

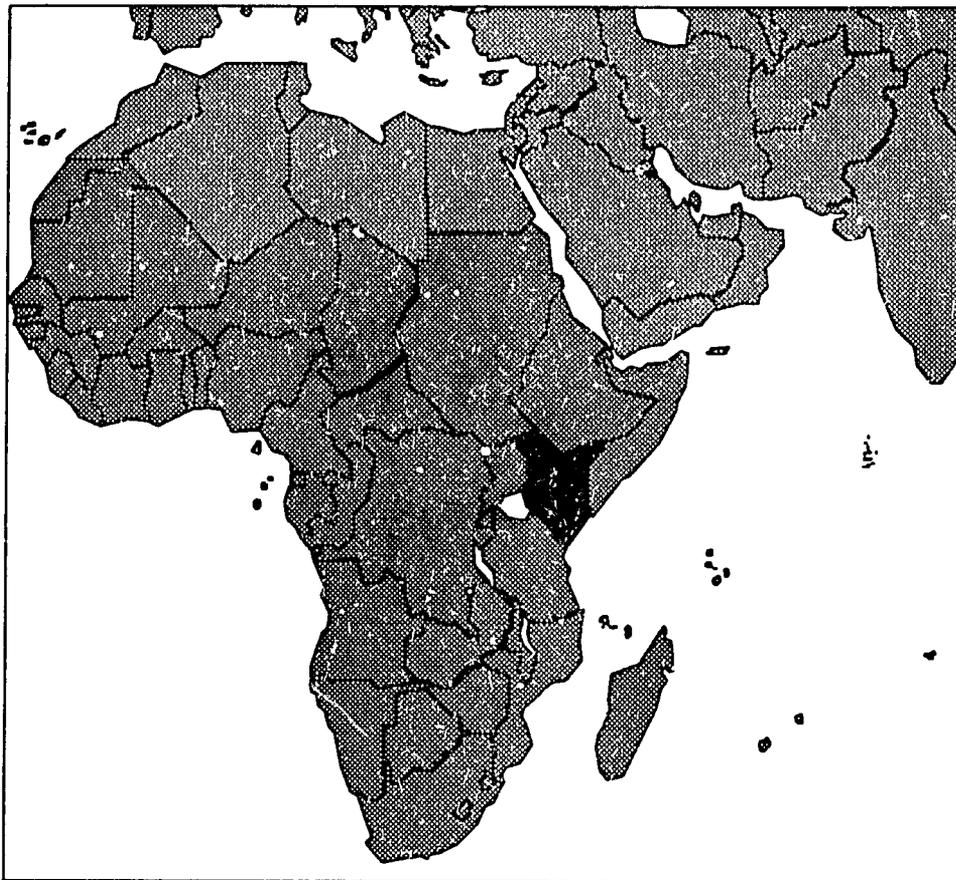
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*Country Health Profile*

# KENYA

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## Health Situation & Statistics Report 1994



Center for International Health Information  
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**The Center for International Health Information (CIHI), a project managed by Information Management Consultants, Inc. (IMC), prepared this document under the Data for Decision Making Project, #936-5991.05 (CIHI-II), contract number HRN-5991-C-00-3041-00, with the Office of Health and Nutrition, Center for Population, Health and Nutrition, Bureau for Global Programs, Field Support and Research, U.S. Agency for International Development (USAID).**

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# KENYA

## Country Health Profile

**T**his is one of a series of Country Health Profiles produced by the Center for International Health Information (CIHI). Each profile contains descriptive information and tables on the country's health and demographic characteristics, health indicators and trends, and when available, the health care system. Profile information is compiled from CIHI's databases and reference library, as well as through research and analysis of other data sources and reports.

The profiles are intended to provide current and trend data in a concise format for policy and decision-making, planning and evaluation, and monitoring of health status for use by individuals and organizations. Contact CIHI at the address on the preceding page for information on the availability of other health profiles and standard reports.

This profile contains national level health and demographic statistics available in CIHI's databases as of the date noted in each section. In order to enable CIHI to report the most current health and demographic statistics, please provide any more recent or more accurate data by contacting the center at the address on the previous page or through USAID, Office of Health and Nutrition, Center for Population, Health and Nutrition, Bureau for Global Programs, Field Support and Research.

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*\* Sources in this profile are referred to by a seven-digit code. Generally, the first three letters refer to an organization, agency, etc., and the first two numbers indicate the year of the publication or other source document. A complete list of sources appears at the end of the profile.*

# I: HEALTH & DEMOGRAPHIC OVERVIEW

## Current Demographic and Health Indicators

JULY 1994

Demographic Indicators			
INDICATOR	VALUE	YEAR	SOURCE
Total Population	26,165,000	1993	UNP9200
Urban Population	6,851,400	1993	UNP9200
Women Ages 15-49	5,713,800	1993	UNP9200
Infant Mortality	62	1991	DHS9406
Under 5 Mortality	96	1991	DHS9406
Maternal Mortality	657	1987	WHM9110
Life Expectancy At Birth	59	1993	UNP9200
Number of Births	936,707	1993	CALXX01
Annual Infant Deaths	57,795	1993	CALXX01
Total Fertility Rate	5.2	1993	DHS9406

Child Survival Indicators			
INDICATOR	PERCENT	YEAR	SOURCE
Vaccination Coverage (Please see Data Notes)			
BCG	96	1993	DHS9406
DPT 3	87	1993	DHS9406
Measles	84	1993	DHS9406
Polio 3	87	1993	DHS9406
Tetanus 2	52	1993	DHS9406
DPT Drop Out	9	1993	DHS9406
Oral Rehydration Therapy			
ORS Access Rate	65	1991	WHD9201
ORS and/or RHF Use	69	1991	WHD9201
Contraceptive Prevalence			
Modern Methods (15-44)	28	1993	DHS9406
All Methods (15-44)	33	1993	DHS9406
Nutrition			
Adequate Nutritional Status	84	1993	DHS9406
Appropriate Infant Feeding	72	1993	DHS9406
A) Exclusive Breastfeeding	17	1993	DHS9406
B) Complementary Feeding	90	1993	DHS9406
Continued Breastfeeding	91	1993	DHS9406

Other Health Indicators			
INDICATOR	PERCENT	YEAR	SOURCE
HIV-1 Seroprevalence			
Urban	15	1991	BUC9200
Rural	6	1992	BUC9301
Access to Improved Water			
Urban	74	1991	JMP9301
Rural	43	1991	JMP9301
Access to Sanitation			
Urban	69	1991	JMP9301
Rural	35	1991	JMP9301
Deliveries/Trained Attendants	54	1993	DHS9406

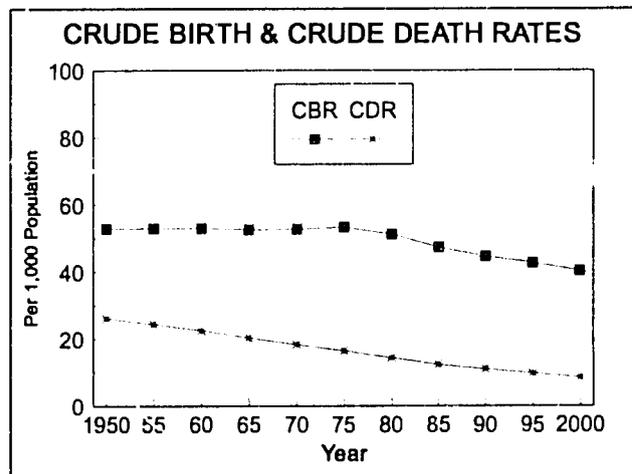
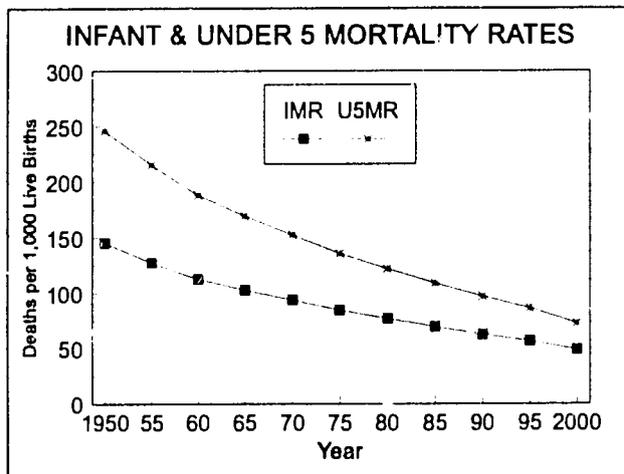
NA = Not available



## Trends in Selected Demographic and Health Indicators

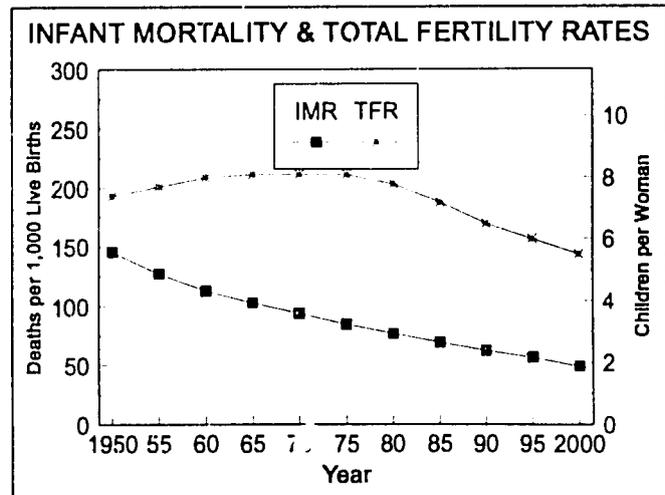
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INDICATOR	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	SOURCE
Infant Mortality	146	127	113	103	94	85	77	70	63	57	49	CALXX03
Under Five Mortality	246	215	188	169	152	136	122	109	97	86	73	CALXX03
Crude Birth Rate	53	53	53	53	53	53	51	47	45	43	40	UNP9200
Crude Death Rate	26	24	23	20	18	16	14	12	11	10	9	UNP9200
Avg. Annual Growth Rate	3	3	3	3	3	4	4	4	3	3	3	UNP9200
Total Fertility Rate	7.4	7.7	8	8.1	8.1	8.1	7.8	7.2	6.5	6	5.5	UNP9200



### IMR and TFR

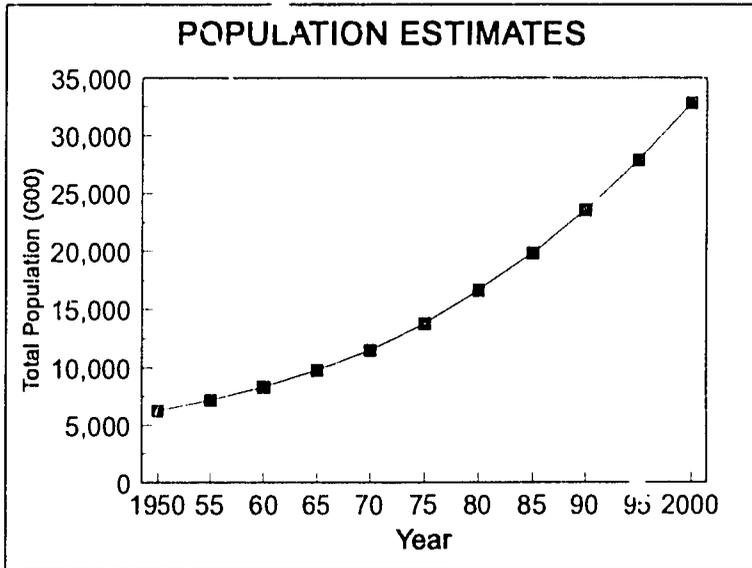
The relationship between IMR and TFR is currently a subject under review by the scientific community. While there is not conclusive evidence that the IMR and TFR are causal'y linked and necessarily decline together, there is empirical evidence for suspecting that such a reinforcing relationship exists as the pattern is observable in most countries.



## Population Estimates/Pyramid

JULY 1994

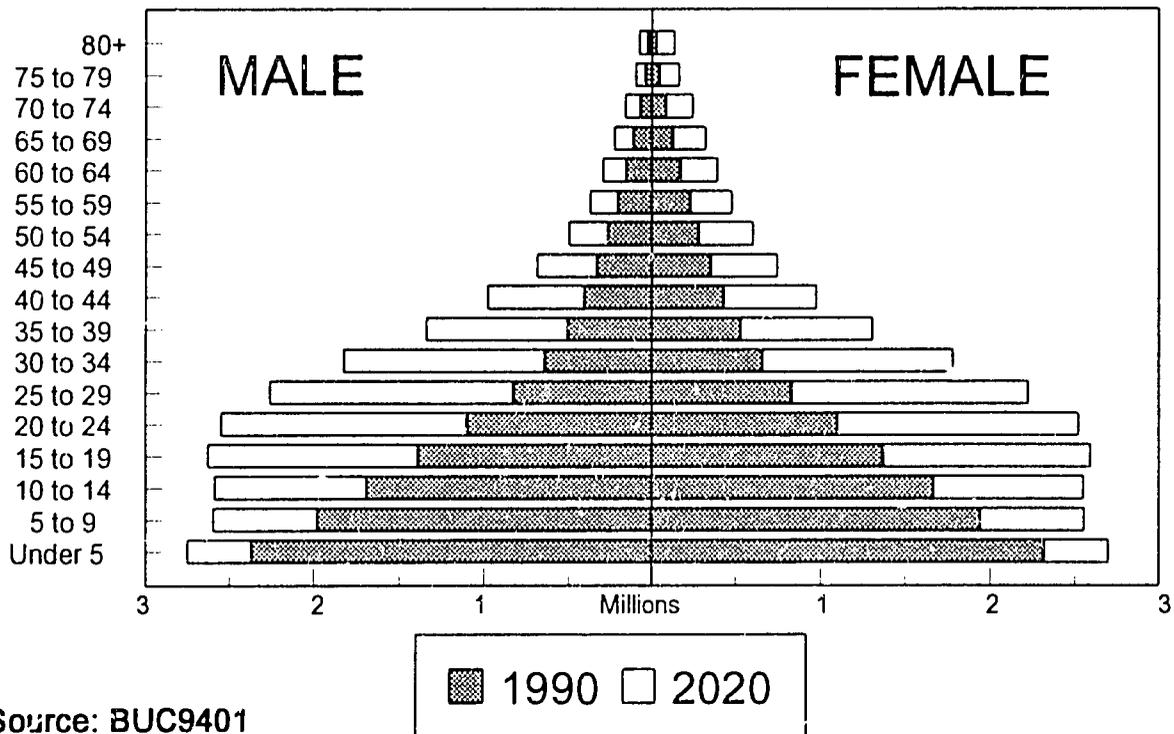
POPULATION ESTIMATES (000s)		
YEAR	VALUE	SOURCE
1950	6,265	UNP9200
1955	7,189	UNP9200
1960	8,332	UNI 1200
1965	9,749	UNP9200
1970	11,498	UNP9200
1975	13,741	UNP9200
1980	16,632	UNP9200
1985	19,873	UNP9200
1990	23,585	UNP9200
1995	27,385	UNP9200
2000	32,818	UNP9200



## CURRENT & PROJECTED POPULATION

By Age & Gender: 1990 - 2020

Total Population 1990: 24,229,444 Total Population 2020: 44,240,071

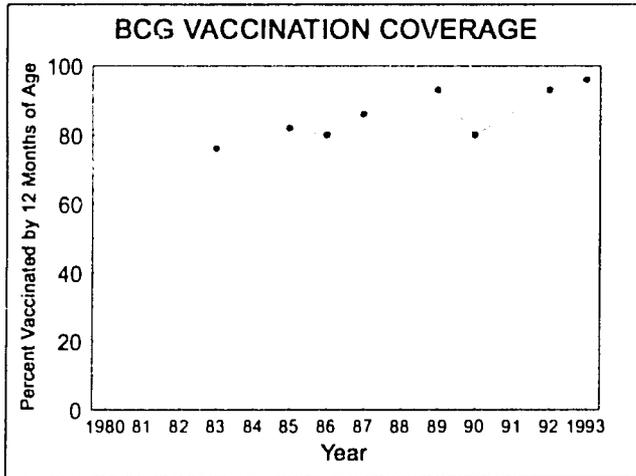




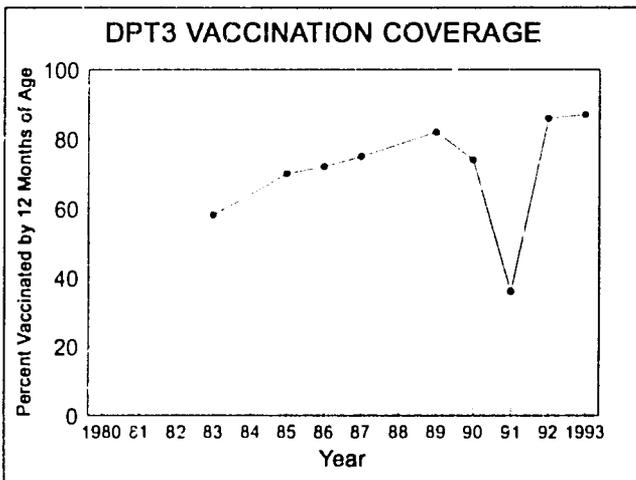
## Trends in Selected Health and Child Survival Indicators

### Vaccination Coverage Rates (Please see Data Notes)

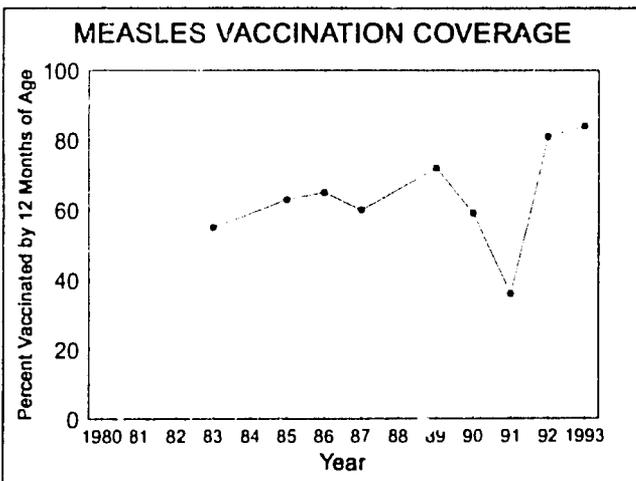
JULY 1994



BCG COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	NA	
1983	76	WHE8700
1984	NA	
1985	82	WHE8701
1986	80	WHE8701
1987	86	WHE8800
1988	NA	
1989	93	DHS8906
1990	60	WHE9100
1991	NA	
1992	93	WHE9301
1993	96	DHS9406

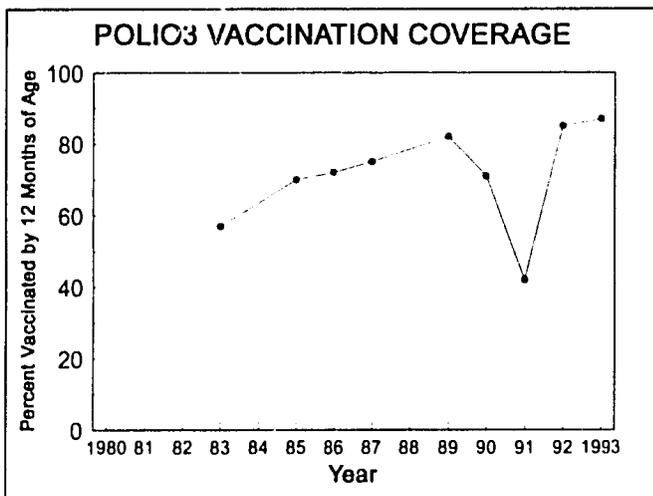


DPT3 COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	NA	
1983	58	WHE8700
1984	NA	
1985	70	WHE8701
1986	72	WHE8701
1987	75	WHE8800
1988	NA	
1989	82	DHS8906
1990	74	WHE9100
1991	36	WHE9202
1992	86	WHE9301
1993	87	DHS9406

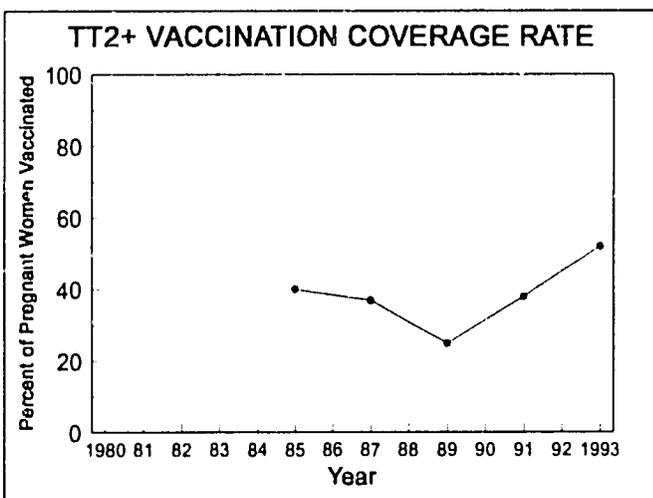


MEASLES COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	NA	
1983	55	WHE8700
1984	NA	
1985	63	WHE8701
1986	65	WHE8701
1987	60	WHE8800
1988	NA	
1989	72	DHS8906
1990	59	WHE9100
1991	36	WHE9202
1992	81	WHE9301
1993	84	DHS9406

### Vaccination Coverage Rates, continued



POLIO3 COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	NA	
1983	57	WHE8700
1984	NA	
1985	70	WHE8701
1986	72	WHE8701
1987	75	WHE8800
1988	NA	
1989	82	DHS8906
1990	71	WHE9100
1991	42	WHE9202
1992	85	WHE9301
1993	87	DHS9406

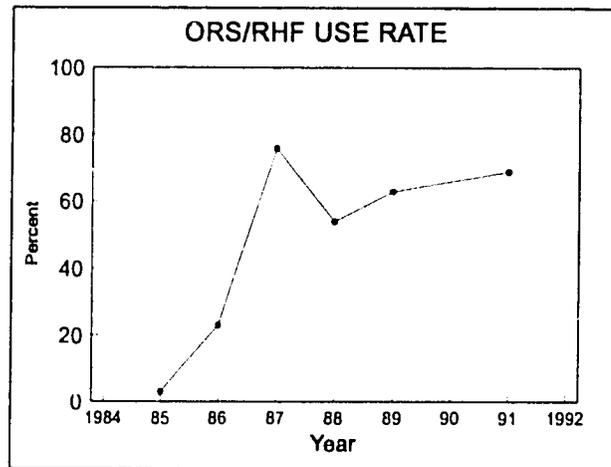
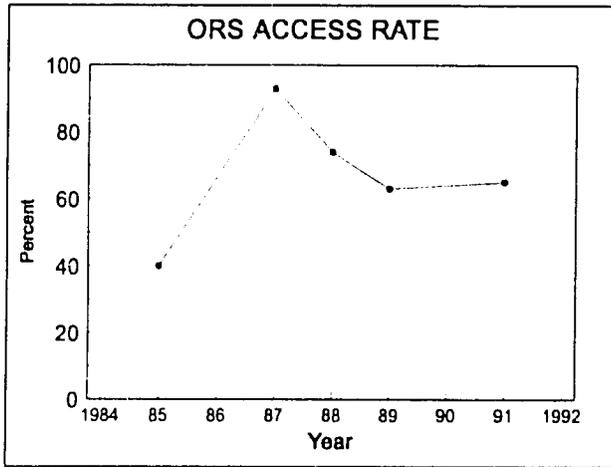


TT2+ COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	NA	
1983	NA	
1984	NA	
1985	40	WHE8701
1986	NA	
1987	37	WHE9200
1988	NA	
1989	25	MRF9002
1990	NA	
1991	38	WHE9202
1992	NA	
1993	52	DHS9406



## ORS Access, ORS and/or RHF Use Rates

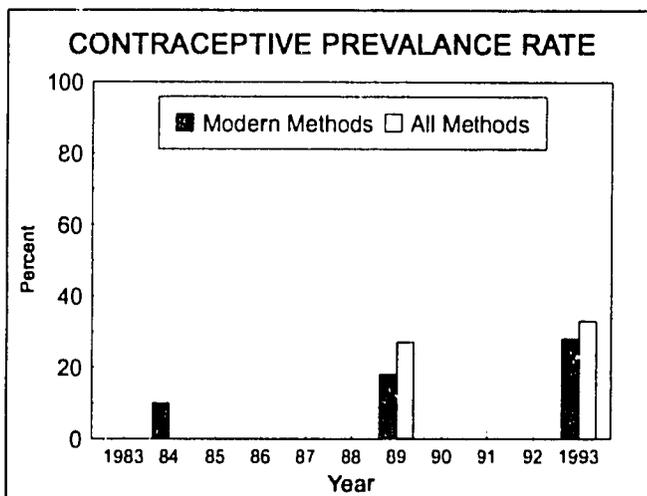
JULY 1994



INDICATOR	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
ORS Access	NA	40	NA	93	74	63	NA	65	NA	NA
Source		WHD8700		WHD8900	WHD9000	WHD9100		WHD9201		
CRS/RHF Use	NA	3	23	76	54	63	NA	69	NA	NA
Source		WHD8700	WHD8800	WHD8900	WHD9001	DHS8906		WHD9201		

## Contraceptive Prevalence Rate

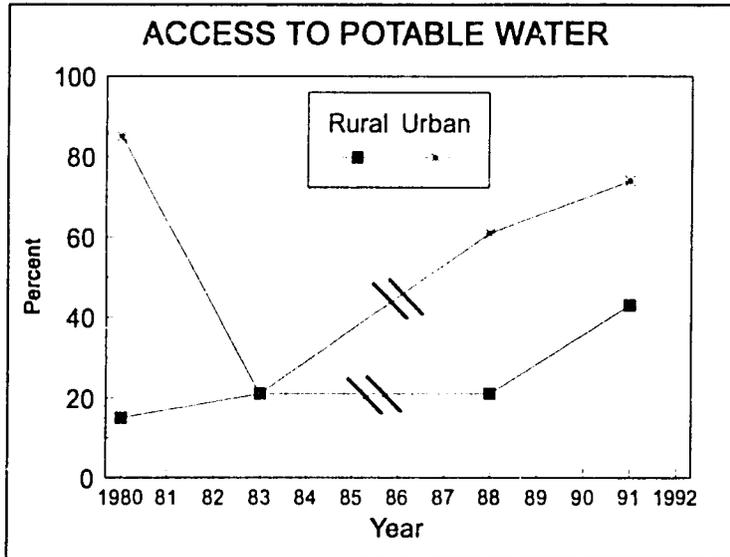
JULY 1994



YEAR	MODERN METHODS	SOURCE	ALL METHODS	SOURCE
1983	NA		NA	
1984	10	BUC9401	NA	
1985	NA		NA	
1986	NA		NA	
1987	NA		NA	
1988	NA		NA	
1989	18	DHS8906	27	DHS8906
1990	NA		NA	
1991	NA		NA	
1992	NA		NA	
1993	28	DHS9406	33	DHS9406

### Access to Potable Water

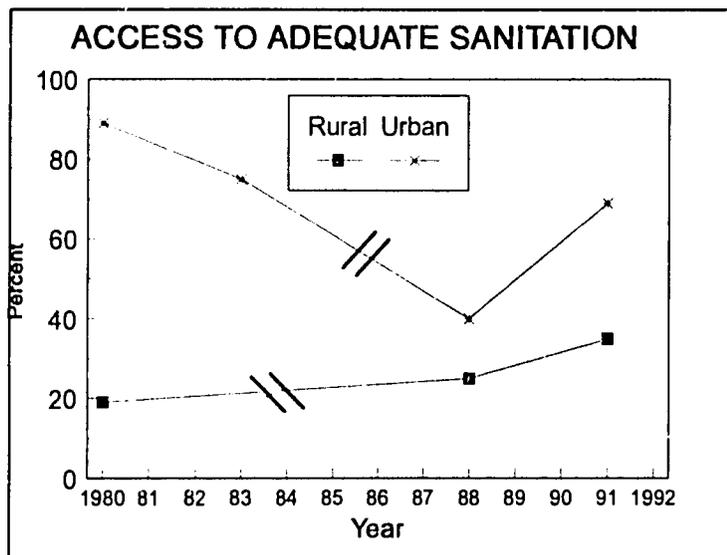
JULY 1994



YEAR	RURAL	SOURCE	URBAN	SOURCE
1980	15	AID9012	85	AID9012
1981	NA		NA	
1982	NA		NA	
1983	21	WHO9101	21	WHO9101
1984	NA		NA	
1985	NA		NA	
1986	NA		NA	
1987	NA		NA	
1988	21	AID9012	61	AID9012
1989	NA		NA	
1990	NA		NA	
1991	43	JMP9301	74	JMP9301
1992	NA		NA	
1993	NA		NA	

### Access to Adequate Sanitation

JULY 1994

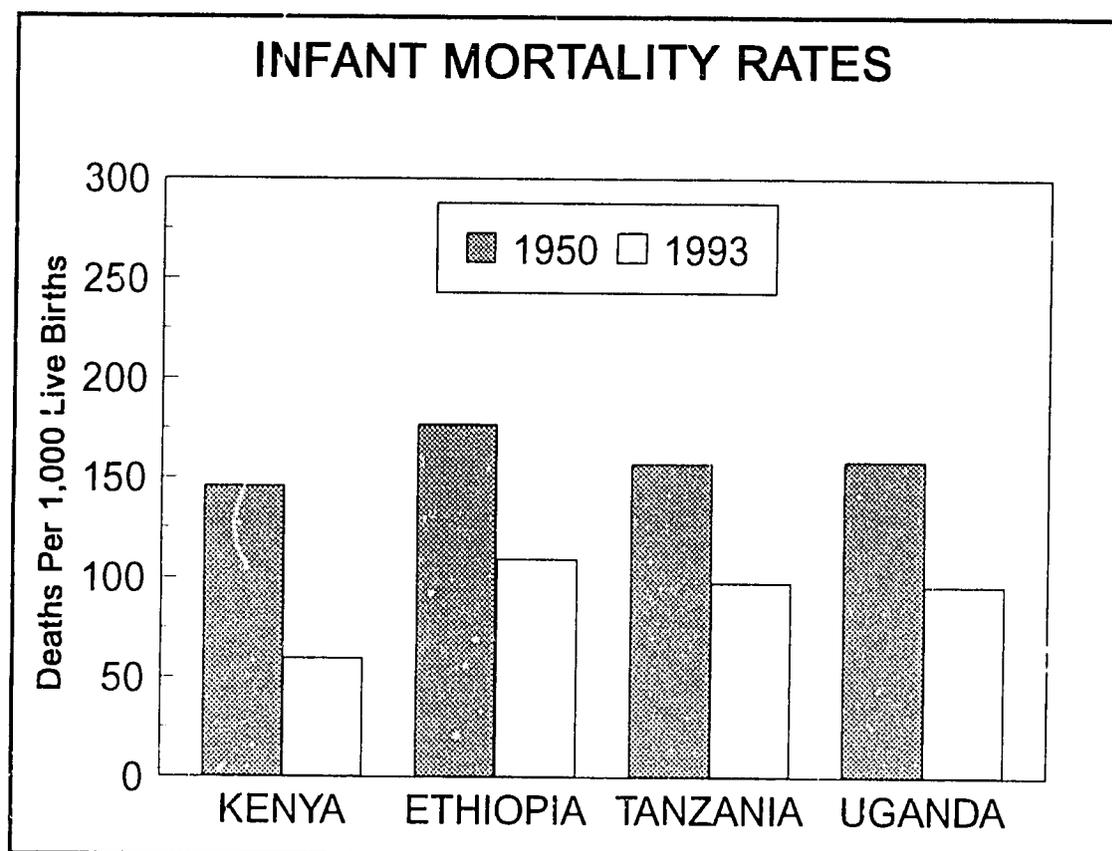


YEAR	RURAL	SOURCE	URBAN	SOURCE
1980	19	AID9012	89	AID9012
1981	NA		NA	
1982	NA		NA	
1983	NA		75	WHO9101
1984	NA		NA	
1985	NA		NA	
1986	NA		NA	
1987	NA		NA	
1988	25	AID9012	40	AID9012
1989	NA		NA	
1990	NA		NA	
1991	35	JMP9301	69	JMP9301
1992	NA		NA	
1993	NA		NA	

## COMPARATIVE INDICATORS

### Comparative IMR Rates

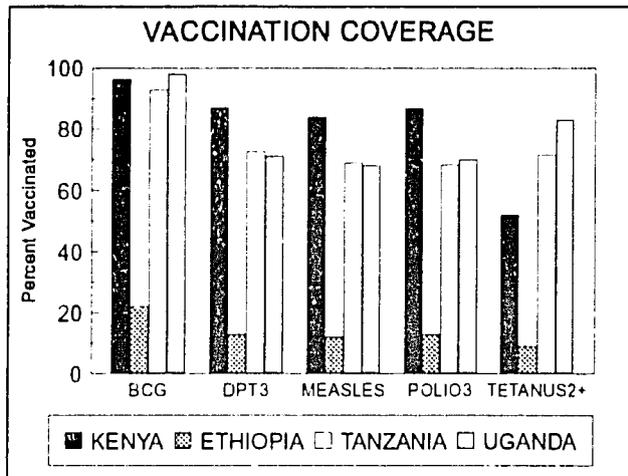
JULY 1994



COUNTRY	1950	SOURCE	1993	SOURCE
KENYA	146	CALXX03	59	CALXX03
ETHIOPIA	177	BUC9302	109	BUC9302
TANZANIA	157	WBK9302	98	WBK9302
UGANDA	158	CALXX03	96	CALXX03

### Comparative Vaccination Coverage Rates (Please see Data Notes)

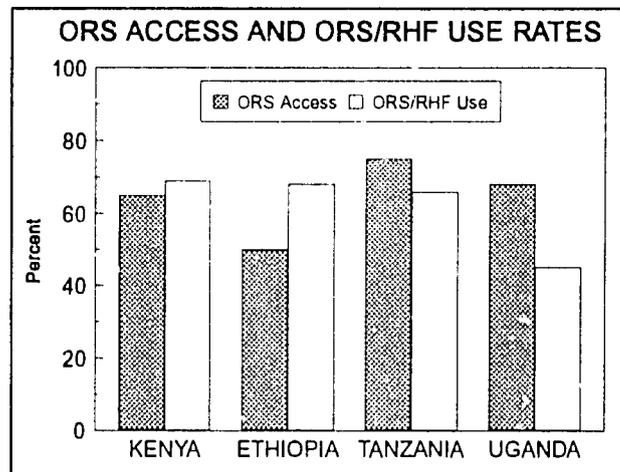
JULY 1994



COUNTRY	INDICATOR	YEAR	VALUE	SOURCE
KENYA	BCG	1993	96	DHS9406
	DPT 3	1993	87	DHS9406
	Measles	1993	84	DHS9406
	Polio 3	1993	87	DHS9406
	Tetanus 2	1993	52	DHS9406
ETHIOPIA	BCG	1992	22	WHE9301
	DPT 3	1992	13	WHE9301
	Measles	1992	12	WHE9301
	Polio 3	1992	13	WHE9301
	Tetanus 2	1992	9	WHE9301
TANZANIA	BCG	1991	93	DHS9302
	DPT 3	1991	73	DHS9302
	Measles	1991	69	DHS9302
	Polio 3	1991	68	DHS9302
UGANDA	BCG	1992	98	WHE9301
	DPT 3	1992	71	WHE9301
	Measles	1992	68	WHE9301
	Polio 3	1992	70	WHE9301
UGANDA	Tetanus 2	1992	83	WHE9301

### Comparative ORS Access, ORS and/or RHF Use Rates

JULY 1994



COUNTRY	INDICATOR	YEAR	VALUE	SOURCE
KENYA	ORS Access Rate	1991	65	WHD9201
	ORT Use Rate	1991	69	WHD9201
ETHIOPIA	ORS Access Rate	1993	50	WHD9401
	ORT Use Rate	1993	68	WHD9401
TANZANIA	ORS Access Rate	1991	75	WHD9201
	ORT Use Rate	1991	66	DHS9302
UGANDA	ORS Access Rate	1993	68	WHD9401
	ORT Use Rate	1993	45	WHD9401



## II: DATA NOTES

JULY 1994

### *Notes On Mortality Estimation*

Throughout this profile, references are made to infant and under 5 mortality rates for individual countries or groups of countries. In past years, the primary source of data on infant mortality was the World Population Prospects, a set of estimates updated every two years by the Estimates and Projections Section of the Population Division of the Department of International Economic and Social Affairs, United Nations. The primary source of data on under 5 mortality was a special report published in 1988 by the same group. Where another source, such as a recent Demographic and Health Survey or a national census, was available for a given country, the reported values from that source were cited in place of the United Nations estimates if the technical staff of USAID in the Country Mission and/or the appropriate regional bureaus confirmed the validity of the alternative source.

Known as indirect estimates, those of the United Nations are generated from accepted demographic models which combine the results of all available surveys and censuses in a given country to produce a single time series of estimates and projections. When new empirical data becomes available for a given country, the entire time series of estimates and projections is updated. Thus, using conventional demographic approaches, a survey done in 1990 may generate a new estimate of a mortality rate for 1970 or 1980.

During 1993, a new set of estimates for mortality was generated for 82 countries for publication in the World

Development Report 1993 and a forthcoming UNICEF publication entitled The Progress of Nations. Based on a curve-fitting model, the methodology applied to generate these new estimates purports to depict more accurately the trend derived from all available data sources for a country. Like the estimates generated using conventional demographic models, the entire time series might change upon the addition of a new empirical source. These estimates were made available to USAID through the courtesy of the World Development Report of the World Bank and UNICEF.

The selection of the mortality rates was done through a consultative process involving representatives of the Office of Health in USAID's Research and Development Bureau, USAID's Regional Bureaus and, in many cases, the USAID Country Missions. The source determined to best reflect the reality in a country for the current values of infant and under 5 mortality was identified and one of a number of a computation procedures, depending on the source selected for the current value, was applied to estimate the longitudinal rates. The consideration of the additional source of data developed for the World Development Report and UNICEF during the consultative process has prompted some changes in the reporting of mortality rates from those reported in recent years.

### *Definitions*

#### *Demographic Indicators*

**Total Population:** The mid-year estimate of the total number of individuals in a country.

**Average Annual Rate of Growth:** An estimate of the rate at which a population is increasing (or decreasing) in a given year.

**Infant Mortality Rate:** The estimated number of deaths in infants (children under age one) in a given year per 1,000 live births in that same year. This rate may be calculated by direct methods (counting births and deaths) or by indirect methods (applying well-established demographic models).

**Under 5 Mortality Rate:** The estimated number of children born in a given year who will die before reaching age five per thousand live births in that same year. This rate may also be calculated by direct or indirect methods.

**Maternal Mortality Ratio:** The estimated number of maternal deaths per 100,000 live births where a maternal death is one which occurs when a woman is pregnant or within 42 days of termination of pregnancy from any cause related to or aggravated by the pregnancy or its management. Although sometimes referred to as a rate, this measure is actually a ratio because the unit of measurement of the numerator (maternal deaths) is different than that of the denominator (live births). The measure would be a rate if the units were the same. Extremely difficult to measure, maternal mortality can be derived from vital registration systems (usually underestimated), community studies and surveys (requires very large sample sizes) or hospital registration (usually overestimated).

**Crude Birth Rate:** An estimate of the number of live births per 1,000 population in a given year.

**Crude Death Rate:** An estimate of the number of deaths per 1,000 population in a given year.

**Life Expectancy At Birth:** An estimate of the average number of years a newborn can expect to live. Life expectancy is computed from age-specific death rates for a given year. It should be noted that low life expectancies in developing countries are, in large part, due to high infant mortality.

**Number of Births:** An estimate of the number of births occurring in a given year.

**Annual Infant Deaths:** An estimate of the number of deaths occurring to children under age one in a given year.

**Total Fertility Rate:** An estimate of the average number of children a woman would bear during her lifetime given current age-specific fertility rates.

### *Child Survival Indicators*

**Vaccination Coverage In Children:** An estimate of the proportion of living children between the ages of 12 and 23 months who have been vaccinated before their first birthday -- three times in the cases of polio and DPT and once for both measles and BCG. Vaccination coverage rates are calculated in two ways. Administrative estimates are based on reports of the number of inoculations of an antigen given during a year to children who have not yet reached their first birthday divided by an estimate of the pool of children under one year of age eligible for vaccination. Survey estimates are based on samples of children between the ages of 12 and 23 months. The 1993 vaccination coverage rates from the *Demographic & Health Survey, 1993* (DHS9406) are the percentages of children between the ages of 12 and 23 months who have been vaccinated by the time of the survey.

**Vaccination Coverage In Mothers:** An estimate of the proportion of women in a given time period who

have received two doses of tetanus toxoid during their pregnancies. This indicator is being changed in many countries to account for the cumulative effect of tetanus toxoid boosters. A woman and her baby are protected against tetanus when a mother has had only one or, perhaps, no boosters during a given pregnancy so long as the woman had received the appropriate number of boosters in the years preceding the pregnancy in question. (The appropriate number of boosters required during any given pregnancy varies with number received previously and the time elapsed.) The revised indicator is referred to as TT2+. Rates are computed using administrative methods or surveys.

**DPT Drop-out Rate:** An estimate of the proportion of living children between the ages of 12 and 23 months who received at least one DPT vaccination but who did not receive the entire series of three vaccinations before their first birthdays.

**Oral Rehydration Salts (ORS) Access Rate:** An estimate of the proportion of the population under age five with reasonable access to a trained provider of oral rehydration salts who receives adequate supplies. This is a particularly difficult indicator to measure and, therefore, it may fluctuate dramatically from year to year as improved methods of estimation are devised.

**ORS and/or Recommended Home Fluid (RHF) Use Rate:** An estimate of the proportion of all cases of diarrhea in children under age five treated with ORS and/or a recommended home fluid. ORT use may be determined using administrative means or surveys. In general, administrative estimates are based on estimates of the number of episodes of diarrhea in the target population for a given year and the quantity of ORS available. Thus, changes in the estimates of the frequency of diarrhea episodes can

alter the ORT use rate as well as "real" changes in the pattern of use. Surveys are more precise in that they focus on the actual behavior of mothers in treating diarrhea in the two-week period prior to the survey.

**Contraceptive Prevalence Rate:** An estimate of the proportion of women, aged 15 through 44 (or, in some countries, 15 through 49), in union or married, currently using a modern method of contraception. Where sources fail to distinguish modern and traditional methods, the combined rate is shown.

**Adequate Nutritional Status:** An individual child of a certain age is said to be adequately nourished if his/her weight is greater than the weight corresponding to "two Z-scores" (two standard deviations) below the median weight achieved by children of that age. The median weight and the distribution of weights around that median in a healthy population are taken from a standard established by the National Center for Health Statistics, endorsed by the World Health Organization (WHO). The indicator for the population as a whole is the proportion of children 12 through 23 months of age who are adequately nourished.

**Appropriate Infant Feeding:** A composite estimate of the proportion of infants (children under age one) being breastfed and receiving other foods at an appropriate age according to the following criteria: breastfed through infancy with no bottle-feeding, exclusively breastfed through four months (120 days) of age, and receiving other foods if over six months of age (181 days). Water is not acceptable in the first four months (120 days). ORS is considered acceptable at any age. Surveys are the only source of data to form this indicator. Surveys yield an estimate of how many infants are being fed correctly at the moment of the survey. They do not give an indication of the proportion of individual children fed

appropriately throughout their first year of life. A number of sub-indicators may be calculated from the data used to form the composite, of which two are presented in this report.

**Exclusive Breastfeeding:** An estimate of the proportion of infants less than four months (120 days) of age who receive no foods or liquids other than breast milk.

**Complementary Feeding:** An estimate of the proportion of infants six to nine months of age (181 days to 299 days) still breastfeeding but also receiving complementary weaning foods.

**Continued Breastfeeding:** An estimate of the proportion of children breastfed for at least one year. In this report, all values presented for this indicator are the proportion of children 12 to 15 months of age at the time of the survey still receiving breast milk.

#### *Other Health Indicators*

**HIV-1 Seroprevalence, Urban:** An estimate of the proportion of all persons (pregnant women, blood donors, and other persons with no known risk factors) living in urban areas infected with HIV-1, the most virulent and globally prevalent strain of the human immunodeficiency virus.

**HIV-1 Seroprevalence, Rural:** An estimate of the proportion of all persons living in rural areas infected with HIV-1.

**Access to Improved Water, Urban:** An estimate of the proportion of all persons living in urban areas (defined roughly as population centers of 2,000 or more persons) who live within 200 meters of a stand pipe or fountain source of water.

**Access to Improved Water, Rural:** An estimate of the proportion of all

persons not living in urban areas with a source of water close enough to home that family members do not spend a disproportionate amount of time fetching water.

**Access to Sanitation, Urban:** An estimate of the proportion of all persons living in urban areas with sanitation service provided through sewer systems or individual in-house or in-compound excreta disposal facilities (latrines).

**Access to Sanitation, Rural:** An estimate of the proportion of all persons not living in urban areas with sanitation coverage provided through individual in-house or in-compound excreta disposal facilities (latrines).

**Deliveries By Trained Attendants:** An estimate of the proportion of deliveries attended by at least one physician, nurse, midwife, or trained traditional birth attendant.

**III: SOURCES**

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- AID9012 Water and Sanitation for Health Project, U.S. Agency for International Development. Water and Sanitation Sector Profiles of Twenty African Countries, June 1989.
- BUC9200 Health Studies Branch. Center for International Research. U.S. Bureau of the Census. HIV Seroprevalence Levels, November 1992.
- BUC9301 U.S. Bureau of the Census, Center for International Research. HIV/AIDS Surveillance Database. June, 1993.
- BUC9302 Time series estimates of Infant Mortality generated by applying the ratio of the BUCEN estimate for 1992 to the World Population Prospects estimate for 1992 to the annual values dating back to 1950 as estimated in the World Population Prospects. Under 5 Mortality estimates are calculated by applying the appropriate Coale-Demeny model to the Infant Mortality estimates.
- BUC9401 U.S. Bureau of the Census (BUCEN). International Data Base. Version dated March, 1994.
- BUC9401 U.S. Bureau of the Census (BUCEN). International Data Base. Version dated March, 1994.
- CALXX01 Calculated from the values for total population, crude birth rate and infant mortality from designated sources for those variables.
- CALXX03 Time series estimates of Infant Mortality generated by applying the ratio of the DHS estimate for the most current 5 year period (or IMR from other current source) to the projected value from the World Population Prospects for the same year and applying that ratio to the projected time series in the WPP. Under 5 Mortality estimates are calculated by applying the appropriate Coale-Demeny model to the Infant Mortality time series.
- DHS8906 National Council for Population and Development, and Institute for Resource Development/Macro Systems, Inc. Kenya Demographic and Health Survey. Columbia, MD: IRD, 1989.
- DHS9302 Bureau of Statistics, Planning Commission and Macro International Inc. Tanzania Demographic and Health Survey 1991/92. Columbia, Maryland: Macro International Inc., June 1993.
- DHS9406 National Council for Population and Development, Central Bureau of Statistics-Office of the Vice President and Ministry of Planning and National Development and Demographic and Health Surveys-Macro International Inc. Demographic and Health Survey, 1993. Calverton, Md.: Macro International Inc., May 1994.
- JMP9301 WHO/UNICEF Joint Monitoring Programme. Water Supply and Sanitation Sector Monitoring Report 1993. Sector Status as of December 1991. WHO and UNICEF. August, 1993.



### III: Sources

- MRF9002 Ministry of Health. National Immunization Survey, 1989 as cited in the FY 1990 Mission Response Form.
- UNP9200 Department of International Economic and Social Affairs, United Nations. World Population Prospects 1992. (ST/ESA/SER.A/120) New York: UN, 1992.
- WBK9302 Mortality rate time series generated from Ken Hill equations provided in a personal communication, March, 1993. The equations were developed for the World Development Report, 1993 and a UNICEF publication, The Progress of Nations.
- WHD8700 World Health Organization. Programme for Control of Diarrhoeal Diseases: Interim Programme Report 1986. (WHO/CDD/87.26) Geneva: WHO, 1987.
- WHD8800 World Health Organization. Programme for Control of Diarrhoeal Diseases: Sixth Programme Report 1986-1987. (WHO/CDD/88.28) Geneva: WHO, 1988.
- WHD8900 World Health Organization. Programme for Control of Diarrhoeal Diseases: Programme Report (WHO/CDD/89.31) Geneva: WHO, 1989.
- WHD9000 World Health Organization, Programme for Control of Diarrhoeal Diseases facsimile, February 14, 1990.
- WHD9001 World Health Organization, Programme for Control of Diarrhoeal Diseases facsimile, March 27, 1990.
- WHD9100 World Health Organization. Programme for Control of Diarrhoeal Diseases: Interim Programme Report 1990. (WHO/CDD/91.36) Geneva: WHO, 1991.
- WHD9201 Programme For Control Of Diarrhoeal Diseases. Eighth Programme Report 1990-1991. WHO/CDD/92.38. Geneva: World Health Organization, 1992.
- WHD9401 Advanced Copy of Annex 1 of the WHO/CDR Annual Report, Received by facsimile, March 29, 1994.
- WHE8700 World Health Organization. Expanded Programme on Immunization Information System Report, January 1987. Geneva: WHO, 1987.
- WHE8701 World Health Organization. Expanded Programme on Immunization Information System Report, July 1987. Geneva: WHO, 1987.
- WHE8800 World Health Organization. Expanded Programme on Immunization Information System Report, January 1988. Geneva: WHO, 1988.
- WHE9100 World Health Organization. Expanded Programme on Immunization Information System Report, April 1991. (WHO/EPI/CEIS/91.1) Geneva: WHO, 1991.
- WHE9200 World Health Organization. Expanded Programme on Immunization Information System Report, April 1992. (WHO/EPI/CEIS/92.1) Geneva: WHO, 1992.
- WHE9202 World Health Organization. Expanded Programme on Immunization Information System Report, October 1992. (WHO/EPI/CEIS/92.2) Geneva: WHO, 1992.

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### *III: Sources*

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- WHE9301 Facsimile from WHO/EPI of the pages in the 9/93 report of the WHO EPI Information System containing the most current vaccination coverage rates. September 24, 1993.
- WHM9110 Boersma, J.T. and Mati, J.K.G. Identifying maternal mortality through networking: results from coastal Kenya. *Studies in Family Planning* 20(6): 245-253 (1989) as cited in Division of Family Health, World Health Organization. *Maternal Mortality: A Global Factbook.* (WHO/MCH/MSM/91.3) Geneva: World Health Organization, 1991.
- WHO9101 World Health Organization. World Health Organization Disk: Water Supply and Sanitation Service Coverage. Geneva: WHO, October 29, 1991.

