32	4.06	3.39	3.35	2.82	1.95
Men	na	na	na	na	na	na

Kenya

2003 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION**Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE (Cont.)**

Indicator	Wealth Quintiles					
	Low	2nd	3rd	4th	High	Avg.
D. Contraceptive services (cont.)						
<i>Source of contraception - private sector:</i>						
Women	5.32	4.06	3.41	3.34	2.81	1.95
Men	na	na	na	na	na	na
E. Treatment of adult illnesses						
<i>Treatment of genital discharge, ulcer, sore:</i>						
Women	10.15	6.82	6.95	6.36	4.82	3.21
Men	*	*	*	*	*	6.34
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>						
Women	10.15	6.82	6.95	6.36	4.82	3.21
Men	*	*	*	*	*	6.34
<i>Voluntary counseling and testing for HIV/AIDS:</i>						
Women	0.84	0.95	1.09	1.01	1.09	0.61
Men	1.44	1.49	1.42	1.22	1.66	0.79

Kenya

2003 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles					
	Low	2nd	3rd	4th	High	Avg.
A. Hygienic practices						
<i>Disposal of children's stools:</i>						
Sanitary disposal	3.43	2.59	2.27	1.99	2.33	1.59
<i>Handwashing:</i>						
Wash hands prior to preparing food	na	na	na	na	na	na
Handwashing facilities in household	na	na	na	na	na	na
B. Bednet ownership and use						
<i>Bednet ownership:</i>						
Bednet ownership	1.66	1.35	1.38	1.87	2.40	1.17
Treated bednet ownership	na	na	na	na	na	na
<i>Bednet use:</i>						
By children	1.48	1.44	1.77	2.20	2.90	1.05
By pregnant women	1.99	2.25	2.96	3.90	4.58	1.56
C. Breastfeeding						
Exclusive breastfeeding	5.21	4.37	5.01	4.16	4.52	2.18
Timely complementary feeding	na	na	na	na	na	na
Bottle-feeding	3.13	3.20	3.34	3.82	3.92	1.62
D. Micronutrient consumption						
<i>Iodized salt:</i>						
Availability of iodized salt in household	na	na	na	na	na	na
<i>Vitamin A:</i>						
Children	2.38	2.39	2.24	2.28	2.31	1.28
Women	1.39	1.48	1.43	1.51	1.63	0.79
E. Tobacco and alcohol use						
<i>Tobacco:</i>						
Women	1.21	0.67	0.57	0.24	0.24	0.36
Men	1.95	2.41	2.01	2.01	1.56	1.01
<i>Alcohol:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
F. Sexual practices						
<i>Non-regular sexual partnerships:</i>						
Women	0.23	0.33	0.33	0.31	0.28	0.14
Men	1.67	1.59	0.94	1.27	1.34	0.67
<i>Condom usage with non-regular partner:</i>						
Women	*	*	*	*	*	5.82
Men	8.81	9.23	9.11	5.92	4.42	3.42
G. Domestic violence						
Ever experienced violence	na	na	na	na	na	na
Experienced violence in past year	1.56	1.41	1.17	1.15	0.96	0.66

Kenya

2003 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles					
	Low	2nd	3rd	4th	High	Avg.
A. Education						
<i>School completion:</i>						
Women	3.11	1.92	1.96	1.16	1.00	1.27
Men	2.69	1.85	1.56	1.10	0.93	0.99
<i>School participation:</i>						
Girls	3.57	1.71	1.62	0.78	1.05	1.28
Boys	2.00	0.94	0.54	0.45	0.70	0.65
B. Exposure to mass media						
<i>Newspaper readership:</i>						
Women	1.01	0.94	1.17	1.74	1.91	1.20
Men	2.64	2.47	2.66	2.68	2.11	1.70
<i>Radio listenership:</i>						
Women	2.40	1.72	1.54	1.06	1.02	1.05
Men	3.01	1.63	1.38	1.03	0.68	0.82
<i>Television viewership:</i>						
Women	0.67	0.95	1.44	1.95	2.15	1.60
Men	2.65	2.40	2.67	2.78	2.61	1.81
C. Knowledge and attitudes about HIV/AIDS						
<i>Knowledge about sexual transmission of HIV/AIDS:</i>						
Women	2.74	1.53	1.19	0.99	0.81	0.84
Men	2.60	1.53	1.25	1.12	0.95	0.74
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>						
Women	2.66	1.40	1.06	0.87	0.73	0.77
Men	3.03	1.58	1.61	1.28	0.82	0.80
<i>Attitudes toward HIV/AIDS:</i>						
Women	2.03	1.73	1.59	1.18	1.12	0.93
Men	2.75	2.07	2.29	1.81	1.43	1.08
D. Status of women						
<i>Household decisionmaking:</i>						
Can seek own health care	1.70	1.82	1.93	2.15	1.85	1.21
Can seek children's health care	na	na	na	na	na	na
Can make daily household purchases	1.79	1.71	1.53	1.30	1.38	0.78
Can make large household purchases	1.55	1.48	1.56	1.31	1.50	0.78
Can make meal-related decisions	1.64	1.54	1.46	1.55	1.53	0.80
<i>Freedom of movement:</i>						
Can travel to visit family/relatives	1.60	1.60	1.31	1.35	1.23	0.79
<i>Other decisionmaking, attitudes:</i>						
Can decide how to spend own money	2.98	2.67	1.97	2.44	1.46	1.17
Can decide whether to have sex	1.87	1.35	1.11	0.99	0.42	0.61
Justifies domestic violence	1.51	1.58	1.66	1.48	1.77	1.02
E. Orphanhood						
Paternal orphan prevalence	0.99	1.18	1.02	1.06	0.77	0.56
Maternal orphan prevalence	0.69	0.50	0.66	0.63	0.63	0.31
Double orphan prevalence	0.47	0.41	0.49	0.52	0.31	0.24

Kenya

2003 - ASSET DISTRIBUTION AND WEIGHTS

(FACTOR SCORE)

Asset Variable	Unweighted		Wealth Quintiles						Factor Score
	Mean	Std. Deviation	Low	2nd	3rd	4th	High	Avg.	
			Percentage of Population						
Has electricity	0.201	0.401	0.0%	0.0%	0.2%	3.7%	59.0%	12.6%	0.08784
Has radio	0.729	0.444	43.0%	72.9%	81.1%	88.3%	87.5%	74.6%	0.03190
Has television	0.217	0.412	0.0%	0.2%	8.2%	29.9%	57.1%	19.1%	0.06762
Has refrigerator	0.063	0.242	0.0%	0.0%	0.0%	0.6%	23.1%	4.7%	0.06149
Has bicycle	0.266	0.442	22.9%	32.8%	40.5%	45.1%	23.1%	32.9%	-0.01057
Has motorcycle or scooter	0.008	0.090	0.0%	0.0%	0.5%	2.0%	1.4%	0.8%	0.00687
Has car or truck	0.061	0.239	0.1%	0.1%	0.8%	6.9%	20.6%	5.7%	0.04585
Has telephone	0.161	0.367	0.0%	0.2%	1.9%	10.5%	48.2%	12.2%	0.07241
Has solar power	0.031	0.173	0.1%	0.3%	2.7%	11.2%	4.7%	3.8%	0.00422
Has a domestic worker not related to household head	0.029	0.169	0.0%	0.0%	0.6%	3.1%	12.3%	3.2%	0.03280
Works own or family's agricultural land	0.753	0.431	91.5%	89.6%	85.4%	86.8%	85.5%	87.8%	-0.00723
Uses water piped into residence	0.100	0.300	0.0%	0.0%	1.3%	5.1%	33.0%	7.9%	0.05957
Uses water piped into compound or plot	0.143	0.350	0.1%	0.7%	6.6%	15.2%	26.4%	9.8%	0.03554
Uses water from a piped public source	0.122	0.328	2.6%	5.0%	9.6%	10.7%	18.7%	9.3%	0.01117
Uses water from an open well in yard or residence	0.020	0.139	1.0%	1.0%	1.2%	4.1%	1.3%	1.7%	-0.00228
Uses water from a public open well	0.059	0.236	10.2%	7.1%	7.1%	3.8%	1.8%	6.0%	-0.01647
Uses water from a protected well in yard or residence	0.047	0.211	0.6%	3.1%	5.8%	12.1%	4.0%	5.1%	-0.00094
Uses water from a protected public well	0.056	0.229	5.1%	8.0%	9.1%	6.3%	3.4%	6.4%	-0.01050
Uses water from a spring	0.111	0.314	13.6%	27.3%	20.9%	9.5%	0.9%	14.4%	-0.02408
Uses water from a river, stream, pond, lake, or dam	0.261	0.439	63.0%	43.5%	32.1%	24.3%	1.9%	33.0%	-0.04690
Uses rainwater for drinking	0.023	0.151	0.2%	1.2%	2.5%	4.5%	0.8%	1.9%	-0.00425
Uses bottled drinking water	0.003	0.056	0.0%	0.0%	0.0%	0.0%	0.8%	0.2%	0.01532
Uses water from another source	0.054	0.226	3.2%	3.0%	3.7%	4.2%	6.9%	4.2%	0.00351
Uses own flush toilet	0.083	0.276	0.0%	0.0%	0.4%	0.5%	30.3%	6.2%	0.06931
Uses shared flush toilet	0.061	0.239	0.0%	0.0%	0.0%	0.1%	13.6%	2.7%	0.04046
Uses own pit latrine	0.293	0.455	28.7%	59.5%	48.1%	46.0%	7.0%	37.9%	-0.03688
Uses shared pit latrine	0.307	0.461	9.9%	19.6%	35.9%	31.2%	32.3%	25.8%	0.00091
Uses own VIP latrine	0.036	0.187	0.1%	0.5%	4.1%	13.5%	4.5%	4.6%	-0.00043
Uses shared VIP latrine	0.042	0.202	0.1%	0.4%	0.9%	3.8%	9.7%	3.0%	0.01572
Uses bush or field as latrine	0.169	0.375	61.0%	20.0%	10.1%	4.0%	1.4%	19.3%	-0.04204
Uses other type of latrine	0.006	0.079	0.1%	0.1%	0.3%	0.5%	1.0%	0.4%	0.00253
Owns household	0.661	0.473	99.8%	99.4%	95.0%	81.4%	20.6%	79.2%	-0.08155
Rents home formally	0.281	0.449	0.0%	0.0%	0.0%	8.9%	73.2%	16.4%	0.08165
Rent-free with owner's consent	0.050	0.218	0.0%	0.0%	3.8%	8.7%	5.8%	3.7%	0.00998
Squats in home	0.006	0.080	0.2%	0.6%	1.1%	0.6%	0.3%	0.6%	-0.00415
Owns household land	0.594	0.491	97.3%	93.8%	82.5%	71.7%	17.3%	72.5%	-0.07451
Rents land formally	0.216	0.411	0.0%	0.1%	0.4%	7.5%	55.4%	12.7%	0.06610
Rent-free land with owner's consent	0.173	0.378	0.2%	5.4%	15.3%	19.2%	26.8%	13.4%	0.02798
Squats on land	0.016	0.126	2.6%	0.6%	1.8%	1.1%	0.3%	1.3%	-0.00938
Has earth, mud, dung, or sand as flooring	0.579	0.494	99.8%	99.8%	92.1%	36.7%	6.1%	66.9%	-0.08562
Has wood plank as flooring	0.006	0.078	0.0%	0.0%	0.4%	1.0%	1.7%	0.6%	0.01216
Has parquet/polished wood flooring	0.007	0.083	0.0%	0.0%	0.0%	0.0%	2.1%	0.4%	0.02463
Has linoleum as flooring	0.006	0.076	0.0%	0.0%	0.0%	0.3%	1.6%	0.4%	0.01520
Has tile as flooring	0.011	0.106	0.0%	0.0%	0.0%	0.4%	4.2%	0.9%	0.02487
Has cement as flooring	0.373	0.483	0.0%	0.2%	7.3%	60.7%	78.5%	29.3%	0.06665
Has carpeted flooring	0.013	0.113	0.0%	0.0%	0.0%	0.4%	4.5%	1.0%	0.02182
Has other type of flooring	0.004	0.063	0.0%	0.0%	0.0%	0.1%	1.3%	0.3%	0.01309

Kenya
2003 - ASSET DISTRIBUTION AND WEIGHTS (Cont.)
(FACTOR SCORE)

Asset Variable	Unweighted		Wealth Quintiles						Factor Score
	Mean	Std. Deviation	Low	2nd	3rd	4th	High	Avg.	
			Percentage of Population						
Has roof made of grass, thatch, or makuti	0.224	0.417	85.6%	27.2%	13.6%	4.1%	0.7%	26.3%	-0.05048
Has roof made of tin cans	0.004	0.061	0.4%	0.4%	0.3%	0.1%	0.2%	0.3%	-0.00228
Has roof made of corrugated iron	0.666	0.472	9.1%	68.6%	83.5%	94.0%	68.9%	64.8%	0.00702
Has roof made of asbestos sheets	0.016	0.125	0.0%	0.0%	0.3%	1.1%	4.3%	1.1%	0.01918
Has roof made of concrete	0.043	0.203	0.0%	0.0%	0.0%	0.2%	14.4%	2.9%	0.04444
Has roof made of tile	0.031	0.173	0.0%	0.0%	0.0%	0.0%	10.6%	2.1%	0.04372
Has roof made of other roofing materials	0.015	0.123	4.9%	3.8%	2.1%	0.1%	0.6%	2.3%	-0.00959
Uses electricity for cooking	0.005	0.073	0.0%	0.0%	0.0%	0.0%	1.5%	0.3%	0.01765
Uses LPG, natural gas, or biogas for cooking	0.054	0.226	0.0%	0.0%	0.0%	0.2%	17.8%	3.6%	0.05788
Uses kerosene for cooking	0.176	0.381	0.0%	0.0%	0.2%	2.2%	37.8%	8.0%	0.05543
Uses charcoal, lignite, or coal for cooking	0.147	0.354	0.0%	1.5%	9.3%	18.1%	33.2%	12.4%	0.02058
Uses wood, straw, or dung for cooking	0.610	0.488	100.0%	98.5%	90.5%	79.1%	8.7%	75.3%	-0.08877
Uses other fuel for cooking	0.006	0.078	0.0%	0.0%	0.0%	0.1%	1.0%	0.2%	0.00639
Waste collected regularly by the government	0.012	0.107	0.0%	0.0%	0.1%	0.2%	3.6%	0.8%	0.01788
Waste collected irregularly by the government	0.009	0.094	0.0%	0.0%	0.0%	0.0%	2.5%	0.5%	0.01535
Waste collected by a private company	0.085	0.279	0.0%	0.0%	0.1%	0.2%	26.2%	5.3%	0.06679
Waste composted	0.244	0.430	14.3%	28.1%	37.1%	35.3%	15.5%	26.1%	-0.01428
Waste dumped, buried, or burned in compound or yard	0.459	0.498	66.8%	58.1%	50.0%	50.9%	29.1%	51.0%	-0.03313
Waste dumped in street or empty plot	0.141	0.348	14.7%	8.8%	5.7%	6.6%	18.2%	10.8%	0.00371
Waste disposed some other way	0.046	0.210	3.9%	4.9%	6.6%	6.4%	4.6%	5.3%	-0.00296
Number of members per sleeping room	2.593	1.727	4.6	3.1	2.8	2.5	2.8	3.2	-0.02709

PART VI. SUPPORTING TABLES, 1998

- A. SAMPLE SIZES**
- B. STANDARD ERRORS**
- C. ASSET DISTRIBUTION AND WEIGHTS**

Kenya
1998 - SAMPLE SIZES

TOTAL SAMPLE

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Number of household members						
All	7,226	6,916	7,418	7,181	7,175	35,916
Urban	63	214	553	1,363	4,447	6,641
Rural	7,163	6,702	6,865	5,818	2,727	29,275
Female	3,703	3,628	3,792	3,590	3,508	18,221
Male	3,520	3,286	3,624	3,588	3,666	17,684

Part I: HNP STATUS

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Mortality rates						
All	2,786	2,369	2,019	1,994	1,829	10,996
Urban	20	84	186	432	1,158	1,880
Rural	2,765	2,285	1,833	1,562	671	9,117
Female	1,324	1,209	996	974	909	5,411
Male	1,462	1,160	1,023	1,020	920	5,586
Prevalence of fever, diarrhea, acute respiratory infection						
All	782	663	606	581	573	3,205
Urban	7	31	61	137	364	600
Urban	775	632	545	444	209	2,605
Rural	374	336	288	278	297	1,573
Female	409	327	318	303	276	1,633
Male						
Total fertility rate						
All	4,011	4,117	4,088	4,239	5,443	21,898
Urban	37	170	384	930	3,710	5,231
Rural	3,974	3,947	3,704	3,309	1,732	16,666
Age-specific fertility rate 15-19						
All	866	1,049	984	1,006	1,385	5,289
Urban	6	59	117	209	986	1,377
Rural	860	989	867	797	399	3,912
Children's nutritional status						
All	1,076	947	844	800	746	4,413
Urban	10	35	67	182	457	751
Rural	1,066	913	777	618	289	3,663
Female	518	481	414	383	371	2,167
Male	558	467	430	417	375	2,247
Children's anemia status						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Female	na	na	na	na	na	na
Male	na	na	na	na	na	na

Kenya
1998 - SAMPLE SIZES

Part I: HNP STATUS (Cont.)

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Women's nutritional status						
All	685	640	596	584	601	3,106
Urban	6	23	60	146	392	627
Rural	678	617	536	439	209	2,479
Women's anemia status						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Girls' circumcision						
All	960	925	855	864	936	4,539
Urban	8	34	73	176	596	888
Rural	951	891	782	688	339	3,651
Women's circumcision						
All	1,452	1,491	1,480	1,526	1,931	7,881
Urban	14	57	141	319	1,299	1,830
Rural	1,438	1,434	1,340	1,207	632	6,051
Prevalence of genital discharge, ulcer, sore						
Female	1,265	1,261	1,250	1,300	1,563	6,639
Urban Female	11	55	125	304	1,070	1,565
Rural Female	1,254	1,206	1,124	996	493	5,073
Male	441	501	510	698	821	2,971
Urban Male	5	25	67	225	523	845
Rural Male	436	476	443	473	298	2,126

Kenya

1998 - SAMPLE SIZES

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Immunization coverage						
All	258	250	209	191	189	1,097
Urban	3	14	20	43	130	210
Rural	255	236	189	149	59	888
Female	127	117	102	98	105	549
Male	130	133	108	94	84	549
Treatment of fever						
All	356	287	259	237	218	1,356
Urban	2	12	31	65	140	250
Rural	353	275	229	171	78	1,106
Female	186	139	136	122	109	692
Male	170	148	123	114	108	663
Treatment of acute respiratory infection						
All	181	139	117	120	87	644
Urban	0	4	14	37	49	104
Rural	180	135	103	83	38	539
Female	93	63	50	57	49	312
Male	88	76	67	63	38	332
Treatment of diarrhea						
All	152	124	108	90	75	549
Urban	2	7	21	26	46	102
Rural	150	117	87	63	29	446
Female	61	63	60	36	38	258
Male	90	61	48	54	37	290
Antenatal and delivery care						
All	732	639	569	544	523	3,007
Urban	7	30	55	119	340	551
Rural	726	610	514	425	183	2,458
Contraceptive prevalence						
Female	1,020	955	902	916	1,041	4,834
Urban Female	8	36	76	205	685	1,010
Rural Female	1,012	919	825	711	356	3,823
Male	315	316	291	384	486	1,791
Urban Male	4	15	44	153	314	530
Rural Male	311	300	247	231	172	1,261
Contraceptive source						
Female	128	230	277	364	522	1,521
Urban Female	0	8	13	67	326	414
Rural Female	128	222	264	296	196	1,107
Male	315	316	291	384	486	1,791
Urban Male	4	15	44	153	314	530
Rural Male	311	300	247	231	172	1,261
Treatment of genital discharge, ulcer, sore						
Female	na	na	na	na	na	na
Urban Female	na	na	na	na	na	na
Rural Female	na	na	na	na	na	na
Male	na	na	na	na	na	na
Urban Male	na	na	na	na	na	na
Rural Male	na	na	na	na	na	na

Kenya

1998 - SAMPLE SIZES

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Sanitary disposal of stools						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Wash hands prior to preparing food						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Handwashing facilities in household?						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Bednet ownership						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Bednet use by children						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Bednet use by pregnant women						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Exclusive breastfeeding						
All	91	61	61	68	71	352
Urban	0	5	5	17	41	68
Rural	90	56	57	51	30	284
Female	50	32	38	43	34	197
Male	41	29	23	25	36	154
Timely complementary breastfeeding						
All	79	79	74	77	68	377
Urban	0	3	13	19	50	85
Rural	78	76	61	58	19	292
Female	38	37	39	40	38	192
Male	41	42	35	38	30	186
Bottle-feeding						
All	252	207	208	203	217	1,087
Urban	3	9	20	54	138	224
Rural	249	198	187	149	79	862
Female	128	96	118	106	117	565
Male	124	112	90	97	100	523

Kenya

1998 - SAMPLE SIZES

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR (Cont.)

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Iodized salt in household						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Vitamin A supplementation						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Female	na	na	na	na	na	na
Male	na	na	na	na	na	na
Tobacco and alcohol use, casual sexual partners, condom use for casual sex						
Female	1,452	1,491	1,480	1,526	1,931	7,880
Urban Female	14	57	141	319	1,299	1,830
Rural Female	1,438	1,434	1,340	1,207	632	6,051
Male	507	572	615	805	907	3,406
Urban Male	5	26	69	244	570	914
Rural Male	502	546	546	562	337	2,493
Domestic violence						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na

Kenya

1998 - SAMPLE SIZES

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
School completion (Grade 5)						
Female	1,470	1,502	1,514	1,541	1,937	7,965
Urban female	13	50	139	322	1,304	1,828
Rural female	1,457	1,452	1,375	1,219	633	6,136
Male	1,196	1,236	1,435	1,610	2,032	7,509
Urban male	9	51	164	463	1,330	2,016
Rural male	1,187	1,185	1,271	1,147	702	5,493
School participation						
Female	668	602	571	550	424	2,815
Urban female	5	23	33	70	237	367
Rural female	663	579	538	480	187	2,447
Male	723	626	600	558	470	2,977
Urban male	7	17	27	68	293	412
Rural male	715	609	573	490	177	2,565
Mass media exposure						
Female	1,452	1,491	1,480	1,526	1,931	7,881
Urban female	14	57	141	319	1,299	1,830
Rural female	1,438	1,434	1,340	1,207	632	6,051
Male	507	572	615	805	907	3,407
Urban male	5	26	69	244	570	913
Rural male	502	546	546	562	337	2,494
Knowledge of HIV/AIDS prevention						
Female	2,972	1,491	1,480	1,526	1,931	9,400
Urban female	14	57	141	319	1,299	1,830
Rural female	1,438	1,434	1,340	1,207	632	6,051
Male	507	572	615	805	907	3,407
Urban male	5	26	69	244	570	914
Rural male	502	546	546	562	337	2,493
Household decisionmaking and justification of violence						
All	1,452	1,491	1,480	1,526	1,931	7,881
Urban	14	57	141	319	1,299	1,830
Rural	1,438	1,434	1,340	1,207	632	6,051
Orphanhood						
All	3,842	3,472	3,382	3,164	2,665	16,524
Urban	34	102	205	478	1,557	2,377
Rural	3,808	3,370	3,176	2,686	1,107	14,147
Female	1,843	1,758	1,633	1,594	1,334	8,162
Male	1,996	1,713	1,745	1,568	1,330	8,352

Kenya

1998 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part I: HNP STATUS

Indicator	Wealth Quintiles					
	Low	2nd	3rd	4th	High	Avg.
A. Childhood illness and mortality						
Infant mortality rate	9.86	7.49	6.35	7.33	6.22	4.28
Under-five mortality rate	12.55	11.18	8.45	8.54	7.51	5.79
Prevalence of fever	2.26	2.26	2.27	2.24	2.78	1.13
Prevalence of diarrhea	1.61	1.71	1.98	1.84	1.81	0.78
Prevalence of acute respiratory infection	2.10	1.84	1.72	2.21	1.97	0.91
B. Fertility						
Total fertility rate	0.21	0.22	0.17	0.18	0.16	0.11
Adolescent fertility rate	18.00	12.00	10.00	11.00	9.00	6.00
C. Nutritional status						
<i>Children:</i>						
Moderate stunting	1.62	1.62	1.48	1.77	1.41	0.76
Severe stunting	1.45	1.48	1.25	1.16	1.16	0.64
Moderate underweight	1.63	1.52	1.48	1.52	1.15	0.73
Severe underweight	0.92	0.99	0.77	0.76	0.54	0.41
Mild anemia	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na
<i>Women:</i>						
Malnutrition	1.99	1.56	1.59	1.28	1.09	0.74
Mild anemia	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na
D. Female circumcision						
<i>Prevalence of circumcision:</i>						
Girls	1.45	1.46	1.43	1.24	1.21	0.65
Women	2.49	1.97	1.96	1.92	1.75	1.13
<i>Prevalence of occlusion:</i>						
Girls	na	na	na	na	na	na
Women	na	na	na	na	na	na
E. Sexually transmitted disease						
<i>Prevalence of genital discharge:</i>						
Women	0.40	0.34	0.33	0.21	0.38	0.15
Men	0.87	1.00	1.09	0.82	0.74	0.38
<i>Prevalence of genital ulcer:</i>						
Women	0.20	0.24	0.28	0.19	0.22	0.10
Men	0.84	0.81	0.89	0.68	0.46	0.31

Kenya

1998 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles					Avg.
	Low	2nd	3rd	4th	High	
A. Childhood immunization						
BCG coverage	1.75	1.70	0.95	1.29	0.91	0.65
Measles coverage	3.56	3.02	2.74	2.99	2.69	1.39
DPT coverage	3.81	2.58	2.67	2.86	3.08	1.54
Full basic coverage	3.96	3.42	3.52	3.83	4.46	1.81
No basic coverage	1.53	1.19	0.87	1.29	0.91	0.55
Hepatitis B coverage	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na
B. Treatment of childhood illnesses						
<i>Treatment of fever:</i>						
Medical treatment of fever	3.10	3.29	3.66	3.57	3.48	1.47
Treatment in a public facility	3.10	3.29	3.90	3.83	4.04	1.68
Treatment in a private facility	2.34	3.30	3.08	3.24	3.78	1.41
<i>Treatment of acute respiratory infection (ARI):</i>						
Medical treatment of ARI	4.03	4.67	4.62	6.22	6.40	2.20
Treatment in a public facility	3.88	4.24	4.34	5.36	7.86	2.07
Treatment in a private facility	3.61	3.83	3.99	4.29	6.99	1.99
<i>Treatment of diarrhea:</i>						
Use of oral rehydration therapy	4.15	3.39	4.62	4.50	4.71	2.08
Medical treatment of diarrhea	4.23	4.85	5.26	5.96	7.13	2.52
Treatment in a public facility	3.92	4.57	4.68	5.99	5.31	2.25
Treatment in a private facility	3.47	4.53	3.71	5.08	5.56	2.01
C. Antenatal and delivery care						
<i>Antenatal care (ANC) visits:</i>						
To a medically-trained person	1.25	1.50	1.59	1.27	1.21	0.65
To a doctor	1.71	1.74	2.15	2.29	2.73	1.00
To a nurse or trained midwife	2.04	1.95	2.18	2.58	2.72	1.13
Multiple visits to a medically-trained person	1.65	1.69	1.87	1.69	1.98	0.83
<i>Antenatal care content:</i>						
Tetanus toxoid	1.56	1.33	1.48	1.31	1.52	0.68
Prophylactic antimalarial treatment	na	na	na	na	na	na
Iron supplementation	na	na	na	na	na	na
<i>Delivery attendance:</i>						
By a medically-trained person	2.02	1.81	2.30	2.66	2.34	1.20
By a doctor	1.05	1.14	1.46	1.66	2.33	0.73
By a nurse or trained midwife	1.69	1.59	2.04	2.23	2.80	0.95
In a public facility	1.75	1.69	2.32	2.41	2.87	1.06
In a private facility	0.89	0.95	1.23	1.66	2.62	0.76
At home	1.96	1.78	2.45	2.65	2.39	1.24
D. Contraceptive services						
<i>Contraceptive prevalence:</i>						
Women	1.32	1.74	1.83	2.06	1.94	0.93
Men	2.54	2.55	3.25	3.11	2.74	1.45
<i>Source of contraception - public sector:</i>						
Women	4.57	3.26	2.99	3.11	3.29	1.76
Men	na	na	na	na	na	na

Kenya

1998 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE (Cont.)

Indicator	Wealth Quintiles					
	Low	2nd	3rd	4th	High	Avg.
D. Contraceptive services (cont.)						
<i>Source of contraception - private sector:</i>						
Women	4.32	3.03	3.02	3.09	3.09	1.71
Men	na	na	na	na	na	na
E. Treatment of adult illnesses						
<i>Treatment of genital discharge, ulcer, sore:</i>						
Women	*	6.31	8.13	*	*	3.23
Men	*	8.39	8.31	6.24	9.43	3.62
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>						
Women	0.40	0.34	0.33	0.21	0.38	0.15
Men	*	1.14	1.21	0.94	0.80	0.43
<i>Voluntary counseling and testing for HIV/AIDS:</i>						
Women	0.72	0.87	0.88	1.19	1.20	0.50
Men	1.62	1.62	1.69	1.46	1.89	0.79

Kenya

1998 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles					
	Low	2nd	3rd	4th	High	Avg.
A. Hygienic practices						
<i>Disposal of children's stools:</i>						
Sanitary disposal	na	na	na	na	na	na
<i>Handwashing:</i>						
Wash hands prior to preparing food	na	na	na	na	na	na
Handwashing facilities in household	na	na	na	na	na	na
B. Bednet ownership and use						
<i>Bednet ownership:</i>						
Bednet ownership	na	na	na	na	na	na
Treated bednet ownership	na	na	na	na	na	na
<i>Bednet use:</i>						
By children	na	na	na	na	na	na
By pregnant women	na	na	na	na	na	na
C. Breastfeeding						
Exclusive breastfeeding	4.36	5.55	5.84	4.43	5.65	2.26
Timely complementary feeding	4.10	2.18	4.45	2.23	4.66	1.65
Bottle-feeding	3.17	2.88	3.56	3.91	3.98	1.62
D. Micronutrient consumption						
<i>Iodized salt:</i>						
Availability of iodized salt in household	na	na	na	na	na	na
<i>Vitamin A:</i>						
Children	na	na	na	na	na	na
Women	na	na	na	na	na	na
E. Tobacco and alcohol use						
<i>Tobacco:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
<i>Alcohol:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
F. Sexual practices						
<i>Non-regular sexual partnerships:</i>						
Women	0.39	0.25	0.30	0.22	0.21	0.12
Men	1.84	1.72	2.10	1.75	1.92	0.86
<i>Condom usage with non-regular partner:</i>						
Women	*	*	*	*	*	5.80
Men	4.39	4.43	6.64	4.32	4.37	2.37
G. Domestic violence						
Ever experienced violence	na	na	na	na	na	na
Experienced violence in past year	na	na	na	na	na	na

Kenya

1998 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles					
	Low	2nd	3rd	4th	High	Avg.
A. Education						
<i>School completion:</i>						
Women	1.98	1.37	1.38	1.08	0.76	0.73
Men	1.68	1.20	1.05	1.06	0.79	0.59
<i>School participation:</i>						
Girls	2.85	1.68	1.63	1.57	1.94	1.01
Boys	2.19	2.02	1.52	1.61	1.70	0.94
B. Exposure to mass media						
<i>Newspaper readership:</i>						
Women	1.32	1.31	1.29	1.54	1.48	0.80
Men	2.48	2.52	2.33	2.17	1.63	1.21
<i>Radio listenership:</i>						
Women	1.95	1.67	1.66	1.44	1.27	0.84
Men	2.87	2.28	1.63	1.68	1.43	0.92
<i>Television viewership:</i>						
Women	0.96	0.94	0.91	1.22	1.94	0.92
Men	2.11	2.09	2.63	2.20	2.50	1.25
C. Knowledge and attitudes about HIV/AIDS						
<i>Knowledge about sexual transmission of HIV/AIDS:</i>						
Women	1.40	0.59	0.54	0.47	0.36	0.35
Men	0.80	0.67	0.55	0.41	0.37	0.25
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>						
Women	1.55	1.08	1.08	0.92	0.92	0.53
Men	1.97	1.86	1.72	1.59	1.31	0.78
<i>Attitudes toward HIV/AIDS:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
D. Status of women						
<i>Household decisionmaking:</i>						
Can seek own health care	na	na	na	na	na	na
Can seek children's health care	na	na	na	na	na	na
Can make daily household purchases	na	na	na	na	na	na
Can make large household purchases	na	na	na	na	na	na
Can make meal-related decisions	na	na	na	na	na	na
<i>Freedom of movement:</i>						
Can travel to visit family/relatives	na	na	na	na	na	na
<i>Other decisionmaking, attitudes:</i>						
Can decide how to spend own money	2.00	2.13	2.11	2.21	1.90	1.08
Can decide whether to have sex	na	na	na	na	na	na
Justifies domestic violence	na	na	na	na	na	na
E. Orphanhood						
Paternal orphan prevalence	0.76	0.80	0.94	0.81	0.86	0.38
Maternal orphan prevalence	0.31	0.38	0.49	0.49	0.68	0.20
Double orphan prevalence	0.14	0.19	0.25	0.20	0.37	0.11

Kenya
1998 - ASSET DISTRIBUTION AND WEIGHTS
(FACTOR SCORE)

Asset Variable	Unweighted		Wealth Quintiles						Factor Score
	Mean	Std. Deviation	Low	2nd	3rd	4th	High	Avg.	
			Percentage of Population						
Has electricity	0.124	0.329	0.0%	0.2%	0.1%	1.8%	56.7%	11.7%	0.13578
Has radio	0.618	0.486	27.4%	55.3%	75.7%	79.0%	93.9%	66.4%	0.07171
Has television	0.115	0.319	0.0%	0.0%	1.2%	7.5%	60.3%	13.8%	0.12647
Has refrigerator	0.033	0.178	0.0%	0.0%	0.0%	0.0%	18.7%	3.7%	0.11691
Has bicycle	0.248	0.432	15.6%	26.5%	34.7%	35.1%	29.1%	28.3%	0.01143
Has motorcycle	0.008	0.087	0.0%	0.0%	0.1%	0.4%	4.1%	0.9%	0.04382
Has car	0.042	0.200	0.0%	0.0%	0.1%	1.9%	22.9%	5.0%	0.10100
Has telephone	0.023	0.149	0.0%	0.0%	0.0%	0.1%	13.4%	2.7%	0.10408
Has a domestic worker not related to household head	0.013	0.113	0.0%	0.0%	0.0%	0.5%	9.4%	2.0%	0.04947
Works own or family's agricultural land	0.259	0.438	60.0%	48.1%	28.7%	26.3%	8.2%	34.1%	-0.05394
Uses water piped into residence	0.209	0.407	0.0%	0.8%	3.4%	27.6%	65.9%	19.5%	0.11241
Uses water from piped public source	0.124	0.330	1.1%	8.0%	12.2%	15.6%	10.0%	9.4%	0.00576
Uses water from an inside well	0.085	0.279	2.9%	8.6%	12.5%	8.5%	7.3%	8.0%	-0.00247
Uses water from a river, canal, or surface water	0.374	0.484	71.5%	61.5%	46.6%	26.7%	6.9%	42.5%	-0.07490
Uses water from another source	0.021	0.142	0.2%	1.4%	1.7%	3.5%	2.4%	1.8%	0.00361
Uses rainwater for drinking	0.013	0.112	0.1%	0.3%	1.1%	2.0%	2.9%	1.3%	0.01099
Uses water from a public well	0.129	0.336	19.3%	13.2%	15.5%	11.8%	3.8%	12.7%	-0.02703
Uses own flush toilet	0.057	0.233	0.0%	0.0%	0.0%	0.6%	32.4%	6.6%	0.12392
Uses shared flush toilet	0.035	0.184	0.0%	0.0%	0.0%	1.0%	14.8%	3.2%	0.04512
Uses pit latrine	0.689	0.463	56.6%	77.2%	87.2%	81.8%	34.9%	67.6%	-0.05639
Uses VIP latrine	0.070	0.254	0.0%	0.7%	3.1%	10.3%	16.9%	6.2%	0.02904
Uses bush or field as latrine	0.142	0.349	42.8%	21.7%	9.0%	5.2%	0.8%	15.9%	-0.05228
Uses other type of latrine	0.002	0.044	0.2%	0.1%	0.2%	0.2%	0.1%	0.2%	-0.00064
Has dirt or earth as principal flooring	0.650	0.477	100.0%	99.9%	98.5%	36.8%	1.4%	67.3%	-0.13563
Has wood plank as principal flooring	0.011	0.104	0.0%	0.0%	0.2%	3.4%	0.8%	0.9%	0.00705
Has cement as principal flooring	0.323	0.468	0.0%	0.1%	0.8%	58.4%	90.5%	30.0%	0.12106
Has tile flooring	0.012	0.111	0.0%	0.0%	0.0%	0.3%	7.1%	1.5%	0.06641
Has natural material roofing	0.291	0.454	98.5%	40.8%	5.2%	4.0%	0.3%	29.6%	-0.08929
Has other type of flooring	0.000	0.015	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.00361
Has roof made of corrugated iron	0.673	0.469	1.5%	59.2%	93.1%	94.2%	83.1%	66.4%	0.05028
Has roof made of tile	0.026	0.158	0.0%	0.0%	0.0%	0.1%	14.3%	2.9%	0.09478
Has roof made of other material	0.007	0.081	0.0%	0.0%	1.3%	0.8%	1.9%	0.8%	0.02250
Number of members per sleeping room	2.592	1.893	4.6	3.6	2.7	2.6	2.5	3.2	-0.04781

PART VII. SUPPORTING TABLES, 1993

- A. SAMPLE SIZES**
- B. STANDARD ERRORS**
- C. ASSET DISTRIBUTION AND WEIGHTS**

Kenya
1993 - SAMPLE SIZES

TOTAL SAMPLE

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Number of household members						
All	7,728	7,468	7,694	7,597	7,609	38,096
Urban	0	162	406	775	3,785	5,127
Rural	7,728	7,306	7,288	6,822	3,824	32,969
Female	4,102	3,963	4,049	3,879	3,780	19,773
Male	3,626	3,505	3,645	3,718	3,829	18,323

Part I: HNP STATUS

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Mortality rates						
All	2,834	2,631	2,471	2,400	2,120	12,455
Urban	0	46	128	272	1,062	1,508
Rural	2,834	2,585	2,343	2,128	1,058	10,947
Female	1,449	1,332	1,251	1,200	1,077	6,309
Male	1,385	1,299	1,220	1,200	1,042	6,146
Prevalence of fever, diarrhea, acute respiratory infection						
All	1,251	1,175	1,116	1,115	960	5,617
Urban	16	56	141	507	na	721
Rural	1,251	1,159	1,060	974	453	4,897
Female	651	575	568	527	496	2,817
Male	600	599	549	589	464	2,800
Total fertility rate						
All	1,313	1,431	1,462	1,491	1,843	7,540
Urban	0	34	85	180	1,040	1,339
Rural	1,313	1,397	1,377	1,311	803	6,201
Age-specific fertility rate 15-19						
All	273	358	369	348	407	1,754
Urban	0	12	11	32	221	275
Rural	273	346	358	316	186	1,479
Children's nutritional status						
All	1,044	1,035	978	939	768	4,763
Urban	12	40	97	388	na	537
Rural	1,044	1,022	938	842	380	4,226
Female	536	508	501	442	400	2,386
Male	508	527	476	497	368	2,377
Children's anemia status						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Female	na	na	na	na	na	na
Male	na	na	na	na	na	na

Kenya

1993 - SAMPLE SIZES

Part I: HNP STATUS (Cont.)

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Women's nutritional status						
All	801	799	741	742	722	3,805
Urban	14	32	92	384	na	523
Rural	801	784	709	650	337	3,282
Women's anemia status						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Girls' circumcision						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Women's circumcision						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Prevalence of genital discharge, ulcer, sore						
Female	na	na	na	na	na	na
Urban Female	na	na	na	na	na	na
Rural Female	na	na	na	na	na	na
Male	na	na	na	na	na	na
Urban Male	na	na	na	na	na	na
Rural Male	na	na	na	na	na	na

Kenya

1993 - SAMPLE SIZES

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Immunization coverage						
All	247	219	227	210	220	1,124
Urban	5	14	34	124	na	177
Rural	247	214	214	177	95	947
Female	125	105	104	98	113	545
Male	122	114	124	113	107	580
Treatment of fever						
All	553	525	448	437	378	2,340
Urban	5	19	57	199	na	280
Rural	553	520	428	380	179	2,061
Female	274	249	234	197	195	1,150
Male	279	276	213	240	182	1,190
Treatment of acute respiratory infection						
All	73	82	66	91	60	372
Urban	1	4	8	26	na	39
Rural	73	81	61	84	34	333
Female	46	38	31	39	31	185
Male	26	44	34	52	29	186
Treatment of diarrhea						
All	102	124	96	87	63	472
Urban	1	3	20	25	na	49
Rural	102	124	92	67	38	423
Female	61	64	38	36	30	228
Male	42	61	58	51	32	244
Antenatal and delivery care						
All	1,403	1,308	1,203	1,188	1,027	6,128
Urban	19	68	151	542	na	780
Rural	1,403	1,289	1,134	1,037	485	5,348
Contraceptive prevalence						
Female	912	961	871	909	975	4,629
Urban Female	20	48	104	525	na	697
Rural Female	912	941	823	805	450	3,932
Male	300	298	272	315	479	1,664
Urban Male	10	27	56	301	na	393
Rural Male	300	289	245	259	178	1,271
Contraceptive source						
Female	94	151	238	341	440	1,264
Urban Female	1	5	30	229	na	264
Rural Female	94	150	233	311	211	999
Male	na	na	na	na	na	na
Urban Male	na	na	na	na	na	na
Rural Male	na	na	na	na	na	na
Treatment of genital discharge, ulcer, sore						
Female	na	na	na	na	na	na
Urban Female	na	na	na	na	na	na
Rural Female	na	na	na	na	na	na
Male	na	na	na	na	na	na
Urban Male	na	na	na	na	na	na
Rural Male	na	na	na	na	na	na

Kenya

1993 - SAMPLE SIZES

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Sanitary disposal of stools						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Wash hands prior to preparing food						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Handwashing facilities in household?						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Bednet ownership						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Bednet use by children						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Bednet use by pregnant women						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Exclusive breastfeeding						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Female	na	na	na	na	na	na
Male	na	na	na	na	na	na
Timely complementary breastfeeding						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Female	na	na	na	na	na	na
Male	na	na	na	na	na	na
Bottle-feeding						
All	264	241	215	211	166	1,097
Urban	1	10	25	82	na	117
Rural	264	240	205	186	84	979
Female	151	117	107	109	91	575
Male	114	123	108	102	75	521

Kenya

1993 - SAMPLE SIZES

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR (Cont.)

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
Iodized salt in household						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Vitamin A supplementation						
All	643	602	546	551	440	2,780
Urban	7	26	59	221	na	314
Rural	643	595	519	491	219	2,467
Female	326	285	282	249	231	1,373
Male	317	317	264	302	209	1,407
Tobacco and alcohol use, casual sexual partners, condom use for casual sex						
Female	na	na	na	na	na	na
Urban Female	na	na	na	na	na	na
Rural Female	na	na	na	na	na	na
Male	na	na	na	na	na	na
Urban Male	na	na	na	na	na	na
Rural Male	na	na	na	na	na	na
Domestic violence						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na

Kenya

1993 - SAMPLE SIZES

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles					Pop. Total
	Low	2nd	3rd	4th	High	
School completion (Grade 5)						
Female	1,440	1,564	1,585	1,601	2,014	8,203
Urban female	36	92	192	1,132	na	1,453
Rural female	1,440	1,528	1,493	1,409	882	6,751
Male	1,179	1,314	1,408	1,545	2,066	7,511
Urban male	45	137	246	1,198	na	1,626
Rural male	1,179	1,269	1,271	1,299	867	5,886
School participation						
Female	819	752	781	681	560	3,593
Urban female	20	29	48	239	na	335
Rural female	819	732	752	633	321	3,258
Male	767	615	697	698	549	3,325
Urban male	11	28	48	215	na	303
Rural male	767	604	668	650	333	3,023
Mass media exposure						
Female	1,313	1,431	1,462	1,491	1,843	7,540
Urban female	34	85	180	1,040	na	1,339
Rural female	1,313	1,397	1,377	1,311	803	6,201
Male	na	na	na	na	na	na
Urban male	na	na	na	na	na	na
Rural male	na	na	na	na	na	na
Knowledge of HIV/AIDS prevention						
Female	na	na	na	na	na	na
Urban female	na	na	na	na	na	na
Rural female	na	na	na	na	na	na
Male	389	391	417	442	697	2,336
Urban male	17	39	80	430	na	566
Rural male	389	374	378	362	267	1,770
Household decisionmaking and justification of violence						
All	na	na	na	na	na	na
Urban	na	na	na	na	na	na
Rural	na	na	na	na	na	na
Orphanhood						
All	4,226	3,860	3,925	3,733	3,190	18,933
Urban	67	150	290	1,400	na	1,907
Rural	4,226	3,792	3,775	3,443	1,790	17,026
Female	2,195	1,992	2,004	1,885	1,660	9,736
Male	2,031	1,868	1,920	1,847	1,530	9,197

Kenya

1993 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part I: HNP STATUS

Indicator	Wealth Quintiles					Avg.
	Low	2nd	3rd	4th	High	
A. Childhood illness and mortality						
Infant mortality rate	8.09	7.10	5.64	5.04	5.76	3.52
Under-five mortality rate	9.82	8.18	7.64	6.17	6.65	4.44
Prevalence of fever	2.19	2.13	2.13	2.19	2.11	1.10
Prevalence of diarrhea	0.85	1.03	0.91	1.05	1.07	0.46
Prevalence of acute respiratory infection	0.81	0.87	0.74	0.94	0.99	0.43
B. Fertility						
Total fertility rate	0.23	0.26	0.22	0.28	0.16	0.13
Adolescent fertility rate	13.61	11.06	11.14	11.96	8.56	5.56
C. Nutritional status						
<i>Children:</i>						
Moderate stunting	1.61	1.67	1.36	1.75	1.38	0.75
Severe stunting	1.50	1.35	1.08	1.38	1.03	0.64
Moderate underweight	1.27	1.36	1.22	1.46	1.47	0.65
Severe underweight	1.28	0.90	0.82	0.68	0.70	0.45
Mild anemia	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na
<i>Women:</i>						
Malnutrition	1.67	1.23	1.26	1.16	0.92	0.64
Mild anemia	na	na	na	na	na	na
Moderate anemia	na	na	na	na	na	na
Severe anemia	na	na	na	na	na	na
D. Female circumcision						
<i>Prevalence of circumcision:</i>						
Girls	na	na	na	na	na	na
Women	na	na	na	na	na	na
<i>Prevalence of occlusion:</i>						
Girls	na	na	na	na	na	na
Women	na	na	na	na	na	na
E. Sexually transmitted disease						
<i>Prevalence of genital discharge:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
<i>Prevalence of genital ulcer:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na

Kenya

1993 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE

Indicator	Wealth Quintiles					Avg.
	Low	2nd	3rd	4th	High	
A. Childhood immunization						
BCG coverage	2.01	1.83	1.60	0.91	0.74	0.77
Measles coverage	4.31	2.30	3.01	2.44	2.40	1.53
DPT coverage	3.48	2.65	2.49	2.15	1.83	1.27
Full basic coverage	4.20	3.10	3.22	2.71	2.87	1.61
No basic coverage	1.80	1.56	1.60	0.91	0.74	0.70
Hepatitis B coverage	na	na	na	na	na	na
Yellow fever coverage	na	na	na	na	na	na
B. Treatment of childhood illnesses						
<i>Treatment of fever:</i>						
Medical treatment of fever	2.84	2.77	3.06	3.51	3.30	1.55
Treatment in a public facility	2.64	2.92	2.73	3.42	3.14	1.52
Treatment in a private facility	1.67	1.63	2.10	2.19	3.19	1.09
<i>Treatment of acute respiratory infection (ARI):</i>						
Medical treatment of ARI	7.59	5.85	6.66	6.03	8.02	3.07
Treatment in a public facility	7.58	6.24	6.41	6.24	8.23	3.29
Treatment in a private facility	4.82	5.36	4.00	3.24	5.38	2.14
<i>Treatment of diarrhea:</i>						
Use of oral rehydration therapy	6.30	5.33	5.95	6.50	6.58	2.82
Medical treatment of diarrhea	4.97	5.33	5.89	6.68	7.55	2.71
Treatment in a public facility	4.61	5.41	5.30	6.29	6.53	2.57
Treatment in a private facility	2.90	3.42	5.02	2.77	6.34	1.93
C. Antenatal and delivery care						
<i>Antenatal care (ANC) visits:</i>						
To a medically-trained person	1.76	0.73	0.75	0.79	0.61	0.53
To a doctor	1.74	1.77	1.90	1.63	1.90	0.91
To a nurse or trained midwife	2.21	1.86	1.86	1.83	1.89	1.00
Multiple visits to a medically-trained person	2.13	1.37	1.64	1.49	1.41	0.80
<i>Antenatal care content:</i>						
Tetanus toxoid	1.94	1.22	1.19	1.13	1.32	0.69
Prophylactic antimalarial treatment	na	na	na	na	na	na
Iron supplementation	na	na	na	na	na	na
<i>Delivery attendance:</i>						
By a medically-trained person	1.61	1.93	2.30	2.72	2.18	1.50
By a doctor	0.77	1.10	1.27	1.41	1.74	0.62
By a nurse or trained midwife	1.37	1.58	2.16	2.50	2.69	1.27
In a public facility	1.44	1.74	2.30	2.49	2.30	1.28
In a private facility	0.88	0.93	1.30	1.84	2.00	0.79
At home	1.57	2.02	2.34	2.67	2.17	1.49
D. Contraceptive services						
<i>Contraceptive prevalence:</i>						
Women	1.31	1.45	1.86	2.53	1.88	1.26
Men	1.83	2.78	3.14	3.38	2.88	1.61
<i>Source of contraception - public sector:</i>						
Women	4.89	3.36	3.00	3.06	2.87	1.87
Men	na	na	na	na	na	na

Kenya

1993 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part II: Intermediate Determinants of HNP Status - HNP SERVICE USE (Cont.)

Indicator	Wealth Quintiles					Avg.
	Low	2nd	3rd	4th	High	
D. Contraceptive services (cont.)						
<i>Source of contraception - private sector:</i>						
Women	4.25	2.99	3.20	2.55	2.65	1.71
Men	na	na	na	na	na	na
E. Treatment of adult illnesses						
<i>Treatment of genital discharge, ulcer, sore:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
<i>Treatment of genital discharge, ulcer, sore in public facilities:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
<i>Voluntary counseling and testing for HIV/AIDS:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na

Kenya

1993 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part III: Intermediate Determinants of HNP Status - INDIVIDUAL AND HOUSEHOLD BEHAVIOR

Indicator	Wealth Quintiles					
	Low	2nd	3rd	4th	High	Avg.
A. Hygienic practices						
<i>Disposal of children's stools:</i>						
Sanitary disposal	na	na	na	na	na	na
<i>Handwashing:</i>						
Wash hands prior to preparing food	na	na	na	na	na	na
Handwashing facilities in household	na	na	na	na	na	na
B. Bednet ownership and use						
<i>Bednet ownership:</i>						
Bednet ownership	na	na	na	na	na	na
Treated bednet ownership	na	na	na	na	na	na
<i>Bednet use:</i>						
By children	na	na	na	na	na	na
By pregnant women	na	na	na	na	na	na
C. Breastfeeding						
Exclusive breastfeeding	na	na	na	na	na	na
Timely complementary feeding	na	na	na	na	na	na
Bottle-feeding	3.14	1.70	2.47	2.27	3.46	1.27
D. Micronutrient consumption						
<i>Iodized salt:</i>						
Availability of iodized salt in household	na	na	na	na	na	na
<i>Vitamin A:</i>						
Children	2.39	2.73	2.56	2.67	3.02	1.20
Women	na	na	na	na	na	na
E. Tobacco and alcohol use						
<i>Tobacco:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
<i>Alcohol:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
F. Sexual practices						
<i>Non-regular sexual partnerships:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
<i>Condom usage with non-regular partner:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
G. Domestic violence						
Ever experienced violence	na	na	na	na	na	na
Experienced violence in past year	na	na	na	na	na	na

Kenya

1993 - STANDARD ERRORS OF QUINTILE ESTIMATES FOR TOTAL POPULATION

Part IV: UNDERLYING DETERMINANTS OF HNP STATUS

Indicator	Wealth Quintiles					Avg.
	Low	2nd	3rd	4th	High	
A. Education						
<i>School completion:</i>						
Women	2.36	1.88	1.48	1.47	1.19	1.13
Men	2.00	1.71	1.24	1.14	0.95	0.76
<i>School participation:</i>						
Girls	2.59	2.25	1.83	2.00	2.09	1.26
Boys	2.62	2.15	2.12	2.00	2.05	1.15
B. Exposure to mass media						
<i>Newspaper readership:</i>						
Women	1.45	1.40	1.51	1.70	1.99	1.23
Men	3.26	3.09	2.90	2.37	2.14	1.71
<i>Radio listenership:</i>						
Women	1.79	2.03	1.79	1.71	1.15	1.10
Men	na	na	na	na	na	na
<i>Television viewership:</i>						
Women	0.53	0.51	0.87	1.04	2.83	1.25
Men	1.86	2.15	2.37	2.93	3.27	1.83
C. Knowledge and attitudes about HIV/AIDS						
<i>Knowledge about sexual transmission of HIV/AIDS:</i>						
Women	na	na	na	na	na	na
Men	3.15	3.32	2.69	2.73	2.64	1.43
<i>Knowledge about mother-to-child transmission of HIV/AIDS:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
<i>Attitudes toward HIV/AIDS:</i>						
Women	na	na	na	na	na	na
Men	na	na	na	na	na	na
D. Status of women						
<i>Household decisionmaking:</i>						
Can seek own health care	na	na	na	na	na	na
Can seek children's health care	na	na	na	na	na	na
Can make daily household purchases	na	na	na	na	na	na
Can make large household purchases	na	na	na	na	na	na
Can make meal-related decisions	na	na	na	na	na	na
<i>Freedom of movement:</i>						
Can travel to visit family/relatives	na	na	na	na	na	na
<i>Other decisionmaking, attitudes:</i>						
Can decide how to spend own money	na	na	na	na	na	na
Can decide whether to have sex	na	na	na	na	na	na
Justifies domestic violence	na	na	na	na	na	na
E. Orphanhood						
Paternal orphan prevalence	0.89	0.66	0.70	0.65	0.62	0.33
Maternal orphan prevalence	0.44	0.31	0.25	0.38	0.35	0.15
Double orphan prevalence	0.12	0.08	0.07	0.11	0.17	0.05

Kenya

1993 - ASSET DISTRIBUTION AND WEIGHTS

(FACTOR SCORE)

**This information is not available
for the Kenya 1993 survey.**

PART VIII. ANNEXES

- A. SOURCES OF ADDITIONAL INFORMATION**
- B. USE OF INFORMATION FROM THIS REPORT TO MONITOR THE ECONOMIC STATUS OF PEOPLE SERVED BY HNP PROGRAMS**
- C. COUNTRIES COVERED BY THE HNP-POVERTY REPORT PROJECT**

ANNEX A. SOURCES OF ADDITIONAL INFORMATION

ADDITIONAL INEQUALITY DATA

World Bank HNP/Poverty Country Report Website:

<http://www.worldbank.org/hnp/povertyandhealth/countrydata>.

This World Bank website provides the full texts and tables for all fifty-six countries covered by the HNP/Poverty Country Report Project. (A list of the countries covered appears in annex C, at the end of this report.) Also available at the site are summary tables, organized by indicator, designed to facilitate cross-country comparisons in inequality with respect to particular indicators.

DHS Country Reports: <http://www.measuredhs.com/countries>.

All DHS final country reports produced since 2003 include quintile-specific tabulations in approximately 50-100 of the reports' HNP indicator tables. The tables deal with some of the indicators covered in this volume, and with many that are not.

UNICEF Multi-Indicator Cluster Survey Website:

<http://www.childinfo.org/MICS2/natlMICSrepz/MICSnatrep.htm>.

The UNICEF Multi-Indicator Cluster Survey (MICS) project is generally similar to the DHS program, but covers a somewhat different set of countries and indicators. The "standard tables" section for each country listed at the MICS website provides wealth-based, quintile-specific information in around 40-45 of the tables related to hnp, education, and child labor. In deriving these quintile-specific estimates, the MICS investigators have employed a wealth index similar to the one used here.

World Health Organization World Health Survey Website:

<http://www.who.int/healthinfo/survey/en/index.html>.

The World Health Organization's World Health Survey (WHS) includes such issues as self-assessed adult health status; coverage of interventions against adult chronic diseases and against maternal and child health problems; household health expenditures; insurance coverage; and health system responsiveness. Approximately seventy countries – developed as well as developing – have been covered thus far. Household wealth information has been collected and used to prepare quintile-specific estimates for many of the indicators appearing in the reports on these countries.

METHODS AND RESOURCES FOR FURTHER INEQUALITY ANALYSIS

Shea Oscar Rutstein and Kiersten Johnson, *The DHS Wealth Index*, DHS Comparative Reports No. 6 (Calverton, Maryland, USA: ORC Macro, August 2004) (Available at: http://www.measuredhs.com/pubs/pub_details.cfm?ID=470&srchTp=type).

This DHS publication, by two of the co-authors of the current report, describes in detail the construction of the wealth index that underlies the data presented in the basic tables.

Deon Filmer and Lant H. Pritchett, "Estimating Wealth Effects without Expenditure Data – or Tears: An Application to Education Enrollments in States in India," *Demography* 38, no.1 (February 2001): 115-132.

This seminal piece gave birth to the wealth index procedure used in the current volume. It also includes three of the previously-cited country case studies demonstrating the close relationship between results produced using wealth and those based on consumption as an indicator of household economic status.

Owen O'Donnell, Eddy van Doorslaer, Adam Wagstaff, and Magnus Lindelow. *Quantitative Techniques for Health Equity Analysis*. Washington D.C.: The World Bank, forthcoming.

Among the topics covered in this comprehensive overview of available quantitative techniques are the measurement of living standards using a wealth index and other approaches (chapter 6) and the concentration index as a measure of inequality (chapter 8).

DHS Country Data Sets: <http://www.measuredhs.com/accesssurveys/search>.

The data sets for all DHS surveys undertaken since 2003 include two pieces of information for each household that are designed to help investigators prepare quintile-specific tabulations for any indicator. These are: 1) the household wealth score; and 2) the economic quintile to which individuals in the household belong. Any tabulation using these pieces of information will be comparable to the figures appearing here.

ANNEX B. USE OF INFORMATION FROM THIS REPORT TO MONITOR THE ECONOMIC STATUS OF PEOPLE SERVED BY HNP PROGRAMS

The wealth or asset approach employed in this report can be used to monitor the economic status of people served by health, nutrition, and population (hnp) programs in two ways. The first, simpler way is suitable for monitoring nationwide, facility-based programs. A second, fuller version can also be employed for other types of programs, such as initiatives undertaken only in some parts of a country, or activities like mass education or outreach programs that do not operate through facilities.

BASIC MONITORING OF NATIONWIDE FACILITY-BASED PROGRAMS

The economic distribution of patients in a nationwide, facility-based program (say, a network of rural health posts, antenatal care clinics, emergency obstetrical facilities, or hospitals) can be determined through an exit survey of facility patients, using the wealth questionnaire and the set of quintile cut-off points that immediately follow this text, and which have been created using the information presented in part III.C. The questionnaire can be employed to measure the economic status of any individual responding to the questions on it. The set of cut-off points can serve to compare the distribution of the respondents' economic status with that of the nationally-representative sample of people interviewed by the DHS survey on which the present report is based.

The first step is to use the questionnaire in interviewing an adequately-large sample of patients attending the facility-based services of interest. The wealth score for each patient can then be calculated by multiplying the response to each question by the item scores also provided on the questionnaire, and summing the results. After this has been done, the quintile cut-off points can be used to place each individual in the economic quintile to which (s)he belongs. The number of patients and percentage of total patients in each quintile can then be calculated.

Since each quintile defined by the cut-off points contains 20 percent of the individuals in the nationally-representative DHS sample, the patients belonging to any such quintile containing significantly more (or less) than 20 percent of the total are over- (under-) represented relative to the national population. When the percentage of patients in each of the five quintiles is viewed as a whole, the result is a frequency distribution that indicates the spread of service beneficiaries across economic classes of individuals.²¹ For example:

²¹ That is, across economic classes of all individuals in the sample population. Estimates pertaining to quintiles of only those individuals needing services require adjusting the results of the procedure described here through application of the relevant quintile-specific, sample-size figures presented in part III.A.

- A service that favors the poorest people would have substantially more than 20 percent of its patients in each of the lowest one or two economic quintiles; considerably less than 20 percent of its patients in each of the highest quintiles.
- A service that reaches all economic classes equally would draw roughly the same proportion of total patients from the lower and upper quintiles.
- A service that favors the least poor population groups would have well over 20 percent of its patients in each of the highest one or two quintiles, considerably less than 20 percent of its patients in each of the lowest quintiles.

FULLER MONITORING OF FACILITY-BASED AND OF OTHER PROGRAMS

While capable of providing far more information than currently exists about the distribution of a program's beneficiaries, the approach just described has important limitations. For example, it cannot deal with the many important types of health programs that do not deliver services primarily through facilities – mass media health education, household visits by health workers, and many social marketing initiatives, for example. It is also limited in its ability to assess programs working only with certain areas within a country: it can compare the economic status of the programs' beneficiaries with that of the national population, but not with that of the specific sub-national areas where the programs are active. Further, it focuses primarily on only one of the two important dimensions of monitoring the distribution of program beneficiaries: that is, incidence or focus – the percentage of program benefits that flow to the poor. It cannot deal nearly so well with the second dimension, which concerns coverage, or the percentage of the poor that the program reaches.

These limitations can be overcome by a modified version of the approach described above that relies on a household- rather than facility-based survey. A household survey can generate a set of data containing the full range of information needed to produce an equity assessment by collecting two types of information: first, about the household's wealth or assets, using the questions in the left-hand column of the attached questionnaire;²² and second, about the household members' use of or exposure to the services provided by the program(s) of interest. The collected data can be analyzed in either (or both) of two ways, depending on the type of information desired:

- One way would be to use only data from the household survey. The procedure would be analogous to that for a DHS survey employed in this report:
 - Asset information from the survey-generated data set would be used as the basis for the construction of a wealth index, weighting the individual items using some method like principal components analysis.
 - The individuals in the sample would be ranked in order of the index values for their households, then divided into groups like quintiles.
 - The coverage rates in each quintile for the service of interest would be calculated.

²² Or, if one is willing to forego the benefits of the second analytical approach described below, using any of several other asset questionnaires that exist. Examples include the INDEPTH health equity survey tool (available at: www.indepth-network.org/core_documents/indepthtools.htm) or the model questionnaire developed by M. Mahood Khan and David Hotchkiss of the PHR Plus project (which can be found at: www.phrplus.org).

- A second approach would be to use the weights for each item appearing on the attached questionnaire in determining the wealth of each individual, instead of calculating the weights from the new household data set. Once the individuals' wealth is determined, the individuals would be ranked, divided into quintiles, and the coverage rate in each quintile would be calculated. In the case of programs undertaken in only one region of the country, it would provide a comparison of the economic status of the people served with that of the entire country rather than of only the region where the programs are active;²³ in the case of nationwide as well as regional programs, it would permit a comparison with the other service programs covered in this report.

²³ This additional perspective could be particularly helpful in an assessment of a program seeking to reach the poor by focusing on especially backward districts. A report presenting only a finding that the program was reaching the better-off people in those districts could produce an impression that it had failed to reach its intended beneficiaries. But a comparison between the economic status of the program's beneficiaries with that of the national population might well reveal that most of the beneficiaries were poor by national standards and that the program was thus considerably more successful than otherwise thought.

Kenya
2003 - ASSET QUESTIONNAIRE

Question	Score if "Yes"	Score if "No"	Item Score
<i>1. In your household, is/are there?</i>			
Electricity	0.17523	-0.04403	_____
One or more radios	0.01944	-0.05233	_____
One or more televisions	0.12848	-0.03559	_____
One or more refrigerators	0.23767	-0.01591	_____
One or more bicycles	-0.01757	0.00636	_____
One or more motorcycles, scooters	0.07563	-0.00062	_____
One or more cars, trucks	0.18031	-0.01166	_____
One or more telephones	0.16538	-0.03170	_____
Solar power	0.02363	-0.00075	_____
<i>2. Does your household have a domestic worker not related to head?</i>			
	0.18873	-0.00570	_____
<i>3. Do the members of your household work their own or family's agricultural land?</i>			
	-0.00414	0.01263	_____
<i>4. What is the principal source of drinking water for your household?</i>			
Piped water in residence	0.17860	-0.01987	_____
Piped water in compound, plot	0.08701	-0.01452	_____
Piped water in public tap	0.02992	-0.00417	_____
Open well in residence, yard	-0.01613	0.00032	_____
Open public well	-0.06570	0.00413	_____
Protected well in residence, yard	-0.00425	0.00021	_____
Protected public well	-0.04320	0.00255	_____
Springwater	-0.06823	0.00850	_____
River, stream, pond, lake, dam	-0.07895	0.02786	_____
Rainwater	-0.02754	0.00066	_____
Bottled water	0.27232	-0.00086	_____
Other	0.01468	-0.00084	_____
<i>5. What is the principal source of cooking fuel in your household?</i>			
Electricity	0.24009	-0.00130	_____
LPG, natural gas, biogas	0.24206	-0.01384	_____
Kerosene	0.11993	-0.02562	_____
Charcoal, lignite, coal	0.04950	-0.00855	_____
Wood, straw, dung	-0.07099	0.11097	_____
Other	0.08091	-0.00050	_____
<i>6. What is the principal type of toilet facility used by your household?</i>			
Private flush toilet	0.23046	-0.02084	_____
Shared flush toilet	0.15894	-0.01030	_____
Private pit latrine	-0.05722	0.02376	_____
Shared pit latrine	0.00137	-0.00061	_____
Private VIP latrine	-0.00220	0.00008	_____
Shared VIP latrine	0.07472	-0.00331	_____
Bush, field as latrine	-0.09329	0.01894	_____
Other	0.03174	-0.00020	_____

Kenya
2003 - ASSET QUESTIONNAIRE (Cont.)

Question	Score if "Yes"	Score if "No"	Item Score
<i>7. What is the principal material used for the floors in your household?</i>			
Earth, mud, dung, sand	-0.07302	0.10038	_____
Wood plank	0.15402	-0.00096	_____
Parquet, polished wood	0.29562	-0.00205	_____
Linoleum	0.19832	-0.00117	_____
Tile	0.23230	-0.00266	_____
Cement	0.08650	-0.05135	_____
Carpet	0.19124	-0.00249	_____
Other	0.20730	-0.00083	_____
<i>8. What is the principal material used for the roof of your household?</i>			
Grass, thatch, makuti	-0.09397	0.02711	_____
Tin cans	-0.03719	0.00014	_____
Corrugated iron	0.00498	-0.00990	_____
Asbestos sheets	0.15155	-0.00243	_____
Concrete	0.20936	-0.00943	_____
Tile	0.24462	-0.00781	_____
Other	-0.07690	0.00119	_____
<i>9. What is the principal means of waste disposal in your household?</i>			
Collected regularly by the government	0.16531	-0.00193	_____
Collected irregularly by the government	0.16113	-0.00146	_____
Collected by a private company	0.21875	-0.02039	_____
Composted	-0.02512	0.00812	_____
Dumped, buried, burned in compound, yard	-0.03595	0.03052	_____
Dumped in street, empty plot	0.00917	-0.00150	_____
Other	-0.01343	0.00065	_____
<i>10. What type of tenant is your household?</i>			
Owns	-0.05836	0.11393	_____
Rents	0.13074	-0.05099	_____
Lives rent-free with owner's consent	0.04341	-0.00230	_____
Squats	-0.05164	0.00033	_____
<i>11. What type of tenant is your household regarding the land that you are living on?</i>			
Owns	-0.06162	0.09010	_____
Rents	0.12611	-0.03465	_____
Lives rent-free land with owner's consent	0.06120	-0.01279	_____
Squats	-0.07299	0.00120	_____
<i>12. How many people are there for each sleeping room in your household?</i>	$\left(\frac{\# \text{ people} - 2.59}{1.73} \right) \times 0.025$		_____
Total Household Asset Score (sum of individual item scores)			_____

Kenya
2003 - QUINTILE CUT-OFF POINTS

Wealth Quintile	Asset Index Value	
	Bottom Cut-Off	Top Cut-Off
Low	Low	-0.86520
Second	-0.86520	-0.73291
Third	-0.73291	-0.44955
Fourth	-0.44955	0.32185
High	0.32185	High

ANNEX C. COUNTRIES COVERED BY THE HNP - POVERTY REPORT PROJECT*

East Asia and Pacific

Cambodia	2000
Indonesia	1997, 2002-03
Philippines	1998, 2003
Vietnam	1997, 2002

Europe and Central Asia

Armenia	2000
Kazakhstan	1995, 1999
Kyrgyz Rep.	1997
Turkey	1993, 1998
Turkmenistan	2000
Uzbekistan	1996

Latin America and the Caribbean

Bolivia	1998, 2003
Brazil	1996
Colombia	1995, 2000, 2005
Dominican Rep.	1996, 2002
Guatemala	1995, 1998-99
Haiti	1994-95, 2000
Nicaragua	1997- 98, 2001
Paraguay	1990
Peru	1996, 2000

Middle East and North Africa

Egypt	1995, 2000
Jordan	1997
Morocco	1992, 2003-04
Yemen	1997

South Asia

Bangladesh	1996-97, 1999-2000, 2004
India	1992-93, 1998-99
Nepal	1996, 2001
Pakistan	1990-91

Sub-Saharan Africa

Benin	1996, 2001
Burkina Faso	1992-3, 1998-9, 2003
Cameroon	1991, 1998, 2004
Central African Rep.	1994-95
Chad	1996-97, 2004
Comoros	1996
Cote d'Ivoire	1994
Eritrea	1995
Ethiopia	2000
Gabon	2000
Ghana	1993, 1998, 2003
Guinea	1999
Kenya	1993, 1998, 2003
Madagascar	1997
Malawi	1992, 2000
Mali	1995-96, 2001
Mauritania	2000-01
Mozambique	1997, 2003
Namibia	1992, 2000
Niger	1998
Nigeria	1990, 2003
Rwanda	2000
Senegal	1997
South Africa	1998
Tanzania	1996, 1999, 2004
Togo	1998
Uganda	1995, 2000-01
Zambia	1996, 2001-02
Zimbabwe	1994, 1999

* Note: electronic versions of reports for all countries are currently available at: www.worldbank.org/povertyandhealth/countrydata. While supplies last, paper copies may be obtained at no charge by sending a request to the World Bank's health advisory service: healthpop@worldbank.org.