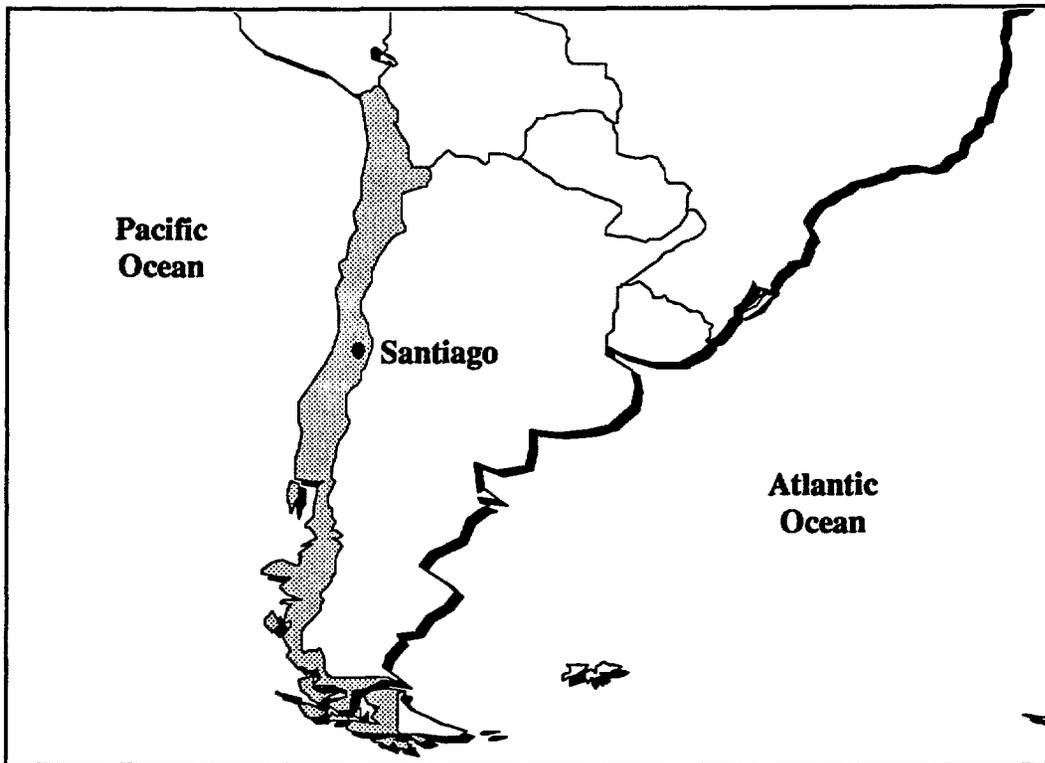

Chile

USAID Health Profile

Abbreviated Version

October 1992



Center for International Health Information/ISTI

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The Center for International Health Information, a division of ISTI, operates the USAID Health Information System under the Child Survival Action Program-Support project, #936-5951.13, contract number DPE 5951-Z-00-8004-00 with the Office of Health, Bureau for Research and Development, U.S. Agency for International Development.

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CHILE

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This is one of a series of USAID Health Profiles published by ISTI's Center for International Health Information (CIHI). Each Health Profile contains a collection of tables, graphs and summary descriptions about the health and demographic conditions and activities in a country, including descriptions of USAID-supported activities in that country when available. While some of the information comes from the Center's databases, succinct reports from other publications are also included when available.

The USAID Health Profiles are intended to provide current and trend data in a concise format to evaluation teams, consultants and other interested individuals. They are not intended to provide a comprehensive description of the total health sector of a country. Contact the Center for information on the availability of other Health Profiles and Standard Reports.

This profile contains national level health and demographic statistics available in the Center's databases as of the above date. In order to enable the Center to report the most current health and demographic statistics, please provide any more recent or more accurate data by contacting us at the address below or through USAID, Bureau of Research and Development, Office of Health.



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CHILE
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August, 1992

USAID HEALTH INFORMATION SYSTEM
 Managed By The
 CENTER FOR INTERNATIONAL HEALTH INFORMATION/ISTI

CHILE

	Value	Year	Source
<u>Demographic Indicators</u>			
Total Population	13,598,900	1992	A
Infant Mortality Rate	19	1992	A
Under 5 Mortality	23	1992	B
Maternal Mortality	N/A		
Life Expectancy At Birth	72	1992	A
Children Under Age 1	304,600	1992	A
Annual Infant Deaths	5,900	1992	A
Total Fertility Rate	2.7	1992	A
<u>Child Survival Indicators</u>			
Vaccination Coverage			
BCG	90.0%	1991	C
DPT 3	91.0%	1991	C
Measles	93.0%	1991	C
Polio 3	91.0%	1991	C
Tetanus 2	N/A		
DPT Drop Out	N/A		
Oral Rehydration Therapy			
ORS Access Rate	10.0%	1989	D
ORT Use Rate	1.0%	1988	E
Contraceptive Prevalence			
Modern Methods	N/A		
All Methods	N/A		
Nutrition			
Adequate Nutritional Status	96.3%	1986	F
Appropriate Infant Feeding	N/A		
a) Exclusive Breastfeeding	N/A		
b) Complementary Feeding	N/A		
Continued Breastfeeding	N/A		
<u>Other Health Indicators</u>			
HIV-1 Seroprevalence			
Urban	N/A		
Rural	N/A		
Access To Improved Water			
Urban	100.0%	1990	G
Rural	85.0%	1990	G
Access To Sanitation			
Urban	100.0%	1990	G
Rural	6.0%	1988	G
Deliveries/ Trained Attendants	N/A		

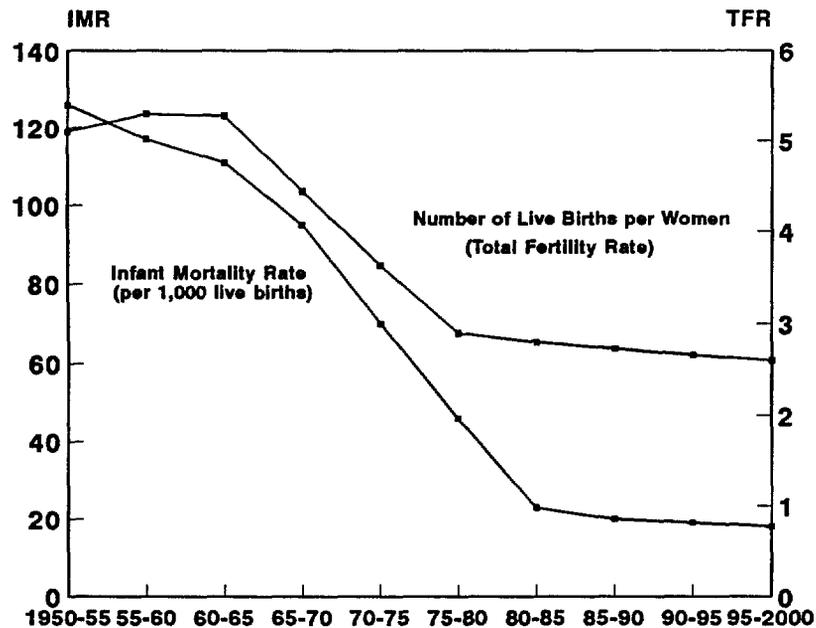
SOURCES FOR CHILE

- A Department of International Economic and Social Affairs, United Nations. World Population Prospects 1990. (ST/ESA/SER.A/120) New York: UN, 1991.
- B Department of International Economic and Social Affairs, United Nations. Mortality of children under age five: World Estimates and Projections, 1950-2025. (ST/ESA/SER.A/105) New York: United Nations, 1988.
- C World Health Organization. Expanded Programme on Immunization Information System Report, April 1992. (WHO/EPI/CEIS/92.1) Geneva: WHO, 1992.
- D World Health Organization. Programme for Control of Diarrhoeal Diseases: Interim Programme Report 1990. (WHO/CDD/91.36) Geneva: WHO, 1991.
- E World Health Organization. Programme for Control of Diarrhoeal Diseases: Sixth Programme Report 1986-1987. (WHO/CDD/88.28) Geneva: WHO, 1988.
- F Ministerio de Salud, Republica de Chile, Dept. de Control y Evaluation. Estado Nutricional de la Poblacion en Control de Salud, 1986 as cited in WHO Anthropometry System, December 1989.
- G World Health Organization. World Health Organization Disk: Water Supply and Sanitation Service Coverage. Geneva: WHO, October 29, 1991.

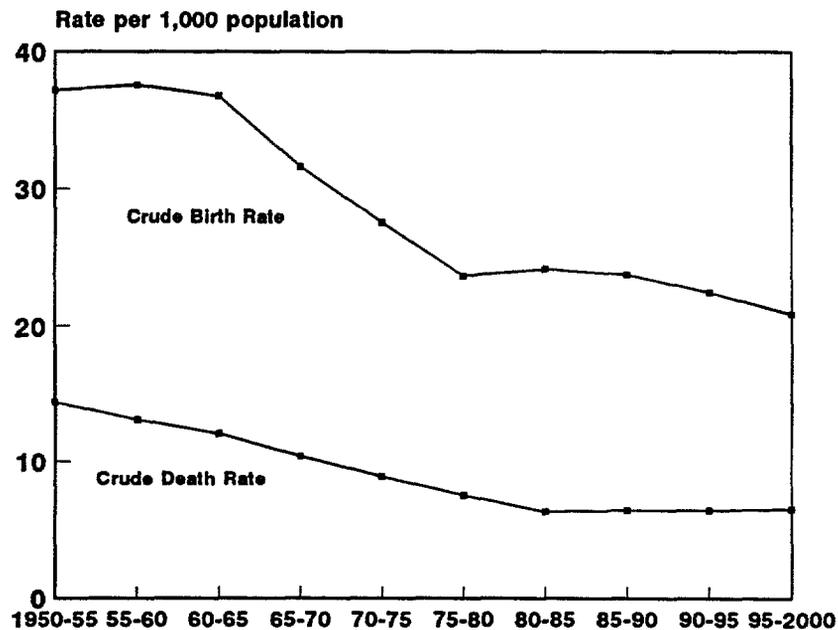
Trends: Selected Demographic Indicators
Chile: 1950-2000

	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000
Total Population (000)											
UN/POP/1990	6,082	6,776	7,614	8,579	9,504	10,350	11,145	12,122	13,173	14,237	15,272
BUCEN/1990	6,091		7,585		9,369		11,094		13,083		15,025
	1950-55	1955-60	1960-65	1965-70	1970-75	1975-80	1980-85	1985-90	1990-95	1995-00	
Infant Mortality Rate											
UN/POP/1990	126.0	117.0	111.0	95.0	70.0	46.0	23.0	20.0	19.0	18.0	
Under 5 Mortality Rate											
UN/POP/105	162.0	148.0	136.0	112.0	79.0	52.0	28.0	24.0	23.0	22.0	
Total Fertility Rate											
UN/POP/1990	5.1	5.3	5.3	4.4	3.6	2.9	2.8	2.7	2.7	2.6	
No. Of Births Per Year (000)											
UN/POP/1990	239	270	298	286	274	255	281	301	309	309	
Annual Infant Deaths (000)											
UN/POP/1990	92	95	98	94	88	80	74	81	88	96	
Crude Birth Rate											
UN/POP/1990	37.2	37.6	36.8	31.6	27.6	23.7	24.2	23.8	22.5	20.9	
Crude Death Rate											
UN/POP/1990	14.4	13.1	12.1	10.4	8.9	7.5	6.3	6.4	6.4	6.5	

The Demographic Transition in Chile 1990 - 2000

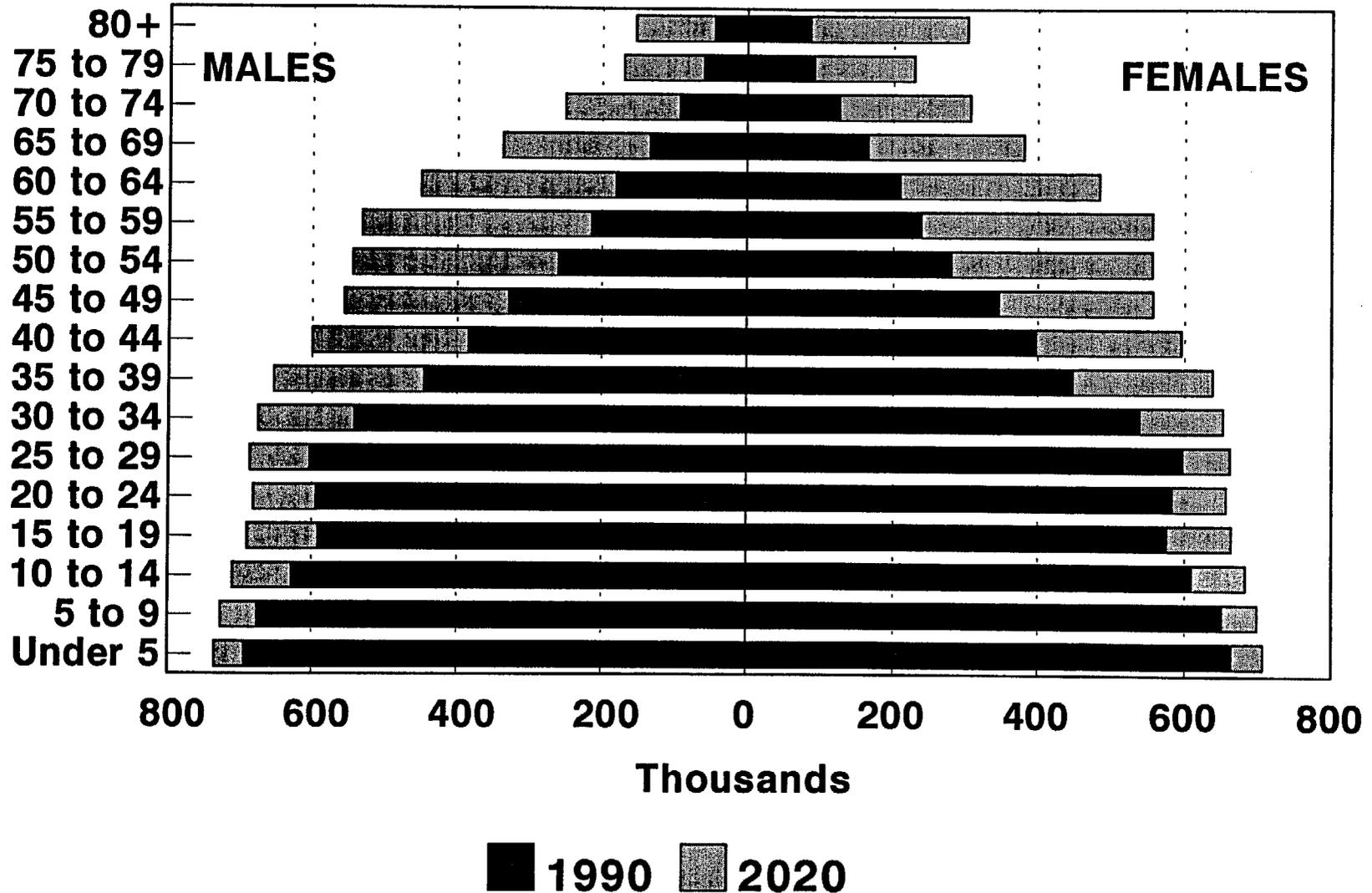


The relationship between IMR and TFR is currently a subject under review by the scientific community. While there is not conclusive evidence that the IMR and TFR are causally linked and necessarily decline together, there is empirical evidence for suspecting that such a reinforcing relationship exists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



Current and Projected Population by Age and Gender in Chile: 1990 - 2020

Total Population: FY 1990: 13,082,842; FY 2020: 18,484,228

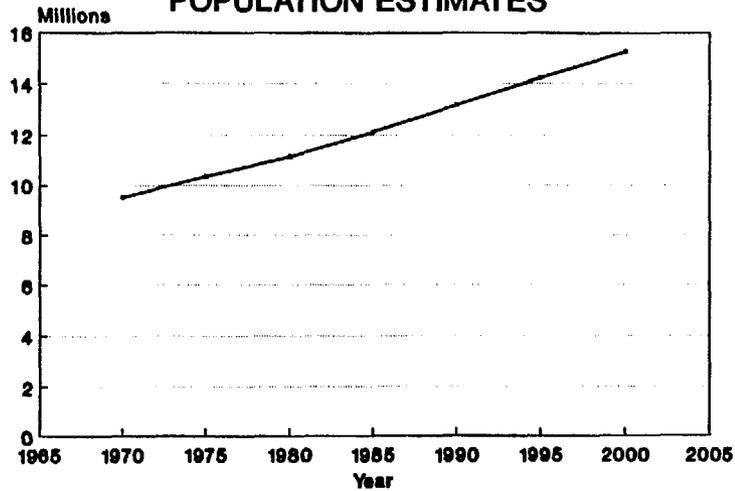


Trends: Selected Health and Child Survival Indicators
Chile: 1980-1991

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Vaccination Coverage												
WHO/EPI/CEIS 89-92												
a. BCG.....	--	--	--	--	--	92.0	99.0	97.0	98.0	99.0	97.0	90.0
b. DPT 3.....	--	--	--	--	--	91.0	92.0	93.0	96.0	94.0	99.0	91.0
c. Measles.....	--	--	--	--	--	92.0	91.0	92.0	95.0	89.0	98.0	93.0
d. Polio 3.....	--	--	--	--	--	89.0	86.0	95.0	96.0	94.0	99.0	91.0
e. Tetanus 2.....	--	--	--	--	--	--	--	--	--	--	--	--
ORS Access and ORT Use												
WHO/CDD/85-91												
a. ORS Access.....	--	--	--	--	--	7.9	.0	8.1	12.0	10.0	--	--
b. ORT Use.....	--	--	--	--	--	.8	.0	--	1.0	--	--	--
Contraceptive Prevalence (15-49)												
a. All Methods.....	--	--	--	--	--	--	--	--	--	--	--	--
b. Modern Methods.....	--	--	--	--	--	--	--	--	--	--	--	--
Nutrition and Infant Feeding												
Ministry of Health, 1986 cited WHO Anthrop. System												
a. Adequate Nutritional Status.....	--	--	--	--	--	--	96.3	--	--	--	--	--
b. Appropriate Infant Feeding.....	--	--	--	--	--	--	--	--	--	--	--	--
c. Exclusively Breastfed.....	--	--	--	--	--	--	--	--	--	--	--	--
d. Complementary Feeding.....	--	--	--	--	--	--	--	--	--	--	--	--
e. Continued Breastfeeding....	--	--	--	--	--	--	--	--	--	--	--	--
Water Supply Coverage (% Served)												
WHO Diskette, 10/91												
a. Urban Areas.....	100.0	--	--	100.0	--	98.0	--	--	100.0	--	100.0	--
b. Rural Areas.....	17.0	--	--	18.0	--	29.0	--	--	21.0	--	85.0	--
Adequate Sanitation Coverage (% Served)												
WHO Diskette, 10/91												
a. Urban Areas.....	100.0	--	--	100.0	--	100.0	--	--	100.0	--	100.0	--
b. Rural Areas.....	10.0	--	--	4.0	--	4.0	--	--	6.0	--	--	--

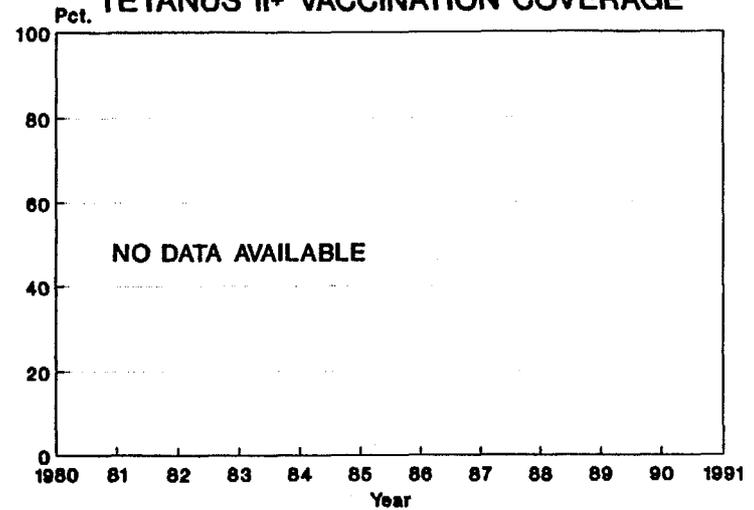
CHILE

POPULATION ESTIMATES

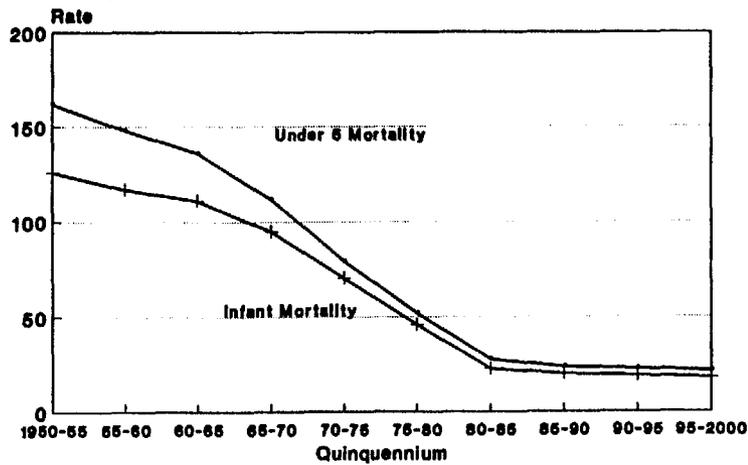


SOURCE: United Nations,
World Population Prospects, 1990

TETANUS II+ VACCINATION COVERAGE

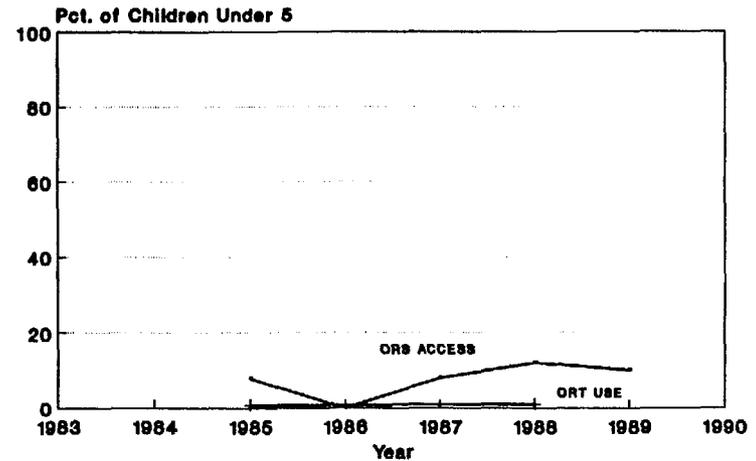


INFANT AND UNDER 5 MORTALITY RATES



SOURCE: United Nations;
1 World Population Prospects, '90, and
2 Mortality of Children Under Age 5 (89)

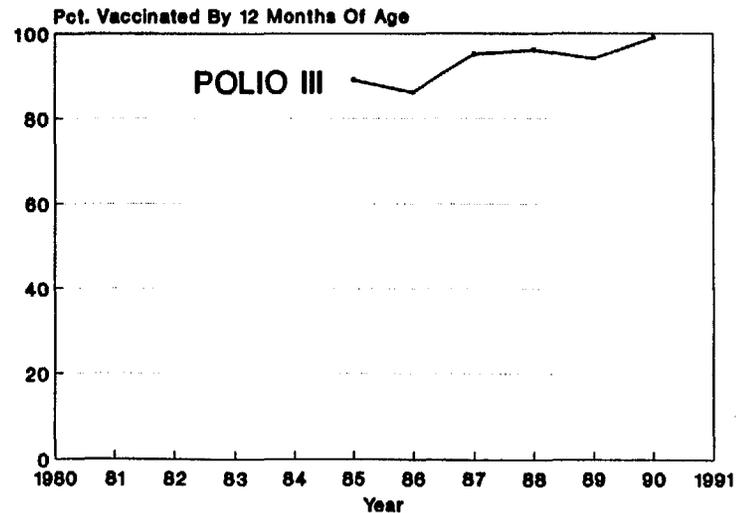
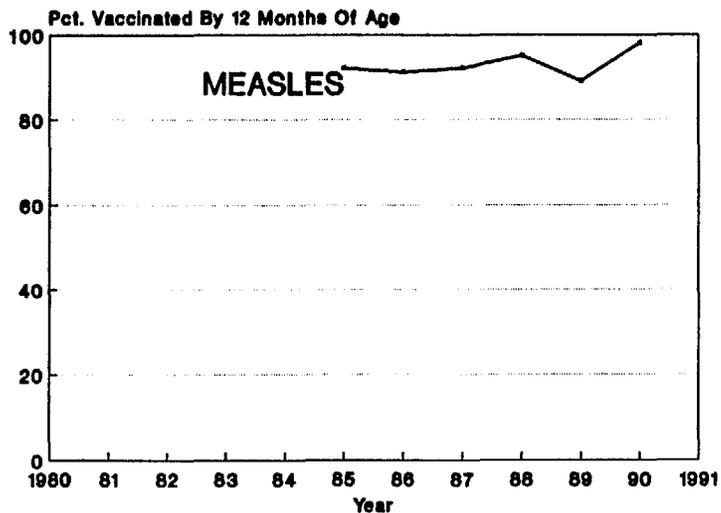
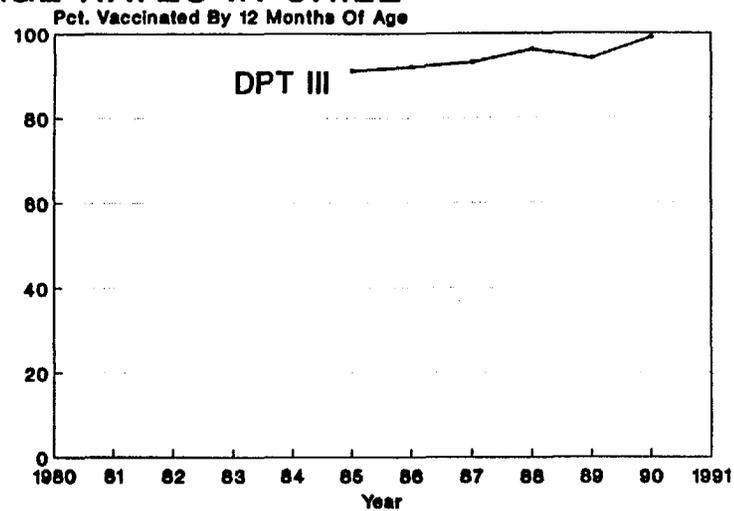
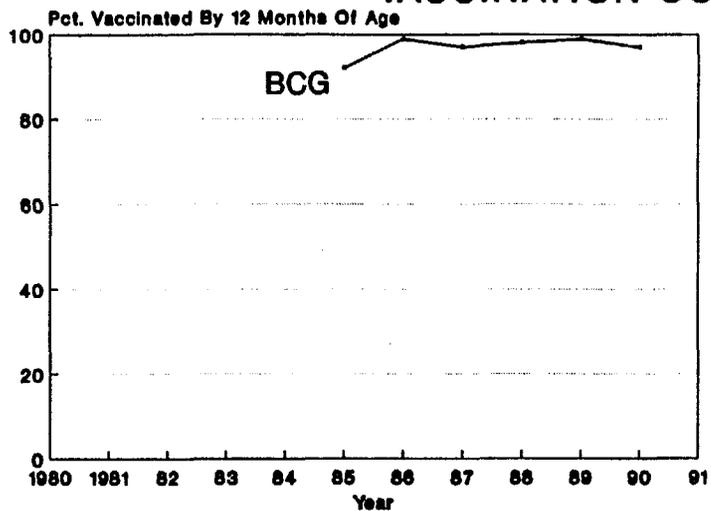
ORS ACCESS AND ORT USE RATES



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

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VACCINATION COVERAGE RATES IN CHILE



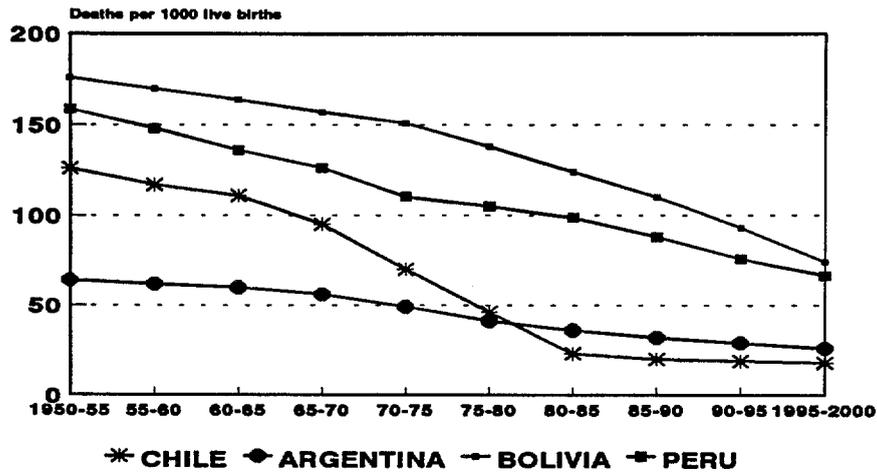
SOURCE: WHO, Annual Reports of the EPI Programme

CIHI, ISTI; 6/91

COMPARATIVE INDICATORS:

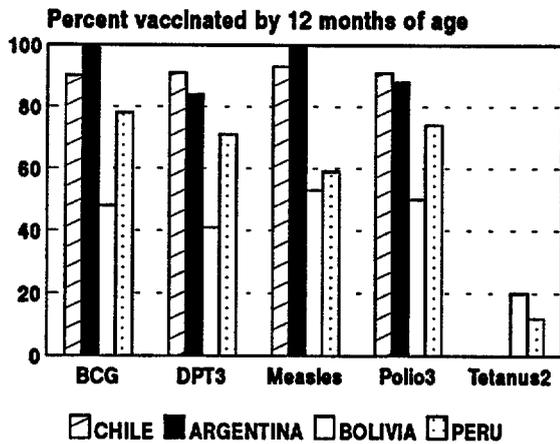
Chile and selected Neighbors

Infant Mortality Rates



Source: UN/POP/90

1991 Vaccination Coverage Data

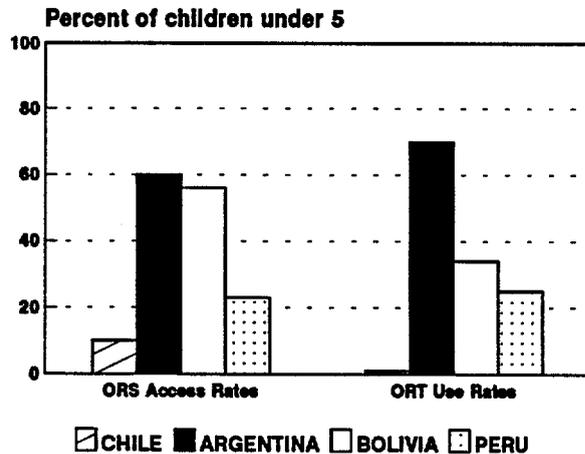


SOURCE: EPI/WHO

All rates for Bolivia are from 1990.

No Tetanus 2 rates for Chile or Argentina.

1991 ORS Access and ORT Use Rates



SOURCE: WHO/CDD

ORT use rate for Bolivia is from the 1989 Bolivia DHS. For Peru, ORS access rate is from 1988 & ORT use rate is from 1989. For Chile, ORS access rate is from 1989 and ORT use rate is from 1988.

CIHI, ISTI; 10/92

Projects: Bilateral, Regional and Centrally-Funded Projects

Timeline: USAID-Funded Activities Related to Health and Population in Chile FY 1980 to Present

This chart contains USAID-funded projects active since FY 1980 known to contain a health or child survival component. Some projects with a nutrition or population component may also be included. The beginning and ending fiscal years appear after the project title. Dollar amount for bilateral projects is the approximate total life-of-project (LOP) funds for the entire project and not an amount allocated to a specific component of the project. The centrally-funded LOP reflects the authorized LOP for Chile.

	Project Number	Fiscal Year															
		80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
Bilateral Projects																	
Immediate Improvement of Primary Health Care (Non Project Assistance) 1991 - 92* LOP \$10,800,000	513-0350																
Immediate Improvement of Primary Health Care 1991 - 91* LOP \$700,000	513-0351																
Regional Project																	
Accelerated Immunization 1988 - 90* LOP \$49,000	598-0643																

Other, usually short-term, health and nutrition projects known to have worked in Chile include:

AIDSTECH
 Applied Research and Child Survival Services
 Diarrheal Disease Control
 Maternal/Neonatal Health and Nutrition
 Women and Infant Nutrition

* Fiscal Year of Final Obligation

** Country-specific funding information is currently not available in the Center's Health Projects Database.

SOURCE: Center for International Health Information/ISTI, USAID Health Information System, May 1992.

DATA NOTES AND SOURCES

Demographic Indicators

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

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.

Children Under Age 1: The mid-year estimate of the total number of children under age one.

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

Infant Mortality Rate (IMR): The estimated number of deaths in infants (children under age one) in a given year per 1,000 live births in that same year. An IMR 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. The under 5 mortality 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).

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

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 (ORS) who receives adequate supplies. This is a particularly difficult indicator to measure; therefore, it may fluctuate dramatically from year to year as improved methods of estimation are devised.

ORT 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. Oral rehydration therapy (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.

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.

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.

The breastfeeding indicators listed below have been recalculated in 1992 from the original data sources according to the definitions developed by the WHO Working Group on Infant Feeding.

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 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.

Contraceptive Prevalence Rate: An estimate of the proportion of women, aged 15 through 44, union or married, currently using a modern method of contraception unless otherwise noted.

Vaccination Coverage in Children: An estimate of the proportion of living children between the ages of 12 and 23 months who were vaccinated before their first birthday -- three times in the cases of polio and DPT (diphtheria, pertussis and tetanus) and once for both measles and BCG (tuberculosis). Vaccination coverage rates are calculated in two ways. Administrative estimates are based on reports of the number of vaccines administered divided by an estimate of the pool of children eligible for vaccination. Survey estimates are based on sample surveys of children in the target age group and may or may not include children without vaccination cards whose mothers recall that their children had been vaccinated.

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. Currently under worldwide review, this indicator is being changed 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: 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.

Other Health Indicators

Urban Water Supply Coverage: 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.

Rural Water Supply Coverage: 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.

Urban Adequate Sanitation Supply Coverage: 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).

Rural Adequate Sanitation Coverage: 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).

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.

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

Sources and Comments

Each year, data on the child survival indicators are collected from USAID missions on the Mission Response Forms (referred to as MRF with the given year) disseminated along with the above mentioned questionnaires.

Another major source of information is the Demographic and Health Surveys (referred to as DHS with the year of the survey), Institute for Resource Development/Macro Systems, Inc.

Demographic Indicators - The primary, and unless otherwise noted, source for the demographic indicators is World Population Prospects: 1990 U.N. Tape #PRO206, (referred to as WPP) prepared by the Estimates and Projections Section of the Population Division of the Department of International Economic and Social Affairs, United Nations. The source for Under 5 Mortality data, unless otherwise noted, is Mortality of Children Under Age 5: World Estimates and Projections, 1950-2025, ST/ESA/SER.A/105, 1988 published by the same Section (also referred to as WPP).

Vaccination Coverage - The primary, and unless otherwise noted, sources for vaccination coverage data are the annual reports of the Expanded Programme on Immunization of WHO (referred to as WHO).

ORT - The primary, and unless otherwise noted, sources of data on ORT, both access and use, are the annual reports of the Diarrheal Disease Control Programme of WHO (referred to as WHO). An advanced copy of the indicators to be published in the next report was provided by that program. These data are provisional and subject to change.

Maternal Mortality and Deliveries by Trained Attendants - The primary, and unless otherwise noted, source of data on maternal mortality and on the percentage of deliveries performed by a trained attendant is the WHO Publication, *Maternal Mortality: A Global Factbook* (referred to as WHO/MCH/MSM/91.3.)

HIV/AIDS - All HIV seroprevalence data is drawn from the HIV/AIDS Surveillance Database, compiled by the Center for International Research, U.S. Department of Commerce Bureau of the Census. The reported prevalences are the results of the latest surveys in populations without special risk factors.

Water and Sanitation - Water and Sanitation data come primarily from two sources, a data diskette provided by the WHO (referred to as WHO Diskette, 10/29/91) and field reports of the USAID supported Water and Sanitation for Health project (referred to as WASH).

