



## *FINAL REPORT*

*Edited and produced by the  
Health Sector Assessment of El Salvador Project  
Funded by USAID, PAHO/WHO, World Bank, and the IDB.*

*May, 1994*

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*MATERNAL - CHILD  
HEALTH*

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*El Salvador*

*Health Sector Assessment*

*May, 1994*



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*May, 1994*

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## LIST OF ACRONYMS

ADD	Acute Diarrheal Disease
ADS	Salvadoran Demographic Association
APROCSAL	Community Promoter Association of El Salvador
APSISA	Health System Support
ARI	Acute Respiratory Infection
CALMA	Breast-feeding Support Center
CDC	Center for the Consumer's Defense
CEDRO	Control of Diarrheal Disease and Oral Rehydration
CELADE	Latin American Demographic Center
CENITEC	Center for Technological and Scientific Investigations
CISE	Health and Education Interinstitutional Committee
CISI	Child Survival Intersectorial Committee
CONAMUS	National Coordinator of Salvadoran Women
CORU	Community Oral Rehydration Units
CRR	Rural Nutrition Centers
DJC	Save the Children
EEC	European Economic Community
FESAL	Family Health National Survey
FIS	Fondo de Inversion Social
FP	Family Planning
FUNDEMUN	Salvadoran Foundation for Woman and Child Development
FUNDE	National Development Foundation
GAES	Economic and Social Advisory Group

IMR	Infant Mortality Rate
ISPM	Salvadoran Institute for the Protection of Minors
ISSS	Salvadoran Social Security Institute
LBW	Low birth weight
MASS	Metropolitan Area of San Salvador
MCD	Maternal-Child Department
MIPLAN	Ministry of Planning and Coordination of Economic and Social Development
MOH	Ministry of Health
NGO	Non-Governmental Organization
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PAHO	Panamerican Health Organization
PROCADES	Salvadoran Association of Promotion, Training and Development
PROSAMI	Maternal Health and Child Survival Project
PROVIDA	Salvadoran Humanitarian Assistance Association
PRSS	World Sector Rehabilitation Project
SNF	National Family Secretariat
STD	Sexually Transmitted Disease
UNICEF	United Nations International Children's Emergency Fund
UNFPA	United Nations Fund for Population Activities
USAID	U.S. Agency for International Development
WHO	World Health Organization
WFP	World Food Program

## ACKNOWLEDGMENTS

The author wishes to thank the Salvadoran health sector staff and officials who, aside from their own job duties, took time to guide and inform the author on maternal-child service status. Their assistance was essential for the completion of this study.

The officials of the Ministry of Health deserve special recognition for their assistance and participation in discussions regarding health services, thus helping to shape the final technical report.

In addition, the author thanks the officials of the various non-governmental organizations who work in favor of the most needy and who are always willing to work for their country.

To the representatives and collaborators of the different international agencies that made this exercise possible with their logistics support.

My colleagues for their experience and support, especially to Jaime Ayalde for his technical advisory and support, to Susan Kolodin for her unfailing support, and to Charles Lininger for his guidance.

A special recognition to Alfredo J. Solari, Head of the ANSAL Project, for his leadership and support.

Finally, I am grateful to the editing team headed by Aida Polío and the secretarial pool for their unfailing support.

## INTRODUCTION

This technical report attempts to address all maternal-child health concerns within the Health Sector Analysis of El Salvador (ANSAL), including social aspects. Maternal-child care in El Salvador status is presented as thoroughly as possible through the analysis of available information to propose alternative solutions in accordance with the country's reality.

Characteristics of the Salvadoran population demand that maternal-child health be given priority. According to the last population census, 52 percent of all inhabitants are women and 12.9 percent of the total population is under 5 years. Of the total female population, 44.97 percent are women of fertile age (15 to 44 years) (1,181,068). If children under 5 years of age are added, 36.3 percent of the Salvadoran population are in this group.

Maternal-child health indicators highlight the importance of increased attention toward this group. The Ministry of Health (MOH) reports an intrainstitutional maternal mortality rate of 13.8/10,000 live births. Deliveries attended in hospitals are 51% nationwide. Prenatal care does not exceed 25%. Infant mortality is estimated at 45-55/1,000 live births (UNICEF reports 52/1,000 live births in the first months of 1994); about half of those deaths occur in the perinatal period. Perinatal deaths are significantly understated.

According to ANSAL's data<sup>1</sup>, approximately half the population is under the poverty line, thus affecting the health status of groups who live in urban marginal or remote rural areas with little access to health services and who depend on the services provided by the MOH or NGOs as they cannot afford private services. Providers of maternal-child care services face the challenge of rendering quality and timely services to this group.

### *OBJECTIVES*

The objectives of the maternal-child health analysis are framed within the *health sector Assessment of El Salvador Project's* general objectives and guidelines.

#### *General Objective*

Determine the status of maternal-child health in El Salvador through the analysis of available information and to propose alternative solutions according to the country's situation and reality.

#### *Specific Objectives*

- Identify strengths, weaknesses, inconsistencies and vacuums in regulations and policies regarding maternal-child care.
- Identify logistic benefits and problems within the different maternal-child components.
- Identify strengths, weaknesses or vacuums in supervision, training, health education and information areas regarding maternal-child care.

*Strategies*

- Coordinate data collection, interviews and visits with ANSAL consultants.
- Include complementary studies relevant to maternal-child health into the *Maternal-Child Health* technical report.
- Interview various public sector institutional counterparts.
- Interview representatives of international agencies, NGOs, and other entities involved in the areas of interest.
- Review epidemiological data, statistics, regulations and policies regarding health.
- Visit the different health regions and the various levels of care of organizations interviewed.

*METHODOLOGY*

The first stage was carried out from October 4 to November 19, 1993 and included the research and the writing of the draft report. Methods used included: field visits, document reviews and interviews.

A review of documents provided by the MOH; MIPLAN; USAID/El Salvador; and NGOs and others provided by health advisors in the country.

Persons interviewed included officials of the MOH, ISSS, ISPM, and representatives of PAHO/INCAP, EEC, UNICEF, ADS, PROSAMI, CISI, Knapp Foundation, CARITAS, FUSAL, and Save the Children (see Annex 9).

The following MOH's facilities were visited: Ilobasco Health Center; the Santa Gertrudis Hospital, San Vicente; Francisco Menéndez Hospital, Ahuachapán; Chalchuapa Health Center; Atiquizaya Health Unit; Berlin Health Unit; Eastern Region in San Miguel; the Benjamin Bloom National Children's Hospital; and the Maternity Hospital.

Communities with NGO projects were visited as follows: La Palma, San Ignacio and Los Planes de Citalá in the Departments of Chalatenango and La Libertad with the Knapp Foundation; El Triunfo in San Salvador with the Salvadoran Demographic Association and Save the Children; and San Martin and Las Lomas with Save the Children.

Given the enormous amount of recent information available on maternal-child health in El Salvador, it was not deemed necessary to carry out a special study to collect data from primary sources.

This report was complemented with five studies on: breast-feeding, family planning, nutrition, water and sanitation, and HIV/AIDS/STDs.<sup>2</sup>

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<sup>2</sup> *Assessment of HIV/AIDS and STD*, Paula Hollerbach et al; *El Salvador's Breastfeeding Status Assessment*, Herberth Betancourt et al.; *Family Planning Assessment*, Charles A. Lininger; *Nutrition Assessment*, Fernando Vio; *Water and Sanitation Status*, Eladio Prado et al. For further information refer to these complementary reports. These documents are available at the ANSAL's offices in El Salvador, AID Mission in El Salvador or funding agencies.

The second consulting stage was developed from February 1 to 25, 1994. A highly participatory consultation program was developed through a series of meetings in which the contents of the draft report were revised. Representatives of the health sector and the Salvadoran community (public and private sectors, NGOs, politicians, etc.) attended, enriching the contents of the final report with valuable suggestions and comments. A summary of these meetings is presented in Annex 8.

Five Priority Topic Areas regarding maternal-child health were defined during these meetings and the critical issues and recommendations which resulted are presented in Chapter XI.

## EXECUTIVE SUMMARY

There is a wide variety of providers within El Salvador's maternal-child health area. The most important ones are the Ministry of Health (MOH), the Salvadoran Social Security Institute (ISSS), and non-governmental organizations (NGOs).

There are many NGOs working in health care. Several of them are grouped into two umbrella institutions: the Child Survival Intersectorial Committee (CISI) and the Maternal Health and Child Survival Project (PROSAMI).

The maternal-child group accounts for 36.3% of the Salvadoran population.

It is recommended that the MOH strengthen maternal-child care policies by making them specific and disseminating them widely. In order to establish and achieve common objectives, the participation of all institutions and organizations working actively in the health sector is necessary. To this end, it is necessary that the MOH assume the role of the coordinating body to enforce standards and criteria.

The 1972 regulatory scheme was updated in 1991 by the MOH but it is only applied within this Ministry. Nevertheless, the majority of service providers are currently using it and the MOH is recommending the regulatory scheme be updated. This effort could be strengthened with the creation of an interinstitutional commission under the superior council of public health to adapt the scheme with the participation of various health sector representatives.

Vital statistics are generally unreliable; the MOH parallel data systems have not been standardized. Epidemiological information must be strengthened to be useful in management decision making. The whole national statistics and MOH systems must be strengthened. Better coordination within the MOH is basic for achieving greater efficiency.

Inpatient maternal mortality at the MOH reached 11.9/10,000 in 1993, and 1.5/10,000 at the ISSS. The country lacks recent maternal mortality data; nevertheless, in a study covering the 1983-1987 period, maternal mortality was estimated at 14.8/10,000. The major causes of maternal mortality are bleeding, eclampsia and sepsis. In addition, intoxication due to organophosphates is reported as one of the main external causes of mortality.

A large number of women who deliver in health facilities never receive prenatal care. The first contact with a health facility or provider is during delivery. Few domestic data exist as far as morbidity during pregnancy. Important efforts are being made to implement a simplified perinatal medical history.

According to FESAL-93, delivery rates are: inpatient (51%); midwife assisted (36.4%); and inadequate or no care (12.6%). About 30 percent of pregnancies are of women under 20 years of age, i.e. high-risk pregnancies.

The MOH has 3,268 registered birth attendants, but not all of them report their job activities. Continuing education is not universally available and, therefore, their actions are restricted to care and follow-up of normal pregnancies, delivery and postpartum care. A multiple funding plan to strengthen this care is available. In general, comprehensive activities for the care of pregnancies, deliveries and postpartum care lack the coverage and actions required to positively impact on morbidity and mortality rates.

El Salvador has the highest cervical cancer rate in Latin America (84/100,000 women from 35 to 65 years of age). This rate is still high despite an increase in pap smear coverage, especially among women that request this test for the first time. Efforts towards this end should be maintained.

Breast cancer rate is 26/100,000 women at risk. Preventive actions stress self breast exam.

The global fertile rate has declined from 4.6 in 1988 to 3.9 in 1993, with the greatest decline in the rural area, where it continues being high (5.0%). Population growth could be affected in the future due to several reasons such as the return of emigrants and the fact that women outnumber men, especially in fertile age groups.

Contraception prevalence among women from 15 to 44 years of age was 53 percent in 1993; female sterilization accounted for 60% of this figure. The efficient use of pregnancy spacing methods has not increased significantly since 1973.

This type of family planning does not allow pregnancy spacing, especially among young women. Consequently, maternal health problems worsen due to consecutive pregnancies in young women, with little total care of pregnancies, deliveries and postpartum, accompanied by significant maternal malnutrition levels.

As far as sexually transmitted diseases, HIV and AIDS have increased significantly. In a six-year period, the transmission pattern changed from homosexual to heterosexual mostly among persons of fertile age. Sexually transmitted diseases are increasing as well as neonatal syphilis. Teenagers lack coverage and must be included in preventive and sexual education. Women need information regarding pregnancy spacing and STD prevention.

The country has only one clinic that attends battered or raped women; it has assisted 700 women since 1990. The National Family Secretariat has established three similar clinics at MOH's regional hospitals.

Infant health indicators have been significantly understated. At the beginning of 1994, UNICEF estimated infant mortality at 52/1,000 live births; a large proportion of infant deaths occur before reaching 28 days of age, mostly caused by low birth weight. Diarrhea and acute respiratory infections account for the majority of postnatal and infant deaths, associated with a significant level of malnutrition.

Neonatal and well child care actions do not meet the objectives. Early problem detection, mainly related to nutrition, is not possible due to inadequate coordination at the operational level.

Oral rehydration therapy (ORT) rate is 84%; oral rehydration salts (ORS) use ranges from 45 to 51%. Diarrhea episode rate per child per annum reaches 4.1%. Prevalence is estimated at 30 and 42 percent.

NGOs promote the use of ORT and actively detect cases. These efforts, together with the implementation of Community Oral Rehydration Units (CORUs), will have a positive impact especially on rural areas.

There are vacuums and duplicity in MOH's current standards regarding diarrhea. Standards must be updated and strengthened with a clear national policy including preventive components.

ARIs are the second cause of infant mortality in children age 1 to 5 years (FESAL-93). ARIs accounted for 24.6% of MOH's reported pathology in 1992.

Vaccination coverage has improved; neither polio nor pertussis cases have been reported for several years. Neonatal tetanus has declined significantly.

Due to the nature of these problems, efforts should be targeted to the following priority issues:

- Total prenatal, delivery and postpartum care, with a risk approach.
- Multiparity among women (under 20 years).
- Infant and child mortality, mainly due to diarrhea and acute respiratory infections.
- Mother and child malnutrition.
- STD/AIDS

## **I MATERNAL-CHILD HEALTH IN EL SALVADOR**

### **1 Ministry of Health**

The Ministry of Health (MOH) is the largest provider of maternal-child health care services in El Salvador. Its two modalities of inpatient and outpatient care allow a greater population coverage. The MOH's estimates that 80% of the country's population is under its care.

Inpatient services, through a network of 362 health facilities, include three different levels of care. The Pediatrics and gynecological-obstetric third level services are provided at the Benjamin Bloom Hospital and at the Maternity Hospital, respectively.

Outpatient care is carried out by 1,442 rural health promoters and 2,948 empirical midwives trained by the Ministry.

#### *Maternal-Child Department*

The Maternal-Child Department (MCD), is in charge of coordinating and planning maternal-child care activities. Maternal care includes: prenatal, delivery and postpartum care; family planning; cervical and breast cancer care; and empirical midwives training. Child care includes: diarrhea and acute respiratory infection prevention and care; breast-feeding; and well child care.

The Expanded Immunizations Program (EIP) is under the coordination of the Epidemiological Unit, while the Nutrition Department is in charge of the food program.

The standards of care manual (*Normas integradas de la atención materno-infantil*) was published in 1991. This manual is generally followed although standards are not legally binding for the whole sector, as they are intended for internal use at the MOH's facilities. The Maternal-Child Department has foreseen the need to evaluate and adapt those standards.

The MOH Statistics Department processes the data which originates with the MOH's preventive and assistance programs. This information is delayed, consequently, the persons responsible for the maternal-child health programs at the central level lack timely information necessary for epidemiological surveillance and actions. This situation creates an information vacuum that hinders the efficient program management.

The central office supervises the regional levels which supervise the local levels. The central level supervises the local level only when problems so require. Supervision is carried out through multiprogram or multidisciplinary teams of 8 to 10 persons of the different departments and one or more persons of the MCD. Not all of them go to the field at the same time and, although they abide by the MOH's supervision manual (*Manual de supervisión*), they do not always follow the supervision guidelines which allows a uniform strategy for supervisory visits to the facilities and the detection of critical operational issues. Also, supervision compliance varies among the different teams. The World Bank is supporting an enhancement of the supervisory system which is currently under evaluation.

The need to reinforce the management capability of program directors has resulted in the creation of short, part time, continuing education (not more than three months) to cover management (i.e., planning, use of indicators, etc.).

### *Community Health Department*

The Community Health Department (CHD) was created in 1989 to serve as an integrating body of groups that execute primary care programs.

The health promoter has more direct contact with the community when developing primary care programs is, since he/she performs his/her duties within the community. The first step he/she takes is to prepare a preliminary diagnosis with the participation of community members who identify their own problems and propose solutions. The data resulting from the diagnosis are submitted before the community and used by the promoter to prepare his annual work plan. Once priorities have been established, the educational and promotion work is focussed mainly on those problems, including activities aimed at timely disease prevention and detection to expedite referral of cases.

Each promoter visits an average of 250 houses or 1,500 persons (3.1% are infants under one year, 12% children age 1 to 5 years, 20.3% women age 15 to 44 years, and 64.5% of other ages).

The promoter's information system is handled independently from MOH's other systems. Monthly activities are reported to the corresponding health unit where the promoters' activities are summarized and sent to the regional and central levels.

Each promoter earns 1,300 colones a month which is part of the MOH's ordinary budget. Not all promoters are elected by the community and not all of them are natives of those communities.

### *Health Education Unit*

This unit supports health promotion, social marketing and health education for all the Ministry's programs. The central office has 11 technical and 3 support employees. There are 52 health educators at the national level. The MOH pays salaries but depends on donations or special agreements with international agencies for support material. This unit's participation within the MOH is steadily increasing.

The unit prepares educational messages that can be disseminated through mass media; however, these efforts are hampered by budgetary constraints. Free spots have been granted by broadcasters on many occasions, but the time has been too short to fully achieve educational objectives. It has been suggested that the Ministry make arrangements through the Central Government in order to obtain free spots for educational messages, especially those regarding maternal-child issues.

One of the unit's greatest achievements, which has been commended by the international community, is the preparation of a series of documents for distant education called SILOGUIAS. These documents are used to train health staff and community leaders to participate in the SILOS.

The Maternal Health and Child Survival Project (PROSAMI), through a cooperative agreement with the MOH, reproduces the materials prepared by the unit which are used by NGOs affiliated to the project.

Some programs and projects receive assistance from international organizations and are channelled through a MOH department or unit. Consequently, there is little coordination between departments and units of the MOH, although steps to overcome this situation have been implemented.

The creation of an internal, interagency or intersectorial, technical committee is recommended to strengthen health education programs; this committee would coordinate all MOH's educational activities and enhance the technical contents of the programs.

## **2 Salvadoran Social Security Institute (ISSS)**

The Salvadoran Social Security Institute (ISSS), which covers 11.5% of the Salvadoran population, at first covered only workers, but its coverage has been expanded. The incorporation of children began in 1993 and is being gradually expanded until reaching 6 years of age. This expansion would be suitable for a study among children, since they are included in the system from their registration up to their sixth birthday.

Maternal-Child health actions are coordinated by the Preventive Medicine Department which manages seven programs. One of these programs is reproductive health and infant care which is subdivided into three sub-programs: infant care, maternal care, and family planning. These sub-programs are aimed at disease prevention and health protection of women and children, activities that are implemented by the different affiliated enterprises through Health Educators as far as promotion and prevention are concerned. Medical and paramedical staff carry out these actions at the Care Centers.

At health centers, each program's activities are developed by hospital directors and regional offices. The staff is trained, supervised and evaluated by ISSS.

The Epidemiology Program lists major morbidities which include an interesting mix of infectious/contagious diseases typical of the working population, as well as chronic/degenerative diseases. The ISSS's universe presents an interesting phenomenon of epidemiological transition.

The standards and procedures manuals are being prepared by adjusting MOH's standards to the specific characteristics and needs of the ISSS.

The ISSS has a computerized information system which receives information from all the health care centers within the first ten days of each month.

## **3 Non-governmental Organizations**

NGOs have developed rapidly in El Salvador. Most health oriented NGOs are grouped under two umbrella organizations: the Child Survival Intersectorial Committee (CISI) and the Maternal Health and Child Survival Project (PROSAMI).

### **3.1 Child Survival Intersectorial Committee (CISI)**

CISI was created with 8 NGOs at MOH's initiative and with the support of UNICEF in 1988. It currently shelters more than 30 organizations and has achieved independent legal status.

CISI is governed by a general assembly consistd of all members who elect a seven-member *ad honorem* board of directors; this board makes the decisions of the Organization.

Its major source of funding are donations from international organizations, the MOH, and a monthly fee of 100 colones that each affiliated NGO must pay.

The strategy of CISI, and of many of its affiliates, is to create community health houses for oral rehydration therapy (ORT). This strategy consists four phases and in each phase 150 community health houses are established. Besides, the best 150 promoters from the 600 Health Community Houses have been selected to receive training in other child survival actions (ARIs, immunization, breast-feeding and well child care).

The organization's health promoters are volunteers. Nevertheless, when they complete their job with NGOs they receive an in-kind incentive. CISI covers transportation, food and educational material, and also provides equipment for the health house with donated funds.

### **3.2 Maternal Health and Child Survival Project (PROSAMI)**

This project was born as a response to the need for access to health service that a significant part of the rural population lacks as a consequence of the civil war. USAID/El Salvador hired the services of Medical Service Corporation International (MSCI) in 1990 to implement a program that would come to satisfy this need.

The Maternal Health and Child Survival Project's objective is to improve the health status of 350,000 inhabitants in rural and urban marginal areas through financial and technical support to 36 NGOs.

PROSAMI divides its support actions into three inter-related areas: maternal-child health services; institutional strengthening of participating NGOs; and coordination, policy development and research.

The project is also divided into 7 technical strategies: (1) diarrheal diseases and parasitosis; (2) respiratory infections; (3) nutrition, including growth and development; (4) maternal health, including prenatal care, delivery, postpartum care and family planning; (5) immunizations; (6) perinatal and neonatal health; and (7) community participation.

All 14 departments of El Salvador have an NGO from PROSAMI's financing and coordination, reaching and working with various sectors that include organizations related to the FMLN and the church.

PROSAMI has unified data gathering and reporting, standardized the use of specific indicators for activity and work scheduling and has also created an essential drug list for the health promoter as part of its NGO institutional strengthening efforts.

During PROSAMI's first year of activities, it allocated 44.6% of its expenses to training, 45.6% to goods procurement, and only 7.3% to salaries and 2.5% to office expenses. Every participating NGO is informed about PROSAMI's expenses and their application. The cost of activities during the 1990-1991 period amounted to 11,257,538.00 colones, covering 148,000 persons during that period at a per capita cost of 76.06 colones.

## **4 General Indicators**

### **4.1 Maternal and Woman Mortality**

#### *Maternal mortality*

Table 1 shows national data on maternal mortality for the 1987-1990 period. Table 2 shows the MOH's institutional maternal mortality data.

Table 1

MATERNAL MORTALITY IN EL SALVADOR  
1987-1990

Year	Deaths	Rate per 10,000 LB
1987	68	4.6
1988	71	4.8
1989	59	3.9
1990	55	3.7

Source: *Health Facility Statistics*, 1991.

Table 2

INSTITUTIONAL MATERNAL MORTALITY, MOH  
1990-1993

Year	Rate per 10,000 LB
1990	10.9
1991	12.0
1992	8.9
1993	13.8

Source: *Health Facility Statistics*, Maternal-Child Department, MOH.

The difference between the mortality data collected nationwide and the MOH's internal statistics show that there is a significant understatement and classification failure; the MOH's statistics are more reliable since they are based on hospital records.

Table 3 presents MOH's maternal mortality per age group in 1990-1992. The high percentages in 1990 and 1991 are highlighted in the group age 15 to 19 years, since by 1992 it was significantly reduced except for an increase in the past few years in the 35 year-old group.

The MOH's Maternal-Child Department reported uterine bleeding (34.04%) and pregnancy toxemia (34.0%), followed by postpartum or postmiscarriage sepsis (10.63%) and other causes, such as embolism of the amniotic

fluid as main causes of maternal mortality in 1992.<sup>3</sup> Intoxication due to organophosphates is ranked first among causes of maternal mortality unrelated to pregnancy

The majority of hospital deaths occur among women delivering outside a hospital and that due to serious complications had to go to the hospital where many of them die within the first 24 hours, as shown in the following table.

Table 3

INSTITUTIONAL MATERNAL MORTALITY PER AGE GROUP, 1990-1992  
Rate per 10,000 Live Births

Age Group	1990	1991	1992
< 19	31.4	17.9	9.8
20-24	21.6	20.9	29.4
25-29	19.6	19.4	15.7
30-34	17.6	15.9	19.6
35 and older	9.8	22.4	25.4
Unknown	0	4.5	0

Source: Unpublished documents, Maternal-Child Department, MOH.

In 1992, the Maternity Hospital reported 15 maternal deaths. A total of 11 women died before 48 hours of hospitalization. These women were originally taken care of in other facilities or in their homes and that due to complications were taken to the hospital where they died. Most maternal deaths (93.5%) maternal deaths occur in women who never used a family planning and almost two thirds of them (72.1%) had no prenatal care.<sup>4</sup>

Mortality data for the January-October 1993 period in the Maternity Hospital show 28 maternal deaths, 6 of which occurred within the first hour of hospitalization in the emergency room, 7 before 15 hours of hospitalization, 13 with one day of hospitalization, and two with two days of hospitalization. The time elapsed between admission and maternal death in other of MOH's facilities is unknown.

Maternal mortality at ISSS facilities in 1993 was 1.5/10,000 live births; this figure is lower than the the MOH.

Pregnancy spacing has the greatest impact on the reduction of maternal mortality, because it allows the mother to recover from the nutritional and physical wear caused by pregnancies.

<sup>3</sup> Jarquín González, Douglas, *Mortalidad materna institucional en El Salvador, 1983-1987*, Revista de la Federación Centroamericana de Obstetría y Ginecología.

<sup>4</sup> Idem.

*Woman Mortality*

National statistics separate mortality by age group but not by gender. Therefore, the behavior of the pathology conducing to death among the female age groups is unknown.

Cervical cancer rate is 84/100,000 of women at risk<sup>5</sup> (35 to 60 years) and the majority die within five years after diagnosis. Breast cancer, on the other hand, has a rate of 26/100,000 women at risk. Little is known about post-diagnosis survival.

#### 4.2 Maternal Morbidity

Maternal morbidity is directly related to pregnancy problems. It is known that approximately 30 percent of deliveries occur in girls under 20 years of age, which makes them high-risk pregnancies. The morbidity type presented by mothers during pregnancy is well known at the Maternity Hospital where they have been using a perinatal medical history for five years. Table 4 shows data on morbidity reported for the January-October 1993 period.

<sup>5</sup> This rate was obtained through the joint efforts of the MOH, ISSS and the Cancer League.

Table 4

MATERNAL MORBIDITY AT THE MATERNITY HOSPITAL  
January-October 1993

Pathology		%
Without tetanus immunization	6,720	46.8
Other pathologies (unspecified)	1,306	9.0
Bleeding-First Quarter	946	6.5
Cephalo/Pelvis Disproportion	739	5.1
Early rupture of bag of waters	698	4.8
Preeclampsia	416	2.9
Potential premature delivery	381	2.6
Multiple pregnancy	220	1.5
Other infections	199	1.4
Slow Fetal growth	177	1.2
Urinary infection	128	0.9
Bleeding-Third Quarter	59	0.4
Bleeding-Second Quarter	51	0.4
Postpartum infection	35	0.2
Previous hypertension	27	0.2
Cardiopathy	24	0.2
Eclampsia	23	0.2
Postpartum bleeding	17	0.1
Chronic anaemia	14	0.1
Diabetes	14	0.1
VDRL positive	12	0.1
Parasitosis	10	0.1

Source: *Perinatal Medical History*, Maternity Hospital.

The Maternity Hospital's etiologic data could be representative of general maternal morbidity due to the number of women attended there. What could seem to be an adapt referral system for high-risk pathologies is shadowed by the fact that 75% of women assisted either for delivery or other problems had never undergone a prenatal care visit. The Maternity Hospital morbidity rate was 50.6% while the ISSS lo. de Mayo Hospital was 34.4%.<sup>6</sup>

<sup>6</sup> Jarquín G. Douglas, *Estudio Multicéntrico Centroamericano*, presented at the Latin American Gynecology Congress, Panama, November 1993.

### 4.3 Infant Mortality

El Salvador reduced by two thirds (150.4 to 55/1,000 live births) its infant mortality rate (IMR) during the 1950-1993 period. In comparison, other countries such as Nicaragua reduced their IMR by only one half.

Many sources report infant mortality but their data vary significantly. Some times this variation is important; Table 5 shows the sources and data corresponding to the 1985-1992 period.

Table 5

#### IMR BY SOURCE AND SELECTED YEAR

Source	Year	I.M.R.
MIPLAN Projection	1985/90	57.4
FESAL-88	1987	55.0
Vital Statistics	1988	25.8
MIPLAN Prior Child	1989	60.2
MOH/UNICEF/INCAP	1992	55.0

Source: Several, quoted.

The three surveys conducted by the Ministry of Planning (MIPLAN), using the previous methodology (1989, 1991 and 1992) with the support of the Latin American Demographic Center (CELADE) and the United Nations Fund for Population Activities (UNFPA), have found that infant mortality has declined progressively. The first survey found an IMR of 60.2/1,000 live births; the second reported an IMR of 55.5/1,000 live births, and the third one reported an IMR of 44/1000 live births. The data in this last survey have not been published yet.

MIPLAN reports that the majority of deaths occur in children whose mother's age ranges between 15 and 19 years. In MIPLAN's latest survey, this group showed a mortality rate of 54.4/1,000 live births.

UNICEF's study on infant mortality (January 1994) reports a national infant mortality of 52/1,000 live births. This organization's latest data on Latin American infant mortality average 52/1,000 live births in 1990. El Salvador shows an IMR of 56/1,000 live births in that same report.<sup>7</sup>

FESAL-93 results, the most common causes of infant mortality are: dehydration due to diarrhea (19%), low birth weight or prematurity (18.1%), and ARIs (16.3%).

<sup>7</sup> *Los Niños en las Américas*, UNICEF, 1992.

### *Perinatal Mortality*

Approximately half of infant mortality cases occur within 28 days after birth.<sup>8</sup>

According to FESAL-93, the main infant mortality causes are: low birth weight or prematurity (34.2%), birth trauma or asphyxia (17.9%), and congenital anomalies (14.5%).

At the Maternity Hospital, of the total deliveries attended during the January-October 1993 period (n=14,571), 10.8% were low birth weights (<2,500 g) which affects neonatal mortality.

### *Postnatal Mortality*

Concerning postnatal deaths (more than 29 days and less than 12 months old), the first three causes reported by FESAL-93 are: dehydration due to diarrhea (35.6%), AIRs (32.7%), and sepsis or failure of multiple organs (10.6%).

Deaths due to diarrhea and acute respiratory infections account for 67.9% of all deaths in this group. Many of these deaths could be due to insufficient breast-feeding, hygiene problems, and unsafe water.

### *Understatement*

If the infant mortality rate of 52/1,000 live births is applied to the number of births in the country in 1991 (151,210), the number of deaths is 7,862. Applying the number of deaths reported by DIGESTYC for that same period (3,702), it is found that 4,160 deaths in children under one year were not reported.

This understatement could be due to the little legal and social importance given to children's death certification in rural areas.

## **4.4 Child Mortality**

Child mortality (under 5 years) has dropped significantly. In 1950 a 224.9 rate was reported, while in 1990 it was estimated at 54.6.

1991 *Salud Pública en Cifras* only reports the proportional mortality in children under 5 years for the 1987-1990 period. The proportion varies between 17.5% (1990) and 19.7% (1987 and 1988).

FESAL-93 reports that the three main mortality causes in this group (age 1 to 4 years) are ARIs with 27.8% followed by dehydration due to diarrhea with 24.1%, and measles with 13% (Annex 1).

Table 6 shows the main causes of mortality in 1991 in children under 1 years and from 1 to 4 years of age.

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<sup>8</sup> Research on *Infant Mortality Applying the Previous Child Procedure*, MIPLAN, Population Directorate, 1990 and 1991.

Table 6

## MAIN CAUSES OF DEATH IN CHILDREN UNDER 5 YEARS, 1990

Cause	Under 1 Year of Age	From 1 to 4 Years of Age
Undefined intestinal infection	17.2%	20.1%
Hypoxia, asphyxia and other resp.affections	9.1%	---
Fetal malnutrition and immaturity	7.6%	---
Pneumonia	6.8%	9.1%
Bronchitis	5.1%	7.2%
Malnutrition	---	5.5%
Measles	---	2.4%

Source: *Salud Pública en Cifras*, MOH, 1991.

This table shows that diarrhea and ARIs are the cause of death of 36.4% of children age 1 to 4 years and 29.1% in children under one year, despite having the necessary technology to reduce the impact of these diseases.

Current activities including MOH staff's training in ARIs management, the CISI's strategy of Community Oral Rehydration Units (CORUs) as well as diarrhea and ARI management with an active search of cases by PROSAMI NGO's promoters, all should have a great impact in the near future.

A general and effective system should be set up to document progress so as to register child and maternal mortality data. NGOs can actively participate in these activities by applying the verbal autopsy system.

## II MATERNAL HEALTH

### I Program components of maternal health

Maternal care includes pregnancy, delivery and postpartum total care, cervical and breast cancer care, the training of empirical midwives, and family planning. The Salvadoran Social Security Institute does not participate in the empirical midwives program; NGOs do train them and the number of empirical midwives who work in coordination with the different MOH regions increases every day.

#### 1.1 Prenatal care

Prenatal care reduces the risk of both maternal and fetal death and favors the patient's referral to an adapt level of care when risk is detected.<sup>9</sup> In addition, it increases the number of opportunities to educate mothers on issues such as nutrition, breast-feeding, weaning, immunization and pregnancy spacing.

A prenatal and delivery care guide has been issued for the care of women at risk, but this guide was not available in several health facilities. Physicians should use the Simplified Perinatal Medical History which is discussed further in this document.

The participation of empirical midwives and promoters in prenatal care is essential since they are the ones who can detect problems at early pregnancy stages. One of the methods that can help promoters and midwives work more efficiently in the detection of risk signals linked to mortality is the use of graphics. The use of graphics showing risk signals by promoters and midwives and helps reduce associated mortality.

Some NGO promoters are already using this type of material, therefore facilitating referrals. It is advisable that all promoters and midwives use this type of material to facilitate referrals to all MOH facilities (it must not be forgotten that most rural and marginal populations use these facilities).

Food supplements and nutrition education are key elements of perinatal care. Food supplements are provided through the WFP/El Salvador's food programs, whose characteristics are discussed in Chapter X.

Breast-feeding education must be an essential component of pre- and perinatal care.

##### 1.1.1 Coverage

It is important to comment on the indicators used to determine coverage. The MOH applies an indicator of 5% of expected pregnancies to the female population at risk. This is a high indicator if compared to the national total fertile rate of 3.9. If the 5% indicator is used, the result is artificially increased by 20%. An adjustment and review by the MCD is recommended.

Prenatal coverage reported by the MCD/MOH has decreased gradually during the last three years. In 1991, 24.1% of pregnant women were assisted, while in 1992, coverage was reduced to 22.1% and to 20.6% in 1993.

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<sup>9</sup> According to the MOH's standards, prenatal control must include: one registration consultation plus four control consultations for normal pregnancies. Should a risk arise, all necessary consultations must be given.

The cause for this reduction is not known; however, this low coverage could be due to the cultural perception of prenatal care among pregnant women.<sup>10</sup>

The MOH's yearbook (*Anuario* no. 23) reports that in 1991 midwives attended a total of 86,097 pregnant women; however, it does not specify how many were first time visits nor how many subsequent consultations were offered. The midwife's and promoter's actions in this regard should be increased stressing health problem prevention more than the environment, which is the current pattern.<sup>11</sup>

Prenatal care program actions at the ISSS have increased to an average of 15% of all interventions a year. In 1991, a total of 242,912 female beneficiaries were enrolled, of which 230,766 were of fertile age. A total of 16,122 (6.98% of women of fertile age) pregnant women were registered and 15,954 deliveries (98.95% of the enrollments) were assisted. In 1992, 18,109 pregnant women were registered (Annex 2). Every pregnant woman averaged 4 prenatal visits.

ISSS provides more prenatal care than the MOH does. These high rates are partly due to the fact that female enrollees have the right to maternity leave and can save direct expenses for hospital care.

### 1.1.2 Tetanus immunization

In 1990 the MOH set 1995 as the deadline to eradicate neonatal tetanus (NNT). Consequently, NNT incidence has decreased significantly in the past years (Annex 3). From 1988 to date, 91 municipalities have been ranked at risk (35% of total), where 70% of women of fertile age are found.

As of October 1993 the coverage of municipalities at risk and the whole country reached 62% (Annex 4). However, 6,720 (46.4%) pregnant women that requested care at the Maternity Hospital lacked tetanus immunization.

The ISSS reports a coverage of 80% of pregnant women that register for prenatal care.

Actions aimed at vaccinating women of fertile age should be reinforced especially for women at risk. This demands immediate implementation as 49% of deliveries are attended outside hospitals.

### 1.1.3 A Simplified Perinatal Medical History Form

A simplified perinatal medical history form was designed to identify high-risk pregnancies and to establish criteria according to pregnancy risk. These criteria are based on the appropriate level of care required for a safe pregnancy. Its development was a major step in recognizing the importance of prenatal care and for reducing maternal mortality.

The implementation of the simplified perinatal medical history at the MOH is being supported by PAHO. The Maternity Hospital, where approximately 20,000 annual deliveries are attended and where outpatient pregnancy

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<sup>10</sup> For more information on the low use of preventive services by the population, refer to the technical report *Health Service Community Perception and Demand* prepared by Susan Kolodin for ANSAL'94.

<sup>11</sup> MOH's health promoters implemented 407,950 environmental activities and only 118,268 health care activities in 1993, according to the report *Community Health 1993* MOH.

care and follow-up is broader than in any other place in El Salvador, has achieved a 100% use of the same in five years.

This simplified history has not been totally implemented at the MOH's primary-level clinics, and this impedes the detection of obstetric risk and a timely referral. The simplification of the system could allow an increase in use by general practitioners.

## 1.2 Delivery care

The place of delivery and attendant are decisive factors in the outcome of the delivery.

According to FESAL-93, in El Salvador 51% of deliveries are attended in a hospital, 36.4% by a midwife, and 12.6% are not attended by trained persons (Table 7), but at home attended only by a relative and in some cases with no assistance at all.

Table 7

### TYPE OF CARE AT DELIVERY, 1988-1993

Type of care	1988	1993
Hospital	52.5	51.0
Midwife	37.7	36.4
Without or other	9.8	12.6

Source: FESAL-88 and FESAL-93.

### 1.2.1 Inpatient care

According to FESAL-93, the MOH is the institution that attends most hospital deliveries (38.1%). Almost two-thirds of the total 33,000 annual discharges correspond to deliveries at the Maternity Hospital in San Salvador. Of the total number of deliveries attended at the MOH countrywide, 50.1% were in the Metropolitan area; and 29.9% were inpatients, from rural areas, at MOH facilities.

In 1991 the MOH attended a total of 56,862 deliveries (19.05% were cesareans). From January to October 1993, the Maternity Hospital averaged 22.5% (3,260) cesarean deliveries. The MOH (*Amario* no. 23, 1991) reports that 68.7% of the deliveries at MOH's facilities were ectocias.

The ISSS attends 9.7% of all pregnancies in the country. A total of 23.6% of deliveries are attended in the Metropolitan Area of San Salvador (MASS). The number of deliveries attended has increased from 12,652 in 1989 to 17,566 in 1992 (*Reporte anual de actividades*, ISSS, 1992). Cesarean sections performed at the ISSS in 1992 reach 24.5% and 25.5% during the first half of 1993. The percent of miscarriages at ISSS was 7.3% in 1992, and between January-June, 1993, was 7.9%.

Private hospitals attended 3.2% of all births, (7.9% of deliveries in MASS). Private delivery care in the rural areas only reaches 0.4%.

Delivery is the main cause of hospital discharge at MOH hospitals. Unspecified miscarriages without mention of the degree of complication is the third cause of discharge. Potential premature delivery is ranked fifth among causes of hospital discharge, and delivery obstruction ranked sixth.<sup>12</sup>

### 1.2.2 Outpatient care

Delivery assistance is mainly provided by midwives who attend 36.4% of all deliveries (Table 7). At the rural level, midwives attend 49% of total deliveries. A significant proportion (12.6%) of total deliveries are not attended by midwives; some are attended at the midwife's house, and others are attended at the woman's house assisted by a relative or friend and even by herself (Annex 5).

The MOH has trained 3,268 midwives who report, inconsistently, to the MOH.

NGOs are playing an increasingly important role in midwife training; using the Ministry's training programs. Their activities are coordinated by the MOH's regional personnel. This work strategy is adapt since it allows the standardization of training and care.

Once trained, midwives work independently. As far as service fees, they sometimes receive in kind payments or charge a fee ranging from 10 to 100 colones per delivery. The MOH gives the midwives who are part of the system, supplies for delivery care.

The empirical midwives' role is vital; however, they are presently underused. Their preventive care activities could be expanded through better training and supervision. The number of deliveries attended without the assistance of trained personnel calls for an increase of this staff in rural areas.

Another alternative is the incorporation of maternal-child technologists into maternal/child care; they should live in the community they work in (this type of resource is also being underused). Technologists could supervise a predetermined number of midwives within the scope of their job. This strategy would reinforce the referral system based on obstetric risk. In this way, midwives would cover pregnancies without risk, and the technologists would cover mid-risk cases, refer high-risk cases.

### 1.3 Postpartum care

MOH's registered midwives have reported that the number of postpartums attended has increased from 40,136 in 1987 to 67,079 in 1991 (Table 8).

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<sup>12</sup> *Public Health in Figures*, MOH, 1991, Yearbook No. 23.

Table 8  
 CASES ATTENDED BY MIDWIVES

Year	Pregnancies	Deliveries	Newborns	Postpartums
1987	46,659	16,678	40,136	40,136
1988	57,433	21,119	50,224	41,875
1989	65,229	24,094	47,394	52,882
1990	76,732	28,344	55,501	55,979
1991	86,097	32,471	61,019	67,079

Source: *Salud pública en cifras*. MOH, 1991.

The demand for postpartum care is lower than the demand for prenatal care. The yearbook (*Anuario* no. 23) does not report the number of registrations for number of prenatal, postnatal and newborn visits.

The Maternal-Child Department reports an institutional postpartum coverage of 37%, representing an increase of almost 8 percentage points compared to 1991 (29.3% in 1991).

ISSS reported the reception of 18,109 pregnant women for prenatal care and the provision of 9,482 first-time postpartum visits (52.36%) in 1992, out of which 51.9% were attended in the MASS. Consultations for pregnancy, delivery or postpartum complications amount to 4,244.

Low postpartum care, especially in rural areas, does not allow early problem detection; therefore, many maternal and newborn deaths occur in this period; thus, it is important to strengthen coverage in those areas. Promoters can play an important role in those areas lacking midwives. If the recommendation of incorporating maternal-child technologists into the care network is implemented, postpartum coverage would also be increased.

### III WOMAN'S HEALTH

#### 1 Cervical and breast cancer detection

The cervical cancer rate in El Salvador is the highest in Latin America<sup>13</sup> reaching 84/100,000 women at risk (35 to 60 years). The Metropolitan Region reports the highest rate (126/100,000). Fifty percent of diagnosed women die within 5 years of diagnosis. The specific mortality rate due to this nosologic entity has not been determined yet.

Major causes of high cervical cancer incidence include repeated vaginal infections, early sexual contact, and multiple partners.

The MOH is implementing the *Bethesda System* for the study, flow and decision making regarding vaginal cytology. To this end, the MOH Cytology Unit has been decentralized and the Colposcopy and Cryotherapy Unit has been created at the national level.

The MOH has established a quality control system within the institution. The Ministry has participated in the training of cytotechnologists that work in other institutions; thus increasing coverage.

The Interinstitutional Committee of Gynecological Cancer (COINCA) has been created as part of coordinating actions; this committee is made up of MOH and ISSS personnel.

The MOH's first-time cytology coverage has increased from 15.4% in 1991 to 19.4% in 1992 and to 22.4% in 1993. The ratio of subsequent and first-time tests has reverted. The subsequent test rate was 70% and first-time test rate 30% in 1991. The first-time test rate was 60% and the subsequent test rate 30% in 1993. The efficient fulfillment of this task is hindered by delays on cytology results which at the time delay treatment.

ISSS reports that 35,796 cytological tests were carried out during the first half of 1992, but such information has not broken down so far. Nevertheless, a low coverage is acknowledged mostly due to the undefined program structure which has not been located in the institution's organization table yet.

The Salvadoran Demographic Association (ADS) has attempted to increase early cervical cancer detection. The ADS cytotechnologists in regional clinics were trained and licensed by the MOH. Specialists performed 23,000 cytologies in 1992, and as of September 1993, they had made 22,830 diagnosis.

#### *The Cancer Institute*

The Cancer Institute's services include detection, diagnosis, treatment, and prevention. In the second half of 1992 and the first 5 months of 1993, the Institute gave 15,285 consultations, of which 2,894 were first-time and 12,391 follow-up visits. A total of 31,169 cobalt applications were carried out and 367 patients were treated with ambulatory chemotherapy. A total of 24,956 cytological tests were taken during the same period, but their results are unknown.

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<sup>13</sup> Combined data from the MOH, ISSS and the Cancer League in an effort to know the dimension of this problem.

### *Breast cancer*

The breast cancer rate in El Salvador is 26/100,000 women at risk. The MOH's only preventive action is the promotion of self breast exam. To this end, handouts with pictures and texts explaining how to perform a self breast exam are given out. The printing of these handouts was possible with the assistance of ICI's Pharmaceutical Division.

All institutions promote selftests to a greater or lesser degree. At the Maternity Hospital, for example, there is a breast clinic with five oncologists; the protocol states that once a nodule is detected, a biopsy by aspiration must be performed. During the first 8 months in 1993, a total of 126 biopsies had been performed. Specific actions in the remaining MOH's facilities and other institutions are unknown.

## 2 Sexually transmitted diseases<sup>14</sup>

Sexually transmitted diseases (STD), including AIDS, have shown a steady increase. The main factors affecting this problem are the social pattern in relation to sexual life; age at which sexual contact starts; number of sexual partners; and especially the lack of health and sexual education.

Due to cultural factors, the population is reluctant to talk about these diseases; and the only opportunity for diagnosis is during prenatal care. Lack of prenatal care limits detection.

### 2.1 HIV/AIDS

Since the appearance of the first case of AIDS in El Salvador in 1984, the number of reported AIDS and HIV cases has increased. According to the MOH, 286 HIV cases were reported in 1992 and in 1993, 176 AIDS and 155 HIV(+) cases were reported, making a total of 1,220 cases: 605 AIDS cases and 615 HIV (+) cases. The rate of AIDS cases was 3.27/100,000 inhabitants in 1993.

A total of 71% of all cases have been reported since 1991. The majority of them are found at the MASS, but all departments of the country have reported some cases. The 1992 rate of HIV was 3.2/100,000 inhabitants and an AIDS incidence of 2.12/100,000 inhabitants.

Although the majority of AIDS and HIV (+) cases have been reported among males (n=952), the most frequent transmission modality is *heterosexual* (59%) as evidenced by the progressive reduction of the male/female ratio that was of 15/1 at the onset of the epidemic (1985-1987), and changed to 3/1 in 1992, and to 3.4/1 as of October 1993. The most affected ages are between 15 and 24 years (28%), 25-34 years (43%), and 35-39 years (11%). Out of the total AIDS cases, 25% have resulted in death.

Two studies have been carried out at the Maternity Hospital in San Salvador. The first one was carried out in 1992 when serologies were performed on 770 women without finding any positive cases. The second one was carried out in 1993 when out of the 754 women under study, only two cases resulted positive.

The group with the largest number of HIV/AIDS cases is women of fertile age. If the problem continues increasing at the same pace, an increase in the number of pregnant women infected as well as maternal

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<sup>14</sup> For further information refer to the complementary report on STD, HIV and AIDS prepared by Paula Hollerbach et al., AIDSCAP sponsored by AID/Washington.

seropositivity in newborns could be expected. To date, 1% of HIV positive cases (12 cases) have been perinatal. The MOH has established an information hot line to answer questions about HIV/AIDS. The National STD/AIDS Program coordinates this as well as social marketing and education addressed to adolescents.

These efforts should be reinforced, since the number of infected people in the country could increase rapidly, with devastating repercussions in the country's health and economy.

## 2.2 Other sexually transmitted diseases

Sexually transmitted diseases in women is probably one of the main problems and, at the same time, one of the most neglected, as far as population served is concerned. With the exception of a couple of STD clinics mainly targeted to prostitutes, systematic care geared towards the detection and care of STDs in women are not carried out.

A total of 9,680 cytologies were examined at the Maternity Hospital during the first half of 1993; pathogenic agents which cause vaginal infections were reported in 5,493 (56.7%) of those cases.

Table 9

### CYTOLOGY DISTRIBUTION BY TYPE OF PATHOGENIC AGENT January-June, 1993

Agent	Number	%
Bacterial	2,537	46.19
Unspecified	2,114	38.48
Trichomonas	521	9.48
Candida	157	2.86
Gardenella	91	1.66
Toxoplasmosis	69	1.26
HV simplex	3	0.05
Chlamydia	1	0.02
Total	5,493	100.00

Source: Pathology Department, Maternity Hospital, 1993.

## 2.3 Associated problems

A significant increase in neonatal syphilis has been observed. The impact of other venereal diseases on neonatal health is unknown due to the unavailability of relevant reports (i.e. blindness cases due to gonococcus); usually, these diseases are not detected in time.

The social and health cost of HIV/AIDS and STDs is born mainly by the most economically productive ages.

If radical actions aimed at sexual education and STD and AIDS prevention are not taken, this problem could escalate. It is recommended that national authorities.

### 3 Women abuse

Salvadoran women are acknowledged to be the backbone of the family structure by all population sectors. For many women, their active participation during the civil war opened a new dimension, completely different from stereotyped patterns, which many traditional and conservative sectors would rather have them follow.

In spite of this, Salvadoran women are abused in many ways, including: battery, sexual abuse, rape, and psychological abuse.

#### *Non-Governmental Sector*

In the country there is one private organization dealing with this problem and which started to operate in November 1986. This is the National Coordinator of Salvadoran Women (CONAMUS). It has assisted about 700 cases of abuse among women of all social strata since 1990.

This organization's clinic provides women with varied assistance, including psychological, legal, medical and economical support (if necessary), and even finds a place for women to live if they request so.

#### *Public Sector*

The National Family Secretariat (NFS), in coordination with the MOH, set up three clinics for raped women some years ago. These clinics are located at the hospitals of San Miguel, Santa Ana and the Maternity Hospital in San Salvador. The statistical data on care provided and the clinics' operations are not available.

Currently, efforts to abolish women abuse are few. These efforts should be reinforced with total actions involving all sectors dealing with women's legal protection, health and education.

## IV FAMILY PLANNING<sup>15</sup>

### 1 Basic population data

Preliminary data from the 1992 population census' reports that El Salvador has a population of 5,047,925 inhabitants. It is also reported that female population exceeds male population by 204,833 inhabitants. More than half of this difference is in the fertile age groups, where women of 20-34 years outnumber males by 100,000.

Emigration is estimated to be between one and two million people. Deaths due to the civil war (75,000) have significantly reduced the natural annual growth rate.

#### 1.1 Fertile

Fertile rate is still high in El Salvador, although it declined one third during 1978-1993. The total fertile rate (TFR) is the average number of children that a woman has at the end of her fertile years. Fertility data showed an average number of 6.3 children per woman in 1978, which fell to 3.9 children in 1993. Surveys show this decline has not been constant, since it was of 4.5 in 1985; the average remained steady between 1985 and 1988, but fell again in recent years (Table 10).

Table 10

#### TOTAL FERTILITY BY AREA OF RESIDENCE, 1978-1993 Women 15-44 years of age

Area of residence	1978	1985	1988	1993
Metropolitan area	2.6	3.3	3.0	2.7
Other urban areas	4.1	3.7	3.7	3.5
Rural area	8.4	5.8	5.9	5.0
All areas	6.3	4.5	4.6	3.9

Source: Lininger, ANSAL.

Surveys show that rates declined both in rural and urban areas in recent years. However, the fertile rate in the rural areas is still high with an average of 5.0 children per woman which is 85 percent higher than the average in the Metropolitan Area (5.0/2.7).

<sup>15</sup> For further information see *Family Planning*, Charles Lininger, ANSAL, 1994.

The most significant actual declines occurred between 1978 and 1993 in the MASS (both other urban areas<sup>16</sup> as well as in the rural areas). Although differences among areas of residence are broad, fertile rates are high enough in all areas so as to produce a very high annual population growth if net migration is restrained.

Specific fertile rates show that in every area, 20-25 year-old women give birth more frequently; at the national level and on an annual basis, every 1,000 women between 20 and 24 years of age give birth to 221 children. In the Metropolitan Area this group gives birth to 177 children whereas in the rural area, this group gives birth to 263 children (Table 11).

Table 11

SPECIFIC FERTILITY RATES AND TOTAL FERTILITY RATES BY AGE AND AREA OF RESIDENCE, 1993  
per 1000 women

Age	Metropolitan	Urban	Rural	Total
15-19	101	102	158	124
20-24	177	218	263	221
25-29	123	164	210	168
30-39	87	112	166	126
35-39	35	78	126	86
40-44	13	28	64	39
45-49	0	2	5	3

Source: FESAL-93, Preliminary Report.

The data in this table are affected by two factors. First, the number of women in each age group that are sexually active and their low use of family planning methods to space pregnancies. Second, the proportion of women that are no longer fertile due to sterilization or sickness.

Two observations are extremely important here. First, fertile rates in women age 15-19 years are very high taking into account that many of them do not have a formal partner; many of them become sexually active at a very early age and do not use family planning or adapt pregnancy spacing methods. This is a great public health problem because the lack of planning negatively affects the health of women and children.

The second observation is that voluntary sterilizations account for the decline in fertile rates in all age groups. The number of children added to the fact that these women are young when they undergo sterilization suggest that effective temporary family planning methods are not accepted either by the medical community or by the population in general, as is the case in other countries.

<sup>16</sup> "Other urban areas" is used in FESAL to define urban zones other than the Metropolitan Area of San Salvador.

Summarizing, the early age of the first pregnancy as well as the short space between subsequent pregnancies constitute problems to be faced by maternal-child health and family planning service providers.

Table 12 shows that fertility has declined slightly in women age 15-19 and 20-24 years in 10 and 13 percent, respectively, from 1985 to 1993. Reductions have been observed in rural areas and the MASS, but not in other urban areas.

Table 12

FERTILITY RATES BY AGE AND PLACE OF RESIDENCE, 1988-1993  
per 1000 women

	15-19 years of age			20-24 years of age		
	1985	1988	1993	1985	1988	1993
MASS	115	098	101	210	190	177
Other Urban	101	106	102	225	218	218
Rural	180	179	158	297	289	263
Total	139	138	124	254	246	221

Source: FESAI -88 & 93.

### 1.2 Population projections

Annual population growth for the 1990-1995 period is estimated at 2.2 percent (MIPLAN-CELADE-UNFPA, January 1992). Growth is projected with basis on individual estimates of annual crude rates of births, deaths and net migration in selected periods (Table 13). The declines in growth rates per every five years up to 2025 could be optimistic since they are based on significant birth reductions, while the country enters a period of stability and economic growth.

Table 13

ANNUAL BIRTH, DEATH AND GROWTH RATES  
Rates per 1,000 inhabitants

Period	Births	Deaths	Emigration	Increase
1990-1995	33.4	7.05	-4.57	21.85
2000-2005	28.4	5.88	-2.60	20.01
2010-2015	23.2	5.32	-1.48	16.41
2020-2025	19.8	5.39	-0.85	13.61

Source: MIPLAN-CELADE-UNFPA.

## 2 The use of family planning

The use of family planning has spread in El Salvador. At the beginning of 1993, 53.3% of married women or with a common-law companion, of fertile age (15-44 years old), were using some kind of family planning method (Table 14). Taking into account only those methods deemed effective, the rate declined to 45.9 percent.

However, the annual rate of use has decreased. In 1975 the use was of 21.6 percent, but it increased by 8% year after year until reaching 46.3% in 1985. There was almost no increase (0.7%) in the 1985-1988 period. Prevalence has increased by 2.5 percent annually since then reaching 53.3%.

Although sterilization is not a reversible method, but rather a definitive end to a fulfilled parenthood, in El Salvador, it is considered a family planning method. Most of the increase in contraceptive prevalence in the country is mainly due to female sterilization: 9.7% of married women in 1975 compared to 31.5 percent reported in the most recent survey.

In 1975, 9.3 percent of married women were using effective temporary methods (oral and IUD); this rate increased to only 10.8% for both methods in 1993. Some years ago injections were introduced as a family planning option; this method has been well accepted by the population to the extent that at present it is being used by 3.6% of married women. In 1993 the use of all efficient temporary methods was of 14.4%.

Table 14

### PREVALENCE OF FAMILY PLANNING

Use and Method	Year of Study				
	1975	1978	1985	1988	1993
Using a method	21.6	34.4	46.3	47.1	53.3
Fem. Ster.	9.7	18.0	30.0	29.6	31.5
Oral	7.3	8.7	6.8	7.6	8.7
Injections	---	---	---	2.0	2.1
IUD	2.0	3.3	3.3	2.0	2.1
Condoms	0.6	1.5	1.2	2.4	2.1
Rhythm/billings	---	---	---	2.4	3.0
Withdrawal	---	---	---	1.0	2.0
Other	2.0	2.9	4.2	1.0	0.4
Not using	78.4	65.6	53.7	52.9	46.7

Note: Married women/with common-law partner of 15-44 years of age.  
Source: Compiled by Lininger, ANSAL.

If the pattern of low temporary method utilization is not corrected, family planning will continue to depend on female sterilization. Problems inherent to repetitive maternity with short pregnancy spacing, especially among young women, creating an environment that fosters current maternal and infant mortality rates. This is a critical issue that should be given the necessary attention.

Reproductive health education programs should be strengthened as soon as possible, especially targeted at adolescents and the rural population in general. Efforts must be made to change adolescent behavioral patterns and the way of thinking, so that the use of family planning methods is improved. The high fertility rates among the rural population is due to cultural patterns.

#### *Methods*

Although injections are used by a relatively small group of married women, their use has increased rapidly. Several formulas are available for female users at the market. The private commercial sector has contributed to the increase in injection use due to its availability and popularity.

The DepoProvera which could be donated by USAID is not used in El Salvador because it is not accepted by the Salvadoran Demographic Association nor by the ISSS; both these institutions use other financing sources to acquire the different formulas they use.

The use of oral contraceptives and intrauterine devices (IUD) has not shown an upward trend for a long time. Several informants reported that physicians are reluctant to apply IUDs maybe due to the lack of adapt training which should be strengthened.

The MOH offers pills of one sole formula. It would be advisable for this Ministry to have several formulas available so that physicians could offer different alternatives to users.

FESAL-93 reports that condom use is low; only 2 percent of women reported it as their contraceptive method. Neither FESAL-93 nor previous surveys looked into the use of condoms as a method to prevent diseases, such as STDs and HIV/AIDS.

Summarizing, approximately 46 percent of women from 15 to 44 years of age who have a partner are currently using some type of effective contraceptive method. More than two thirds of these women have already been sterilized and less than one third use an effective temporary methods (oral cycles, IUDs, injections). The use of Norplant is still in its introductory phase.

Differences in use per area of residence are significant. The rates of use per method for women living in the MASS are significantly higher than in the rural areas (Table 15). There are more than one million women (1,181,068) of fertile age (15-44 years old). Women under 20 years are accountable for almost 30% of pregnancies. The number of pregnancies in women under 15 years is increasing and constitutes a public health, moral and social problem.

Table 15

**CONTRACEPTION BY AREA OF RESIDENCE**  
Women of 15-44 years of age with a partner

Contraception Method	MASS	Urban	Rural	Total
Utilization	66.4	56.7	42.8	53.3
Female Sterilization	35.7	32.5	28.1	31.5
Other Effective Methods*	29.5	15.7	10.7	14.8
Condoms	3.7	2.6	0.8	2.1
Less Effective Methods**	6.6	6.0	3.3	5.0
Without Contraceptives Method	33.6	43.3	57.2	46.7
Total	100.0	100.0	100.0	100.0

\* Oral, injection, IUD, Norplant, vasectomy.

\*\* Rhythm/Billings, withdrawal, foam, etc.

Note: The total varies due to approximations.

Source: Lininger, ANSAL, 1994.

The trend is for a woman to have from three to four children in a short period of time and then seek sterilization at the hospital of her last delivery. Family planning is not achieving and adapt pregnancy spacing, with negative repercussions on both the mother and the child.

It is necessary to promote the use of effective temporary methods (oral cycles, IUDs and injections) which are the ones adapt for pregnancy spacing. Target populations should be young women and women with low parity living in rural areas.

Abortion is illegal, but it is believed that it is performed at all levels of society. Women who lack access to family planning methods for any reason whatsoever or who have used them unsuccessfully, have only two options: an unexpected and maybe an undesired pregnancy or an abortion. Internationally, 200,000 women die due to abortion every year.<sup>17</sup> In El Salvador, abortion is the third cause of MOH hospital morbidity.<sup>18</sup> Although the number of the deaths due to abortion in El Salvador is unknown, it represents a high social and economic cost for the country. It would be worthwhile to study this issue in depth so as to know the impact of abortion in El Salvador.

<sup>17</sup> UNFPA data, 1992.

<sup>18</sup> *Public Health in Figures*, Chart No. 13, Yearbook No. 23, 1991.

## 2.1 Unsatisfied needs

Family planning needs among women of fertile age have been estimated by FESAL, but the investigation studied women in general without separating the ones living in common-law marriages.

The ratio of women living in rural areas whose family planning needs had not been satisfied in 1993 was double that of MASS' women (12.7 compared to 5.9 percent, respectively), and was lower than the needs felt in other urban areas (7.8%).

The stated needs in 1988 was 10.0% of women of fertile age compared to 9.2% in 1993. In rural areas the ratio of women in need of family planning services decreased by 2.3 percent and at the MASS and other urban areas it increased by 1.0 percent. This represents a greater demand by women in urban areas.

## 2.2 Family planning service providers

The MOH is the largest provider. In 1993, 48.9 percent of all female users of fertile age, married or with a common-law companion, reported the MOH as their source of services. ADS and the ISSS covered 15.3 and 14.5 percent, respectively. Pharmacies were mentioned in 9.3 percent of cases, while private clinics or physicians were mentioned only by 4.2 percent.

The MOH's coverage in 1993 compared to its coverage in 1988 showed a decrease of 8 percentage points, while ADS' and ISSS' coverages increased by 2.3% and 3%, respectively. Pharmacies increased their participation by 1.1 percent during the same period. The greatest decline at the MOH was experienced in other urban areas (12.4%), followed by rural areas (5.5%) and the MASS (4%).

The ISSS has decreased its coverage in the MASS (1.0%) and increased it in other urban (5.3%) and rural (3.1%) areas. ADS increased its coverage in rural areas by 1.1%; by 3.2% in other urban areas; and by 4.2% at the MASS.

## *STRATEGIES*

### *Ministry of Health*

The MOH provides services through its health facilities, mainly those attended by physicians. Some MOH's facilities are not observing the national sterilization standard; they are applying unwritten standards or internal policies. The general criteria is that women have at least two children or that they be older than 25 years of age.

Family planning (FP) services usually do not require an appointment, although appointments are made for follow-up visits. Depending on the method chosen by the user, she is immediately provided with a contraceptive or a temporary barrier method while she waits for the adapt moment to start with the selected method.

Drugs and supplies for the Family Planning Program are donated by several international agencies, such as the World Bank, UNFPA, the Dutch Government/PAHO/WHO, the EEC and USUSAID. In this way, the diversity of pregnancy spacing methods and the resources for strengthening surgical procedures are complemented.

Post-delivery sterilization is generally carried out at regional hospitals and health centers. The Maternity Hospital contributes by increasing the numbers of sterilizations. Services vary from one place to another within the MOH depending on the available staff, surgical supplies, etc. The main obstacle is the lack of medical staff.

The intervention of MOH's promoters in the FP program varies significantly depending on the coordination with physicians in the different facilities to which their patients are referred. In places visited, some promoters were providing family planning methods, and others were not.

Health education regarding family planning when offered is individual and at the moment of consultation, and only related to the method the potential user is interested in. Usually, the need to space pregnancies is not discussed. Interviewees pointed out the lack of materials and supervision in this area.

The family planning program data system, is a vertical system, designed separately and not integrated into the MOH's current information system. To achieve better results, the program's data should be integrated to the MOH's to optimize management decision making regarding family planning.

The promoter is an ideal resource for family planning activities in rural areas. His/her presence and potential should be increased. The empirical midwife is other important resource being underused as far as family planning. The expansion and strengthening of their activities should be analyzed.

#### *Salvadoran Demographic Association (ADS)*

The ADS works through clinics and promoters who sell family planning products to complement his/her monthly salary.

Promoters sell and deliver oral contraceptives to women who request them by using a checklist to determine if the potential user meets the established requirements of the program and for the initial prescription. If the woman does not meet the requirements or if she develops a problem she is referred to the closest medical facility. ADS promotes female sterilization and provides transportation to the hospital and back home.

The FP program has a good monitoring system and provides good-quality services. It also provides users a variety of options. At present, ADS is being supported by USAID.

#### *Salvadoran Social Security Institute (ISSS)*

The ISSS procures monthly contraceptive injections that have been well accepted and have worked almost without failure. They have been able to reduce IUD's failure rates from 41.8/1,000 users in 1989 to 3.5 in 1993, thanks to training in the placement of this device. There are no standards on parity and/or age; nor is the spouse's permission required for sterilization. The surgery is carried out upon the woman's request.

ISSS educational activities include visits to factories to promote family planning methods and the use of condoms to prevent STDs.

#### *Maternal-Child Health Program (PROSAMI)*

Not all PROSAMI's NGOs develop a total FP program. The ones who do (34) provide oral cycles (Lo-Feminal, 35 mg) and condoms, only. Catholic NGOs (2) do not distribute contraceptive methods for religious reasons. Some NGOs give guidance on the use of the rhythm method.

## V NEWBORN CARE

### 1 Newborn care

Newborn care is closely linked to delivery. The quality and type of care that the new born receives during its first hours of life depends where the latter takes place.

The MOH is governed by a manual of maternal-child health norms (*Normas integradas de la atención materno-infantil*). This manual regulates educational aspects which are used to guide mothers on the newborn's care during the first 28 days of life (vaccination, early stimulation, etc.). The ISSS' guidance on standards and procedures is similar to that of the MOH.

As previously mentioned, the main causes of neonatal mortality are low birth weight, birth trauma or asphyxia, and congenital anomalies. The first two causes are directly affected by prenatal care and malnutrition.

The second cause of neonatal mortality which would be reduced significantly if deliveries were attended by trained personnel, especially in rural areas. Midwife training should be strengthened as well as the role of MOH's and NGOs' health promoters, as they are vital for reducing neonatal mortality and improving delivery conditions.

#### 1.1 Perinatal care

The manual states that all newborns must be vaccinated (BCG and polio) before being discharged from a health facility; except for cases of low birth weight. Vaccination coverage of newborns prior to discharge depends upon several factors such as availability of resources (vaccine and vaccinator) 24 hours a day, including weekends and holidays. The MOH's visited facilities informed having coverages ranging from 80% to 90%. The ISSS reports a coverage of 80%.

Delivery conditions and difficult access to health services in the rural area influence vaccination rates of newborns. The lack of guidance, especially for the primipara, is an important factor for neonatal deaths among other.

The MCD/MOH reports 29% coverage in children under one year in 1993. This rate is far below 1991 (42.8%) and 1992 (44%). It seems that the low coverage is due to the fact that most visits to health care facilities are motivated by sickness--little importance is given to preventive care.

#### *Kangaroo Pouch*

This program is aimed at low-birth-weight and premature newborns discharged from hospitals. The mother learns to place her newborn on her chest, under her clothes, to maintain the baby's temperature stable, and near her nipple so that the newborn can have constant access to milk.

The MOH thought of including this program as part of the Maternal-Child Department's strategies, but it was not found feasible due to the complex logistics this program requires.

This strategy is being promoted by some NGOs, especially those involved in breast-feeding. Unfortunately, the number of staff trained in this technique as well as coverage are unknown.

## 2 Breast-feeding<sup>19</sup>

The advantages of breast-feeding are well known; the protection it provides against diarrheal diseases has been proven as well as its nutritional benefits. On the other hand, mothers who feed their children exclusively with their milk are protecting themselves against getting pregnant. The lack of mother's milk or of a suitable substitute results in the newborn's early malnutrition and gastroenteric diseases due to eating utensil contamination.

Malnutrition affects children even before reaching 6 months of age in El Salvador; 14.4% of children between 12 and 36 months old have a low weight for their age. The low-weight rate starts to decline after this stage. Infant morbidity due to diarrhea and acute respiratory infections is also higher during the first years of life. The two principal causes of these infant health problems are the low rates of children who are breast-fed exclusively<sup>20</sup> during the first months of life and a poor supplementary diet.

### 2.1 Infant and child feeding practices

In El Salvador 91% of women breast-feed their babies for an average of 15 months. However, the mean time of mother's milk as the exclusive food source is very low, since only 26% of them breast-feed their children from 0 to 2 months of age and only 6% of mothers breast-feed their children exclusively within three to five months after delivery. The standard established by the MOH is that all infants should be fed exclusively with mother's milk during their first 4 to 6 months of life.

Supplementary food practices particularly among rural children are generally poor in calories and low in nutrients such as Vitamin A. The caloric and nutrient input of food provided is very low (contains much water or an inadapt amount of fats); besides, feeding frequency is lower than required for infants and children.

### 2.2 Promotion and training

There are programs that pursue baby feeding improvement. The MOH's Maternal-Child Health Department has been very committed to the promotion of breast-feeding. *The Initiative of Children's Friend Hospitals* and the drafting of a law for *Breast-feeding Support, Promotion and Protection* are examples of such efforts. However, this bill has not been passed by the Legislative Assembly.

The Maternal-Child Health Department is the coordinator of the Breast-feeding Technical Committee, which consists representatives of UNICEF, PAHO/INCAP as well as of the Breast-feeding Support Center (CALMA).

The MOH's Nutrition Department has a wide experience in the promotion of improved supplementary food. A recent study conducted by the Manoff Group, as part of the World Bank project, provides detailed information on feeding practices. This project's first stage includes the carrying out of a social marketing campaign to improve infant food.

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<sup>19</sup> For further details on Breast Feeding refer to the complementary report on *Breast Feeding Assessment* prepared by Sandra Hoffman et al., Wellstart, sponsored by AID/Washington.

<sup>20</sup> Exclusive breast-feeding is when a mother feeds her child during the 4-6 months of life only with her milk without no other food in the infant's diet.

Health staff has received training in breast-feeding thanks to joint efforts by CALMA, UNICEF and the MOH. It has been reported that 80% of the Ministry's hospital staff has been trained. A selected group of physicians and nurses have received a 2-4 week training in breast-feeding management sponsored by Wellstart<sup>21</sup> (special breast-feeding program for health professionals).

Since 1992 the MCD has been promoting midwife training programs developing breast-feeding concepts in more detail. However, these training programs are not enough to solve the daily problems they encounter.

There are 36 NGOs working in breast-feeding and/or infant growth and development. CISI and PROSAMI provide NGOs with training programs, educational materials, etc., to help them in their efforts to improve infant survival activities.

### 2.3 Hospital policies

As a result of health personnel training, practices at the MOH hospitals are good but they have not been standardized throughout the institution. For example, the time elapsed between delivery and the mother's reception of her baby varies among facilities; besides, the routine procedure of administering glucorated serum to the newborn is less followed.

In contrast, at the ISSS Io. de Mayo Hospital in San Salvador and at private hospitals, the baby is separated from his/her mother for 6 to 12 hours after delivery. During that time, babies are given glucorated serum and formula and they are kept in separate rooms. At the private hospitals visited, mothers receive a free sample of formula upon discharge.

The findings of the audit conducted at the *Children's Friend Hospitals* in November 1993 will show the MOH's achievements at its hospitals and health centers.

The Children's Friend Hospitals' regulatory and strategic actions should be strengthened and applied throughout the health sector, including private hospitals. On the other hand, baby formula producers and dealers must abide by the regulations on maternal milk succedaneous management.

### 2.4 Community practices

In rural areas 46.4% of deliveries at the woman's home are attended by empirical midwives. One of the practices midwives recommend is that although the baby can be breast-fed after birth, other liquids can be administered such as sugared water or rice water until milk starts coming out. The early use of other liquids requiring nipples is a potential source of contamination for the baby, which could result in diarrhea.

### 2.5 Infant feeding policies

The MOH issued the *Breast-feeding Protection, Promotion and Support Declaration* in April 1992 clearly stating the Ministry's breast-feeding policies. This is an example to be followed by other priority programs.

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<sup>21</sup> Wellstart is an international program that supports breast-feeding promotion, investigation and training. Its headquarters are located in Washington, D.C., U.S.A.

The draft of the *Breast-feeding Support, Promotion and Protection Law* proposes the creation of a Breast-feeding Commission consistd of members from other Ministries. This law restricts the commercialization of maternal milk succedaneous. The Commission is an entity necessary for the design of long-term breast-feeding policies.

There are laws that provide for maternity leave in the formal sector. Nevertheless, more than 50% of working women do so in the informal sector. The law allows public sector workers to take a leave of four weeks before and eight weeks after delivery.

### 3 Well child care

Child growth and development monitoring is of vital importance. This component becomes the integrating axis around which all child care actions must rotate. A sound coordination and regularization of activities and strategies in this field will allow the strengthening of the target group's health, thus reducing infant mortality.

#### 3.1 Institutional status

##### *Ministry of Health*

Standards are not uniformly applied throughout health facilities. Materials for care, supervision and education are not always available (for example, the Child's Card). The MOH's maternal and child information system does not receive data on actions carried out by promoters because they are reported through a parallel system (the Community Health Department's system), which is supported by APSISA. Consequently, this information is not shared with other MOH's entities.

##### *Salvadoran Social Security Institute*

The ISSS is assisting children under 3 years of age. However, less than 50% of eligible children were assisted. The ISSS administrative system is extremely bureaucratic and discourages people from enrolling their children. Therefore, mothers do not take their children to well-child monitoring consultations, unless they are sick. Monitoring visits for well children are not actively promoted by the staff.

##### *Other Organizations*

In general, NGOs follow the same standards and use the same basic materials as the MOH. The difference lies in the different degrees of commitment to growth monitoring among organizations; however, many of them are fully committed and have developed additional educational materials. Supervision is under the responsibility of physicians/maternal-child technologists who are also in charge of other projects and activities within their corresponding areas.

#### 3.2 Coverage

MOH's coverage is estimated according to the assumed percentage of open population it must serve. From 1991 to 1993, coverage for all groups has declined (Table 16).

Table 16

## WELL CHILD CARE PROGRAM COVERAGE

Age/years	1991	1992	1993
< 1 year	42.8%	44.0	29.0%
1 to 2	28.0%	28.0%	23.0%
2 to 4	13.1%	14.0%	11.4%

Source: Maternal-Child Department, MOH.

According to the MOH's Statistics Unit, growth and development monitoring activities during the first half of 1992 covered 35.5% of consultation demand due to morbidity. A total 11,170 children (27.15%) were under 28 days of age. Table 17 shows the risk classification.

Table 17

## REGISTRATIONS IN THE WELL CHILD REGULAR Care PROGRAM

January-June 1993

Age	Without Risk	Low Risk	Mid and High Risk	Total
< 1 year	10,695	29,140	1,465	41,300
1 year	637	2,284	270	3,191
Total	11,332	31,424	1,735	44,491

Source: Statistics Department, MOH.

Table 18 presents target population data per age groups (population as per the 1992 Census); MOH coverage estimated at 40%; consultation indicators as per the standard; and the number of consultations that should have been given. In fact, coverage is well below the ideal number of consultations. Assuming that the same number of consultations given in the first half of 1993 (44,491) were given in the July-December period, consultations would add to 88,982. Comparing this figure to the ideal number shown in Table 18, only 10.6% would have been covered. NGOs should do this exercise to verify their own achievements.

Table 18

**TARGET POPULATION AND NUMBER OF CONSULTATIONS AS PER WELL CHILD GROWTH AND DEVELOPMENT INDICATORS**

Age	Population per age group	Estimated coverage 40%	Indicators or cxy*	Ideal of consultations
<1 year	132,566	53,022	6	318,132
1 year	129,115	51,646	4	206,584
2 years	127,951	51,036	2	102,072
3 year	128,591	51,436	2	102,872
4 years	133,025	53,210	2	106,420
<b>Total</b>	<b>651,238</b>	<b>260,350</b>	<b>-</b>	<b>836,080</b>

\* cxy: Number of consultations regulated per year.

Source: DIGESTYC, 1992 Census; Integrated Standards Manual MCI/MOH.

The ISSS beneficiary population from 0 to 2 years of age totalled 42,154, of which only 3,294 minors or 11% had been registered. It is estimated that the ISSS covers from 70% to 80% of beneficiaries registered for growth and development monitoring. In 1991 coverage was of 77.4% and in 1992 of 83%.

#### *Integration with other programs*

The integration between nutrition, immunization and food education programs and growth and development monitoring actions allows a greater impact on infant health. In view of the decline in the achievements of the child growth and development monitoring component, alternatives must be sought to strengthen such component. The coordination and integration of all efforts -- both at the central and regional levels, but mainly at the operational level -- are essential. Consequently, strategies that will come to satisfy the stated need should be proposed. To this end, the need to integrate promoters and midwives in the implementation of major actions regarding growth and development monitoring actions must be taken into consideration.

In fact, this interrelationship would have to be improved first within the MOH, where programs are carried out by different administrative units, and later outside the MOH involving NGOs that have physical and human infrastructure to support growth and development monitoring as well as food supplement actions.

#### *Cultural perception<sup>22</sup>*

Community perception of preventive actions can be a factor causing a low demand of services. Other factors could be service accessibility and the underestimation by the community of the importance of care visits.

<sup>22</sup> Community perception has been captured in the findings of the field work carried out by Dr. Susan Kolodin, whose report is part of ANSAL'94 technical reports.

Health education stressing the importance of disease prevention to have healthy children are of vital importance to break the population's inertia in relation to its perception of a health unit and of the services and benefits it can offer.

## VI DIARRHEAL DISEASE CARE PROGRAM

The Diarrheal Disease Care and Oral Rehydration Program (CEDRO) started operations in 1978 and is managed by the Maternal-Child Department (MCD) as far as care for children under 5 years. Cholera care from the regulatory and epidemiologic point of view is carried out by the MOH Epidemiological Unit.

At the ISSS, the use of Oral Rehydration Therapy (ORT), although regulated, is very low. Given the ISSS' type of scheme, where many patients are assisted by subrogated specialists, a standard application care cannot be executed.

Almost all NGOs working in the health area have implemented strategies for diarrheal care and oral rehydration therapy. The use of ORT by promoters or trained members of communities around the world has proved the effectiveness of this method for many years.

### I Problems

#### *Mortality*

In 1990, diarrhea was the first cause of death in children under 1 year (17.2% of all deaths). Deaths in this group represented 49.3% of the deaths due to diarrhea for all ages. Likewise, diarrhea was the first cause of death for the group age 1 to 4 years and represented 19.25% of total deaths due to this cause. Consequently, mortality due to diarrhea in the group age 0 to 4 years accounted for 68.55% of total deaths due to said cause in El Salvador during 1990.

FESAL-93 reports that diarrhea accounts for 20% of the deaths in children under 5. Table 19 shows distribution per age group and place of residence.

Table 19

#### MORTALITY DUE TO DIARRHEA

Age Group	Percentage
Under 1 year of age	
Urban Area	20.2
Rural Area	18.0
From 1 to 4 years	24.1
From 0 to 4 years	20.0

Source: FESAL-93.

*Yearbook 23, Salud Pública en Cifras*, which includes data from the DIGESTYC, reports that the total number of deaths due to diarrhea in children under 1 year is 635 (350.5/100,000 ratio). Applying the infant mortality rate of 52/1,000 live births, deaths total 7,862 in children under one year ( $52 \times 151,210/1,000^{23}$ ) in 1992. If

<sup>23</sup> 151,210 births occurred in El Salvador in 1992.

the percentage of the deaths due to diarrhea reported by FESAL-93 for the same group (19%) is applied to the projected number of the deaths in children under one year, the result is 1,494 deaths. The difference between projected deaths in children under one year and deaths reported for the same group is of 859 cases. This exercise is useful to highlight the significant understatement existing as far as infant mortality.

#### *Morbidity*

In a 1992 investigation developed at 80 sentry posts, the diarrheal disease prevalence for each region was studied. The results are summarized in Table 20. As it can be observed, the Central Region is the one showing the highest prevalence with 41.2%. The Metropolitan Area, perhaps due to a better access to sanitation and educational services, shows 29.9% only. However, at the ISSS, diarrhea is the second cause of general morbidity despite the fact that the majority of beneficiaries live in urban areas.

Table 20

#### ACUTE DIARRHEAL DISEASE PREVALENCE (ADD) PER SENTRY POST, 1992

Region	% Prevalence
Central	42.2
Paracentral	41.2
Eastern	40.0
Western	30.9
Metropolitan	29.9

Source: Maternal-Child Department, MOH.

The *National Integrated Maternal-Child Health Program* estimated that in 1990 every child presented 5 diarrheal episodes a year, representing a morbidity rate of 190/1,000, and an average of 4.1 diarrheal episodes a year in 1993.

PROSAMI's NGOs have applied this indicator of projected cases of diarrhea to their programming, which becomes a goal to be achieved (diarrhea cases to be treated). However, this is a difficult goal to achieve since many are mild diarrhea and dehydration cases which are treated at home and which do not require the promoter's or health facility's assistance; even though the indicator is correct, it must not be expected that treatment be sought for each episode.

Efforts to educate mothers on the application of treatment plan A can also be accountable for the fact that assistance is not requested in many cases, which would indicate that health education efforts are attaining the expected impact.

## 2 Impact indicators

The MCD's estimates of access and use rates of Oral Rehydration Therapy (ORT) and Oral Rehydration Salts (ORS) are obtained with basis on the data gathered by said Department at the sentry posts. The ORT is the application of any treatment plan (A, B, C). Therapy with ORS is achieved through treatment plans B and C.

USAID Mission in El Salvador imports approximately 3 to 5 million Oral Rehydration Salt envelopes (ORS) for the MOH and PROSAMI's NGOs. There are also envelopes imported through UNICEF. By the end of 1993 there was a stock of 3,173,000 Oral Rehydration units.<sup>24</sup> The ISSS has a surplus of such envelopes.

*ORS access rate*

This is the proportion of the population that has reasonable access to a trained provider (promoter, nurse or physician) that has a continuous stock of ORS.<sup>25</sup> El Salvador's rate is 84%. High access may be due to the efforts made during the cholera prevention campaign.

*ORT use rate*

This rate shows the proportion of all diarrhea cases in children under 5 years treated with ORS and/or liquid home remedies<sup>26</sup> (plan A, B and C for diarrhea treatment). El Salvador's rate is 45%.

*ORS use rate*

This represents the percentage of diarrhea cases treated with ORS in children under 5 years.<sup>27</sup> El Salvador's rate is 45% as per sentry post reports.<sup>28</sup>

If we compare the results obtained in the FESAL-93 Survey to the MOH's findings regarding treatment impact, we see that they are very similar. Out of the number of children suffering from diarrhea reported by FESAL-93, 92.7% were treated; at least one third received treatment by a doctor or a nurse; while the remainder was cared at home by friends, family members or at a pharmacy. ORS were used in 50.8% of cases; home prepared serum was used in 23.1% of reported cases; and only 1.7% received intravenous treatment. Commercial drugs were used in 85.6% of all cases, which indicates that children received other medication besides ORT.

The above mentioned findings are important since they show the importance given by communities to the use of ORT and ORS in diarrhea treatment.

CISI carried out a study in May 1993 measuring the level of ORS and ORT use in several communities which, as per the report, are benefitted by its prevention (Community Health Houses). A total of 37.2% of mothers reported having increased the amount of liquid intake for their children, while 60% reported a reduction in food intake. This situation cannot be overlooked since this practice fosters malnutrition. This problem may be due to two reasons: (1) it is possible that not all mothers are aware of Plan A for diarrhea treatment and (2)

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<sup>24</sup> For data on drug management refer to the technical report *Pharmaceutical Product Management* prepared by J. Bates and D. Lee for ANSAL'94.

<sup>25</sup> *Management Course for Activity Coordinators (DEC)*, Maternal-Child Health Program, Diarrheal Disease Control, PAHO/WHO, 1988.

<sup>26</sup> *Ibid.*

<sup>27</sup> *Ibid.*

<sup>28</sup> MOH interviewees claimed that the rate was 100% since ORS were provided for every case of diarrhea. This data is not accordant with the definition given by PAHO/WHO.

it may be that health personnel provide mothers with little education on the importance of feeding the child even during a diarrhea episode.

This same study reports that 33.44% of patients were prescribed ORS. This is a very low percentage if taken as the only parameter, since it does not specify what type of diarrhea was treated nor if diarrhea was accompanied by simple dehydration or shock dehydration. Data on how many mothers were indicated to manage diarrhea cases at home following treatment plan A, in which ORS are not used, is also missing.

As far as prescription standards for acute diarrheal diseases (ADD), they were observed in 39.4% of cases with a partial failure in 31.5% of cases, while in 8.3% of cases children received contraindicated drugs. There are reports on the lack of adherence to standards and poor diagnosis recording by physicians.<sup>29</sup>

It is worth mentioning that despite previously mentioned problems, the number of diarrhea cases treated with ORT and ORS has increased. The lack of a clear and explicit policy on diarrhea management with ORT for both children and adults<sup>30</sup> explains the insufficient use of this type of treatment at all public and private care levels.

Standard duplicity (Cholera and MCD), as well as the physical absence of said standards at health facilities, create confusion and cause the inadapt management of diarrhea cases.

The definition of a national policy for diarrhea treatment, including cholera, is recommended; this policy should be reinforced with a sole treatment regulation to allow for a unified and effective application.

Exclusive breast-feeding rates are extremely low in children under 6 months and diarrhea rates are high. Therefore, the promotion of mother's milk as the sole food for babies should be an total part of diarrhea care activities. This is very important in view of the high contamination of drinkable water.

### 3 ADD hospital care

Diarrheal diseases ranked fourth as hospital discharge cause in 1991 (Salud Pública en Cifras, 1991), after deliveries, bronchopneumonia and miscarriages.

The Bloom Hospital's monthly statistical report does not clearly specify the number of minors requiring ORT at the CEDRO room. This report does not classify case types nor specifies whether they are new or subsequent cases, nor how many constitute diarrhea cases needing treatment plan C, nor how many failed requiring hospitalization. Also, it does not specify if used envelopes (an average of 2.05 per each diarrhea case) were for inpatient rehydration or if the envelopes were given to mothers with instructions for their use accompanied by the corresponding educational message.

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<sup>29</sup> *Drug Prescription and Use in ARIs and ADDs*, Consultoría e Investigaciones en Servicios de Salud, S.A. de C.V., El Salvador, 1993.

<sup>30</sup> The MOH assures there is a policy since the use of ORT is regulated by the Integrated Standards. These standards are not applied by all institutions providing infant care.

It is recommended that this report be reviewed to clearly indicate the number of treated cases, their dehydration status, and prescribed treatment plan. To this end, it is very important that cases that have required hospitalization as well as the ones presenting complications be taken into account.

#### 4 Prevention and training

##### *Prevention*

It is reported that 54.8% of the country's population has access to public water supply (Table 21). In the rural area 83.9% of the population lacks potable water and 13.6% in the periurban areas.<sup>31</sup>

Table 21

#### ACCESS TO AQUEDUCT SERVICES COMPARED TO TOTAL POPULATION DECEMBER, 1992

Access to water	Public System		Without public system
	With house connections	With public basins	
Urban and Periurban	82.4%	4.0%	13.6%
Rural	15.4%	0.7%	83.9%

Source: Pro-Water Project/MASICA/PAHO/WHO.

It is acknowledged that the integration of water and sanitation components within infant survival actions have a greater impact in the long run, especially if they are coordinated and executed with the community's active participation. It has also been acknowledged that besides the impact this integration might have on health, the water and sanitation component also affects the productivity and development of the communities.<sup>32</sup>

A large number of projects financed by different sources to guarantee potable water supply have been implemented at the rural level. Community participation is vital for these types of projects; however, it has been lacking in many occasions.

Latrinization projects are carried out by various entities without homogeneous technical criteria. Many problems arise. For example, no consideration is given to the type of latrine, soil and aquifer characteristics, or to the latrine design that would be suitable for the concerned population's habits and attitudes; these facts question the validity of the sanitation and environmental latrinization process.

Regarding the population's education on sanitation, programs vary significantly in El Salvador. These programs range from campaigns targeted at specific goals with a deadline to open programs and large- scope community development programs.

<sup>31</sup> Technical report on Health and Environment, ANSAL, prepared by Engineer Roberto Argüello.

<sup>32</sup> *Strategies to Integrate Water and Sanitation Programs with Infant Survival*, technical report No. 65, September 1990, WASH/AID Project.

An important link for all these programs are health promoters who must foster community participation as part of their duties; however, not all hamlets have been assigned health promoters. Despite this situation, the Community Health Department has progressed a lot in a relatively short period of time regarding the number of promoters (from 579 in 1991 to 1,442 in 1993). Still more than 30% of hamlets in the rural area lack a local promoter. Even with an expected coverage of 80% by the end of 1994, the number of promoters at hamlet level will only represent the minimum coverage required.

A specific strategy to reduce morbidity due to diarrhea has not been developed; the current practice is to give mothers a series of instructions which many times are difficult to follow. If only one strategy were used, such as washing hands, actions would be simplified and impact would be greater. Let us not forget that this single general instruction has had a great impact to reduce diarrhea morbidity.

#### *Training*

There is a nationwide training program for the management of diarrhea cases which is being implemented through continued education programs. ARI and ADD Training Units will be incorporated in the three Regional Hospitals starting from 1994.

NGOs are promoting treatment plan A among promoters and providing them with the necessary training so that they can train mothers in the management of said treatment. Training within NGOs has made treatments and salts available in such a way that the ORS use rate by PROSAMI's NGO promoters is of 83%.

The strengthening of training programs in both the mother participation component and the health component addressed to promoters and midwives is recommended. The active participation of health staff in the total management of diarrhea cases will help to reduce one of the principal causes of death in children under 5 years.

## VII ACUTE RESPIRATORY INFECTION CARE

### 1 Problems

#### Mortality

FESAL-93 reports ARIs as the second cause of infant mortality. Table 22 shows its distribution per place of residence. ARIs are the first cause of mortality in children age 1 to 4 years, and the second cause in children from 0 to 4 years after diarrhea. This information coincides with the data reported in *Yearbook 23, Salud Pública en Cifras, 1991*, for the whole country.

Table 22

#### MORTALITY DUE TO ARIs PER AGE GROUP, ACCORDING TO FESAL-93

Age Group	Percentage
Under 1 year	
Urban	16.2%
Area	16.4%
Rural Area	
From 1 to 4 years	27.8%
From 0 to 4 years	18.6%

Source: FESAL-93.

The number of child deaths due to ARIs at the national level seems very low and does not represent reality. The DIGESTYC (Yearbook 23) reports a total of 638 deaths due to ARIs in children under 5 years. If the infant mortality rate of 55/1,000 live births is applied, a total of 7,862 deaths in children under 1 year is obtained ( $52 \times 151,210/1,000^{33}$ ). If the percentage of the deaths due to ARIs in children under one year reported by FESAL-93 (16.2%) is applied to the projected number of the deaths in children under one year, the result is 1,274 deaths. The difference between projected deaths in children under one year and deaths reported in children under 5 years is 636 cases. Again this exercise highlights the significant understatement of the country's general data, a problem that must be solved in order to have accurate statistical data available.

#### Morbidity

Morbidity data indicate a high percentage of ARIs such as rhinopharyngitis, bronchopneumonia, flu and pharyngitis. FESAL-93 reports an overall prevalence of 68.6%, slightly higher in the rural area than in the urban area. Regarding treatment, FESAL-93 reports that 93.6% of total cases received some kind of treatment; 43.7% was assisted by a doctor or a nurse. Antibiotics were prescribed in 62.4% of cases at the MASS, while in 47.9% of cases in the rural area.

As far as antipyretics, these were prescribed in 63.2% of all treated cases. At the MASS, they were prescribed in 58.5% of cases and in 66% of cases in the rural area.

<sup>33</sup> 151,210 is the number of births registered in El Salvador in 1992.

These data show differences regarding ARIs management in urban and rural areas. In the former more antibiotics are prescribed than in the rural area, where the trend is to manage symptomatic treatments. FESAL-93 data do not break down promoters' activities.

## 2 Access to treatment

The fact that ARIs start mildly and evolve into severe cases is why mothers do not pay the necessary attention at the onset of these diseases. The effects of repeated colds or pharyngoamygdalitis on child development are evident: A vicious circle of sickness-malnutrition-sickness is established which eventually ends in the minor's premature death.

Promoters' training in ARIs (and diarrhea) management has contributed to reduce mortality due to these diseases. Due to their direct contact with the communities, health promoters have the opportunity to detect health problems at an early stage. This MOH's staff receives training to diagnose ARIs and assist with asymptomatic treatments in mild cases, referring difficult cases.

Referrals by the Ministry's promoters during the first 9 months of 1993 amounted to 2,869 (the seriousness of the disease is not specified), of which only 1,827 (63.4%) were fulfilled. The reasons for referral nonfulfillment (40%) are many and varied; for example, the family does not deem convenient to take the minor to the health facility because they think it is not necessary; they cannot afford travel expenses; or because they were not received at the health facility due to any reason whatsoever. These problems leave a large percentage of children without the adapt care for their illness.

PROSAMI financed NGOs have incorporated into their training curricula basic antibiotic management to treat diseases, referring severe or very severe cases.

The MOH has expressed its disagreement with the previous practice due to two reasons: First, the standard establishes who and how should manage mild cases (promoters and auxiliaries), but does not specify if the persons trained in antibiotic management are able to provide total care. Second, the MOH has a weak operational supervision capacity; therefore, the institution's concern about the promoter prescribing antibiotics in all cases upon the community's request is understandable.

PROSAMI was evaluated regarding the total management of ARIs by its promoters. This consultation allowed the detection of two aspects that show the impact this type of ARI management has (active detection):

- a) The early diagnosis by promoters in many cases of severe pneumonia and severe illness which were referred for treatment.
- b) The early diagnosis and treatment with antibiotics by promoters in numerous cases with signs of pneumonia. These cases evolved favorably.

The same consultation points out that the scheme used by PROSAMI's NGOs allows to strengthen the viability of the participation of community members with a low level of formal education within the ARI care program structure, including antibiotic management for the treatment of pneumonia in remote places and the timely referral of severe cases.

The report also states that ARI total management should be strengthened in several aspects, such as a more homogeneous training to promoters and supervision aimed at solving promoters' problems regarding knowledge and evaluations.

It is also pointed out that PROSAMI has proven that it is possible to establish activity coordination structures between and among NGOs to unify specific technical criteria and to strengthen actions aimed at a common goal.<sup>34</sup>

The issues highlighted in the report must be taken into account to reduce infant and child mortality rates, whose two major causes are diarrheas and ARIs. Total case management by promoters is an option to increase real coverage by NGOs and the MOH in order to solve community problems.

#### *ARI hospital management*

A large number of ARI cases are hospitalized and constitute the second cause of hospital discharge after deliveries. Hospital Bloom in San Salvador ranks first in hospital discharges (Table 23). At this hospital, ARIs ranked third as cause of inpatient deaths in 1992 with a total of 58 deaths. Hospital lethality rate of ARIs at the Bloom Hospital is of 3.7%. Per age group, the group of children under 28 days of age presents a lethality rate of 7.05%, while the group of children under one year presents 6.4%, being these the two most affected groups.

Table 23

#### DISCHARGES AND DEATHS DUE TO ARIs BLOOM HOSPITAL, 1992

Deaths and Hospital Discharges	< 28 days	< 1 year	1-5 years	> 5 years	Total
Hospital Discharges	85	512	588	392	1,577
Deaths	6	33	16	3	58

Source: Statistics Department, Bloom Hospital.

Data on the type of pathology for outpatients were not available, but it was reported that 11,348 consultations due to ARIs were demanded at the emergency room.

The non observance of standards for treatment at the Bloom Hospital's emergency room causes service saturation with cases that do not require hospitalization.

Pediatrics resident training should be reinforced so that ARI management is carried out according to established standards. It is acknowledged that doctors resist this type of simplified treatment.

It is expected that training actions being carried out revert the current treatment pattern.

<sup>34</sup> *Assessment of Acute Respiratory Infection Control Activities in Children Under 5 Years of Age in El Salvador* prepared for PROSAMI, REACH, John Snow, Inc., 1993.

### 3 Prevention and training

#### *Prevention*

The importance of basic sanitation actions for the prevention of ARIs is widely known, mainly regarding the care of smoke and high temperatures generated inside the rural home. There are programs for the construction of kitchen ranges on platforms or outdoor stoves with the purpose of preventing burns, an accident which is very common in areas where charcoal or firewood is used to cook.

It is important that these programs go hand in hand with the corresponding educational component while promoting community participation in order to assure the programs's success.

Many NGOs reach target populations through educational programs that transmit ARI prevention messages. Nevertheless, not all of them have the technical or financial support necessary to produce adapt materials. Action coordination and educational material sharing could favor the educational impact of these programs.

#### *Training*

During the second half of 1993, the MCD trained health staff in ARI management. This training was supported by PAHO and started at the Benjamin Bloom Hospital in San Salvador. According to the standards provided in this training, mild ARIs include colds, cough and those processes that do not reach the level of pneumonia. Moderate and/or severe cases are pneumonia and complex processes. Mild cases are treated with symptomatic medicines at home and can be treated by promoters and auxiliary personnel. Severe cases are treated with antibiotics at health facilities where a physician is available. A total of 260 persons (physicians and paramedics) had been trained up to November 1993.

## VIII EXPANDED IMMUNIZATIONS PROGRAM

In the past, measles, whooping cough, tetanus, polio, diphtheria and tuberculosis were the main causes of death in children. Problems such as diarrhea and ARIs for this group were less frequent (or less reported) than now. The actions of the Expanded Immunizations Program (EIP) have come to adaptly care those diseases that can be prevented through immunization. Consequently, mortality in children from 0 to 4 years has declined.

### *Support and financing*

The support of the Panamerican Health Organization (PAHO) to the EIP in El Salvador has helped to improve epidemiological surveillance of diseases that can be prevented through vaccination, especially poliomyelitis.

The GOES contributed 66% (\$1,026,138.00) of EPI's 1993 budget, while the remaining 34% (\$531,634.00) was covered with external financing provided by the Rotary Foundation (40% mainly in vaccines), UNICEF (11%), USAID (38%), and PAHO (11%).

The domestic resource allocation is as follows: 86% for biologics, 5% for promotion, 4% for supplies; 2% for training, and 3% for social mobilization. Salaries are covered with domestic resources.

Foreign contribution is earmarked as follows: 79% for supplies, 13% for promotion, 2% for epidemiological surveillance, and the remainder for training and social mobilization.

The Spanish Cooperation has committed a total of \$200,000.00 for 1994 to reinforce the refrigeration network, which includes the construction of refrigerated rooms at the regional level. A total of \$20,000.00 will be contributed by the EEC to strengthen supervisory actions.

The EIP is under the coordination of the MOH's Epidemiological Unit. Thanks to resources provided by the GOES, the EIP has gained a higher level of independence than other programs. This allows it to carry out supervisory activities and epidemiological research of flaccid paralysis cases and other diseases that can be prevented through immunization, following them up until their epidemiological solution.

The MOH coordinates with NGOs to provide their areas of action with vaccination coverage. Training and biologics are provided by the Ministry; NGOs are in charge of operational supervision.

The ISSS procures its biologics with its own resources and, according to our interviewees, no problems exist as far as procurement nor with their refrigeration network.

### **I Coverage**

The MOH reports an immunization coverage of 61%-62% nationwide in 1992. During the 1990-93 period, 111 municipalities had polio and DPT coverages over 80%, 118 over 80% measles coverage, and 98 over 80% BCG coverage.

Table 24

IMMUNIZATION COVERAGE PER AGE GROUP AND HEALTH REGION,  
OCTOBER 1992- JULY 1993

Region	< 15 years	5 to 14 years	1 to 4 years	< 1 year
Metropolitan	90%	100%	80%	83%
Central	85%	100%	60%	71%
Eastern	78%	85%	60%	79%
Paracentral	60%	78%	40%	80%
Western	59%	70%	40%	83%

Note: Approximate percentages.

Source: *EIP, Country Report*, MOH. Presented in Guatemala, August 1993.

The group of children under 5 years,<sup>35</sup> shows the lowest coverage levels. Only the Metropolitan Area maintains coverages over 80% for all groups. The other Regions, which consist important rural and remote areas, have not been so successful (Table 24).

#### *Measles*

Measles coverages per age groups are: 86% in children under 1 year; 80% in children 1-4 years, and 100% in children 5-14 years.

Epidemiological surveillance actions have allowed the analysis of 80% of cases reported as measles, of which 53% resulted negative and 43% resulted positive. Of the cases studied, 65% had no vaccination history.

#### *Poliomyelitis*

In order to fulfill the American Region's commitment to eradicate poliomyelitis, annual actions to strengthen the regular immunization program are being carried out. The wild poliovirus has not been isolated since 1988.

A negative reporting system is still kept, although its effectiveness has declined and currently it only reports 82% of the facilities.

#### *DPT*

Pertussis shows a downward trend; no diphtheria cases have been reported since 1988. Neonatal tetanus is also dropping thanks to coverage actions aimed at women of fertile age with tetanus toxoid which was of 72% in 1993.

#### *BCG*

BCG vaccination shows the lowest coverage. At the municipal level, only 98 municipalities have a coverage of more than 80%; 87 from 50% to 79%; and 77 have coverages under 50%.

<sup>35</sup> MOH: A coverage of 89% in the 1-5 year-old group.

El Salvador has attained significant achievements regarding immunization actions and this momentum should be maintained. Immunization coverage must be kept high. The ISSS provides 12.5% of total coverage and NGOs 2.5%. Coordination with NGOs would provide a higher coverage in rural areas than the one currently reached by the national program.

The promoters' active participation in immunization actions must be broadly encouraged to achieve better coverages and be able to stay within the safety protection limits.

## 2 Vaccination strategies

The main strategy is permanent vaccination in which biologics are applied at health facilities during office hours. During our visits we were able to attest the existence of sufficient biologic stock adaptly refrigerated; all of them had temperature care devices and vaccine inventory.

At hospitals and health centers, vaccination actions tend to be passive; the mother is expected to request the vaccine for her children, thus wasting the great opportunity that waiting rooms provide to increase coverage and fulfill schemes.

The effectiveness of this strategy is measured by demand and service access in general, as well as by the importance that the vaccine concept has as a means to prevent and protect children's health.

Since permanent immunization actions have not achieved an acceptable coverage, the MOH has established intensive phases that include national vaccination campaigns and special eradication phases.

Two national vaccination campaigns as well as the second phase of measles eradication were implemented in 1993. National vaccination campaigns last 15 days each and are developed simultaneously throughout the country. Measles eradication actions are carried out through home to home visits and the setting up of fixed vaccination posts in high concentration and transited sites. The Epidemiological Unit coordinates regulatory and national operation actions, while each Region is responsible for its area of competence. The programming unit of this program is the municipality.<sup>36</sup>

The application of BCG and polio vaccines to newborns at hospitals and health centers has been stressed, leaving out most or all deliveries assisted by midwives at the community level as well as those who are not attended by trained personnel.

Coordination with other institutions and NGOs is quite good. NGOs apply the biologics supplied by the MOH, covering in this way the areas not easily accessed by the MOH. The MOH sees to the training needs of the NGOs.

Within its action plan, the program allows each Region to decide on the implementation of necessary actions to achieve better coverages, for which it has strengthened the analysis of local level data. It has also strengthened epidemiological surveillance to search and care cases. The MOH intends to implement intensive

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<sup>36</sup> *Operations Manual, Second Stage of the Measles Elimination Phase*, EIP, MOH, 1993.

actions in those municipalities with coverages under 80%. Special attention must be paid to the rehabilitation of the refrigeration network in former conflictive and high risk areas.

Promoters play an important role in complementing the strategy by participating in vaccine inoculation, which can be applied on a regular basis in the community when carrying out community minicampaigns. The participation of promoters, mainly from NGOs, should be encouraged and strengthened, since they could help attain a greater coverage by being available in the rural areas.

## IX VULNERABLE GROUP PROTECTION

### 1 Salvadoran institute for the protection of minors

In order to strengthen the actions of the National Family Secretariat, the Government of El Salvador issued the *National Policy of Minors Assistance* in March 1993.

The Executive Branch passed the Salvadoran Institute for the Protection of Minors Law on March 22, 1992, to provide legal support to the above mentioned policy, by which the Institute is granted legal status as well as technical, financial and administrative autonomy. This institution is responsible for the enforcement of the National Policy of Minors Assistance with basis on the 71 articles included in the corresponding law.

The Salvadoran Institute for the Protection of Minors's main goal is to protect minors who are in trouble or who suffer from any type of abuse, to see to the readaptation of minor offenders, and, in general, to pursue minors' well being through the Minors Solicitorship.

Most part of ISPM budgetary expenses are assigned to salaries, and its food allocation for boarding minors is of 3.25 colones per child a day, an amount that does not allow for a balanced diet. This lack of resources to cover operational expenses must be given priority.

The ISPM has not developed a census of its facilities; therefore, the condition of its facilities, number of boarding minors, and their health and psychological status are unknown. Besides, the Institute lacks an total information system to meet all needs.

Internee turnover is high in all centers due to daily admissions, discharges and flights. It is estimated that the ISPM shelters a total of 2,500-3,000 minors.

During the few months of this Institute's operations, the Admission, Evaluation and Diagnosis Division has received denounces or has intervened in a total of 428 cases (Table 25).

Several of the categories established by the ISPM are related to family problems in which the Institute must intervene, such as minors who are taken from their house to protect them from their parents. There are cases when minors are taken from their house because their parents or the community cannot stand the minors' bad behavior. Minors in transit are the ones whose adoption is being processed and have to wait in the Institute's facilities until the corresponding resolution is issued.

#### *Street Children*

The reference table shows that street children rank first in the Institute's priorities. Due to their living conditions, many join gangs (maras). This problem worsens every day, since, besides committing violent actions, many become glue sniffers, (called like this because they inhale the vapors of contact glue).

The city of San Salvador is not free from this international social problem which attacks the world's great cities. It is not known for sure whether the majority are orphans or not, if they have fled their homes or if they separated from their families when immigrating to the cities from the rural areas and were forced to support themselves.

Table 25

CASES ASSISTED BY ISPM  
May-October 1993

Cases		%
Addicted Street Children	117	27.3
Children in Transit	21	4.9
Sexual Abuse	42	9.8
Physical Abuse	86	20.1
Minors Taken from their Parents' Care	4	3.3
Behavioral Problems	48	11.2
Abandoned Children (Hospital/other)	22	5.1
Children Escaping from Home	35	8.2
Other (Poverty, Malnutrition)	43	10.1
Total	428	100.0

Source: Salvadoran Institute for the Protection of Minors.

#### *Child abuse*

This is the second cause of action by the ISPM; many denounces are received directly from hospital emergency rooms. Upon receiving these types of denounces, a medical check-up is performed by one of the institution's physicians or by the reporting nosocomium. Usually, the cooperation of the Legal Medicine Institute is requested and the latter notifies the ISPM and the competent judge proceeding the case.

It is acknowledged that the number of abuses assisted is not the actual number and that this is just the tip of the iceberg. The magnitude of this problem in the rural area is unknown as well as the global status of the problem.

If we add to this group the one who suffers from sexual abuse (9.8%), including rapes, then this becomes the first problem group. The majority of sexual abuse cases assisted by the Institute are in children under 10 years of age.

It has been reported that there are female teenagers in prostitution centers, especially in the Metropolitan area; this group does not receive any support to abandon this life style.

#### *Orphans and abandoned children*

The civil war left a large number of orphans whose exact number is unknown. The ISPM lacks estimates of this group. It is believed that many of them have become street children. Fortunately, due to the close family relationship structure prevailing in the country, many children who have lost their parents are taken care of by close relatives.

Nevertheless, a current phenomenon is children who are abandoned in maternity hospitals or health facilities, mostly at the MASS, to such an extent that there have been 22 cases (5.1%) in five months. There is no stereotype of mothers who abandon their children with the exception that the majority are humble women who work as maid servants. Mothers' age range from teenagers to women over thirty. According to our informants, some are married women whose husbands have been working abroad for a significant period of time, but it seems that most of them are single women. It is believed that women who abandon their children have set their mind to do so and it has been proven that they provide false data when being admitted.

## 2 Adolescent health

This group has been neglected by many sectors including the health sector, since there is no specific program for adolescent health. If we analyze population data, the importance of this group is evident since it consists 1,294,287 people, representing 25.6% of the total population, who will become the future economic force of the country.

If we analyze age group composition in the country, we can see that the cohort that falls out of this group (15-19) is lower than the one that enters it ((5-9) (Table 26). The possibility that this phenomenon might be repeated in the following cohorts is high due to the country's pyramid type population. These phenomena will make this group become the largest population group, and given adolescent behavior, the one that could present a great amount of health problems.

Table 26

### POPULATION PER AGE GROUPS AND GENDER, 1992

Age	Male	Female	Total
0-4	328,624	322,614	651,238
5-9	333,887	329,727	663,614
10-14	331,060	330,634	661,694
15-19	287,782	300,452	588,239
20-24	210,257	250,423	460,680

Source: ANSAI., population per age group, distribution, taken from the Household Survey, Table A01.

At present time, mortality causes for this group in order of importance are: (1) violence, (2) poorly defined or diagnosed causes, (3) suicides, (4) accidents, and (5) maternity causes.

According to a recent study by Dr. de Ferrer presented during a conference sponsored by PROCADES (Annex 6), gynecological problems among sexually active teenagers are amenorrhoea (it is not specified whether it is primary or secondary); uterine bleeding due to abortion or due to ectopic pregnancy; sexually transmitted diseases; infertile due to infections or early sterilization; fistulas and cervical cancer (teenagers have 4 times more risk of cervical cancer due to early sexual contact and multiple sexual partners).

The mean age of sexual activity starting is 14 years of age. Eighty-one percent of 15 year-old girls interviewed by Dr. Ferrer reported having had sexual experience already. From 13 to 17 years of age, 17% have already had 2 to 3 pregnancies.

Steps should be taken to include this population group in activities aimed at sexual education and prevention, family planning and health in general. AIDS has worsened the adolescent health problem, since it is in this group that an epidemics could break out and the results would be devastating.

## **X NUTRITIONAL STATUS OF MATERNAL-CHILD POPULATION<sup>37</sup>**

### **1 Low birth weight and nutritional status of mothers**

The Low Birth Weight (LBW) indicator is a sound approximate indicator of the mother's nutritional status and at the same time it is an indicator of the future health and nutritional status of the child: A child born with a weight under 2,500 grams has more probability of getting sick and dying during his first year of life, and if he survives, he will under worse conditions than a child born weighing 3,000 grams.

There are no national LBW data available, mainly because a high percentage of deliveries take place at home and the child's birth weight is not recorded. Current data given by the Infant Survival Action Plan (1991) are isolated and partial: At the Maternity Hospital the LBW rate is 16%, and in the case of home deliveries reported by trained midwives it is 21%, which makes one assume that there is an understatement. At the national level, the Kangaroo Pouch workshop held in February 1992 reported a global rate of 10.3%. In 1993, 10.8% of deliveries at the Maternity Hospital resulted in low birth weights.

There is no information on the mother's nutritional status at the national level in El Salvador, although records of weight increase in mothers who undergo prenatal care visits are kept. The last information available regarding women nutritional status dates from 1978, reporting that 12.3% of pregnant women were suffering from anemia of different degrees as well as 14% of lactating women.<sup>38</sup>

### **2 Anthropometry**

#### **2.1 Nutritional status of children under 5 years**

The close relationship among infant mortality, morbidity in the first years of life, and the nutritional status of children under 5 years is known.

ESANES-88 and FESAL-93 surveys provide information on the nutritional status of a representative sample of children under 5 at the national level. Both surveys showed significant deficiencies in all nutritional status indicators, growth delay (Weight/Age), chronic malnutrition (Height/Age), and severe malnutrition (Weight/Height) in El Salvador. In rural areas, malnutrition is more than double than in urban areas. Nevertheless, a decline in malnutrition has been experienced from 1988 to 1993, as shown in Table 27.

The decline in malnutrition in children under 5 years of age in El Salvador from 1988 to 1993 can be explained by the improvement in the targeting of preventive health and nutrition programs on the maternal-child group, thanks to efforts made by the GOES to enhance social policies.

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<sup>37</sup> For further information on nutrition refer to the complementary report *Alimentary and Nutritional Policy in El Salvador* prepared by Fernando Vio, San Salvador, October 1993.

<sup>38</sup> *Children's National Plan, 1991 - 2000*, Ministry of Planning and Coordination of Economic and Social Development.

Table 27

TOTAL MALNUTRITION PERCENTAGE AS PER WEIGHT/AGE AND HEIGHT/AGE INDICATORS\*, PER AREA OF RESIDENCE AND AGE GROUPS  
ESANES-88 AND FESAL-93.

Survey	ESANES-88		FESAL-93	
Indicators	Weight/Age Height/Age		Weight/Age Height/Age	
Area of residence				
MASS	10.0	24.2	7.2	13.6
Remaining Urban	14.7	25.3	9.1	20.1
Rural	17.5	34.5	14.0	28.1
Age Groups				
0-11 months	8.6	11.9	4.8	8.3
12-23 months	23.0	33.0	14.5	22.5
24-35 months	18.8	42.3	14.4	22.5
36-47 months	13.9	30.9	10.7	27.0
48-56 months	12.9	34.1	10.5	32.4
Country Total	15.2	30.0	11.2	22.8

Source: ESANES-88. FESAL-93 (preliminary data still not officially published)

The *First Height Census of Basic Education Students* (between 6 and 9 years of age) developed in 1988 shows that about 30% of children are affected by chronic undernutrition, data that coincide with ESANES-88's findings which also reported a 30% deficit in the Height/Age indicator.<sup>39</sup> The prevalence of growth delay is greater as basic education students' age increases.

The first height census helped to identify geographical zones that were very depressed in nutritional terms. Sixty-seven municipalities showed a very high growth delay prevalence (37.1% to 75%); this finding resulted in a better targeting of social programs aimed at fighting poverty in those municipalities, whose number has increased to 133, with basis on the Ministry of Health's epidemiological and risk criteria. Primary actions to fight poverty include: provision of basic infrastructure, employment generation, credit to microenterprises, and especially primary health programs, and food and nutrition projects.

<sup>39</sup> Ministry of Education, *First height census of basic education students of El Salvador*, 1988, final report, El Salvador, October, 1989.

### **3 Micro-nutrients**

#### **3.1 Iodine deficiency**

Iodine deficiency affects mental capacity, motor coordination and neuromuscular abilities and development. From 1965-67 (INCAP's studies) to 1990 (national survey on endemic goitre prevalence in El Salvador), the iodine deficiency rate has been reduced from 48% to 24%, and goitre prevalence has been reduced from 54.0% to almost 25.0%. Despite this reduction, these percentages are still greater than the 10% cap established by the PAHO. Regional differences are significant and the problem increases with age. Despite a law passed in 1961 enforcing salt fortification, less than 5% of salt was being fortified with iodine in 1988, because 100% of salt factories and 80% of iodizing plants were located in conflictive areas. This problem has been reduced during the last years through a program directly implemented by the Ministry of Health.

#### **3.2 Vitamin A deficiency**

There is an important correlation between the level of Vitamin A and high mortality rates, particularly deaths caused by diarrheal diseases and measles. Vitamin A deficiency is the major cause of blindness, especially in children.

The level of Vitamin A in children under 5 years has not been improved after the development of the first studies in El Salvador. In the 1960s vitamin A deficiency was of 31%, in the 1970s it was 33%, and in 1988 it was 36%. This deficiency is higher in rural than in urban areas.

A total of 46% of children between 12 and 17 months old were suffering from vitamin A deficiency. This rate is high when compared to the ones of other Central American countries. Vitamin A deficiency is caused by the lack of food with a high vitamin A content in the Salvadoran diet, such as fruit, vegetables, fortified cereals and dairy products. Plans are to fortify sugar with vitamin A through UNICEF's support.

#### **3.3 Iron deficiency**

Anemia and iron deficiency reduce children's physical productivity and their ability to learn at school. These problems also cause chronic tiredness and increase the risk of bleeding in pregnant women and of low birth weights. According to ESANES-88 anemia measured by hemoglobin deficit was of 23% in children under 5 years, having the greatest negative impact on those between 12 and 23 months of age.

These indicators prove the lack of an adapt prenatal nutrition as well as the inadapt feeding of children under 5 years, which is the direct result of inadapt ab lactation practices, early weaning, and the lack of adapt food for the subsequent period.

### **4 Current nutritional programs**

#### **4.1 Food delivery programs**

Maternal-child projects are mainly executed by the Ministries of Health and of Education. Current nutritional programs can be grouped into five different types of projects: (1) Supplementary food, (2) Micro-nutrients, (3) Food and nutrition education, (4) Nutritional surveillance, and (5) Food production, processing and consumption in primary health care.

## MINISTRY OF HEALTH

The Ministry of Health has three basic food delivery projects: (1) Food ration, (2) Infant food supplementation with a high-nutritional-value mix (Nutricereal), and (3) Nutrition Rural Centers.

### *Food ration*

Food ration delivery started in the 1980s targeted at pregnant and lactating women as well as children at risk with some degree of malnutrition in rural areas, together with the educational, growth and development monitoring components.

This program's objectives are: (1) increase family food intake; (2) provide institutional support to pregnant and lactating women and children suffering from malnutrition, improving their access to health services, especially to maternal-child preventive actions; (3) improve food-nutrition habits through practical teaching on health care and nutrition; and (4) provide allowances to low-income families.

A *family ration* consists four individual rations, whose market cost was estimated in 250 colones in 1993; these rations are financed by the WFP and will be sponsored by the EEC in the near future. Initially, mothers pay 5 colones to cover costs of transportation, packaging materials, storage equipment, training, and educational activities. Food is delivered once a month.

Children's health care and mothers' prenatal care are prerequisites to be benefitted with the food ration. These cares are recorded in the child's growth and development card and table and in the mother's medical history. Unfortunately, food is delivered on a day other than the one when cares are taken, thus losing the educational impact that the close health-nutrition relationship has when food is delivered immediately after the care.

The goal is to have 74,200 direct beneficiaries of the health component per year. During the last three years, the goal achievement has gradually improved for pregnant and lactating women from 80% in 1990 to 103.4% in 1992. Coverage has been better in children under 5 years and have even surpassed goals in the last three years, fulfilling 125% of the program. Nevertheless, the implementation of educational activities that should accompany the program is very low and the average attendance is of 2.4 mothers per talk.<sup>40</sup>

The Ministry of Planning and Coordination of Social and Economic Development (MIPLAN), through the Economic and Social Advisory Group (GAES), serves as a liaison between the Government and the WFP. The coordination of the Ministries of Health and Education is accomplished by a committee composed of the Basic Education Director General, the Health Director General, and MIPLAN's Technical Cooperation Director. There is a coordinating committee at the regional and local levels made up of project managers of each executing institution.

Logistics management is the direct responsibility of the Directorate General for Food Logistics (DGLA), a unit under the National Family Secretariat (SNF). The DGLA has been taking the food directly to health facilities since the beginning of 1993.

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<sup>40</sup> WFP, Report of the Technical Assessment Mission of the El Salvador 3886 Project - *Basic education development and preventive health care with community participation*, San Salvador, March 1-24, 1993.

Quality care is carried out by the DGL at its warehouses by sending samples to a laboratory that was set up with UNDP/WFP funds. Nevertheless, once food leaves central warehouses no more systematic sampling is carried out. Health facilities are visited by sanitary inspectors and national and regional nutrition supervisors; if there are indications that food is spoiled, samples are taken and sent for analysis to the MOH's central laboratory. If the results confirm that the food is spoiled, a report is prepared and the food is destroyed. When the amount of food to be destroyed surpasses the established limit, a WFP representative must be present during its destruction. Some facilities lack adapt warehouses and this sometimes is the cause for the spoiling of food delivered by the DGLA on a quarterly basis.

There is an operational manual for health staff containing recipes to be used when training mothers. However, due to the heavy burden of responsibilities that health post and unit staff have to bear, it is difficult for them to devote more time to food and nutrition educational tasks. Besides, the program's supervision is poor due to the lack of transportation.

#### *Infant food supplementation with a high-nutritional-value mix (Nutricereal)*

The Social Sector Rehabilitation Project (PRSS), financed by the World Bank to support the Ministries of Health and of Education, is being implemented to improve health and education services especially in rural areas. A *High-Nutritional-Value Mix* (Nutricereal) was developed through this project with the purpose of providing children between 6 and 36 months of age with a nutritional supplement that would help prevent malnutrition upon weaning. This mix is prepared with a special formula that uses local products (70% corn flour and 30% soybean flour) and is produced by a private enterprise (FAMOSSA). This production is currently being financed with national funds but, starting in 1994, it will be supported by the WFP.

The Nutricereal is distributed in the 78 priority municipalities at a rate of 6 pounds per child a month, in three two-pound bags, equivalent to a daily ration of 90 grams that provide 371 calories and 19 grams of protein a day. These bags are delivered immediately after the child's health care visit. The MOH's Nutrition Department is in charge of educating beneficiaries in the correct use of the nutritious mix and providing them with instructions to prepare it. To this end, there is a *Nutricereal Manual* containing recipes for its preparation and an educational guide that is used by both the food and nutrition collaborator and promoter. This is a pilot program that covers 6,500 children approximately; the goal is to cover 50,000 children in the first year, 90,000 in the second year, until covering 110,000 children in the third year of project life. Education is carried out with the participation of nutrition collaborators who use manuals and other educational materials prepared to this end by the Nutrition Department with INCAP's technical support.

Benefitted children receive all services included in the MOH's maternal-child program. Simultaneously, mothers receive instruction aimed at encouraging them to feed their children exclusively with their milk during their first six months of age. At this age, the supplementation of the child's food with Nutricereal is promoted, so that the child will gradually pass to a solid diet that meets all caloric and protein requirements that mother's milk cannot meet after the child's sixth month of life.

Regarding the quality care of the product, plans are to implement a systematic care of critical issues from raw material to the beneficiary. Currently, the proximate and bacteriological analysis of the samples is carried out at the laboratories of the Central American University, FUSADES and MOH, and sometimes at the INCAP.

#### *Rural Nutrition Centers*

There are 29 rural nutrition centers in the country. These are community houses where children under 5 are taken care of by volunteers who have a part-time salary that is complemented with a family ration. Children

stay at those houses from 4 to 6 hours a day and receive breakfast and lunch covering about 60% of the daily caloric requirements. Educational, recreational and health care activities are developed, including the monitoring of the children's nutritional status. These centers are financed with national funds and the WFP provides the food; three centers have been built with the support of the FIS and PRODERE.

At present time, 1,500 pre-school children are being attended at the Rural Nutrition Centers (CRN), 7,100 children are assisted by the Child's Total Feeding Program (PAIN) financed by UNICEF, 4,200 are attended at municipal daily care centers and receive assistance from the Salvadoran Institute for the Protection of Minors (ISPM), and 1,400 are taken care of by volunteers.

Nutritional programs must be seen as regular programs totally integrated into all the MOH's activities. Nutrition must be one of the activities of the MOH's maternal-child component in the same manner as immunizations, ADDs, ARIs, mothers' pre- and postnatal care, and child's growth and development monitoring.

#### *MINISTRY OF EDUCATION*

The Ministry of Education has also two basic food delivery programs: (1) School lunch and (2) School between-meal snack.

##### *School lunch*

This consists in the distribution of food at schools so that students can eat lunch.

This program's objectives are educational rather than nutritional: (1) Increase attendance at primary schools and improve school performance in the rural areas; (2) contribute to decrease dropout rates at schools participating in the project; (3) increase community participation in school activities and in selfhelp initiatives related to the schools; (4) promote food and nutrition educational activities; and (5) promote the use of health services through schools.

This project's goal is to benefit 200,000 children and 1,000 schools in the first year, covering up to 220,000 children and 1,100 children in the third year. Plans are also to start 100 new school vegetable gardens and to build 100 storerooms and kitchens during the three years of project life.

Food provided by the WFP and EEC is cooked and distributed on a daily basis during the 160 school days. Each student's ration includes the following: rice (65 grams), skimmed milk (40 grams), canned meat (20 grams), and vegetal oil (15 grams). This ration has an approximate nutritional value of 500 calories and 22.7 grams of proteins. Its monetary value is about 2.13 colones per child/day (341 colones per year), equivalent to US\$40 per child per year.

Food is distributed by the DGLA by means of Armed Forces underused trucks now that the conflict is over. Food is delivered at a distribution post in each benefitted municipality on a quarterly basis, where school principals together with parent associations go to receive their food allocation and transport it to the school's storeroom.

The Ministry of Education has regional supervisors who visit such schools to verify food quality; if there are indications that the food is spoiled, they must call a sanitary inspector who takes samples and follows a process

similar to the MOH's system. However, there is no *preventive* quality care system: once food leaves the DGLA warehouses, actions are taken only when food is already spoiled.

Parents provide vegetables, fruit, tortillas, salt, sugar and other types of food. In those schools that have vegetable gardens, parents prepare the soil, provide seeds and participate in the cultivation. Sometimes students also participate in vegetable garden activities. Usually, groups of mothers take turns to prepare and serve food and do the dishes. In some cases, the community agrees to hire maids to fulfil these tasks. The program has provided cooking and eating utensils, but these are not enough and sometimes children must carry their own utensils. The community keeps record of the goods and of the produce of some project's activities.

Regarding goals, coverage was of 82.8% in 1990 and of more than 100% in 1991 and 1992. Nevertheless, as far as the number of tons distributed, the rates were low in 1990 and 1991 (43.8% and 41.9%, respectively).

The goals regarding participatory education, measured by the number of educational talks to parents and the existence of vegetable gardens, show low achievements, especially if average parent participation in talks (10 in 1990 and 6 in 1991) as well as the percentage of vegetable gardens started (36.6% in 1990 and 24.4% in 1991) are applied. Health goals show also low achievements, with low percentages of children who received food being assisted by the oral health programs (48.1% in 1990 and 6.0% in 1991); deworming (54.3% and 4.4%, respectively) and, vaccination (43.4% and 2.0% in 1990 and 1991).

In some places there is coordination between schools and health units or posts to assess the nutritional status of children, mainly pre-schoolers. There are mobile health units that pay scheduled visits to isolated communities and provide health care to the population in general and to local schools.

The project has shown positive results: food encourages school attendance, helps improve school performance, and is an instrument to promote parent participation, especially of mothers in small schools.

In general, this project has been regarded as merely a school food program rather than as an educational instrument; consequently, it is not deemed important nor adaptly linked to other health programs.

#### *School Between-Meal snack*

Also, as part of the Social Sector Rehabilitation Project (PRSS), which supports the Ministries of Health and Education especially in rural areas, there is a school between-meal snack program which provides each child with two 28-gram cookies a day in those schools of the 78 municipalities assisted by EDUCO where school lunch is not provided. Plans are also to include a 20-gram flavored beverage based on cereals and natural flavoring essences, which will be supplemented with 10 grams of sugar to be provided by parents. The total content of the snack is estimated at 380 calories. The cookie is being produced by a domestic factory (Agroindustrias del Valle). Currently, the project benefits 30,940 children, but will be expanded to 39,970 children in 1994, 60,165 in 1995 and 75,950 in 1996 when the WFP financing is available. Children receive the snack around 10 a.m.

Quality care is performed by the Bromatological and Chemical-Proximate Analysis Laboratory of the Catholic University.

Starting from 1994, both the Nutricereal and the School Snack will be financed by the WFP with alimentary assistance from cereal monetization. To this end, an Operational Plan was established and agreed upon by the

Government of El Salvador and the WFP regarding the *Social Compensation for Pre-School Children Program*, which would cover the costs of the cookie, beverage, nutritious mix and educational activities.

The following is proposed to increase the coverage of the food-nutrition programs:

- 1) Improve the regular functioning of the Ministries of Health and Education.
- 2) Institutionalize the food delivery logistics so that food arrives at schools, health units and posts on a regular basis.
- 3) Start food delivery programs with NGOs in those places that are not covered by the above mentioned Ministries.

Food delivery continuity is essential to increase coverage and achieve a greater impact of the programs. It is worthless to implement programs that are to function irregularly, such as the case of the Ministry of Education that provides school lunches only half of the scheduled time, or the Ministry of Health that delivers food with delay.

Logistics has been simplified in the case of the school cookie and Nutricereal. In the case of the MOH's food ration, food should be packed in plastic bags in the form of family packages at the DGLA central warehouses, thus facilitating distribution and achieving better coverages.

Regarding information systems, the Ministries of Health and Education are currently working to define process indicators and impact on form preparation as well as indicator and form field tests. At least quarterly reports containing basic data on the project's status will be required. It is necessary to urgently reinforce the information systems of each food-nutrition project.

## **XI CRITICAL ISSUES AND RECOMMENDATIONS**

Maternal-child population in El Salvador (children under 5 years and women from 15 to 44 years) represents 36.3% of the total population; the Sector's efforts are mainly aimed, to a significant extent, to overcome health deficiencies in those population groups.

Important achievements have been made in some maternal-child health aspects and components, although some of them present problems of different nature that have hindered goal fulfilment.

Throughout this report, the various maternal-child health components have been described, as well as the different problems, achievements and current status. Recommendations have been provided throughout the text with the purpose of overcoming them. This chapter addresses those aspects relevant to the maternal-child health area that present problems and that deserve special attention.

The following paragraphs will highlight major problems in the maternal-child health area in El Salvador, to illustrate the *raison d'être* of the priority topic issues on maternal-child health.

Despite the strategy to expand coverage to the rural areas, actions aimed at prenatal care have declined during the last three years. Currently, for a large proportion of pregnant women assisted at the MOH, the first contact with medical or paramedical staff is during delivery, since they never underwent prenatal care.

The MOH's and NGO's efforts to increase the number of trained midwives in the rural areas have been successful; however still 12.6% of deliveries are not assisted by trained personnel. Most of the MOH's inpatient maternal deaths occur because mothers are taken to the hospital when complications arise at home.

Men participation as recipients of family planning actions is insignificant, mainly due to cultural reasons; family planning achievements mostly depend on women sterilization. There has been little increase in the use of temporary family planning methods in the past 10 years. There is almost no pregnancy spacing, and women have consecutive pregnancies at a very early age. Thirty percent of pregnancies correspond to women under 20 years of age.

Although the infant mortality rate has significantly declined, UNICEF reports a rate of 52/1,000 live births, which was the average ratio for Latin America in 1990. The two principal causes of death in children under 5 are diarrhea and ARIs. Almost two thirds of the deaths due to these diseases happen in this age group.

Food programs have been effective since they have focussed actions on priority areas. Nevertheless, not all groups have been reached yet. Malnutrition is accountable for severe health problems in the maternal-child group, starting in childhood and having repercussions when women reach their fertile age. Not detecting nutritional deviations in childhood causes early malnutrition which leads to chronic malnutrition and low intellectual development.

Table 28

## CRITICAL ISSUES AND RECOMMENDATIONS

Critical Issues	Recommendations
1 Lack of legitimization and acceptance of policies on Maternal-Child Health as well as of basic operational standards for their program components.	<p>1.1 Prepare Maternal-Child Health policies focussing resources on high-risk groups as far as maternal and child health is concerned.</p> <p>1.2 Adapt standards and prepare bills aimed at strengthening sectorial operations in the Maternal-Child Health field through the Superior Council of Public Health and with the participation of the various health sector entities.</p>
2 Need to focus services on those areas that present the highest risks as far as maternal and child health.	<p>2.1 Establish and use maternal-child risk assessment criteria giving priority to those services that will benefit rural areas that lack such services by offering a basic service package.</p> <p>2.2 Create the Food and Nutrition Policy and Program Unit (UPPAN) as an autonomous body to facilitate interaction between donors and national institutions and to provide national funds in the future for the selfsufficiency of food programs.</p> <p>2.3 Direct all education actions with basis on priorities coherent with established goals.</p>
3 Lack of coordination between projects of the Maternal-Child Department and other MOH Department programs related to Maternal-Child Health.	<p>3.1 Integrate the different programs and departments that carry out maternal and child health actions into one sole structure at the MOH's central level.</p> <p>3.2 Strengthen supervisory structure and actions so that supervision provides support and solutions to operational problems.</p> <p>3.3 Integrate bodies for the coordination of efforts in the 5 maternal-child health topic areas at the local level under the SILOS concept, involving the different Health Units or Posts in planning as well as the different local service providers so as to carry out coordinated actions as part of a minimum service package.</p>
4 Promoters' and midwives' inadapt decision making capacity both regarding coverage and actions they are authorized to carry out.	<p>4.1 Increase the number of promoters and midwives trained by the MOH and NGOs.</p> <p>4.2 Increase the level of active participation by promoters and midwives in total prevention care, early detection and treatment of priority diseases.</p>
5 Need to integrate the different technical and management information systems used by the MOH and the whole health sector.	<p>5.1 Establish a standard and expedite epidemiological and administrative information system allowing management decision making by the health sector actors so as to assess achievements in an total manner.</p> <p>5.2 Improve the records of infectious diseases, especially HIV/AIDS.</p>
6 Improve national vital statistics reception.	6.1 Strengthen/restructure training actions on vital statistics data at the Civil Registry Offices.

Sexually transmitted diseases, including AIDS, are steadily increasing, mainly affecting young population groups. The HIV/AIDS transmission pattern is of a heterosexual type, thus increasing the risk of a serious problem in the country's economically active groups and in adolescents in the near future.

For all the above mentioned, the *Priority Topic Areas* of the maternal-child component listed below are recommended. Those areas that are having the expected impact shall be maintained at such level, avoiding

their deterioration. For areas that are proving deficient, its programmatic and operational continuity shall be assessed in order to strengthen the ones being proposed: *the concentration of efforts and resources as well as the total planning of actions will attain a substantial impact on the reduction of maternal and infant mortality and of their precedent morbidity.*

*Topic areas to be given priority by the State*

- Pregnancy, delivery and postpartum total care, with a risk approach.
- Multiparity in young women (under 20 years).
- Infant and child mortality, mainly due to diarrhea; acute respiratory infections, and diseases that can be prevented through immunization.
- Mother and child malnutrition.
- STD epidemic situation, including AIDS.

These topic areas show at the same time critical issues that, to a great extent, are bottle necks that hinder the development of strategies that should be implemented at a regulatory, policy and operational level. These critical issues, identified by ANSAL, could be the axis around which all priority topic areas rotate through the implementation of the general recommendations given for each critical issue.

Table 27 shows these critical issues with their corresponding recommendations; this table is followed by the expansion of some aspects related to the contents of said table. Critical issues are deemed common to the priority topic areas, and the successful implementation of actions shall depend on the solution of such issues. Proposals will allow a better and focussed planning, that is, aimed at zones, areas or groups that show serious maternal-child health problems.

Some of the recommendations are geared towards the strengthening of the health sector's normative and policy environment regarding maternal-child health, and other recommendations aimed at reinforcing general concerns that affect the sector. Likewise, the planning aspects (supervision and evaluation) of all actions implemented should be reinforced or improved, as the case may require.

# ANNEXES

## ANNEX I

Distribución Porcentual de las Defunciones Ocurridas Durante la Infancia o la Niñez \*,  
según Causa Primaria y Secundaria de Muerte, Establecidas Conjuntamente por Dos Pediatras,  
por Edad del Niño al Morir  
Encuesta Nacional de Salud Familiar: El Salvador, 1993  
(FESAL-93)

	Edad del Niño al Morir									
	Total		Infantiles (0 - 11 meses)						En la Niñez	
	0-4 Años		Total		Neonatal		Post-Neonatal		(1 - 4 Años)	
	Prima ria	Secun daria	Prima ria	Secun daria	Prima ria	Secun daria	Prima ria	Secun daria	Prima ria	Secun daria
Diarrea/Deshidratación	20.0	7.6	19.0	7.2	4.3	0.0	35.6	15.4	24.1	9.5
Infecciones Resp. Aguda	18.6	9.5	16.3	8.6	1.7	5.1	32.7	12.5	27.8	13.0
Bajo peso/Prematurez	14.6	4.7	18.1	5.9	34.2	8.5	0.0	2.9	0.0	0.0
Anomalías Congénitas	9.5	0.7	11.3	0.9	14.5	0.9	7.7	1.0	1.9	0.0
Trauma del Nacim./Asfixia	7.6	7.6	9.5	9.5	17.9	17.9	0.0	0.0	0.0	0.0
Sepsis/Falla de Organos										
Múltiples	7.6	2.5	9.0	3.2	7.7	0.9	10.6	5.8	1.9	0.0
Síndrome de Distres Resp.	4.4	4.0	5.4	5.0	10.3	9.4	0.0	0.0	0.0	0.0
Sarampión	2.6	0.4	0.0	0.5	0.0	0.0	0.0	1.0	13.0	0.0
Accidentes	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0
Otras Complic. Perinatales	1.8	2.5	2.3	3.2	4.3	6.0	0.0	0.0	0.0	0.0
Desnutrición	1.8	3.6	1.8	2.3	0.0	0.0	3.8	4.8	1.9	9.3
Meningitis	1.5	0.7	0.9	0.9	0.9	0.0	1.0	1.9	3.7	0.0
Tétano Neonatal	0.4	0.4	0.5	0.5	0.9	0.9	0.0	0.0	0.0	0.0
Otras	2.9	2.9	1.8	3.6	0.0	3.4	3.8	3.8	7.4	0.0
No Especificadas	4.7	-	4.1	-	3.4	-	4.8	-	7.4	-
Sin causa secundaria	-	52.8	-	48.9	-	47.0	-	51.0	-	68.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. de Casos (No Ponderados)	(221)		(175)		(89)		(86)		(46)	

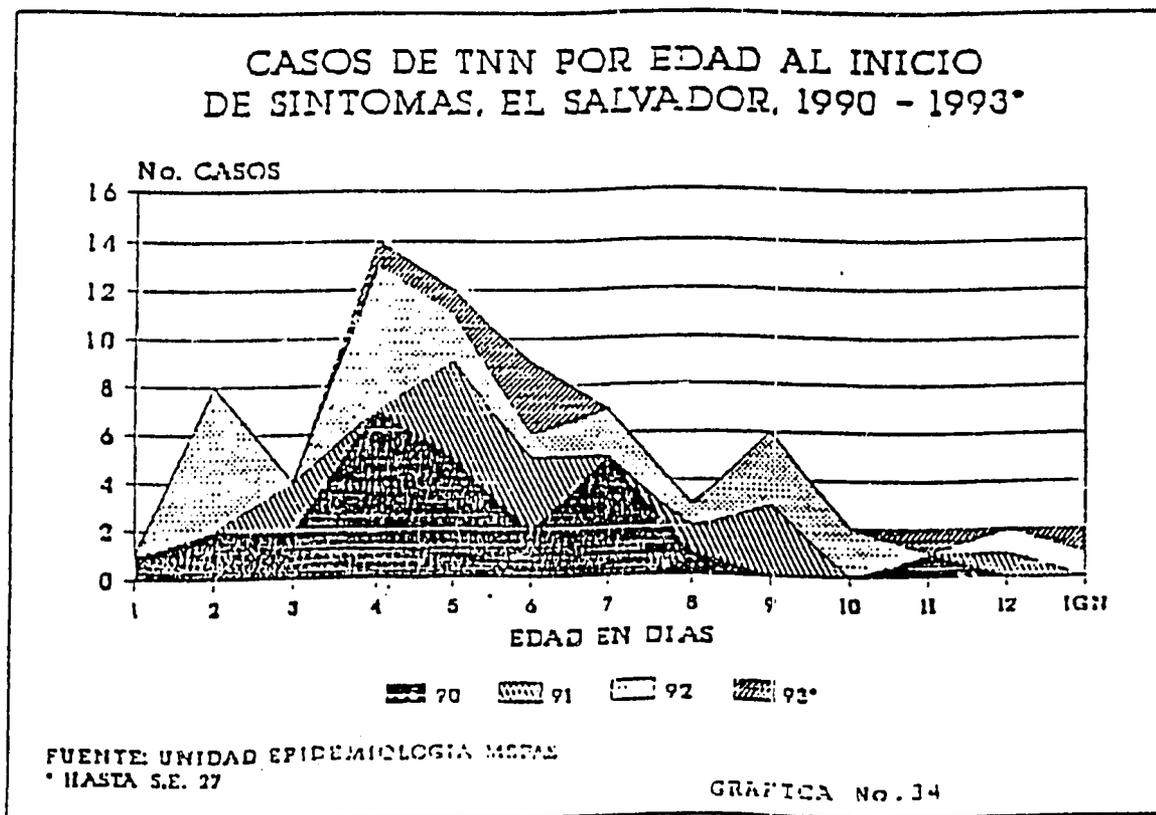
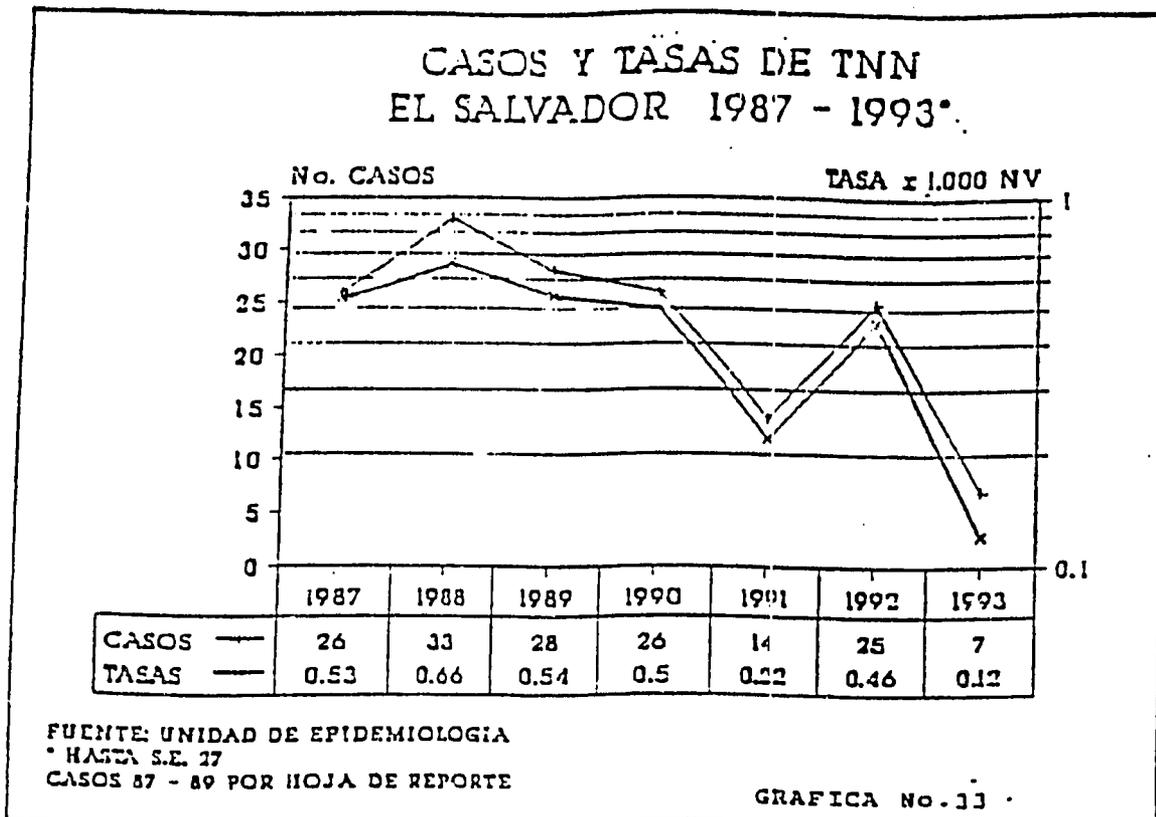
\*/ Defunciones ocurridas desde enero de 1988.

## ANNEX 2

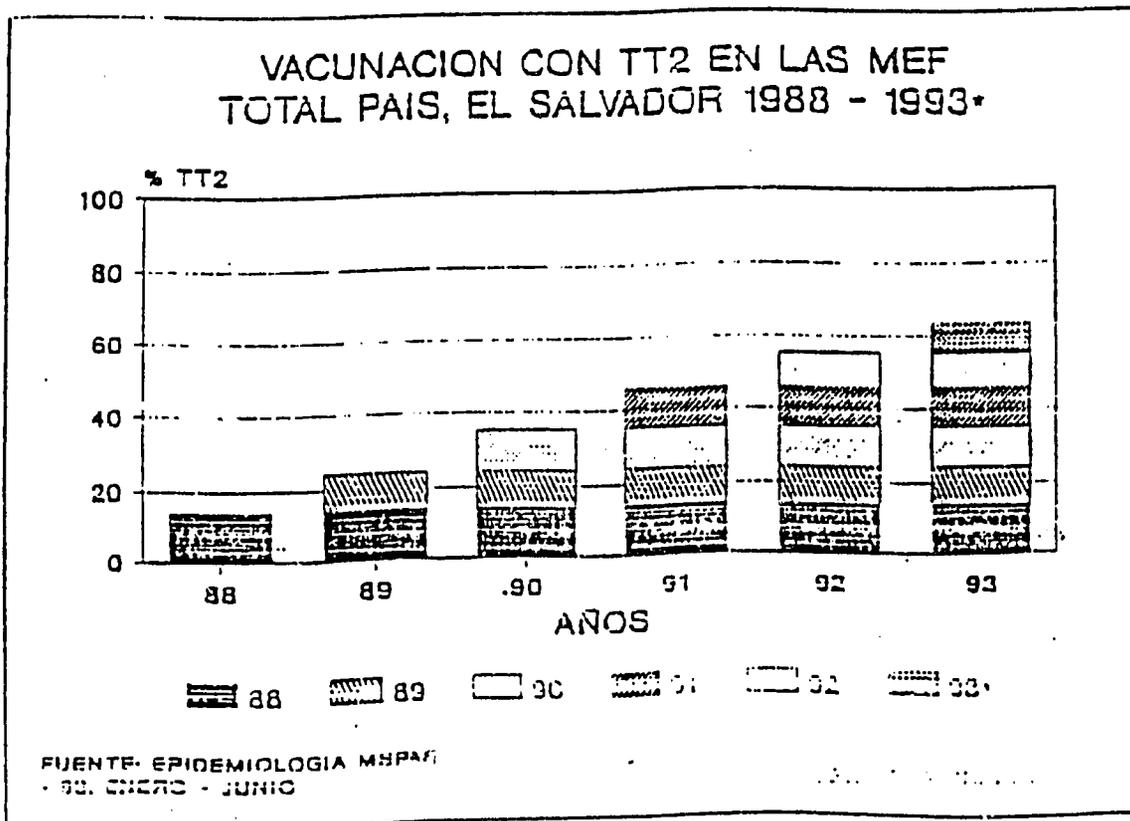
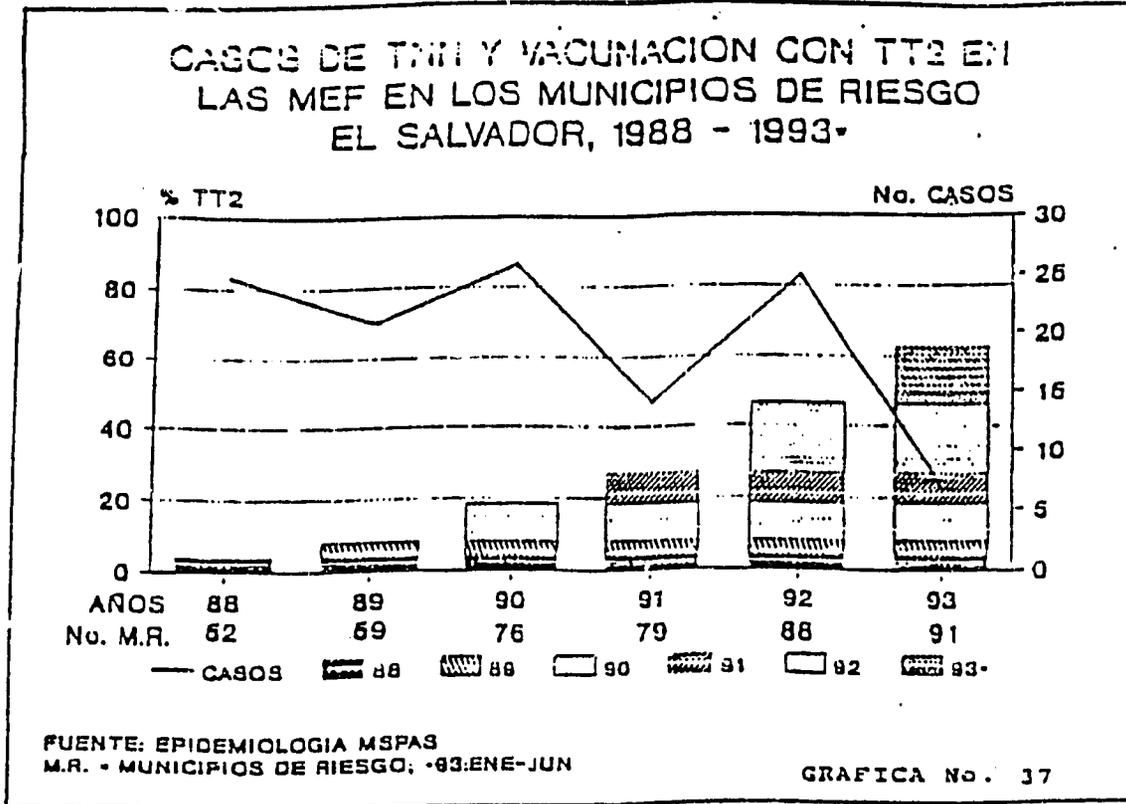
## SUBPROGRAMA ATENCION MATERNA...

CENTRO DE ATENCION MEDICA	EMBARAZADAS INSCRITAS	INSCRITAS ANTES DEL 4° MES	CONTROL PRENATAL	CONTROL A PARTURAS 1ª VEZ	CONSULTA POR COMPLI- CACIONES DE EMBARAZO, PARTO Y PARTURAS	CLASIFICACION POR RIESGO				REFEREN- CIAS
						MINIMO	MODERADO	ALTO	NO CLASIFI- CADO	
<b>T O T A L</b>	18,109	10,582	67,148	9,482	4,244	38,308	16,353	4,005	4,634	1,291
<b>REGION METROPOLITANA</b>	9,870	6,043	37,251	4,834	3,226	15,293	8,708	2,411	2,978	695
HOSPITAL 1° DE MAYO	91	58	1,710	84	143	246	295	999	265	1
ZACAMIL	1,649	1,207	5,301	1,016	233	1,437	373	106	626	16
ATLACATL	1,438	1,094	5,457	649	262	4,574	1,756	305	96	174
SAN JACINTO	1,739	1,122	6,841	851	191	0	1,019	385	0	0
SANTA ANITA	1,430	731	5,184	574	182	3,168	1,368	210	936	89
ILOPANGO	3,523	1,831	12,758	1,660	2,215	5,868	3,097	406	1,055	415
<b>REGION CENTRAL</b>	3,974	2,277	13,700	2,141	289	12,590	4,090	879	612	316
APOPA	888	573	4,115	606	9	2,481	1,953	188	292	125
REJAPA	58	28	176	44	4	215	14	6	0	21
AGUILAR	204	122	744	104	31	652	161	29	40	23
QUEZALTEPEQUE	179	107	677	146	67	738	156	19	2	59
ILOBASCO	97	68	299	57	0	0	9	0	0	0
NUOVA SAN SALVADOR	1,451	691	5,838	647	70	5,986	1,028	234	2	21
SACACOTO	150	92	501	97	2	0	0	0	0	11
LA LIBERTAD	103	46	293	52	10	258	113	0	0	28
CHALATENANGO	149	111	408	58	13	397	81	3	16	2
COJUTEPEQUE	237	158	878	105	28	697	171	16	71	13
SAN VICENTE	196	137	849	88	31	507	191	27	176	9
ZACATECOLUCA	210	109	677	101	13	523	141	44	11	3
SEMUNTEPEQUE	52	35	245	40	11	144	72	5	0	1

ANNEX 3



ANNEX 4



## ANNEX 5

TABLA 26

Distribución Porcentual de los Hijos Nacidos Vivos desde Marzo de 1988 a Febrero de 1993,  
según Lugar de Atención en el Parto,  
por Área de Residencia y Nivel Educativo de la Madre  
Encuesta Nacional de Salud Familiar: El Salvador, 1993  
(FESAL-93)

Lugar de Atención	Total	Área de Residencia			Nivel Educativo (años)				
		AMSS	Resto Urbano	Rural	Ninguno	1-3	4-6	7-9	10 y más
Estab. MSPAS	38.1	50.1	43.0	29.9	29.4	32.2	45.3	53.0	37.3
Estab. ISSS	9.7	23.6	9.5	3.2	1.1	3.4	7.9	17.3	31.8
Hospital Privado	3.2	7.9	4.1	0.4	0.2	0.4	1.2	3.8	16.4
Casa de Partera	1.7	0.8	1.4	2.3	2.0	3.1	1.0	1.2	0.3
Casa Propia con Partera	34.7	12.1	32.5	46.4	46.7	45.4	33.7	20.6	9.1
Casa Propia con Otros	5.9	2.0	4.6	8.5	9.5	7.0	6.6	1.8	0.8
Casa Propia con Nadie	5.3	1.0	3.6	8.2	9.8	7.6	3.1	1.1	0.7
Otro	1.4	2.4	1.2	1.1	1.3	0.9	1.0	1.2	3.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. de Casos (No Ponder.)	(4286)	(971)	(1121)	(2194)	(1097)	(1076)	(952)	(610)	(551)

## ANNEX 6

San Salvador, September 16, 1993.

**CONFERENCE ON TEENAGE PREGNANCIES SPONSORED BY PROCADES  
(SYNTHESIS)**

Teenage Pregnancy (Dr. de Ferrer)

FESAL-88 : DIGESTYC 86

16 Years : Average age of 1st Sexual Contact

18 Years : 71% have already had sexual contacts

15-19 Years : 30% Married

15-19 Years : 22% have at least one child alive

14-19 Years : 22% of births

Study Data (Dr. de Ferrer)

14 Years : Average age of sexual life initiation

15 Years : 81% have sexual contact

13-17 Years : 17% have had from 2 to 3 pregnancies

Teenager Mortality - Principal causes of death nationwide:

- 1 - Violence
- 2 - Not Diagnosed
- 3 - Suicide
- 4 - Accidents
- 5 - Maternity

Different studies: It has been found that the younger the woman, the higher maternal mortality is.

## ANNEX 7

**SPECIFIC RECOMMENDATIONS FOR FOOD PROGRAMS**

The creation of a Unit to coordinate food program execution is proposed. This entity would:

- 1) Determine the country's food-nutrition policies.
- 2) Act as a counterpart in negotiations with international organizations.
- 3) Coordinate the different actors related to food-nutrition policies: Ministry of Planning, Ministry of Agriculture and Livestock, National Family Secretariat, National Reconstruction Secretariat, Ministry of Health and MEC, NGOs and donors (WFP, EEC and others).
- 4) Supervise the fulfillment of nutritional programs.
- 5) Monitor program activities.
- 6) Have a system for distribution logistics care and food quality care.
- 7) Evaluate programs or projects periodically.
- 8) Perform periodic audits.

The Food Policy and Program Unit (UPPAN) should be an autonomous entity with legal status and administrative and financial autonomy to be able to function as a private enterprise. This would facilitate relationships with donors (food providers) on the one hand, and on the other, with Ministries and NGOs (executors).

Later, when donors begin to leave and the State undertakes the funding of nutrition programs and projects, this Unit should be in charge of collecting public funds and donations by private enterprises and international institutions for the programs; it would also be in charge of bidding both at the national and international levels.

## ANNEX 8

**PRELIMINARY REPORT REVIEW PROCESS***Introduction*

The health sector Assessment of El Salvador (ANSAL) was conceived as part of efforts aimed at accelerating the economic and social development of the country. The analysis of the organization and functioning of the sector's institutions must result in the identification of obstacles that, if overcome, will allow the improvement of the sector and of the populations' health status and well being.

Usually, any project aimed at accelerating social and economic development is conceived and designed by experts in the relevant field. They provide their professional knowledge and experience to identify the problem, choose potential solutions, and design project components. In this kind of process, opinion exchange is usually limited to leaders of the sector and of the society in general. The potential user and the persons directly involved in the production of goods or services being analyzed are frequently excluded in the consultation process. Thus, resulting projects are not enriched with the cultural perceptions and accrued experience of those who are in the front line, and in the end, the latter are regarded as foreigners by the benefitted community.

*Procedure*

ANSAL's terms of reference established a broad consultation process to avoid the restriction pointed out in the introduction. Those terms establish that the participatory process is of equal importance as the contents of the analysis. In order to achieve this goal, instructions were given that ANSAL's preliminary outcomes, included in nine draft Technical Reports, should be widely distributed among health sector institutions and persons for their revision and comments. This is a participative approach of development efforts. To comply with the mandate, a strategy including the following components was designed:

- 1) *Written comments.* A total of 100 institutions and persons experienced in the functioning of health services were invited to submit written comments on:
  - the veracity and integrity of submitted data;
  - the logic of the analysis being used;
  - the feasibility of the proposed recommendations;
- 2) *Meetings with health staff and community members.* Ten meetings were held in several areas of the country to cover as much territory as possible; participants included health staff with different levels of training (promoters, empirical midwives, physicians and pharmacists), leaders of served communities (Mayors, members of Support Committees of MOH facilities or Community Health Boards, members of Community Education Associations or EDUCO schools, and local community leaders), and MOH regional and local officials and authorities.
- 3) *Working days with Sector leaders.* Two working days were programmed with leaders of public institutions linked to the social and health sectors (MOH, MIPLAN and ISSS), board of directors of NGOs actively involved in health activities, Medical Association, and persons in charge of the health area from different political parties. The Dean of the Schools of Medicine of the University of El Salvador was invited but did not attend.

*Outcomes*

Participation was intense and useful to validate or eliminate ANSAL's preliminary results.

Thirty (30) institutions, including major public sector organizations (MOH and MIPLAN) and major NGOs, sent recommendations.

Community meetings were attended by approximately 250 persons representatives of the three previously mentioned components. Of the three groups, community leaders showed the lowest rate of participation.

Twelve out of the thirteen leaders invited to the working days attended and stayed from beginning to end of the exercise.

With the exception of MOH central technical hierarchies (Program and Department Directors as well as Regional Directors), who objected some of ANSAL's findings, comments coincided as far as the major problems of the sector and the most effective ways of overcoming them. Each Technical Report presents a summary of specific comments.

*Written comments received*

As mentioned in the paragraph on procedure, the drafts of this report and of all other ANSAL technical reports,<sup>41</sup> were widely distributed to receive reactions by February 18, 1994, the deadline; written comments were received from public and private persons and institutions. Of all communications received by ANSAL, the following are more directly related to the Maternal-Child Status issue:

- Official Letter 94-6510-159/Feb. 15, 1994 signed by the MOH Planning Director. Regarding MOH's comments, these were discussed in depth with persons responsible for the different programs, who gave their opinion on the draft contents. Their comments were taken into account for the revision and final version of the Technical Report.
- Summary of Observations made by the different Health Regions
  - 18 observations on executive summaries (the compendium included 9 summaries); it is not clear which summary each comment refers to;
  - Highlight that infant mortality rates have improved and that this is true; IMR was 150 x 1000 live births in 1950 and declined to one third, while in Nicaragua, for example, it only declined to half; but the current rate (52 x 1,000 live births) is still high if compared with other American countries;
  - Comment 12 indicates that the current total fertile rate (TFR) is of 4.6 children per woman, quoting FESAL; these data correspond to 1980. According to the preliminary report of the National Family Health Survey, FESAL-93, page 5, the TFR is an average of 3.85 children per woman. There are variations between the MASS with 2.69 and the rural area with 4.96 children per woman (almost double).
  - Eleven (11) observations are made regarding the text of the draft technical report; some will be mentioned as examples, but all of them were taken into account.

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<sup>41</sup> These reports are: Health Status; Epidemiological Profile; Pharmaceutical Products; Organization and Functioning of the Health System; Health Services Financing; Health Human Resources; Health Sector Infrastructure and Investment; Health Demand and Community Perception; and Environmental Health.

Item 4. It is mentioned that there are other more reliable sources than FESAL-93, but they do not specify which ones;

Item 7. (pp. 32 § 7) NGO participation does not demerit the good work being performed by the MOH regarding immunization.

- Official Letter 94-6500-0248/984/March 11, 1994, signed by the MOH Planning Director  
Present 31 observations on the report and three on food programs. All of them were taken into account. Some are mentioned as examples.
  - Item 2 FESAL 93 reports a hospital delivery care rate of 51% because it includes deliveries assisted by private hospitals.
  - Item 6 The promoters' management information system is handled parallelly to the other MOH information systems, but is not integrated to them.
  - Item 10 One of the objectives of providing rates and percentages is to make data comparable in statistical terms.
- WFP/ELS/ORG/30 MINISTRY OF HEALTH-110, February 24, signed by the Director of the World Food Program  
They present 6 valuable contributions to the Maternal-Child Health Report and 3 to the Epidemiological Profile. They arrived later than February 8, but will be taken into consideration for the preparation of the final report.
- Observations by the Director of the Knapp Foundation
  - Makes several positive comments on the advanced draft.
  - Mentions inconsistencies and contradictions, but unfortunately he does not provide data to locate them in the report.
- Community Promoter Association of El Salvador (APROCSAL)  
Center for the Consumer's Defense (CDC)  
National Development Foundation (FUNDE)  
Salvadoran Humanitarian Assistance Association (PROVIDA)  
Santa María Clinic
  - Recommend that international efforts with the health gender approach be resumed. Unfortunately, they do not mention the names of such organizations.
  - Point out that sexist raping must be avoided. This has been taken into account in the new version of the report.
  - Assert the practice of unnecessary surgical interventions which the author was not able to prove.
- Child Survival Intersectorial Committee (CISI)
  - Provide valuable observations that were incorporated in the report.
- Breast-feeding Support Center (CALMA)
  - Express congratulations for the quality of the information provided in the various reports.
  - Make valuable observations which have been included in the report.
- Center for Technological and Scientific Investigations (CENITEC)
  - Mention some data inconsistencies and editing mistakes that have already been corrected.

- Salvadoran Demographic Association (ADS)
  - Make five general observations corresponding to different reports (they only analyzed 4 out of the 9 reports) and ten observations to the Maternal-Child Report.
  - All observations are deemed valuable and have been included in the report.
- Head of the Family Planning Program - ANTEL Hospital
  - Congratulates the authors of the various reports.
- Salvadoran Foundation for Woman and Child Development (FUNDEMUN)
  - Point out that the report lacks conclusions and recommendations, whose inclusion had been foreseen for the final report.
  - Request that NGOs' role be analyzed in depth. The request was fulfilled.
  - The remaining observations were taken into account.
- Head of Reproductive and Maternal-Child Health Programs of the ISSS
  - Several observations are made and the majority of them have been included in the report. Unfortunately, the author did not have access to the FECASOG magazine.
- Concha v. de Escalón 2 Unified Urban School/District Supervisor
  - Comments arrived after the deadline, but they will be taken into account as possible. We appreciate their effort.

The author is grateful for the comments received which were useful to correct the text, broaden or update information, and in general to review the report contents in ANSAL internal meetings. Comments and suggestions were also taken into account during a Seminar/Workshop.

It was not possible to include all suggestions that implied a radical change of structure and investigations aimed at obtaining primary information due to time constraints and the lack of resources.

Findings, conclusions and recommendations were discussed with the participation of leaders of the sector at the national level, following the procedures previously described.

#### *Meetings with health staff and community representatives*

ANSAL preliminary findings, conclusions and recommendations were presented at these meetings regarding the three main areas: health status, health services and human and financial resources.

By means of individual communications, ANSAL invited the following groups to participate: Majors of the corresponding geographical area; EDUCO; Health Promoters and Empirical Midwives (MOH and NGOs); physicians working in the area (MOH, NGOs and private physicians); MOH authorities (Health Regional Directorates, Hospitals and Health Centers located in the area); authorities of NGOs that provide health services; representatives of churches that develop health activities; community health board members; community leaders; and other professionals (pharmacists).

The following comments stand out among all comments received during community meetings:

- ARIs and ADDs and their association with malnutrition are acknowledged as the major infant health problems. In several instances people mentioned that food assistance programs should be adjusted to the population's culture.
- As far as maternal health, it is acknowledged -- and this coincides with the report -- that the lack of pregnancy, delivery and postpartum care is a major problem. This was followed by maternal malnutrition which affects pregnancy outcomes, and if pregnancies are not spaced, it affects the former.
- It was mentioned that the training of pregnant women by men poses some problems. The referral system proves deficient, especially when these are generated by NGO promoters.
- Midwife coverage at the rural areas is inadapt. The need to increase the number of both MOH and NGO promoters was expressed as well as the need to provide empirical midwives with additional training.
- Community representatives and promoters (both from NGOs and the MOH) agree upon the expansion of promoters' duties regarding total care. These actions should be accompanied by training in the correct use of drugs when treating priority diseases. They highlight the difficult access to health facilities and problems existing in their communities.

The order of priorities varied slightly among groups as expected, depending on the geographical area of origin, professional profile and institutional link of attendants. Nevertheless, a common denominator was observed: in all consultation meetings with health staff and community representatives, the first five priority critical issues were acute diarrheal diseases (ADDs), acute respiratory infections (ARIs), safe water, and environmental sanitation.

The ten critical issues selected and the Departments where they were given higher priority are the following:

*Working days with Sector leaders*

The working days with Sector leaders, described in the paragraph on procedure, were February 21 and 22, 1994. It should be highlighted that regarding the Health Status topic, there was consensus on the presentation of Priority Topic Areas identified by ANSAL with basis on the revision of the epidemiological profile and consultations with health personnel and community representatives. Priority Topic Areas are presented under Conclusions. These areas include, but are not limited to, the critical issues identified during community meetings.

It was explained that the identification of those topics that will be assigned more resources does not mean that current successful efforts, such as the expanded immunizations program, will be abandoned. It was made clear that although critical issues were discussed in community meetings, ANSAL's proposal has to do with topic areas with various related components to cover them through an total approach.

The ten (10) topic areas selected were:

- Pregnancy, delivery and postpartum total care, with a risk approach
- Multiparity in young women (under 20 years)
- Infant and child mortality, mainly due to diarrhea and acute respiratory infections
- Mother and child malnutrition
- STD epidemic situation, including AIDS
- Low coverage of safe water in rural and marginal areas
- Insufficient treatment of sewage
- Lack of capacity for adapt solid waste disposal (municipal, hospital, toxic and dangerous)
- High mortality due to external causes (violence, accidents)
- War wounded and disabled (physically, mentally)

Consensus was reached on the selection of priority areas, and during discussions the participants also recommended to take into consideration related or complementary issues, especially:

- Cervical cancer within the STD/AIDS topic
- Immunizations within the infant and child mortality topic
- Lack of micro-nutrients within the malnutrition topic
- Drug addiction within the mortality due to external causes topic
- Air contamination within the ARI context
- Mental health within the violence and disabled topics
- Drug addiction within the violence and disabled topics

Participants stated that these 10 pathology blocks gather more than 80% of the country's health problems.

## ANNEX 9

## LIST OF INTERVIEWEES

**Ministry of Public Health and Social Assistance**

-Dr. Santiago Almeida  
Head of the Epidemiological Unit

-Dr. Geneveva Morales  
Responsible for the Expanded Immunization Program

-Dr. Estela Parada  
Head of the Health Education Unit

-Lic. Concepción de Flores  
Nutrition Department

-Dr. Rogelio Ramirez  
Former Head of the Maternal-Child Department

-Dr. Jorge Cruz Gonzalez  
Head of the Maternal-Child Department

-Dr. Raul Garcia Oviedo  
Responsible for Child Care

-Dr. Miriam Oliva de Navarrete  
Responsible for the Cervical and Breast Cancer Control and Prevention Program

-Dr. Ricardo Guzman  
Responsible for the Well Child Control and Development and Breast Feeding Program

-Lic. Celia Hernandez  
Responsible for the World Bank's Program and Empirical Midwives

-Dr. Mauricio Portillo Nava  
Responsible for the Family Planning Program

-Dr. Alfonso Alvarez Caceres  
Responsible for the Prenatal Care Program

-Dr. Sonia Mancía de Melchor  
Head of the Community Health Department

-Lic. Gisela C. de Guerrero  
Head of Investigation and Information, Community Health Department

-Dr. Miguel A. Guido Serrano  
Head of the Medical Division, Maternity Hospital

-Dr. Cristina de Amaya  
Head of the Gynecological Clinic, Maternity Hospital

-Lic. Coralia Machuca  
Statistics Head, Maternity Hospital

-Dr. J. Victor Garcia  
Director, Health Center of Ilobasco

-Dr. Octavio Dorantes  
Director, "Santa Gertrudis" Hospital, San Vicente

-Lic. Amílcar Durán  
Administrator, "Santa Gertrudis" Hospital, San Vicente

-Lic. Vilma Ruth Hernandez  
Nurse Supervisor "Santa Gertrudis" Hospital, San Vicente

Lic. Vincia del Rosario Omaña  
Nurse Assistant Supervisor, "Santa Gertrudis" Hospital, San Vicente

-Dr. Manuel Rodriguez Escapina  
Director, "Francisco Mercedez" Hospital, Ahuacapan

-Dr. Luz Angelica Rivas  
Physician in her Social Service Year, Director, Health Unit, Atiquizaya

-Dr. Salvador Linares  
Physician, Health Center of Chalchuapa

-Lic. Ingrid Alvarado  
Maternal-Child and Nutrition Educator, Eastern Region

-Lic. Hilda de V. Lopez  
Maternal-Child Consultant, Eastern Region

-Dr. Carlos Roberto Arellano  
Family Planning Coordinator, Eastern Region

-Dr. Roxana de Martinez  
Community Health Coordinator, Eastern Region

-Dr. José Hector Aguilar  
Continued Education, Eastern Region

-Lic. Ilene Argueta de Herrero  
Community Health Stationer, Eastern Region

**Salvadoran Social Security Institute**

-Dr. Oscar Wenceslao Martínez C  
Head of the Preventive Medicine Department

-Dr. Jose Douglas Jarquin Gonzalez  
Head of the Reproductive Health and Child Care Program

-Dr. Manna Padilla de Gil  
Head of the Maternal Care Subprogram

-Dr. Maria Emilia Castro de Hidalgo  
Head of the Child Care Subprogram

**Salvadoran Institute for the Protection of Minors**

-Lic. Dons Elizabeth Castro Garcia  
Head of the Admission, Evaluation and Diagnosis Division

-Lic. Dons Luz Rivas Galindo  
Head of NGOs' Registry, Enrollment, Authorization and Surveillance Division

-Dr. Ana Celia Campos de Tovar  
Physician in Charge of Preventive Medicine Actions

**International Organizations**

-Dr. Jose Adan Montes Figueroa  
Maternal-Child Consultant PAHO/INCAP

-Dr. Juan Dricot  
Health and Nutrition Officer, UNICEF

-Dr. Ricardo Miguel Kafie  
Technical Assistant for El Salvador, EEC

**Non Governmental Organizations**

-Dr. Elizabeth Burleigh  
Director, PROSAMI

-Dr. Aura Marina Torres  
Coordinator, CISI

-Dr. Jose Eliseo Orellana Ordlana  
Project General Coordinator, Knapp Foundation

-Dr. Samuel Castro  
Director, ADS

-Lic. Gilberto Gallegos  
General Coordinator, CARITAS

-Lic. Celina de Choussy  
Executive Director, FUSAL

-Dr. Herberth Betancourt  
Public Health Consultant, FUSAL

-Dr. Sonia del Carmen Miranda de Mena  
Technical Advisor on Health and Nutrition Save the Children

-Blanca Luz Amaya (Technician)  
Promoter, Save the Children

-Lic. Argentina de Rivera and  
Lic. Leticia Beltran  
Coordinator and Lawyer, respectively, of the Women's Integral Care Clinic, CONAMUS

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