Country Health Profile

COMOROS

Health Situation & Statistics Report
1994

COMOROS
Country Health Profile

This 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 preceeding 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	609,000	1993	UNP9200
Urban Population	181,000	1993	UNP9200
Women Ages 15-49	129,800	1993	UNP9200
Infant Mortality	82	1993	BUC9300
Under 5 Mortality	115	1993	BUC9300
Maternal Mortality	NA		
Life Expectancy At Birth	56	1993	UNP9200
Number of Births	29,311	1993	UNP9200
Annual Infant Deaths	2,397	1993	CALXX01
Total Fertility Rate	7.0	1993	UNP9200

Child Survival Indicators			
INDICATOR	PERCENT	YEAR	SOURCE
Vaccination Coverage			
BCG	94	1993	WHE9401
DPT 3	73	1993	WHE9401
Measles	64	1993	WHE9401
Polio 3	65	1993	WHE9401
Tetanus 2	59	1993	WHE9401
DPT Drop Out	NA		
Oral Rehydration Therapy			
ORS Access Rate	84	1991	WHD9300
ORS and/or RHF Use	70	1992	WHD9300
Contraceptive Prevalence			
Modern Methods (15-44)	NA		
All Methods (15-44)	NA		
Nutrition			
Adequate Nutritional Status	NA		
Appropriate Infant Feeding	NA		
A) Exclusive Breastfeeding	NA		
B) Complementary Feeding	NA		
Continued Breastfeeding	NA		

| Other Health Indicators			
INDICATOR	PERCENT	YEAR	SOURCE
HIV-1 Seroprevalence			
Urban	NA		
Rural	NA		
Access to Improved Water			
Urban	NA		
Rural	NA		
Access to Sanitation			
Urban	NA		
Rural	NA		
Deliveries/Trained Attendants	24	1988	WHM9117

NA = Not available

Trends in Selected Demographic and Health Indicators

JULY 1994

INDICATOR	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	SOURCE
Infant Mortality	173	164	154	143	131	119	107	97	88	79	70	BUC9302
Under Five Mortality	291	276	260	242	222	200	178	159	142	125	109	BUC9302
Crude Birth Rate	46	49	51	52	50	49	49	49	49	47	44	UNP9200
Crude Death Rate	25	23	22	21	19	17	15	14	12	11	10	UNP9200
Avg. Annual Growth Rate	2	2	2	3	3	3	4	4	4	4	3	UNP9200
Total Fertility Rate	6.2	6.5	6.8	7	7.1	7.1	7.1	7.1	7.1	6.8	6.2	UNP9200

INFANT & UNDER 5 MORTALITY RATES

CRUDE BIRTH & CRUDE DEATH RATES
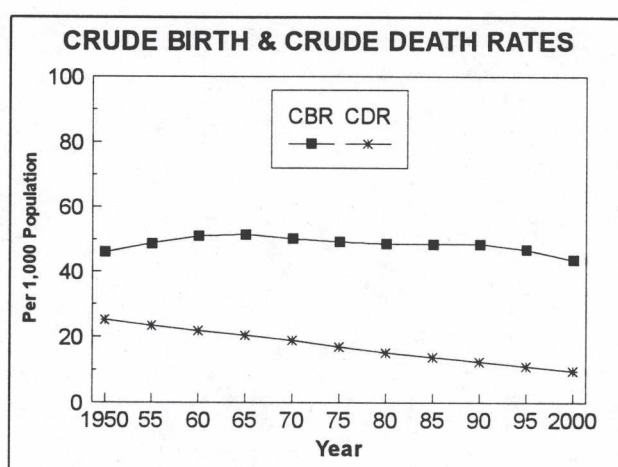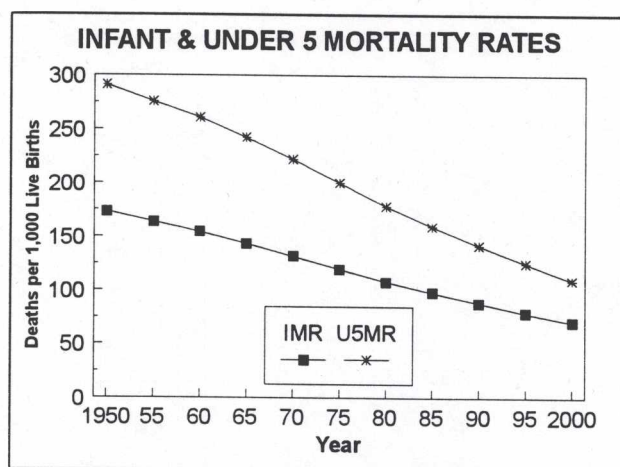
IMR and TFR

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 causally 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.

INFANT MORTALITY & TOTAL FERTILITY RATES
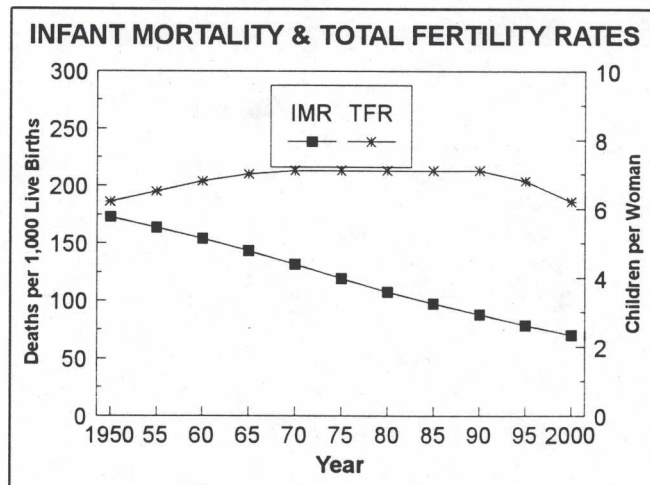
Population Estimates/Pyramid

JULY 1994

POPULATION ESTIMATES (000s)		
YEAR	**VALUE**	**SOURCE**
1950	173	UNP9200
1955	194	UNP9200
1960	215	UNP9200
1965	240	UNP9200
1970	275	UNP9200
1975	316	UNP9200
1980	383	UNP9200
1985	455	UNP9200
1990	543	UNP9200
1995	653	UNP9200
2000	778	UNP9200

POPULATION ESTIMATES
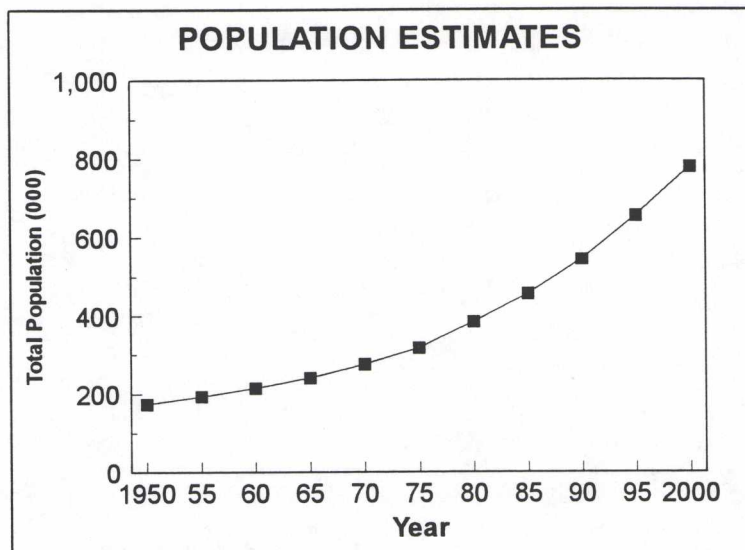
CURRENT & PROJECTED POPULATION
By Age & Gender: 1990 - 2020
Total Population 1990: 460,230 Total Population 2020: 1,246,591

MALE   FEMALE

Age groups: 80+, 75 to 79, 70 to 74, 65 to 69, 60 to 64, 55 to 59, 50 to 54, 45 to 49, 40 to 44, 35 to 39, 30 to 34, 25 to 29, 20 to 24, 15 to 19, 10 to 14, 5 to 9, Under 5

125 100 75 50 25 Thousands 25 50 75 100 125

■ 1990 □ 2020
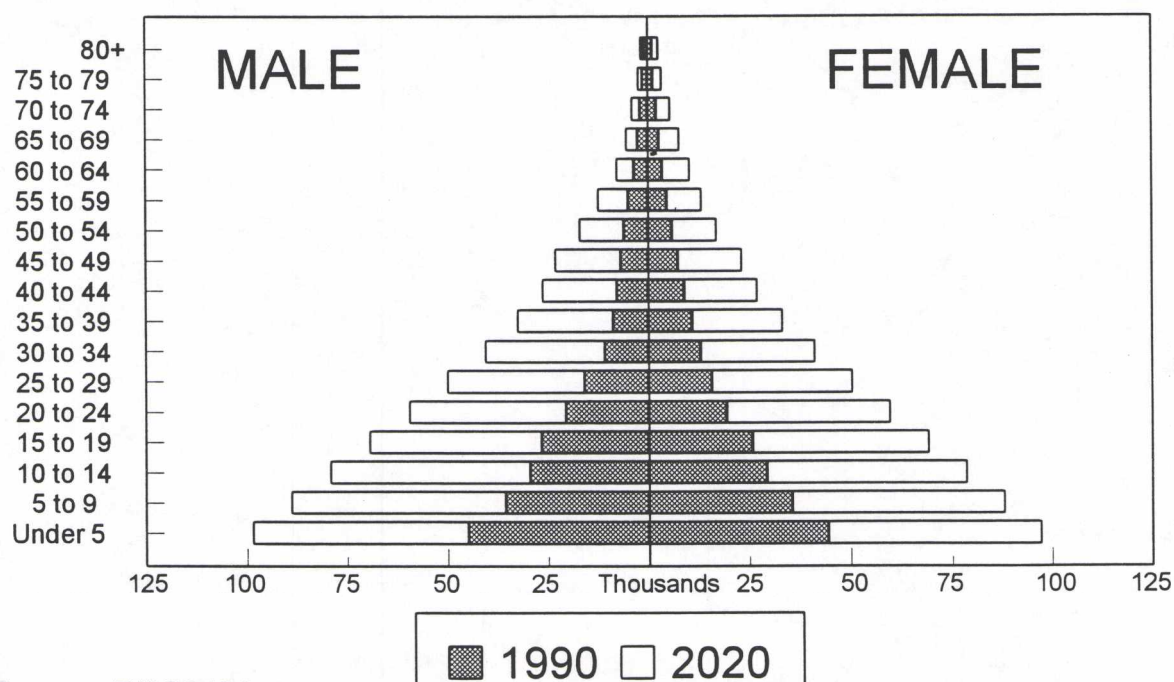
Source: BUC9401

Trends in Selected Health and Child Survival Indicators
Vaccination Coverage Rates
JULY 1994

BCG VACCINATION COVERAGE
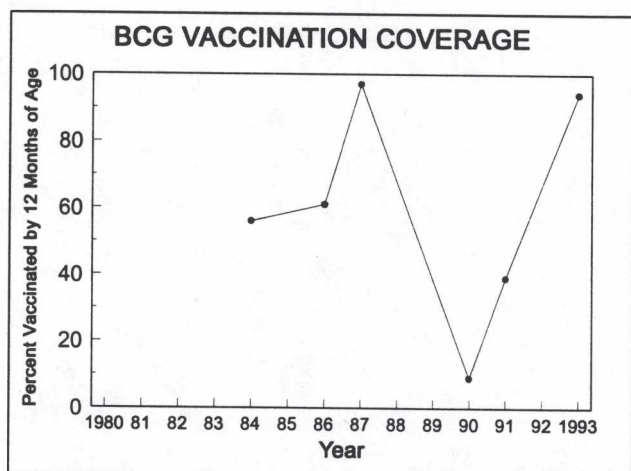
	BCG COVERAGE	
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	NA	
1983	NA	
1984	56	WHE8700
1985	NA	
1986	61	WHE8900
1987	97	WHE8801
1988	NA	
1989	NA	
1990	9	WHE9100
1991	39	WHE9202
1992	NA	
1993	94	WHE9401

DPT3 VACCINATION COVERAGE
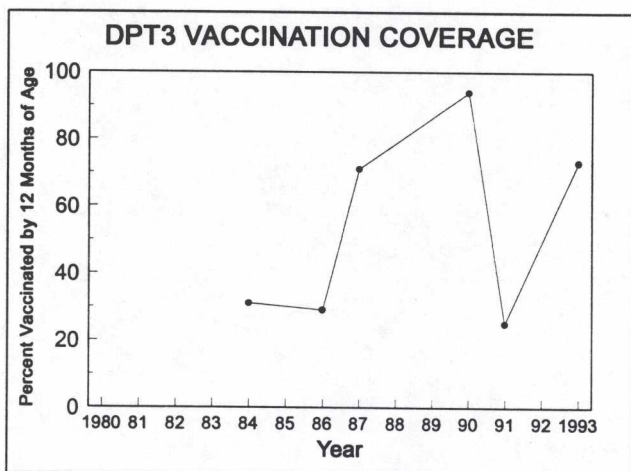
	DPT3 COVERAGE	
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	NA	
1983	NA	
1984	31	WHE8700
1985	NA	
1986	29	WHE8900
1987	71	WHE8801
1988	NA	
1989	NA	
1990	94	WHE9100
1991	25	WHE9202
1992	NA	
1993	73	WHE9401

MEASLES VACCINATION COVERAGE
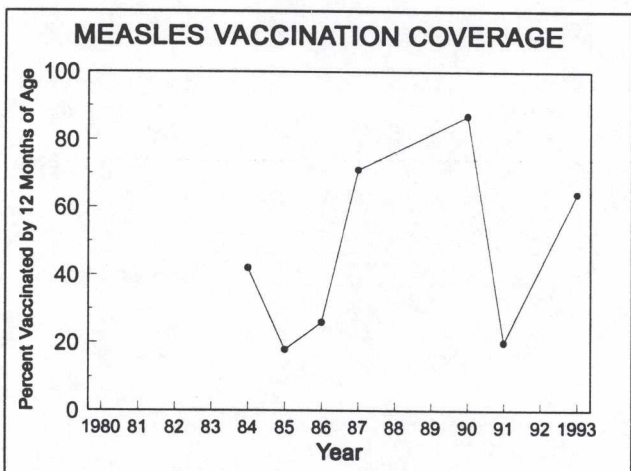
	MEASLES COVERAGE	
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	NA	
1983	NA	
1984	42	WHE8700
1985	18	WHE8701
1986	26	WHE8900
1987	71	WHE8801
1988	NA	
1989	NA	
1990	87	WHE9100
1991	20	WHE9202
1992	NA	
1993	64	WHE9401

Vaccination Coverage Rates, continued

POLIO3 VACCINATION COVERAGE
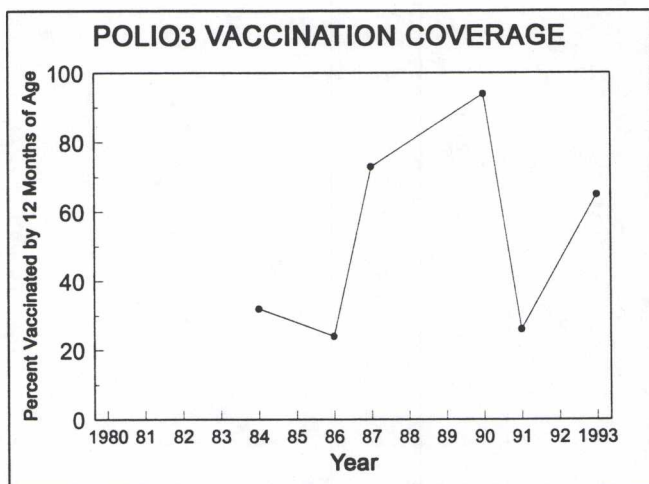
POLIO3 COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	NA	
1983	NA	
1984	32	WHE8700
1985	NA	
1986	24	WHE8900
1987	73	WHE8801
1988	NA	
1989	NA	
1990	94	WHE9100
1991	26	WHE9202
1992	NA	
1993	65	WHE9401

TT2+ VACCINATION COVERAGE RATE
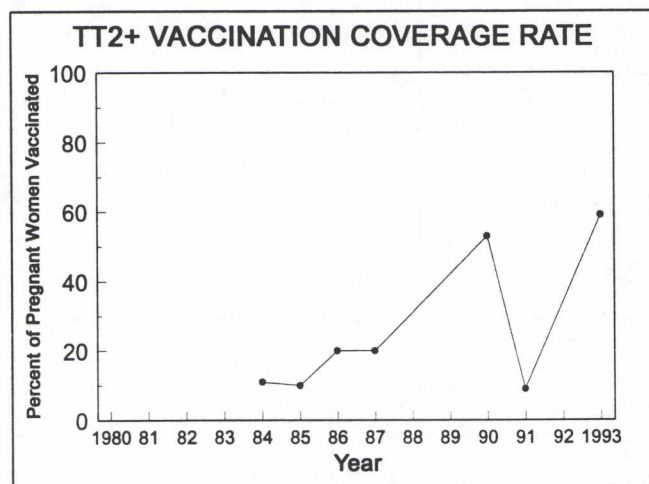
TT2+ COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	NA	
1983	NA	
1984	11	WHE8900
1985	10	WHE8900
1986	20	WHE8900
1987	20	WHE8801
1988	NA	
1989	NA	
1990	53	WHE9100
1991	9	WHE9202
1992	NA	
1993	59	WHE9401

ORS Access, ORS and/or RHF Use Rates

JULY 1994

ORS ACCESS RATE
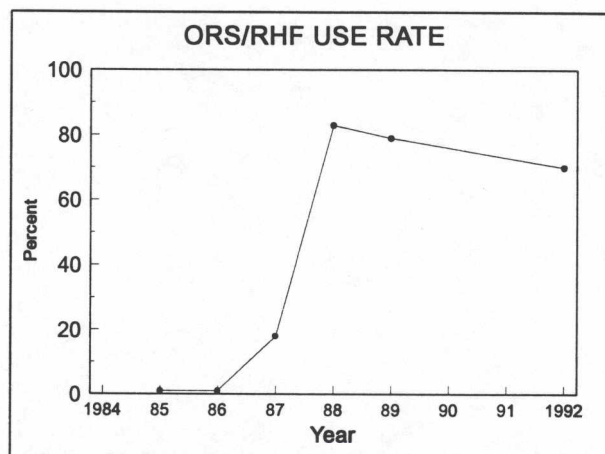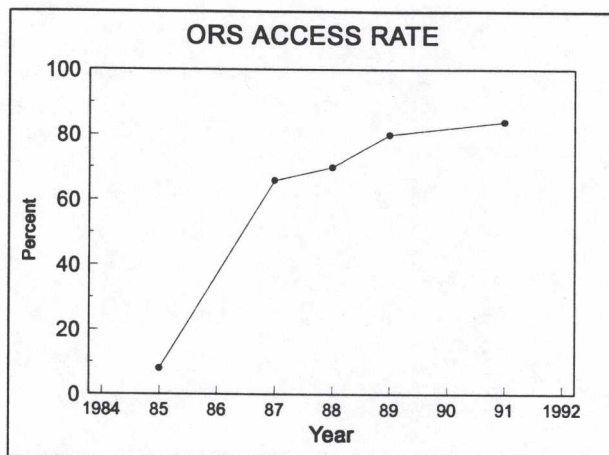
ORS/RHF USE RATE

INDICATOR	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
ORS Access	NA	8	NA	66	70	80	NA	84	NA	NA
Source		WHD8700		WHD8900	WHD9001	WHD9100		WHD9300		
ORS/RHF Use	NA	1	1	18	83	79	NA	NA	70	NA
Source		WHD8700	WHD8800	WHD8900	WHD9001	WHD9100			WHD9300	

COMPARATIVE INDICATORS
Comparative IMR Rates
JULY 1994

INFANT MORTALITY RATES
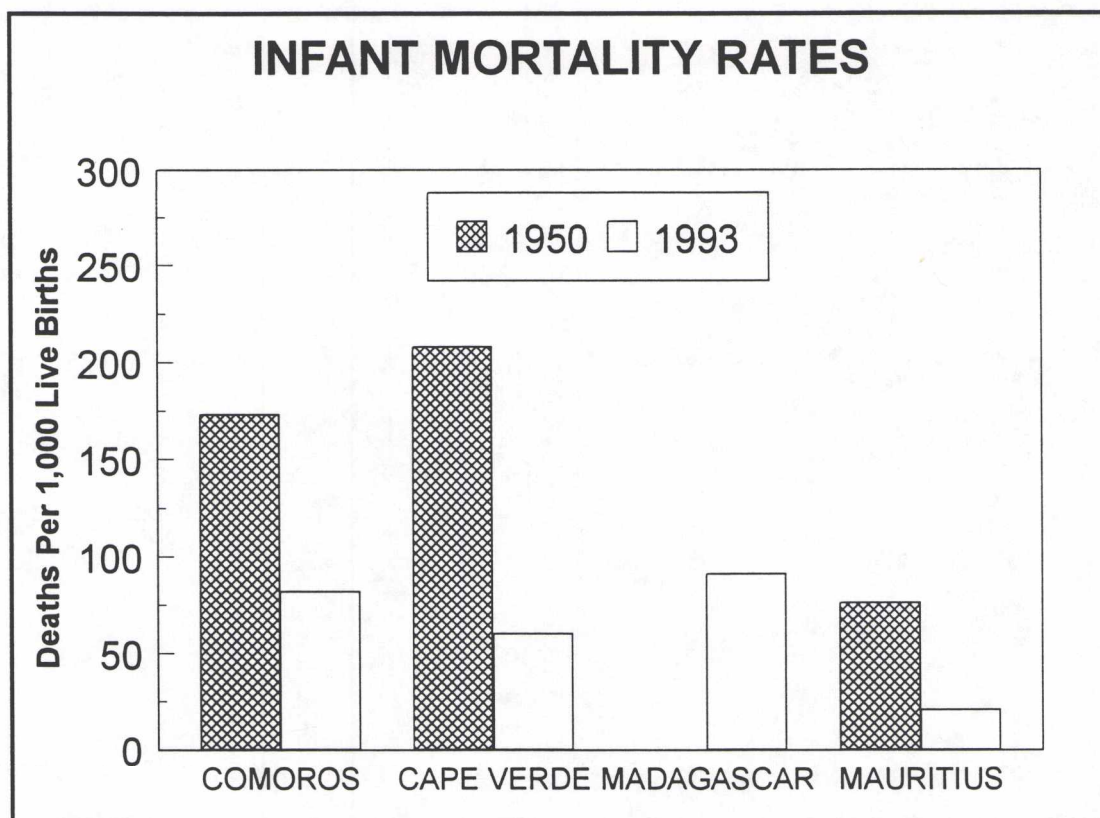
COUNTRY	1950	SOURCE	1993	SOURCE
COMOROS	173	BUC9302	82	BUC9302
CAPE VERDE	208	CALXX03	60	CALXX03
MADAGASCAR	NA		91	BUC9404
MAURITIUS	76	WBK9302	21	WBK9302

Comparative Vaccination Coverage Rates
JULY 1994

VACCINATION COVERAGE
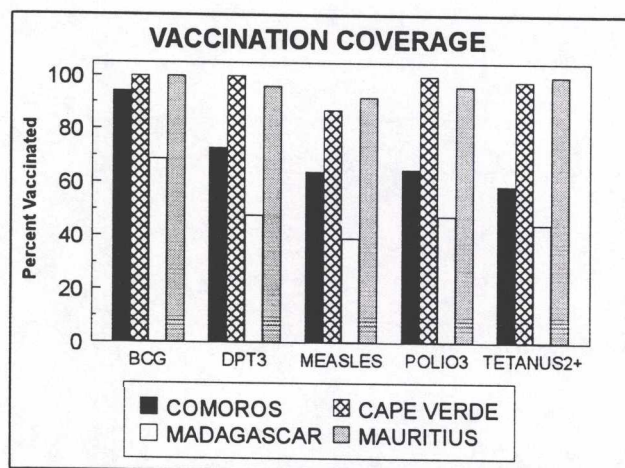
COUNTRY	INDICATOR	YEAR	VALUE	SOURCE
COMOROS	BCG	1993	94	WHE9401
	DPT 3	1993	73	WHE9401
	Measles	1993	64	WHE9401
	Polio 3	1993	65	WHE9401
	Tetanus 2	1993	59	WHE9401
CAPE VERDE	BCG	1992	100	WHE9401
	DPT 3	1992	100	WHE9401
	Measles	1992	87	WHE9401
	Polio 3	1992	100	WHE9401
	Tetanus 2	1992	98	WHE9401
MADAGASCAR	BCG	1992	69	DHS9402
	DPT 3	1992	48	DHS9402
	Measles	1992	39	DHS9402
	Polio 3	1992	48	DHS9402
	Tetanus 2	1992	44	DHS9402
MAURITIUS	BCG	1992	87	WHE9301
	DPT 3	1992	88	WHE9301
	Measles	1992	84	WHE9301
	Polio 3	1992	88	WHE9301
	Tetanus 2	1992	79	WHE9301

Comparative ORS Access, ORS and/or RHF Use Rates
JULY 1994

ORS ACCESS AND ORS/RHF USE RATES
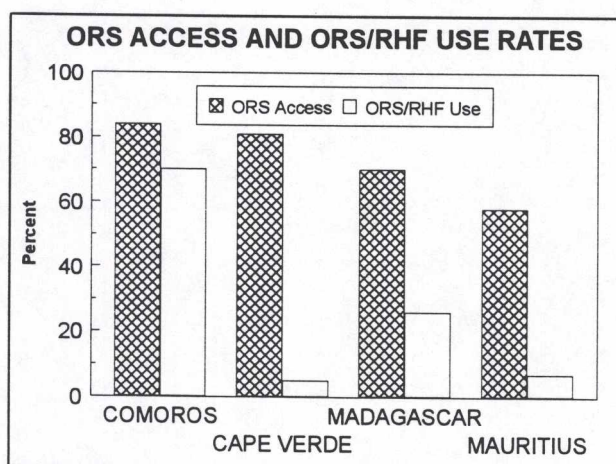
COUNTRY	INDICATOR	YEAR	VALUE	SOURCE
COMOROS	ORS Access Rate	1991	84	WHD9300
	ORT Use Rate	1992	70	WHD9300
CAPE VERDE	ORS Access Rate	1989	81	WHD9100
	ORT Use Rate	1989	5	WHD9100
MADAGASCAR	ORS Access Rate	1993	70	WHD9401
	ORT Use Rate	1992	26	DHS9208
MAURITIUS	ORS Access Rate	1989	58	WHD9100
	ORT Use Rate	1988	7	WHD9000

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.

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.
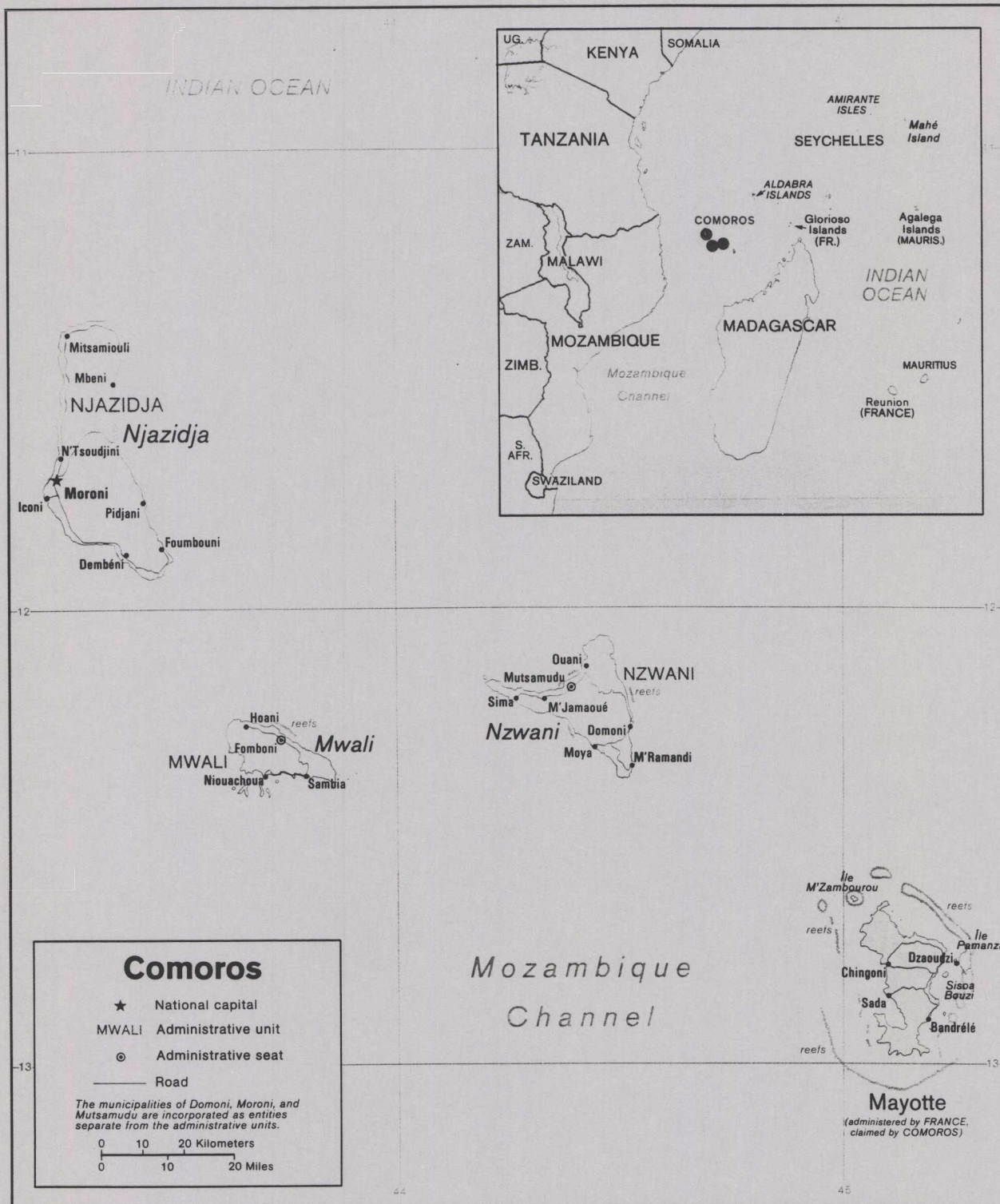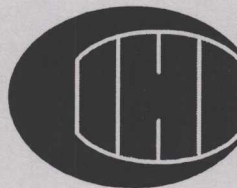
III: SOURCES
JULY 1994

BUC9300 — United States Bureau of the Census, Facsimile from Peter Johnson dated 3/3/93. Data prepared following the meeting on mortality estimation, 2/25/93.

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.

CALXX01 — Calculated from the values for total population, crude birth rate and infant mortality from designated sources for those variables.

DHS9208 — Enquete Nationale Demographique et Sanitaire Madagascar 1992 Centre National de Recherches sur l'Environement, Antananarivo, and Demographic and Health Surveys Macro International Inc. Columbia, MD March 1993 (Preliminary Report).

DHS9402 — Centre Nationale de Recherches sur L'Environment and Macro International Inc. Enquete Nationale Demographique et Sanitaire 1992. (DHS) Calverton, Maryland: Macro International Inc., February, 1994.

UNP9200 — Department of International Economic and Social Affairs, United Nations. World Population Prospects 1992. (ST/ESA/SER.A/120) New York: UN, 1992.

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.

WHD9300 — World Health Organization, Programme for Control of Diarrhoeal Diseases; provisional data for Annex 1 of the Ninth Programme Report. Received by personal communication, February 16, 1993.

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.

WHE8801   World Health Organization. Expanded Programme on Immunization Information System Report, July 1988. Geneva: WHO, 1988.

WHE8900   World Health Organization. Expanded Programme on Immunization Information System Report, July 1989. (WHO/EPI/GEN/89.2) Geneva: WHO, 1989.

WHE9100   World Health Organization. Expanded Programme on Immunization Information System Report, April 1991. (WHO/EPI/CEIS/91.1) Geneva: WHO, 1991.

WHE9202   World Health Organization. Expanded Programme on Immunization Information System Report, October 1992. (WHO/EPI/CEIS/92.2) Geneva: WHO, 1992.

WHE9401   Download of WHO/EPI vaccination coverage files from INTERNET, March 24, 1994.

WHM9117   World Health Organization. Global Strategy for Health for All by the Year 2000: Second Report on Monitoring Progress. Add. 1, 1988 (WHO document EB83/2) 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.

INDIAN OCEAN

UG. KENYA SOMALIA

TANZANIA
AMIRANTE
ISLES
SEYCHELLES Mahé
Island

ALDABRA
ISLANDS
COMOROS Glorioso Agalega
ZAM. Islands Islands
(FR.) (MAURIS.)
MALAWI
INDIAN
OCEAN
MADAGASCAR

MOZAMBIQUE

ZIMB. Mozambique
Channel MAURITIUS

S. Reunion
AFR. (FRANCE)

SWAZILAND

Mitsamiouli

Mbeni
NJAZIDJA
Njazidja
N'Tsoudjini
★
Moroni
Iconi Pidjani
Foumbouni
Dembéni

Ouani
Mutsamudu NZWANI
reefs
Sima M'Jamaoué
Hoani reefs Nzwani Domoni
Fomboni Mwali Moya
MWALI M'Ramandi
Niouachoua Sambia

Mozambique

Channel

Ile
M'Zambourou reefs
reefs
Ile
Pamanzi
Dzaoudzi
Chingoni Sisoa
Bouzi
Sada
Bandrélé
reefs

Comoros

★ National capital

MWALI Administrative unit

◉ Administrative seat

——— Road

*The municipalities of Domoni, Moroni, and
Mutsamudu are incorporated as entities
separate from the administrative units.*

0   10   20 Kilometers
0   10   20 Miles

Mayotte
(administered by FRANCE,
claimed by COMOROS)

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