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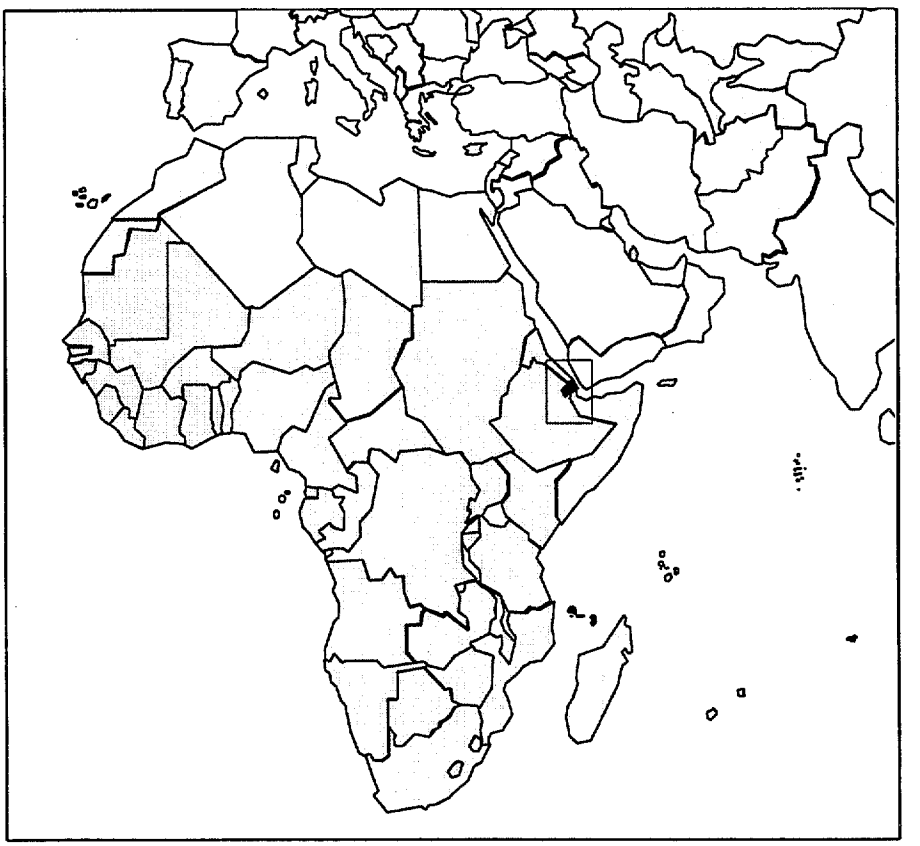
CIHI Country Health Profile Series

DJIBOUTI

Health Statistics Report
1996



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DJIBOUTI

Health Statistics Report

This is part of a series of Country Health Profiles produced by the Center for International Health Information (CIHI). Each profile provides quantitative data on current health and demographic conditions in a developing country. Profile information is compiled from CIHI's databases and reference library and through research and analysis of other data sources.

CIHI's Health Statistics Reports are intended to provide data in a concise format for individuals and organizations involved in health sector policy and decision-making. Contact CIHI at the address on the preceding page for information on the availability of country health profiles and health statistics reports, or look for these reports on the Internet at the following address: *www.cihi.com.*

In order to enable CIHI to report the most current health and demographic data, readers are encouraged to provide any more recent or more accurate information by contacting the center directly or through USAID's Office of Health and Nutrition.

EDITOR'S NOTES

1. ***Data Notes.*** *For definitions of indicators and commentary regarding their derivation, the reader is referred to Section II.*

2. ***References & Sources.*** *Sources in this profile are referred to by a seven-digit code. Generally, the first three letters refer to a source institution, the following two numbers refer to the year of publication or transmittal, and the final two numbers uniquely identify the individual source. A complete list of sources appears in Section III.*

3. ***Comparative Graphs and Tables.*** *Unless otherwise specified, indicator values for country groupings are median values for the countries in each aggregate grouping for which data are available. Regional groupings include: (1) Sub-Saharan Africa, which includes the 47 countries comprising USAID's Africa Region; (2) No. Africa & Mideast, which corresponds to USAID's Near East Sub-region and includes 21 countries from Morocco in the West to Afghanistan in the East; (3) Asia, which corresponds to USAID's Asia Sub-region and includes 24 developing countries from Pakistan eastward; (4) Latin Am. & Carib. which includes 46 countries of Central and South America and the Caribbean and corresponds to USAID's Latin America and Caribbean region. Income groupings are based on the classifications used by the United Nations' Human Development Report 1995, which are defined as: (1) Low -Income Countries (GNP per capita =$696 or less), (2) Middle-Income Countries (GNP/capita $696-$8,625); (3) High-Income Countries (GNP/capita >$8,625). "Developing Countries" indicators are based on 107 countries which are not regarded as "Established Market Economies" by the World Bank's World Development Report 1994.*

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I: HEALTH & DEMOGRAPHIC OVERVIEW

Current Demographic and Health Indicators

Demographic Indicators			
INDICATOR	VALUE	YEAR	SOURCE
Total population (000s)	577	1995	UNP9400
Urban percent	83	1995	UNP9400
Women ages 15-49 (000s)	137	1995	CAL9602
Infant mortality rate	110	1995	UNP9400
Under 5 mortality rate	188	1995	JEE9504
Maternal mortality rate	570	1990	UNI9601
Life expectancy at birth	49	1995	UNP9400
Number of births (000s)	22	1995	CAL9603
Annual infant deaths (000s)	2	1995	CAL9604
Total fertility rate	5.8	1995	PRB9601

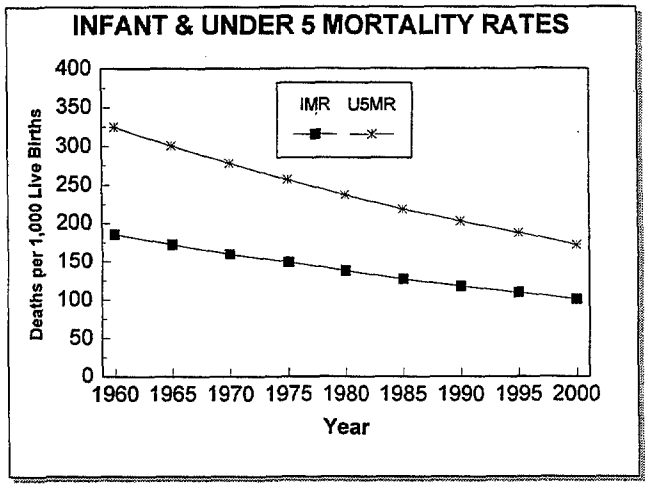
Child Survival Indicators			
INDICATOR	VALUE	YEAR	SOURCE
Vaccination Coverage (%)			
BCG	71	1995	WHE9601
DPT3	49	1995	WHE9601
Measles	42	1995	WHE9601
Polio 3	49	1995	WHE9601
TT2+	37	1995	WHE9601
DPT drop out rate	NA		
Oral Rehydration Therapy (%)			
ORS access rate	80	1991	WHD9201
ORT use rate	56	1991	WHD9201
Contraceptive Prevalence (%)			
CPR, modern methods	NA		
CPR, all methods	NA		
Nutrition (%)			
Adequate nutritional status	NA		
Exclusive breastfeeding	NA		
Complementary feeding	NA		
Continued breastfeeding	NA		

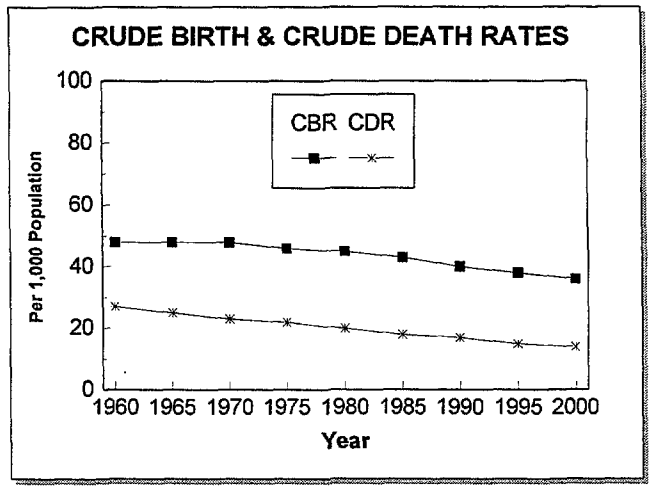
Other Health Indicators			
INDICATOR	VALUE	YEAR	SOURCE
HIV Prevalence			
Adults (per 100,000)	3,008	1994	WHO9601
Access to Improved Water (%)			
Urban	88	1991	JMP9301
Rural	71	1991	JMP9301
Access to Sanitation (%)			
Urban	64	1991	JMP9301
Rural	24	1991	JMP9301
Delivery Conditions			
Deliveries by trained attendants (%)	NA		

NA=Notavailable

Trends in Selected Demographic and Health Indicators

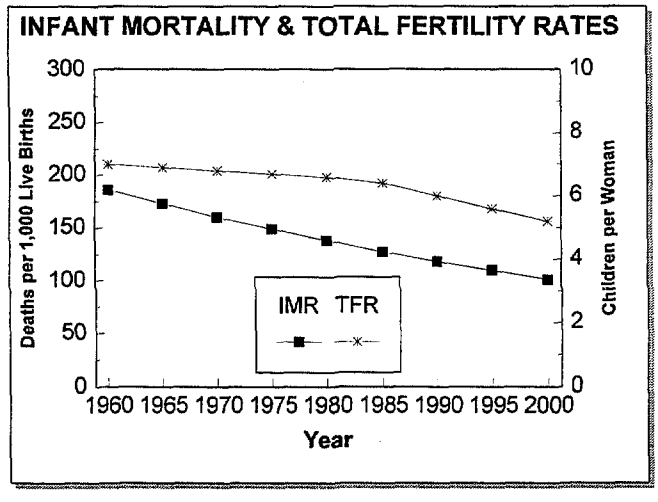
INDICATOR	1960	1965	1970	1975	1980	1985	1990	1995	2000	SOURCE
Infant Mortality Rate	186	173	160	149	138	127	118	110	101	UNP9400
Under 5 Mortality Rate	325	301	278	257	237	218	203	188	172	JEE9504
Crude Birth Rate	48	48	48	46	45	43	40	38	36	UNP9400
Crude Death Rate	27	25	23	22	20	18	17	15	14	UNP9400
Avg Annual Growth	4.5	5.8	6.4	6.4	6.5	6.1	3.9	2.2	2.2	UNP9400
Total Fertility Rate	7.0	6.9	6.8	6.7	6.6	6.4	6.0	5.6	5.2	UNP9400





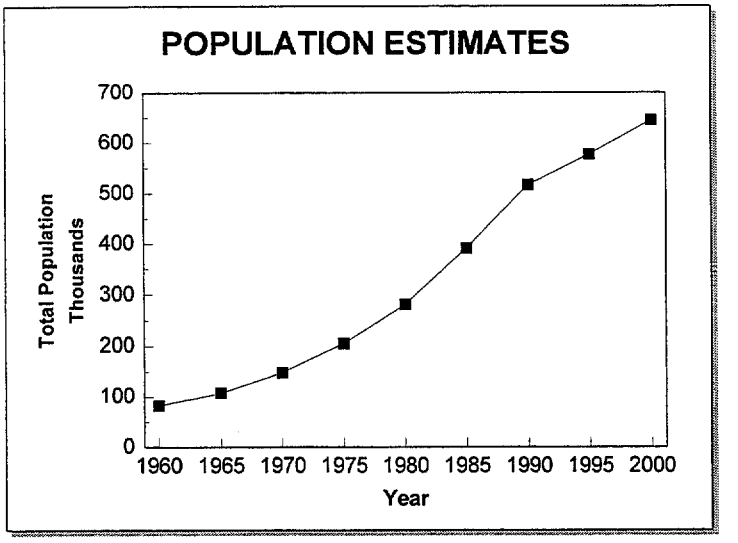
IMR and TFR

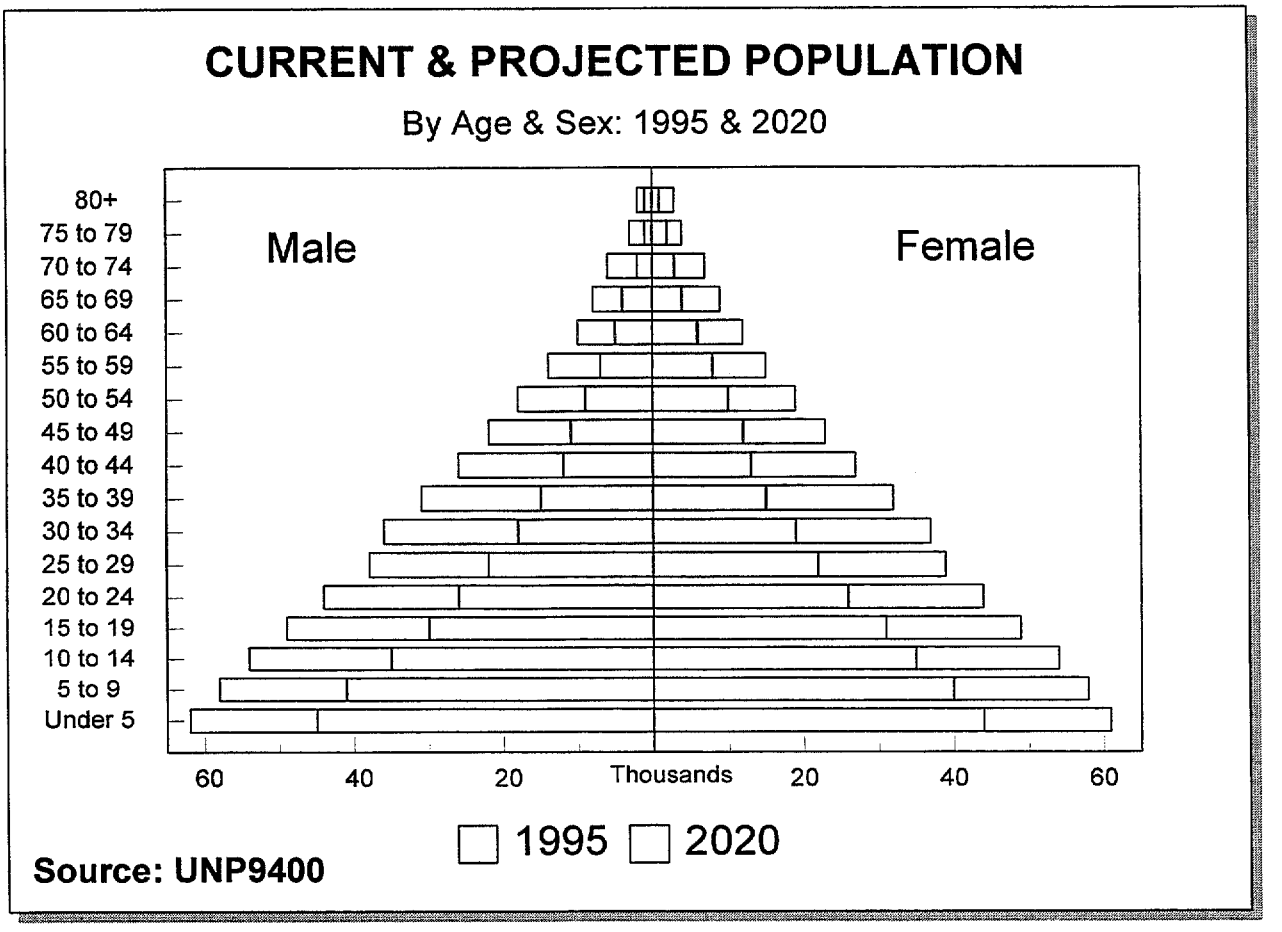
The relationship between IMR and TFR is currently a subject under review by the scientific community. While there is not conclusive evidence that the IMR and TFR are causally linked and necessarily decline together, there is empirical evidence for suspecting that such a reinforcing relationship exists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



Population Estimates/Pyramid

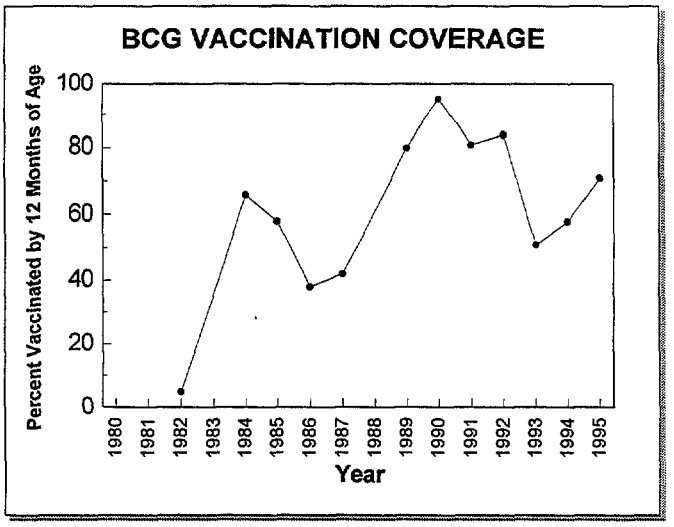
POPULATION ESTIMATES		
YEAR	VALUE	SOURCE
1960	83,000	UNP9400
1965	108,000	UNP9400
1970	148,000	UNP9400
1975	205,000	UNP9400
1980	281,000	UNP9400
1985	391,000	UNP9400
1990	517,000	UNP9400
1995	577,000	UNP9400
2000	645,000	UNP9400



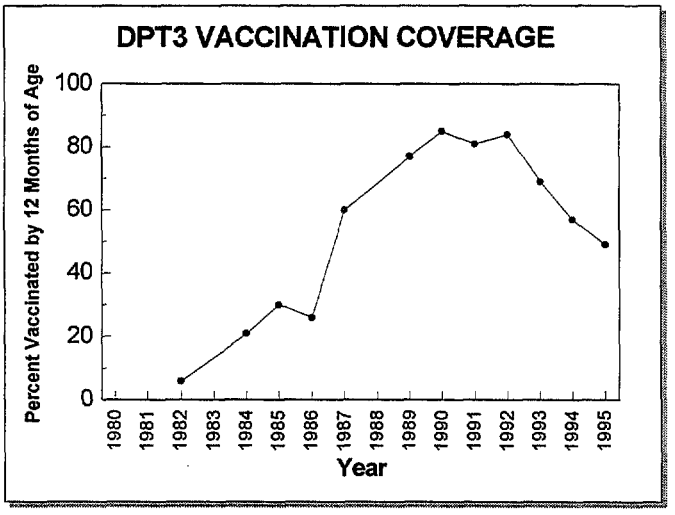


Trends in Selected Health and Child Survival Indicators

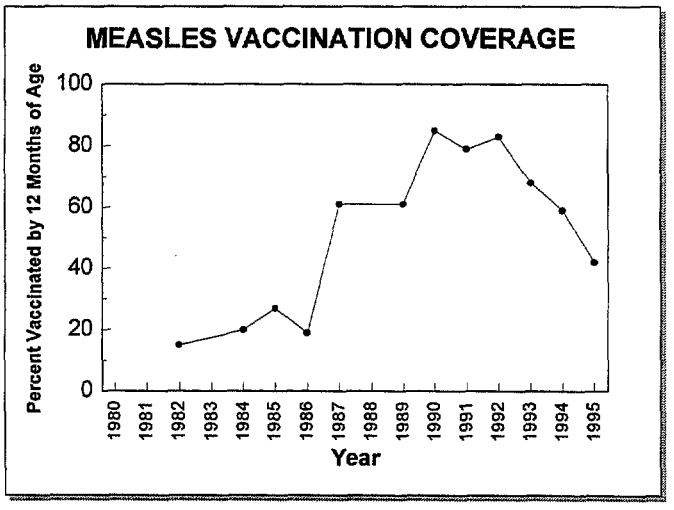
Vaccination Coverage Rates



BCG COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	5	WHE8700
1983	NA	
1984	66	WHE8700
1985	58	WHE8700
1986	38	WHE8800
1987	42	WHE8801
1988	NA	
1989	80	WHE9001
1990	95	WHE9100
1991	81	WHE9202
1992	84	WHE9301
1993	51	WHE9403
1994	58	WHE9502
1995	71	WHE9601

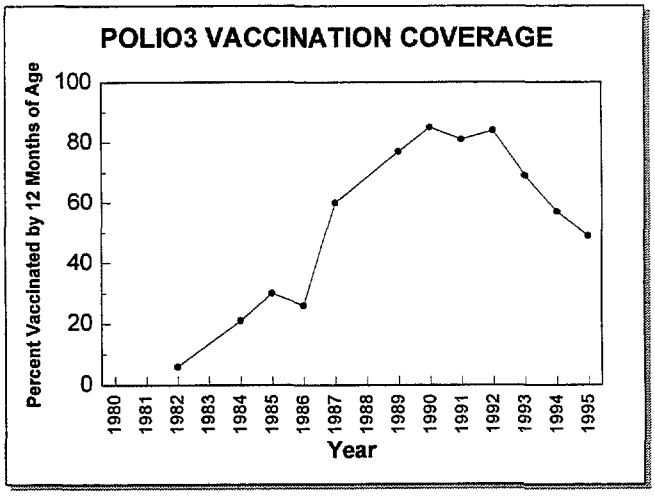


DPT3 COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	6	WHE8700
1983	NA	
1984	21	WHE8700
1985	30	WHE8700
1986	26	WHE8800
1987	60	WHE8801
1988	NA	
1989	77	WHE9001
1990	85	WHE9100
1991	81	WHE9202
1992	84	WHE9301
1993	69	WHE9403
1994	57	WHE9502
1995	49	WHE9601

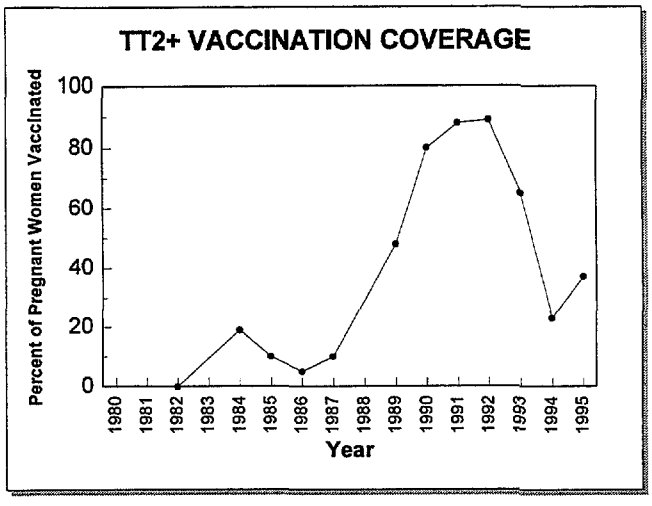


MEASLES COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	15	WHE8700
1983	NA	
1984	20	WHE8700
1985	27	WHE8700
1986	19	WHE8800
1987	61	WHE8801
1988	NA	
1989	61	WHE9001
1990	85	WHE9100
1991	79	WHE9202
1992	83	WHE9301
1993	68	WHE9403
1994	59	WHE9502
1995	42	WHE9601

Vaccination Coverage Rates, continued

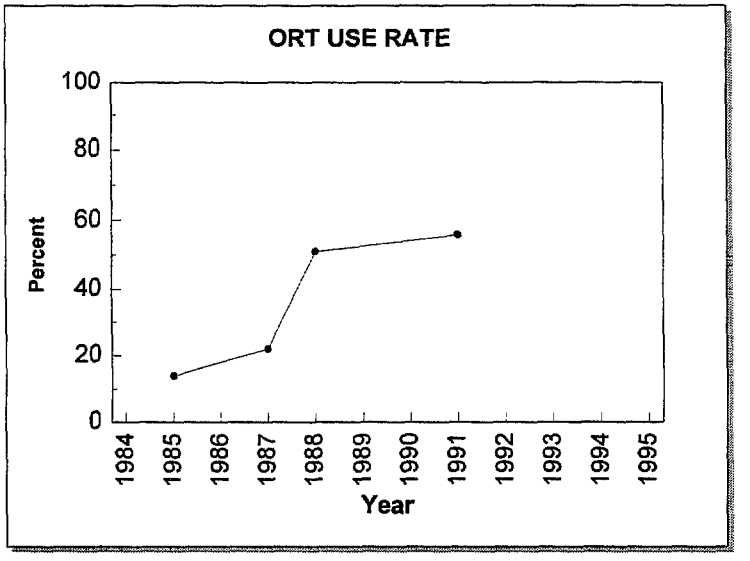


POLIO3 COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	6	WHE8700
1983	NA	
1984	21	WHE8700
1985	30	WHE8700
1986	26	WHE8800
1987	60	WHE8801
1988	NA	
1989	77	WHE9001
1990	85	WHE9100
1991	81	WHE9202
1992	84	WHE9301
1993	69	WHE9403
1994	57	WHE9502
1995	49	WHE9601



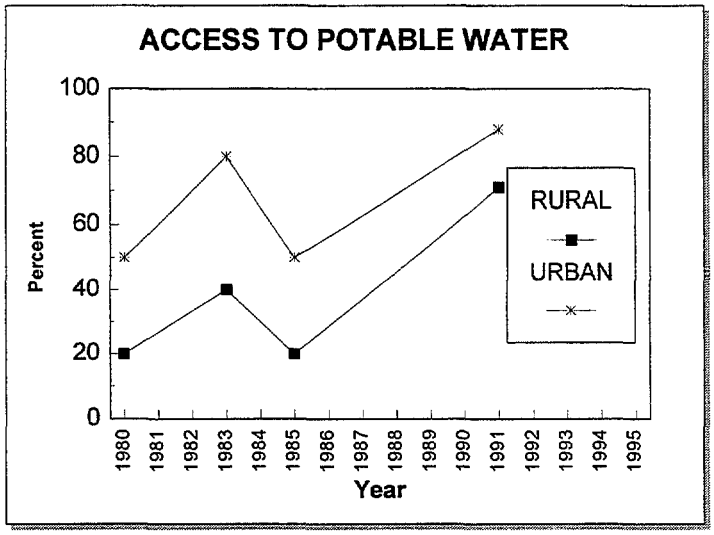
TT2+ COVERAGE		
YEAR	PERCENT	SOURCE
1980	NA	
1981	NA	
1982	0	WHE8700
1983	NA	
1984	19	WHE8700
1985	10	WHE8700
1986	5	WHE8800
1987	10	WHE8801
1988	NA	
1989	48	WHE9001
1990	80	WHE9100
1991	88	WHE9202
1992	89	WHE9301
1993	65	WHE9403
1994	23	WHE9501
1995	37	WHE9601

ORT Use Rate



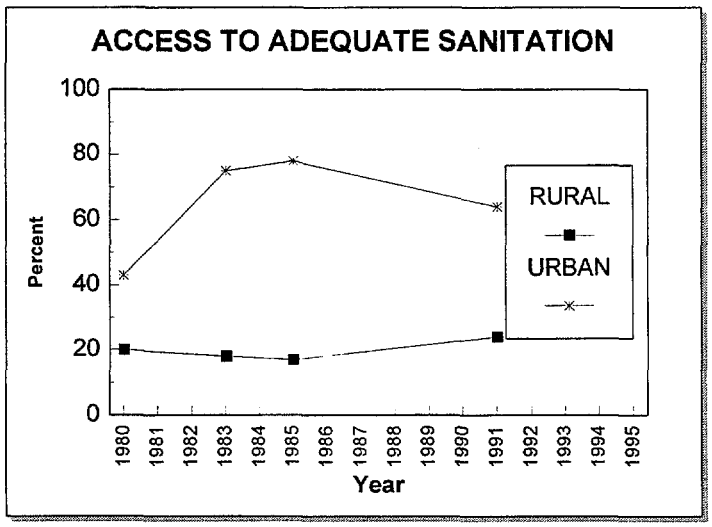
ORT USE RATE		
YEAR	PERCENT	SOURCE
1984	NA	
1985	14	WHD8700
1986	NA	
1987	22	WHD8900
1988	51	WHD9000
1989	NA	
1990	NA	
1991	56	WHD9201
1992	NA	
1993	NA	
1994	NA	
1995	NA	

Access to Potable Water



YEAR	RURAL	SOURCE	URBAN	SOURCE
1980	20	WHO9101	50	WHO9101
1981	NA		NA	
1982	NA		NA	
1983	40	WHO9101	80	WHO9101
1984	NA		NA	
1985	20	WHO9101	50	WHO9101
1986	NA		NA	
1987	NA		NA	
1988	NA		NA	
1989	NA		NA	
1990	NA		NA	
1991	71	JMP9301	88	JMP9301
1992	NA		NA	
1993	NA		NA	
1994	NA		NA	
1995	NA		NA	

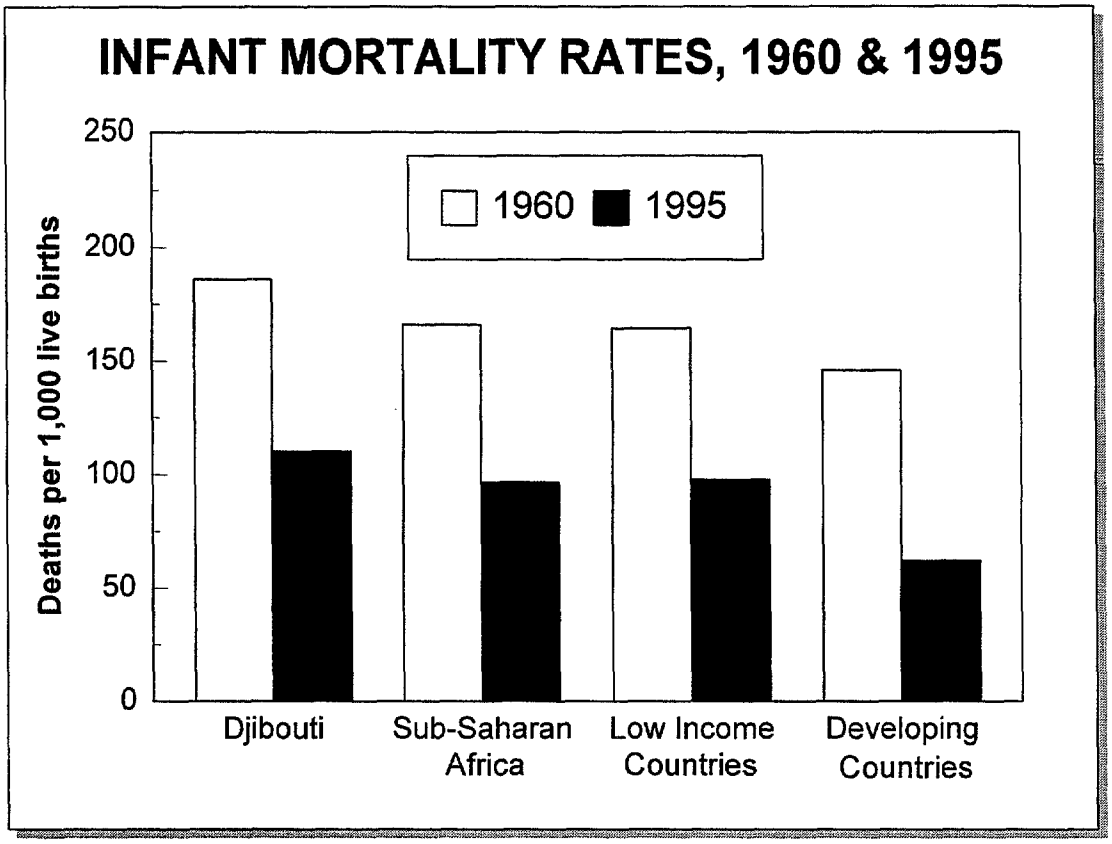
Access to Adequate Sanitation



YEAR	RURAL	SOURCE	URBAN	SOURCE
1980	20	WHO9101	43	WHO9101
1981	NA		NA	
1982	NA		NA	
1983	18	WHO9101	75	WHO9101
1984	NA		NA	
1985	17	WHO9101	78	WHO9101
1986	NA		NA	
1987	NA		NA	
1988	NA		NA	
1989	NA		NA	
1990	NA		NA	
1991	24	JMP9301	64	JMP9301
1992	NA		NA	
1993	NA		NA	
1994	NA		NA	
1995	NA		NA	

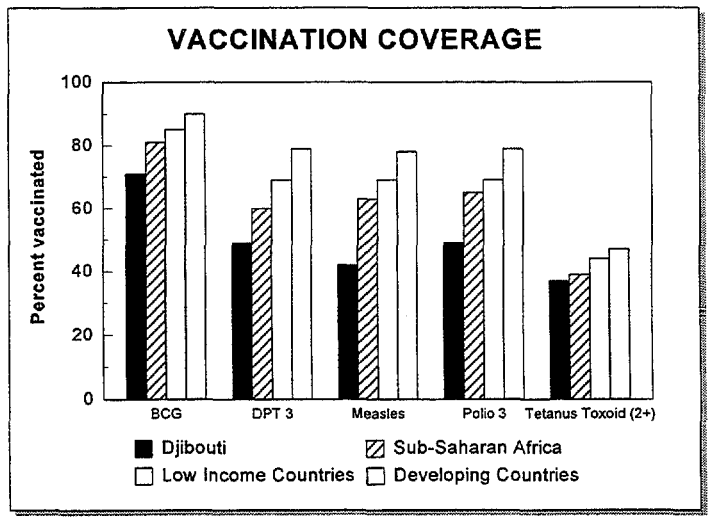
COMPARATIVE INDICATORS

Comparative Infant Mortality Rates



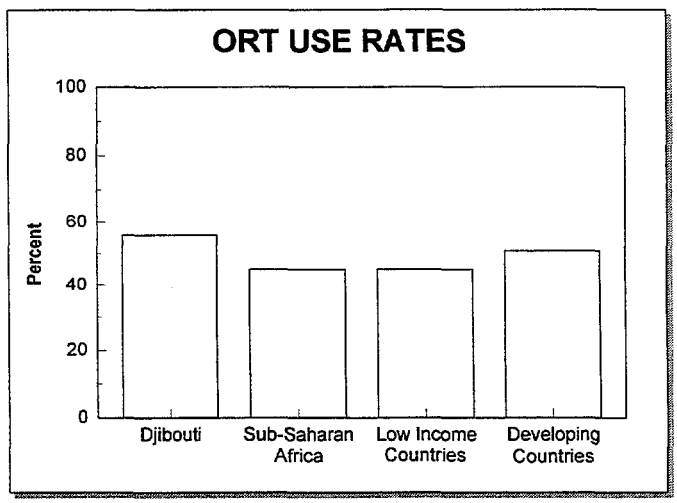
YEAR	1960	1995	Source
Djibouti	186	110	UNP9400
Median values for country groupings:			
Sub-Saharan Africa	166	97	CAL9606
Low Income Countries	165	98	CAL9606
Developing Countries	146	62	CAL9606

Comparative Vaccination Coverage Rates



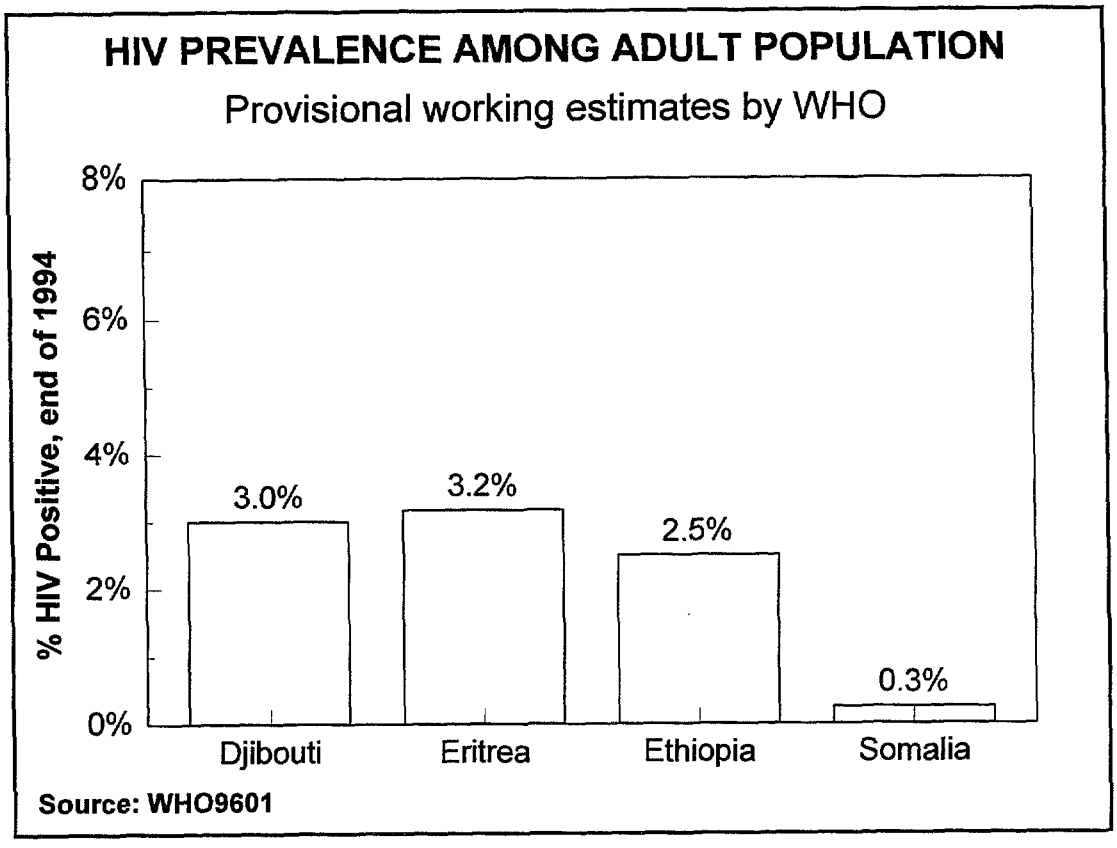
Vaccination Coverage	Djibouti	Year	Source	Median values for country groupings: (CAL9606)		
				Sub-Saharan Africa	Low Income Countries	Developing Countries
BCG	71	1995	WHE9601	81	85	90
DPT 3	49	1995	WHE9601	60	69	79
Measles	42	1995	WHE9601	63	69	78
Polio 3	49	1995	WHE9601	65	69	79
Tetanus Toxoid (2+)	37	1995	WHE9601	39	44	47

Comparative ORT Use Rates



COUNTRY	ORT USE RATE	YEAR
Djibouti	56	1991
Source	WHD9201	
Median values for country groupings:		
Sub-Saharan Africa	45	1995
Low Income Countries	45	1995
Developing Countries	51	1995
Source	CAL9606	

Human Immunodeficiency Virus (HIV) Prevalence Rates



II: DATA NOTES

I. Note On Mortality Estimation

Various organizations produce mortality estimates for the developing countries and regions. The three largest sources are the United Nations Population Division, the World Bank and the United States Bureau of the Census. CIHI's Health Statistics Database draws upon the work of these three larger organizations as well as other sources in order to reconcile the various estimates and provide the most reasonable current and historical estimates available.

CIHI has also created the only comprehensive time series of under-five mortality estimates for all developing countries. This has been accomplished by developing mathematical equations from empirical data that describe the relationship between infant and under-five mortality. Using these equations it is possible to make estimates of under-five mortality from infant mortality or *vice-versa*. More details regarding CIHI's methodology for specific data sets are provided in the source references.

II. Definitions

Demographic indicators:

Annual Infant Deaths: An estimate of the number of deaths occurring to children under age one in a given year.
Average Annual Rate of Population Growth: An estimate of the rate at which a population is increasing (or decreasing) in a given year.
Children Under Age 1: Mid-year estimate of the total number of children under age one.
Contraceptive Prevalence Rate: Estimate of the proportion of women aged 15 through 44 (sometimes 15 through 49) currently using a modern method of contraception. For some countries, this data is only available for women in union or married. Where sources fail to distinguish modern and traditional methods, the combined rate is shown.
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.
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).
Life Expectancy At Birth: An estimate of the average number of years a newborn can expect to live. Low life expectancies in developing countries are in large part due to high infant mortality.
Maternal Mortality Rate (or Ratio): 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. 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).
Total Population: Mid-year estimate of total number of individuals in a country.
Total Fertility Rate: Estimate of the average number of children a woman would bear during her lifetime given current age-specific fertility rates.
Under 5 Mortality Rate: The estimated number of children born in a given year who will die before age five per 1,000 live births in that same year. May be calculated by direct or indirect methods.
Urban Population: Population living in urban areas as defined according to the national definiton used in the most recent population census.

Child survival indicators:

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 WHO. The indicator for the population as a whole is the proportion of children 12 through 23 months of age who are adequately nourished.
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. Values presented in this report are the proportion of children 12 to 15 months of age at the time of the survey still receiving breast milk.
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.

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.

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 indicator is particularly difficult to measure and may fluctuate dramatically as various methods of estimation are devised.

ORT Use Rate: Estimate of the proportion of cases of diarrhea in children under five treated with **ORS and/or RHF** (a recommended home fluid). ORT use may be determined using administrative means or surveys. Administrative estimates are generally based on estimates of the number of episodes of diarrhea in the target population for a given year and the quantity of ORS available; these estimates are highly sensitive to changes in estimates of the frequency of diarrhea episodes. Surveys more precisely focus on the actual behavior of mothers in treating diarrhea in the two-week period prior to the survey.

Vaccination Coverage In Children: 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). 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: Estimate of the proportion of women in a given time period who have received two doses of tetanus toxoid (TT) during their pregnancies. A revised indicator, referred to as **TT2+**, is now commonly used to account for the cumulative effect of TT 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. (This number varies with number received previously and the time elapsed.) Rates are computed using administrative methods or surveys.

Other health sector indicators:

Access to Adequate Sanitation: Definitions vary over time. In the past, this has been an estimate of the proportion of the population with sanitation service provided through sewer systems or individual in-house or in-compound excreta disposal facilities (latrines). After WHO changed its indicators and definitions in the late 1980s, this is now defined as the proportion with reasonable access to sanitary means of excreta and waste disposal, including outdoor latrines and composting.

Access to Health Services: An estimate of the proportion of the population that can reach appropriate local health services by local means of transport in no more than one hour. Recently WHO has revised its definition to the proportion of the population having treatment for common diseases and injuries and a regular supply of the essential drugs on the national list within one hour's walk or travel.

Access to Safe Water: Proportion of the population with reasonable access to safe water supply, including treated surface waters or untreated but uncontaminated water such as that from springs, sanitary wells or protected boreholes. Reporting can be highly subjective. Varying definitions are used for reasonable access in urban/rural areas:

Access to Safe Water, Urban: 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 standpipe or fountain source of water.

Access to Safe Water, Rural: Estimate of the proportion of all persons not living in urban areas with a source of water close enough to home that household members do not spend a disproportionate amount of time fetching water.

Births Attended by Trained Personnel: An estimate of the proportion of births attended by at least one physician, nurse, midwife, trained primary health care worker, or trained birth attendant.

HIV Prevalence: Estimate of the proportion of a given population infected with HIV.

III: SOURCES

CAL9512 Calculated medians for aggregates of countries using best available data from the CIHI Health Statistics Database.

CAL9602 Calculations of the annual number of women in the population ages 15-49. For each country, a percentage was derived from UN data on total population and women 15-49 and the percentage was then applied to the preferred estimate of total population.

CAL9603 Calculated number of live births to women of reproductive years (15-49) in 1995. Calculated from the population multiplied by the crude birth rate for each country.

CAL9604 Calculated number of deaths occuring to children under the age of 1 in a given year (1995). Figures based on the number of births multiplied by the infant mortality rate.

CAL9606 Median value for aggregate of countries. Calculated using most recent preferred indicator values for all countries in the aggregate.

JEE9504 Under-five mortality (5q0) calculated from infant mortality (q0) using "other sub-Saharan Africa" equation (i.e. excluding West Africa): 5q0 = 1.35622*({q0}^1.04864).

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.

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

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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.

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.

WHE9403 Download of WHO/EPI vaccination coverage files from INTERNET, August 29, 1994.

WHE9501 Download of WHO/EPI vaccination coverage files from INTERNET, April 6, 1995.

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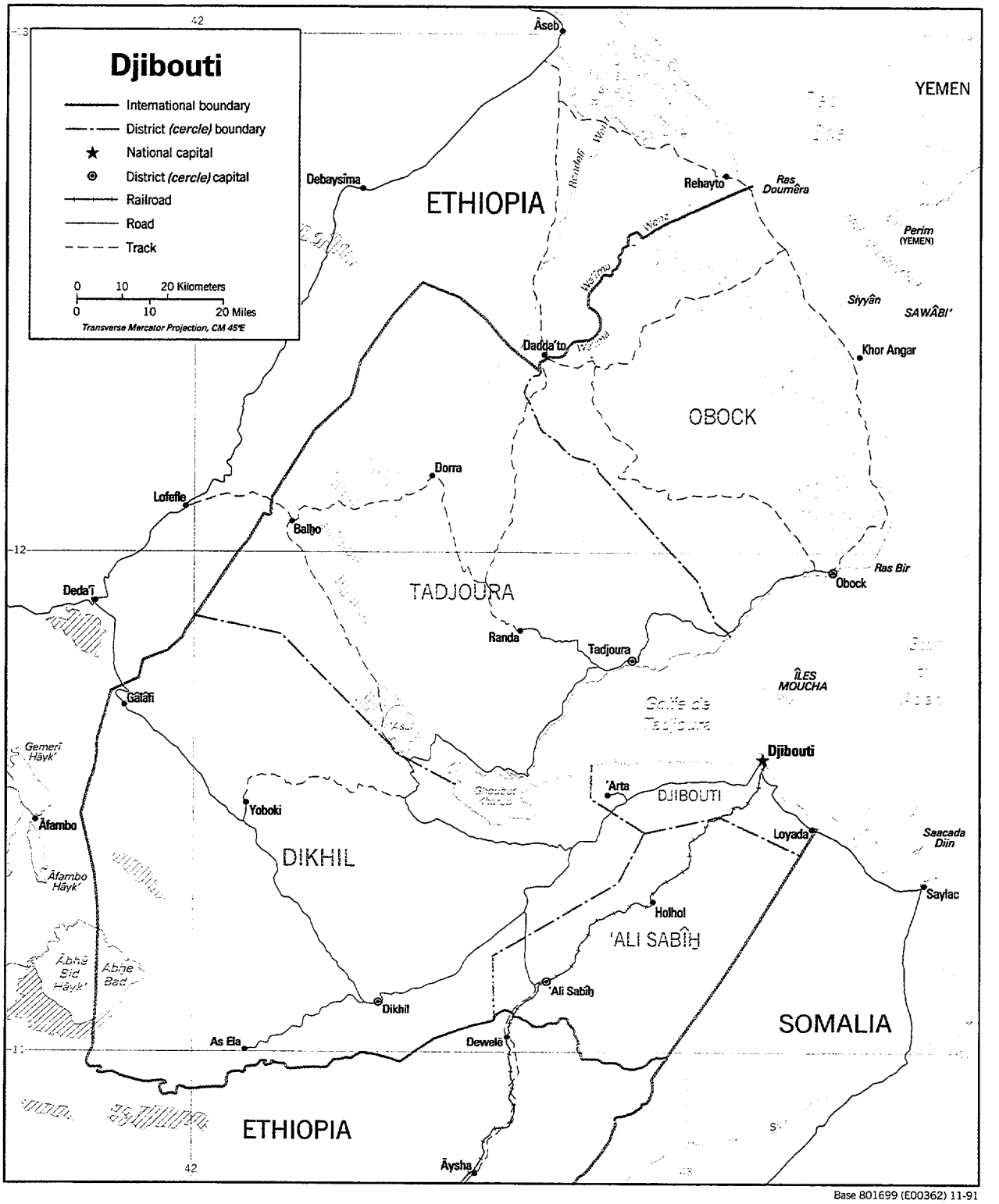

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