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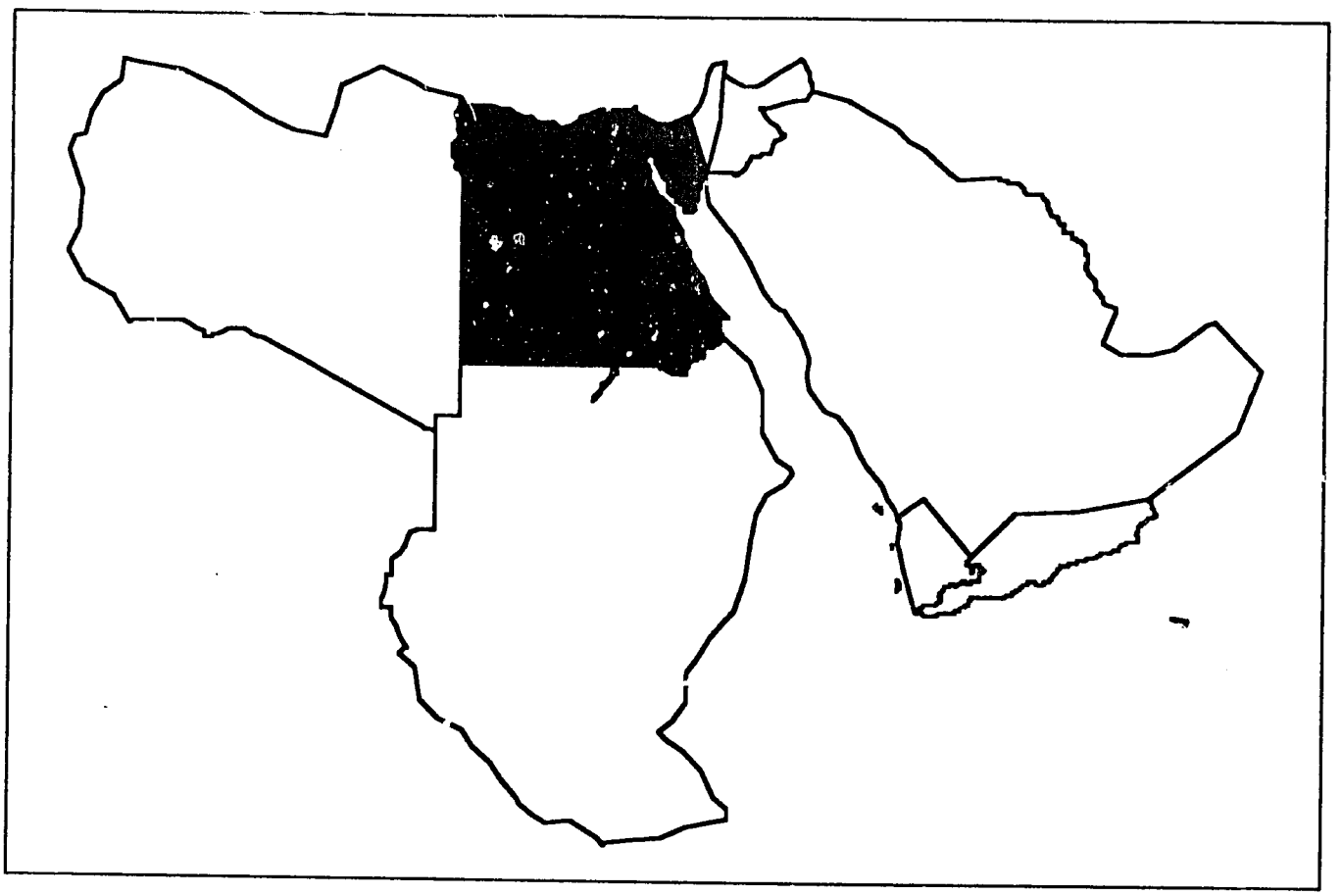
Country Health Profile
Arab Republic of Egypt

September 1989



DRAFT

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ARAB REPUBLIC OF EGYPT
Country Health Profile

DEMOGRAPHIC INDICATORS

Total Population:	52,757,000
Infant Mortality Rate:	81/1,000*
Life Expectancy at Birth:	61 Years
Children Under 1:	1,715,000
Annual Infant Deaths:	147,000
Total Fertility Rate:	4.6 Children

CHILD SURVIVAL INDICATORS

Immunization Coverage:	
DTP3:	82%
Polio3:	88%
Measles:	76%
BCG:	72%
Tetanus2:	12%
Oral Rehydration Therapy:	
ORS Access Rate	98%
ORT Use Rate	67%
Contraceptive Prevalence:	37%
Appropriate Infant Feeding:	NA
Adequate Nutritional Status:	NA

See Data Notes, page 4

Indicator Sources: UN, WHO and in-country programmatic and survey data

*A provisional estimate of 48/1,000 is under review at country level.

Project Data: FY 88 Health and Child Survival Project Questionnaire

General Profile

The Egyptian people suffer from exposure to a great number of endemic diseases such as schistosomiasis, ascariasis, ameobic dysentary and giardia. Bacterial and bacillary infections include typhoid, salmonella, trachoma, rhuematic fever, tetanus, leprosy and tuberculosis. Viral infections such as polio, rabies and measles are also endemic.

Children are often hit hardest by these diseases as their health is already compromised due to poor care during the first few weeks of life, malnutrition, diarrhea and poor weaning practices. In 1979 the infant mortality rate was 120 per 1,000 live births. The infant mortality rate has fallen substantially to 81 per 1,000 in 1987. A provisional estimate of 48/1,000 is under review at the country level.

In recent years, Egypt's commitment toward high health standards and services has resulted in the development of one of the most extensive health care systems in the developing world. The health sector, made up of both public and private organizations and institutions, is regulated by Egypt's Health Sector Council. The Council is responsible for ensuring access to health care services. Success stories are found in most areas relating to the health care sector including: control of diarrheal diseases, immunization coverage, water and sanitation and general health care delivery.

EGYPT HIGHLIGHTS

Health Care Facilities

•Egypt has an extensive system of rural and urban health care facilities. In 1976 USAID began providing assitance through the renovation of clinics as well as training of health care workers. Well-staffed health facilities are within 3 kilometers of 95 percent of the population.

Immunization Coverage

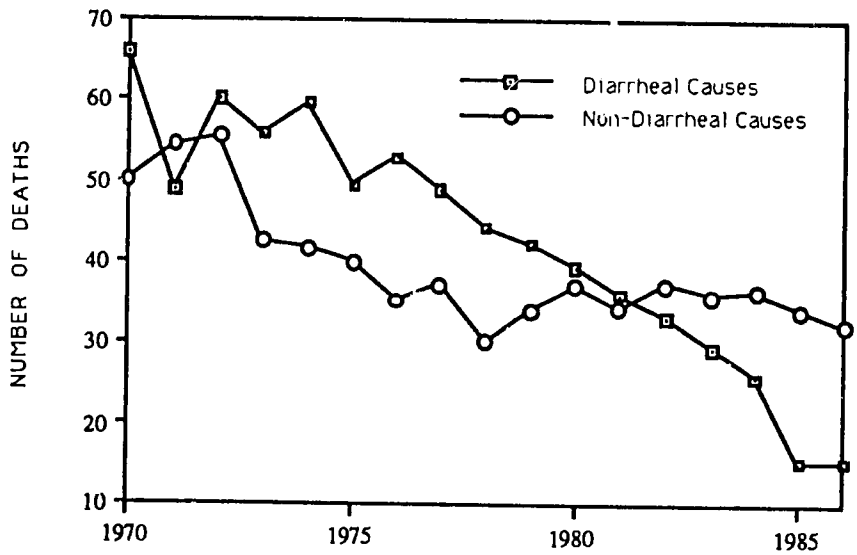
•The national immunization program is assisted by USAID and UNICEF. DTP and polio vaccinations have been administered to more than 80 percent of children under the age of two. Coverage for measles and BCG reached 76 percent and 72 percent respectively.

•During November and December of 1988, women were the target of national immunization campaigns. By December 1988, 87 percent of pregnant mothers with health cards from local clinics had been reached through this campaign to promote tetanus toxoid vaccination.

Control of Diarrheal Diseases

•Egypt is one of the most impressive examples of how a successful ORT program can rapidly make a profound impact in the diarrheal-related mortality rate on the national level. In 1970, over half of all infant deaths were related to diarrhea. By 1986, the rate of infant mortality due to diarrhea had dropped to 15.2 per thousand, less than one half the rate of infant deaths related to all other causes. (See graph)

INFANT DEATHS PER 1000 LIVE BIRTHS DIARRHEAL AND NON-DIARRHEAL



SOURCE: Central Agency for Public Mobilization and Statistics from address by M K Gabr, MD presented at ICORT III, December 1988

•In the early 1980's, pilot ORT activities were expanded first to Alexandria Governorate and then nationwide in the National Control of Diarrhoeal Diseases Project with USAID support. ORT use increased from 44 percent in 1985 to 67 percent in 1987. Oral rehydration salts are now distributed in more than 3,200 health centers. Private physicians use ORT and more than 6,000 pharmacists sell packets that are produced in Egypt. Egyptian mothers are also more knowledgeable about ORT. Although 94 percent had heard of it in 1984, only 53 percent knew how to mix it correctly. By 1988, 96 percent could describe how to mix it correctly.

•Among the numerous factors contributing to the success of the ORT program in Egypt is the promotion and local production of ORS. In 1982, 2.3 million packets of ORS were produced. Production peaked in 1985 with 8 million packets produced. Since 1985 the production of ORS has dropped to 5 million. It is believed that this is due to a reduction in demand because there are now fewer cases of severe diarrhea. Social marketing techniques were used to mobilize the entire private and public health care system as well as mothers toward the use of ORT. [1]

•While discussing the key factors for the success of Egypt's ORT program in a recent presentation to ICORT III, Dr. Mamduoh Gabr stated "the program built upon and strengthened the existing primary care services for mothers and children, thus leaving in place the sustained ability to prevent and treat dehydration from diarrheal disease." [2]

Water and Sanitation

•Since 1978, USAID has supported the rehabilitation and expanion of Egypt's water and sewerage systems. Projects are underway in Cairo, Alexandria, three Suez canal cities and three provincial capitals. In Cairo, a sewage project now prevents the exposure of one million residents to flooding. It is also expanding the wastewater collection system to previously unsewered areas of the Nile's west bank. Water and wastewater activities in the provincial cities have strengthened the private sector's ability to design and construct wastewater systems.

[1] Gabr, Mamdouh K., presentation at ICORT III, December 14-16, 1988, Washington, DC. "The Oral Rehydration Program: The Egyptian Experience", Third International Conference on Oral Rehydration Therapy Proceedings.

[2] Ibid.

BILATERAL PROJECTS

•**Control of Diarrheal Diseases** supports the Government of Egypt's National Control of Diarrheal Disease Program. The project supports national efforts to make ORT available through both private and public health facilities with training, communications, production of supplies, operations research and evaluation. Last year, over 25 million packets of locally produced ORS packets were distributed and more than 8,000 health workers received training in ORT and appropriate infant and child feeding practices. The project is now giving increased attention to dietary management of diarrheal disease and supporting research in Egypt to develop an enriched oral rehydration solution that would reduce nutritional loss that occurs during diarrhea. The program successfully promoted the widespread use of ORT. Oral rehydration salts are now easily accessible to 98% of Egypt's population with distribution through 6,000 pharmacies and 3,000 clinics. The program is now reviewing data from various sources to carefully evaluate the impact of ORT on diarrhea-related mortality.

•**Child Survival** complements the Control of Diarrheal Diseases project with support for immunization, nutrition, high risk births and acute respiratory infections (ARI) efforts. The project supports the Expanded Program on Immunization (EPI) of the Ministry of Health, which last year covered more than three-quarters of Egyptian children with DTP, polio and BCG vaccines. A conference on appropriate infant and child feeding practices reached 200 physicians and nurses, while training in delivery and child spacing is being planned for traditional Egyptian midwives, known as dayas. The project is also planning a national program to reduce deaths from ARI, particularly bacterial pneumonia.

•**Urban Health Delivery Systems** project is nearing completion, after a decade of providing health services to a target population of six million. Working with the Ministry of Health, the project established urban health centers that have extended outreach in low-income areas of Cairo, offering a full range of child survival services, including the treatment of acute respiratory infections. The project also assists in water and sanitation activities.

•**Suez Community Health Personnel Training** established the first community medicine program in Egypt at Suez Canal University with technical support from Boston University. Last year, the second class of medical students completed their training at the Faculty of Medicine. The project also supports the development of community-based health facilities where medical students do rotations. Last year, 18 health facilities were completed and handed over to the Faculty of Medicine. The project also completed delivery of needed medical equipment and helped develop an information system.

•**Cost Recovery For Health,** a new project, supports a major initiative by the Government of Egypt to introduce cost recovery into the public health curative system, which currently consumes 60 percent of all public and private health care expenditures. The project will institute fees-for-service in 50 public hospitals, improve management and develop health insurance schemes, as well as expand private sector financing of individual, group and prepaid health care plans.

USAID/WASHINGTON SUPPORT

Bureau for Science and Technology Support

Short-term technical assistance was reported by the following:

•**AIDSTECH** sponsored participation in a worldwide AIDS conference.

•**Improvement of Maternal/Infant Diet** in lactation management training through Wellstart/San Diego Lactation Program.

•**VBC** (Vector Biology and Control) in control of vector-borne diseases.

•**WASH** (Water and Sanitation for Health) in water and sanitation.

DATA NOTES

1) POPULATION AND OTHER DEMOGRAPHIC INDICATORS

Estimates of population and other demographic indicators are taken or derived from World Population Prospects: 1988, prepared by the Estimates and Projections Section of the Population Division of the Department of International Economic and Social Affairs, United Nations. That office prepares three different estimates, one based on a set of assumptions leading to a "low" projection; one to a "medium" projection; and one to a "high" projection. The figures presented in the graph are those of the "medium" projection.

The Total Fertility Rate is the average number of children a woman would bear during her lifetime given current age-specific fertility rates.

2) MORTALITY RATES

The Infant Mortality Rate is the estimated number of deaths in infants (children under 1) in a given year per 1,000 live births in that same year. Estimates and projections of Infant Mortality Rates are taken from World Population Prospects: 1988, prepared by the Estimates and Projections Section of the Population Division of the Department of International Economic and Social Affairs, United Nations.

Although acknowledged as one of the best indicators of "development", the infant mortality rate is one of the more difficult to calculate. One problem inherent in the definition of the indicator is the fact that some portion of the deaths in the given year are occurring among children born in the previous year; that is the numerator of the indicator is determined in a different cohort of children than is the denominator. Estimates are generally made for a three or five year period to minimize the effects of this inherent weakness. For this reason, efforts to observe annual trends in this indicator should be avoided.

A term lacking a generally accepted definition, the Child Mortality Rate is the probability of a child who has survived to age 1 dying between the ages 1 and 5 (sometimes written as 4q1). In the accompanying chart, rather than expressing the rate as a probability, it is expressed as the number of children per 1,000 who survive to age 1 who ultimately die before reaching age 5. Estimates of the Child Mortality Rate are taken from Mortality of children under age 5: World Estimates and Projections, 1950-2025, Population Studies No. 105, Department of International Economic and Social Affairs, ST/ESA/SER.A/105.

3) VACCINATION COVERAGE RATES

Vaccination coverage is defined as the proportion of living children between 12 and 23 months of age who have been vaccinated, before their first birthday: three times in the cases of polio and DPT and once in the cases of Measles and BCG. The primary source of national vaccination coverage rates is the World Health Organization Expanded Programme on Immunization Report EPI/MISC/89.2. Reported coverage rates are for 1987.

Most frequently, WHO derives its estimates by first calculating the denominator of the above proportion by estimating the population in a country which survives the first year of life. The numerator, or number of children vaccinated, is determined from routine reports within the country. These estimates may or may not conform strictly to the above definition, depending on the degree to which routine reporting systems distinguish children vaccinated by 12 months of age from those vaccinated later in life. Where cluster surveys of children are carried out, WHO reports the coverage as determined by those surveys. These surveys generally sample 30 clusters of 7 children between the ages of 12 and 23 months of age. Estimates derived from such surveys may or may not distinguish among children vaccinated before their first birthdays and those vaccinated after.

The DHS estimates of vaccination coverage are predicated on only those children whose mothers have a vaccination card. One can only guess at the coverage among those children without cards; therefore, both a maximum possible and a minimum possible figure have been calculated and appended to the graphs.

4) ORS ACCESS AND ORT USE RATES

The ORS Access Rate is the estimated proportion of the population under age 5 with reasonable access to a trained provider of ORS who receives adequate supplies. The ORT Use Rate is the proportion of all cases of diarrhea in children under age 5 treated with ORS and/or a recommended home fluid. The primary source of information regarding these indicators is the World Health Organization Programme for the Control of Diarrheal Disease.

ORS Access is an extremely difficult indicator to measure consistently, either over time or across countries. In a recent informal communication with WHO, it was noted that the widely fluctuating access rates in some countries, particularly those where access is reported to be declining, reflects the improving capacity to measure this indicator rather than any "real" underlying trend.

The ORT Use Rate is rarely estimated directly. Estimates derived from routine reporting systems begin with an estimate of the number of cases of diarrhea afflicting the under 5 population derived from population estimates and assumed diarrhea incidence rates in children. Combined with knowledge of the quantity of ORS available, estimates of ORT Use can be derived. An alternative method of determining a value for this indicator is through surveys. Generally, surveys determine the proportion of cases occurring during the two weeks preceding the survey treated with ORT. As more and more surveys are completed worldwide, greater knowledge regarding the use of home solutions should become available.

The source for Egypt's ORT Use Rate is the 7th CDD Program Report to WHO for 1987.

5) CONTRACEPTIVE PREVALENCE

The Contraceptive Prevalence Rate is the percent of women aged 15-44 years, or in some countries, 15-49 years, in union or married, currently using a modern method of contraception. The Contraceptive Prevalence Rate for Egypt is derived from distribution statistics in 1988 as reported in mission cable 00396.

Summary of Demographic and Child Survival Data for Egypt

Center for International Health Information/ISTI, 9/8/89

Population Size (000)*	**1950**	**1955**	**1960**	**1965**	**1970**	**1975**	**1980**	**1985**	**1990**	**1995**	**2000**
Total POP/UN/1988	20,330	22,990	25,922	29,389	33,053	36,289	41,520	47,578	54,060	60,470	66,710
Total POP/BUCEN	21,198	#n/a	#n/a	#n/a	33,574	#n/a	42,239	49,133	56,219	63,557	71,169
<5 /POP/UN/1988								7,778	8,204	8,115	7,948
<5 POP/BUCEN							7,589	8,319	8,860	9,149	9,459

Infant Mortality Rate	**1950-55**	**1955-60**	**1960-65**	**1965-70**	**1970-75**	**1975-80**	**1980-85**	**1985-90**	**1990-95**	**1995-2000**
IMR/UN/1988	200	183	175	170	150	120	100	85	71	58
IMR/UN/#105	200	183	175	170	150	120	100	85	71	58

Child Mortality Rate										
CMR/UN/#105	188	155	139	133	106	75	54	42	32	22

Total Fertility Rate										
TFR/UN 1988	6.6	7.0	7.1	6.6	5.5	5.3	5.3	4.8	4.2	3.6

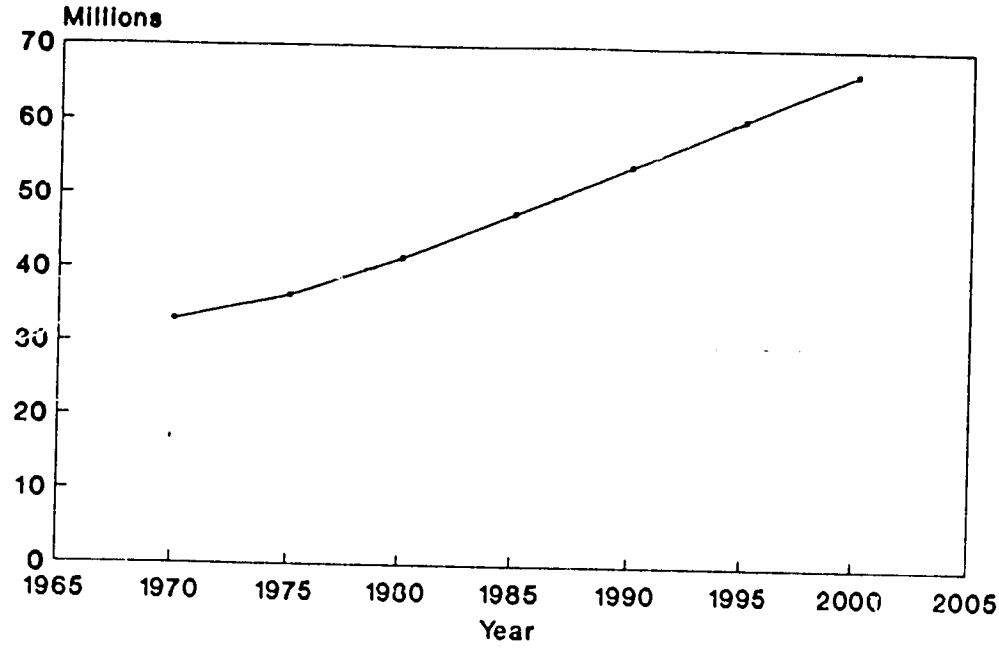
ORS Access and ORT use WHO/CDD/1989	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**
ORS Access	#n/a	50	80	81	87	98
ORT Usage Rate	#n/a	#n/a	#n/a	50	61**	67**

Vaccination Coverage WHO/EPI/1989	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**
BCG	71	74	#n/a	#n/a	84	77	72
DPT3	82	83	#n/a	#n/a	95	80	81
Polio3	84	81	#n/a	#n/a	95	79	81
Measles	65	69	#n/a	#n/a	74	78	76
Tetanus2	10	12	#n/a	#n/a	8	9	12

* Data for population size illustrates the degree of agreement between different data sources for the same variables.
**See data notes page 4.

UN 1988: United Nations. WORLD POPULATION PROSPECTS: 1988. New York: United Nations. 1988.
BUCEN/1987: U.S. Department of Commerce, Bureau of the Census. WORLD POPULATION PROFILE: 1987. Washington, D.C.: U.S. Government Printing Office. 1987.
UN #105: United Nations. MORTALITY OF CHILDREN UNDER AGE FIVE: WORLD ESTIMATES AND PROJECTIONS, 1950-2025. ST/ESA/SER.A/105. Population Studies No. 105. New York.

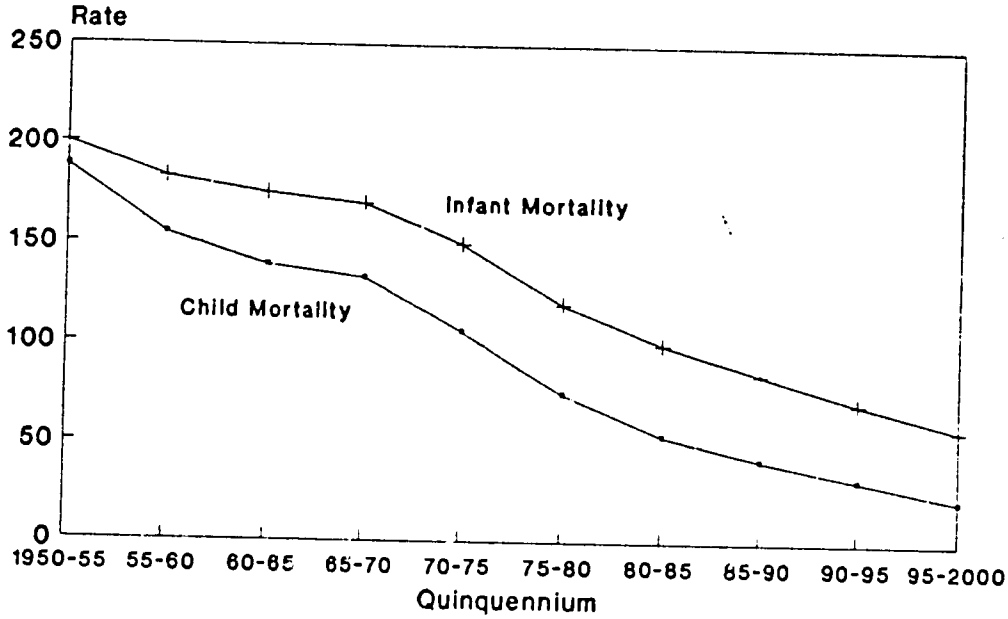
POPULATION ESTIMATES
EGYPT



Source: United Nations,
World Population Prospects, 1988

CIHI, ISTI, 7/1/89

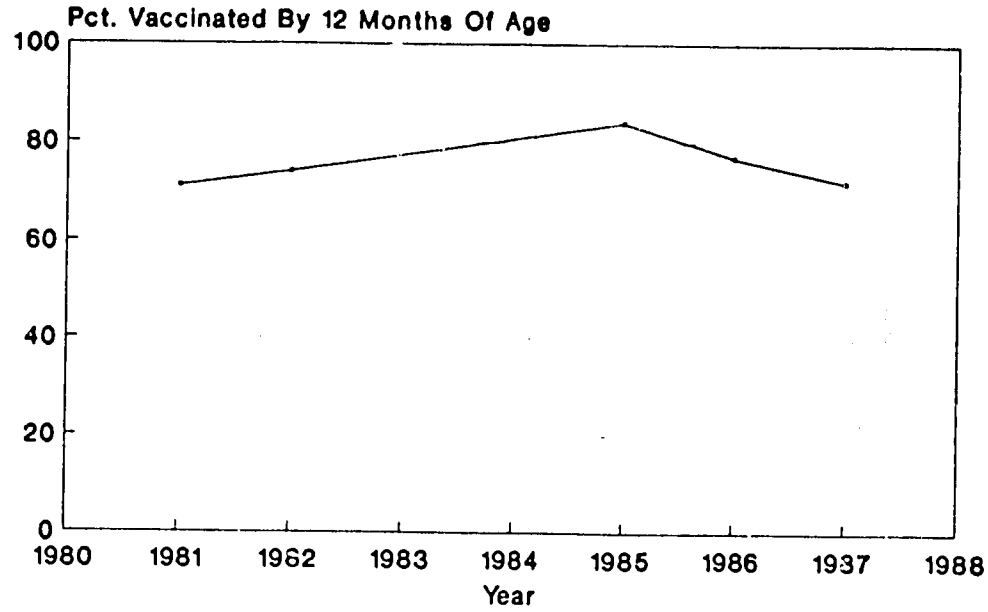
ESTIMATES OF INFANT AND CHILD MORTALITY RATES IN EGYPT



Source: United Nations, 1988
1) World Population Prospects, and
2) Mortality of Children Under Age 5

CIHI, ISTI, 7/1/89

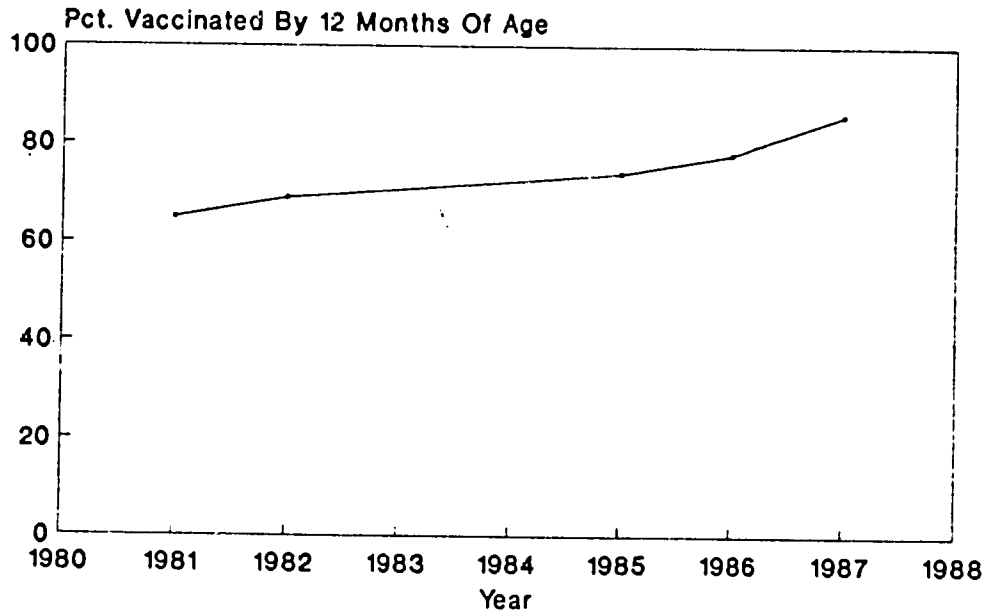
BCG VACCINATION COVERAGE RATES IN EGYPT



Source:
World Health Organization
Report EPI/MISC/89.2

Center For International Health Information, ISTI, 7/1/89

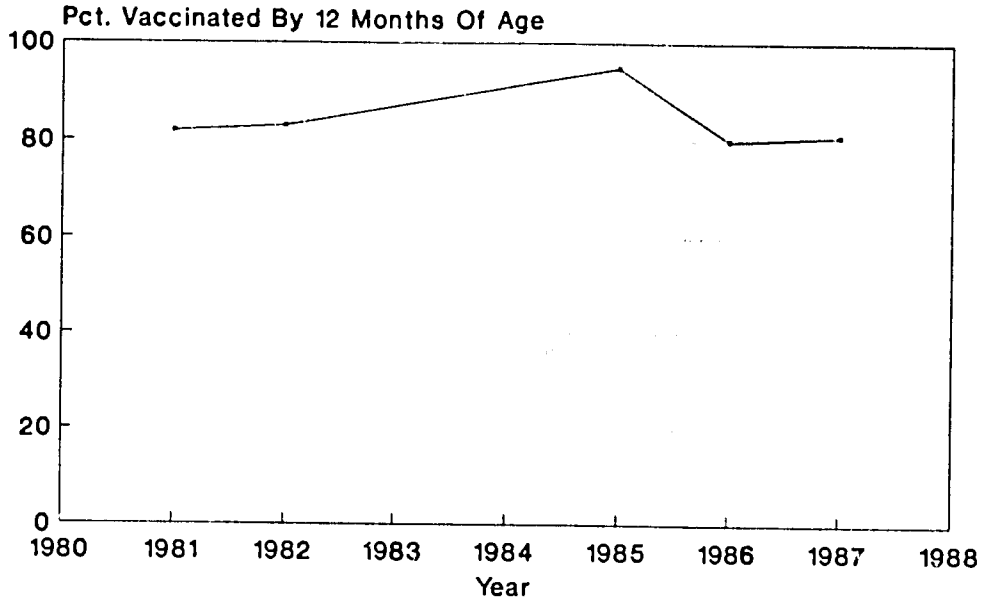
MEASLES VACCINATION COVERAGE RATES IN EGYPT



Source:
World Health Organization
Report EPI/MISC/89.2

Center For International Health Information, ISTI, 7/1/89

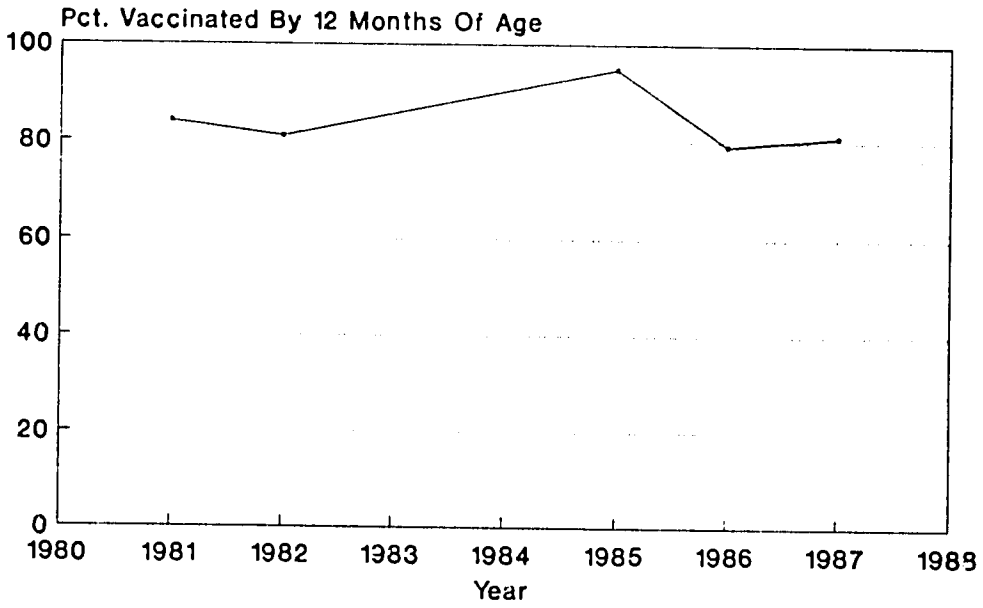
DPT III VACCINATION COVERAGE RATES IN EGYPT



Source:
World Health Oganization
Report EPI/MISC/89.2

Center For International Health Information, ISTI, 7/1/89

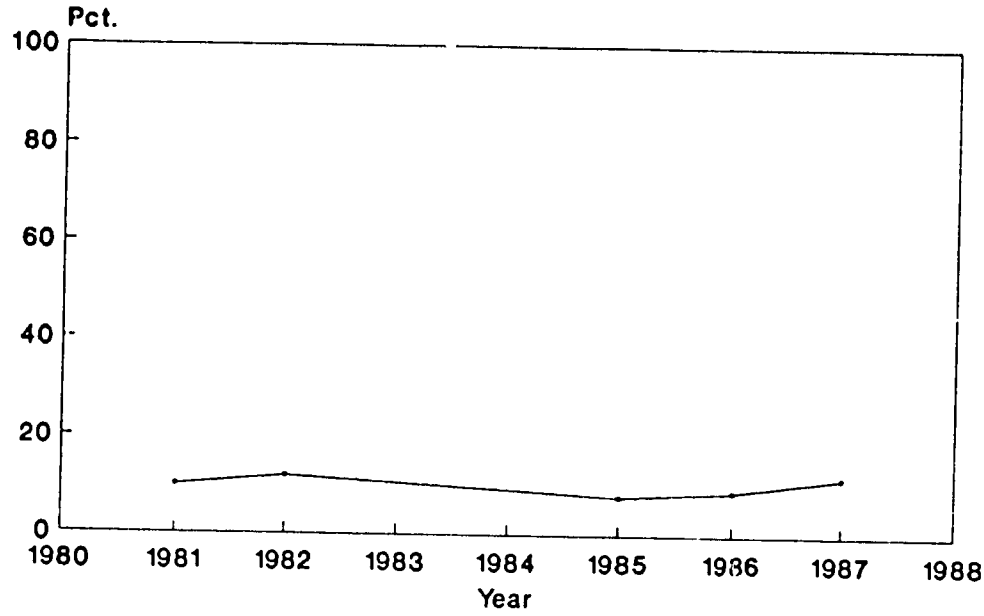
POLIO III VACCINATION COVERAGE RATES IN EGYPT



Source:
World Health Organization
Report EPI/MISC/89.2

Center For International Health Information, ISTI, 7/1/89

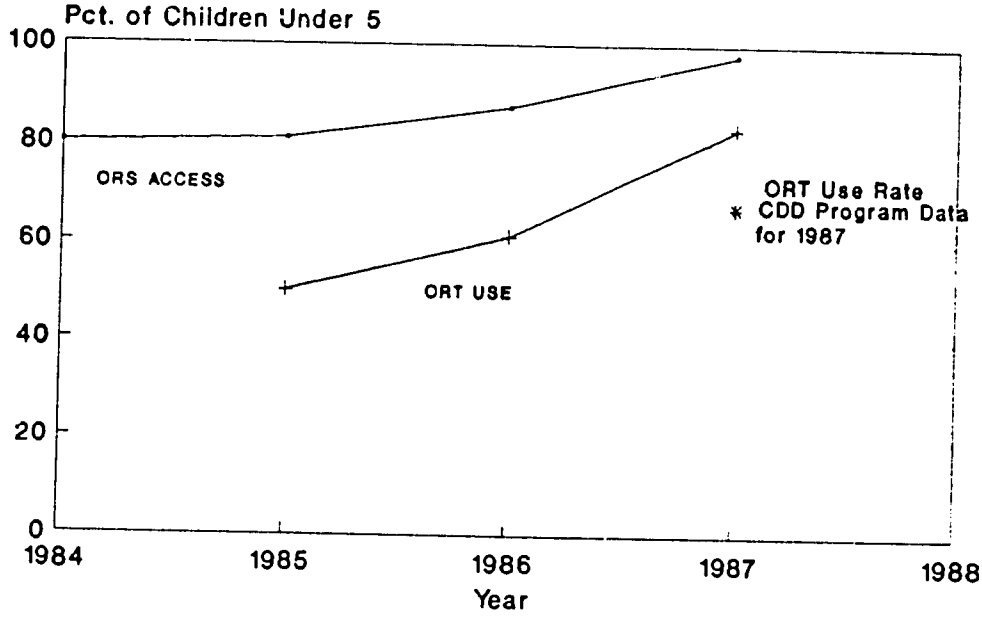
TETANUS II VACCINATION COVERAGE RATES IN PREGNANT WOMEN IN EGYPT



Source:
World Health Organization
Report EPI/MISC/89.2

Center For International Health Information, ISTI, 7/1/89

ORS ACCESS AND ORT USE RATES IN EGYPT

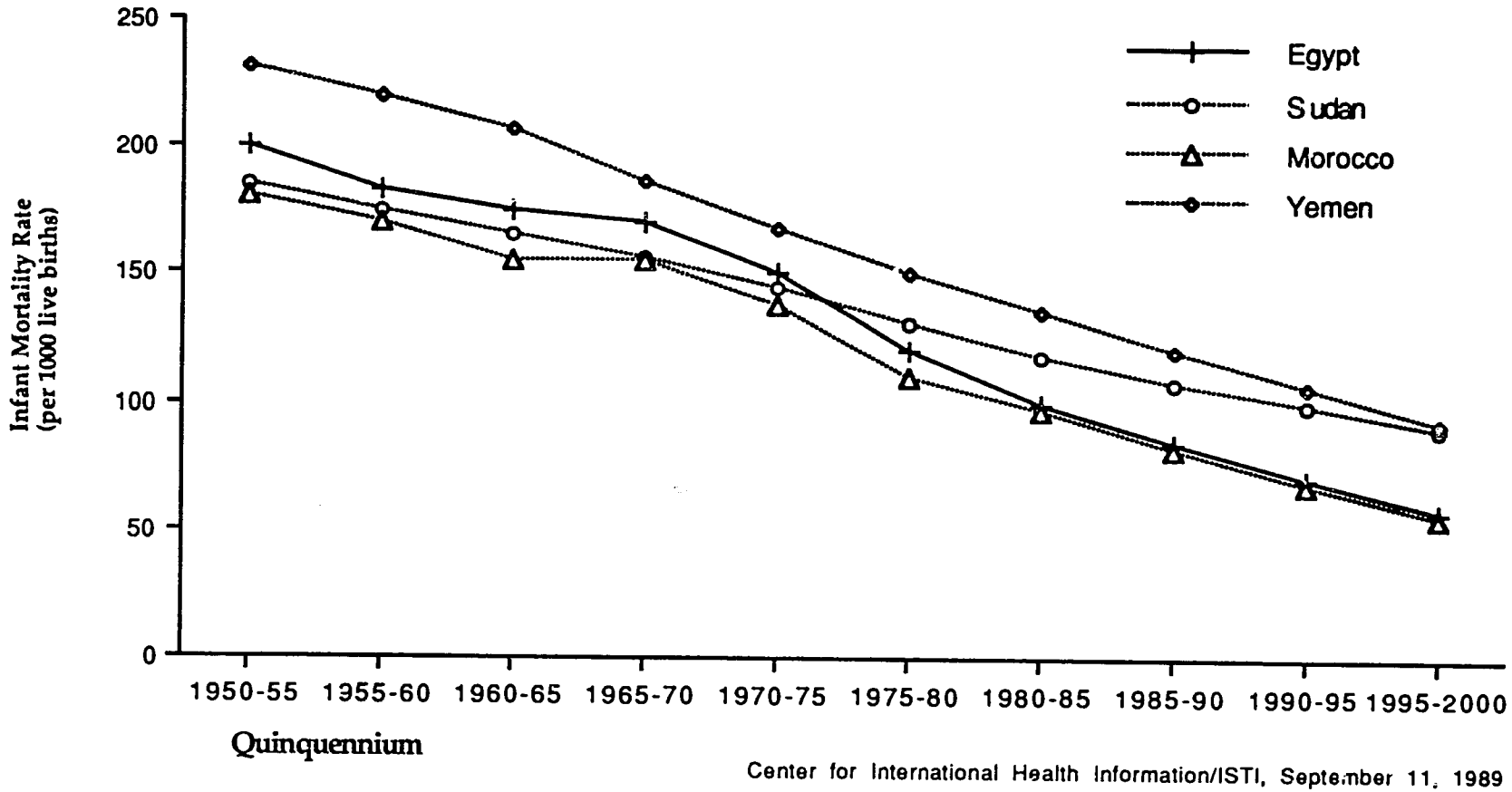


SOURCE: World Health Organization,
Annual Reports of the Program for
Control of Diarrhoeal Diseases

CIHI/ISTI, 6/1/89

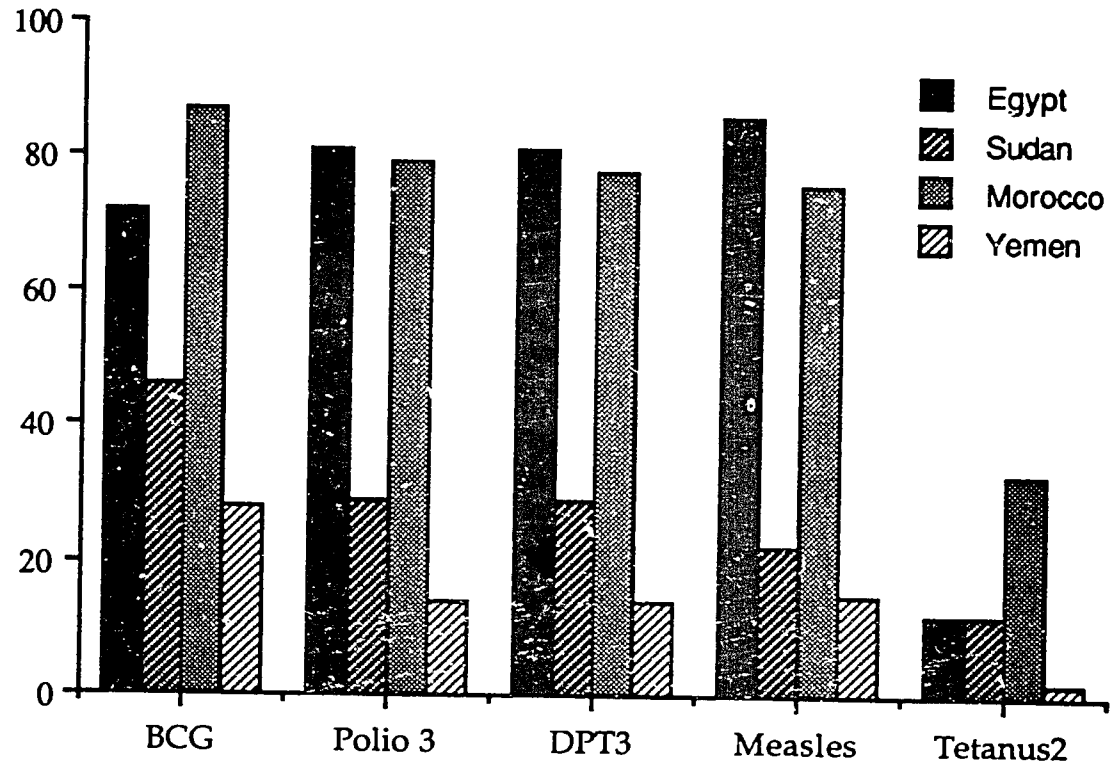
ESTIMATES OF INFANT MORTAILITY RATES - EGYPT AND SELECTED COUNTRIES

Source: United Nations, World Population Prospectives, 1988



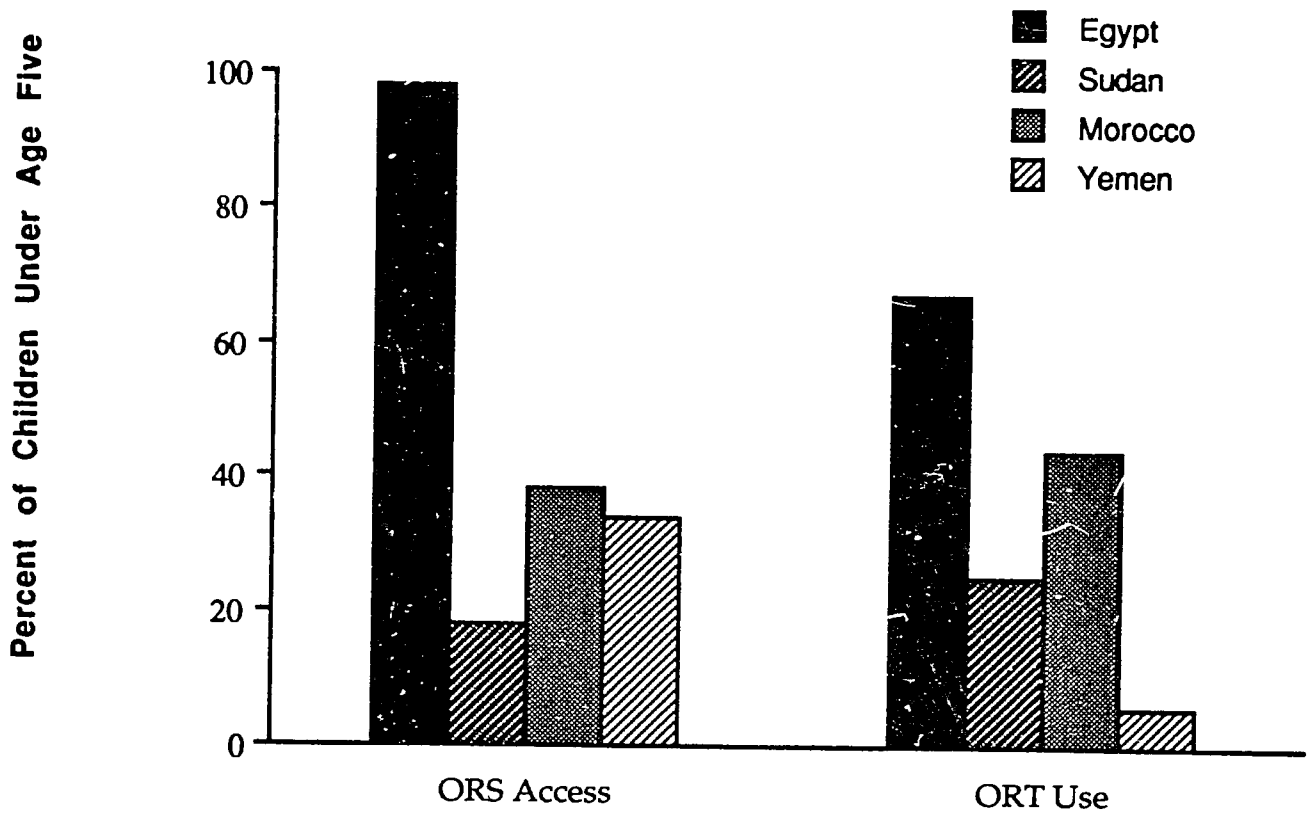
1987 VACCINATION COVERAGE DATA: EGYPT AND SELECTED COUNTRIES

Source: World Health Organization EPI Report/MISC/88.7



Center for International Health Information/ISTI, September 11, 1989

1987 ORS ACCESS AND ORT USE RATES
EGYPT AND SELECTED COUNTRIES



Center for International Health Information/ISTI. September 11, 1989

12

FUNDING FOR HEALTH AND CHILD SURVIVAL IN EGYPT
Economic Support Funds
($ thousands)

TITLE	PROJECT NUMBER	BEGINNG YEAR	PACD	TOTAL	FY85	FY86	FY87	FY88*	FY89*	FY9
Strengthen. Health Del. Sys.	2630015	76	5/10/86	14,900						
Suez Community Health. Train.	2630136	80	7/31/87	17,100	5,100	2,500				
Urban Health Delivery Systems	2630065	79	7/31/86	45,553	8,300					
Control of Diarrheal Diseases	2630137	81	9/30/90	36,000			10,000			
Cost Recovery Program for Health	2630170	88	8/30/96	95,000				10,000	15,000	15,0
Child Survival	2630203	85	9/30/93	54,942	3,000	15,000	8,000		10,000	5,0
Basic Health Services	2630218	90		60,000						5,0
		TOTAL		445,345	16,400	15,000	18,000	10,000	25,000	25,0

*Fy 90 Congressional Presentation Level Obligations

USAID Health Information System
Center for International Health Information, ISTI, September 1989

LISTING OF FUNDING FOR CHILD SURVIVAL IN EGYPT
Economic Support Fund

COUNTRY	TITLE	PROJECT NUMBER	FY85	FY86	FY87	*FY88	*FY89	*FY90
Egypt	Urban Health Delivery Systems	2630065	1577	0	0	0	0	0
Egypt	Control of Diarrheal Diseases	2630137	0	0	10000	0	0	0
Egypt	Cost Recovery Program for Health	2630170	0	0	0	1000	1500	1500
Egypt	Child Survival	2630203	2724	13620	8000	0	10000	5000
Egypt	Basic Health Services	2630218	0	0	0	0	0	250
TOTAL			4301	13620	18000	1000	11500	6750

*90CP Level Obligations