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**NEEDS ASSESSMENT - HONDURAS**  
**NUTRITION COMMUNICATION PROJECT**

**MAY 16-25, 1988**

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## I. OBJECTIVES

During the period May 16-25 Margaret Parlato, director of the Academy for Educational Development's Nutrition Communication Project and Jose Mora, nutrition specialist from Logical Technical Services, conducted a Needs Assessment in Honduras. As requested by the Mission, the team focused on the following specific areas for potential nutrition communication support :

- PROALMA breastfeeding program;
- Nutrition component of the Health Sector II project; and
- Other priority national nutrition problems.

## II. SUMMARY OF RECOMMENDATIONS

The following is a summary of principal recommendations:

- Nutrition communication efforts should focus on promotion of exclusive breastfeeding; growth monitoring and improved infant feeding practices; and possibly vitamin A if the results of the 1987 surveys show this is a widespread public health problem.
- Support PROALMA's proposal for a third phase of the breastfeeding-support project, to expand from the current institutional approach into a broader community-based one and to launch a national breastfeeding campaign.
- Document the accomplishments of the major breastfeeding promotion program that USAID has supported since 1982. The program is a model for Latin America and other regions interested in reversing negative breastfeeding trends.
- Give top priority to providing adequate technical assistance to the substantial new nutrition interventions to be initiated under the Health Sector II project. This will require close coordination between the Mission, HEALTHCOM and the Nutrition Communication Project.

- Examine ways to strengthen the management capability of the MOH's Health Education Division and to increase its staff.
- Provide technical guidance to help orient the nascent growth monitoring program towards a community-based intervention with a focus on education rather than a curative, nutrition surveillance one.

### III. OVERVIEW OF THE NUTRITIONAL SITUATION

With an estimated population of 4.5 million in 1988, Honduras is considered one of the poorest countries in the western hemisphere and the poorest in Central America. It is the second largest country in the region (after Nicaragua), with 112,088 square kilometers and a population density of about 40 inhabitants per square kilometer. About 60% of the population live in the rural area, and less than 30% is concentrated in towns with 20,000 or more inhabitants. The population is largely (95%) "mestizo."

Nutritional deficiencies have for years been among the most serious health problems in Honduras. A national nutrition survey conducted in 1965 by INCAP (1) showed high prevalences of energy-protein malnutrition (EPM), vitamin A deficiency and iron deficiency anemia, particularly among small children, and pregnant and lactating women. Using the Gomez classification, the 1965 survey found that 76.5% of children under 5 years were malnourished (45.4% grade I, 28.7% grade II, and 2.4% grade III). Biochemical indication of Vitamin A deficiency was found in about 40% of the children under 5 years and 30% of those under 15 years. Among rural families, 57% consumed less than 25% of the recommendations and only 6% had adequate levels of vitamin A intake. Endemic goiter was also found to be an important problem, with a national prevalence of 37%. The study also found similarly high levels of iron deficiency anemia, especially among pregnant women.

Except for some special studies conducted in 1975 and 1980, little was known about the trend of the nutritional situation between 1965 and 1986/87 when a second National Nutrition Survey and an Epidemiology and Family Health Survey were carried out. The results of the 1986/87 surveys are now partially available (2) and will be soon fully released by the Science and Technology Unit of the Ministry of Health.

Preliminary tabulations indicate that, overall, the nutrition situation of Honduras has not changed substantially since 1965. A serious social, economic and political crisis has affected the Central America region, including Honduras, throughout the current decade, making it difficult to maintain even the past

slow rates of social and economic development. In fact, there has been a significant drop in income levels and a concomitant decrease of resources for public health and basic health services. Such a severe crisis is likely to have worsened the economic situation of the poor majority thus precluding government health and nutrition programs from accomplishing improvements in their health and nutritional conditions.

The growth of the Honduras gross domestic product per capita dropped from an average of 7% during the late 1970s to a negative rate of over 1% in the current decade (3). The net international reserves and the absolute value of exports also decreased drastically, while the terms of trade deteriorated and the external debt reached historic proportions. The concomitant increase in unemployment (27% in 1985) and poverty has skewed even more drastically an already inequitable structure of income distribution. In 1980 the richest 20% of the Honduran population received about 60% of the national income, whereas the poorest 20% obtained less than 5% and had an average annual income of only \$80. The current minimum wage is \$2.50 a day and the minimum cost of a "family food basket" was \$4.47 in 1986 (4). In 1980, 57% of the people lived in extreme poverty, while the basic needs of 89% were not satisfied. Some 77% of rural residents and 34% of the urban population had per-capita earnings below the poverty level (3).

Food production has been irregular with increases barely compensating for population growth. Thus a significant deficit in food availability has persisted, often covered by food imports and donations. Food production usually declines in the rainy season which lasts from April through August. The average index of food production per capita has shown a downward tendency, and the average calorie intake by the population is inadequate for the estimated biological needs. This is aggravated by unequal food distribution and availability at the family and individual level.

With a life expectancy at birth of about 60 years and an illiteracy rate of 40% (4), the population growth rate has not changed significantly over the past decades (5). As recently as 1980/82, the crude birth rate stood at 47 per 1,000 and the crude population growth rate reached 3.5%. Current estimates indicate a yearly population growth of 3.4% and a crude birth rate of 42 per 1,000. High fertility, combined with declining mortality rates, have produced a high population growth rate. Between 1960 and 1985, the crude birth rate fell slightly from 51 to 42 per 1,000, while crude death rates during the same period dropped from 20 to 9 per 1,000. The total fertility rate per woman slightly declined from 6.5 live births in the 1970s to about 5.6 in the 1980s. Current contraceptive use has been estimated at 35%.

Infant mortality has steadily declined from 144 in 1960 to an estimated rate of 76 per 1,000 for 1985, and child mortality halved from 232 per 1,000 in 1960 to 116 per 1,000 in 1985 (4,5). Mortality in the age group 1-4 years was estimated at 6.3/1000 for 1985 (4). However, these are national averages hiding extremely high infant and child mortality rates in certain high risk regions, especially in the rural population. Close to one fourth of all infant and child deaths are due to diarrheal dehydration. Estimated maternal mortality for 1986 was 14/10,000 (4). Reported prevalence of low birth weight in hospitals has been about 9-10% (4).

According to the National Nutrition Survey of 1987, only 13% of the families said they brought their children to the health center for growth monitoring. About 44% of the women had prenatal care in their last pregnancy, but only about 25% delivered at health institutions. For about one-third of the families the nearest health service was more than one hour away by public transportation (2). Sixty percent had a functioning radio and 29% a TV set, with the lowest frequencies in regions 4, 5, 7 and 1.

#### Current Nutritional Problems

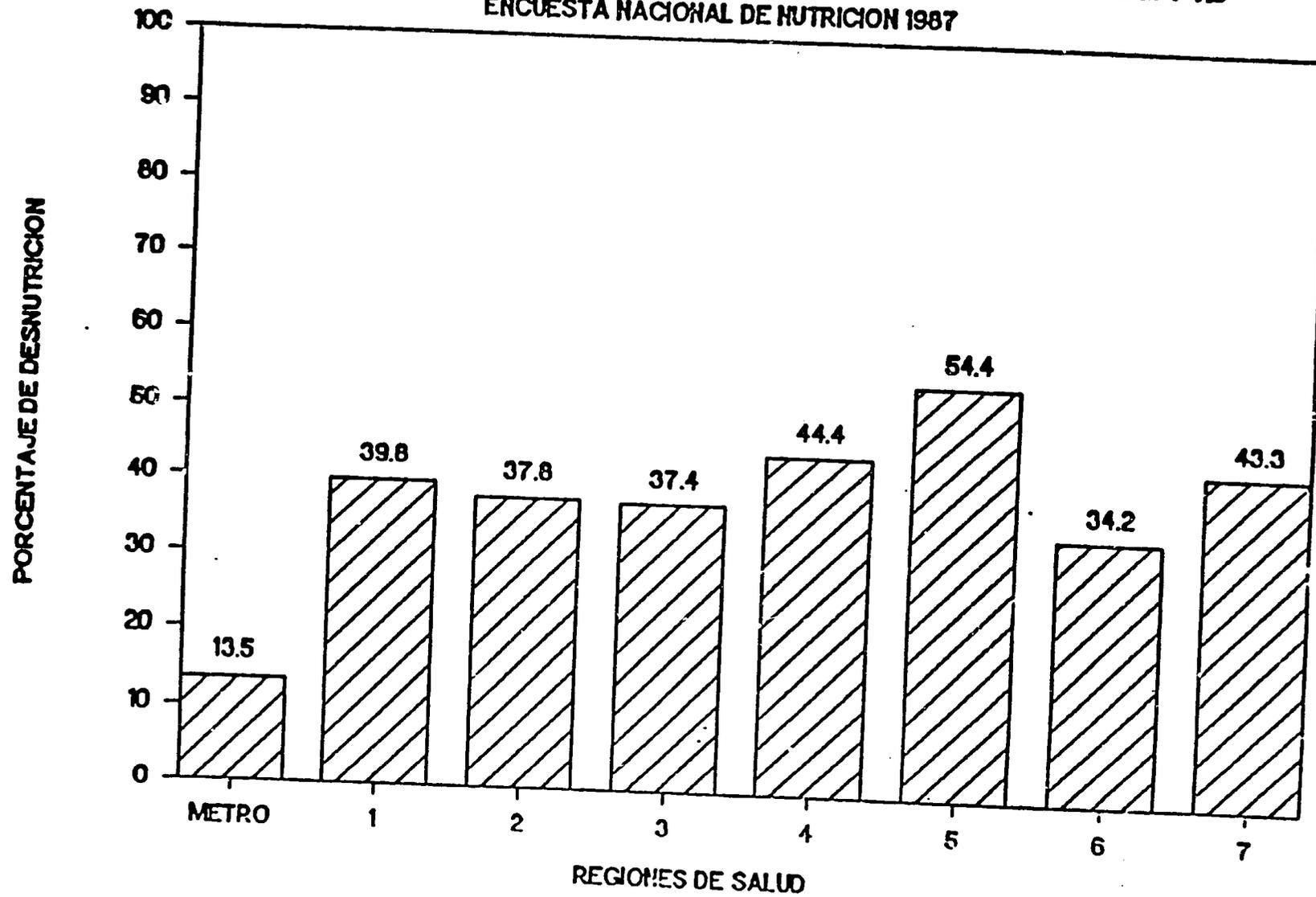
On the basis of preliminary tabulations available from the 1986/87 National Nutrition and Health Surveys (2), it appears that the nutritional status of children under 5 years has somewhat improved over the past 20 years. The National Nutrition Survey found 57% prevalence of malnutrition using the Gomez classification, as compared to the 76.5% found in 1965. Using the WHO method with a cut-off at two standard deviations under the reference mean, the prevalence of malnutrition in 1986/87 was estimated as 20.6%, as compared to 28.5% in 1965. However, the WHO adjusted method yields an estimate of 38% for 1986/87. The last survey indicates that health regions 5, 4, 7, 1 and 2 are the most affected by EPM (Figure 1), all of them with prevalences greater than 60% (Gomez classification) or 37% (WHO method).

Chronic malnutrition (stunting) was found in 44.7% of the children nation-wide (under 2 standard deviations below the reference mean), as compared with 46.7% in 1965. Health Regions 5, 2, 1 and 7 have prevalences above 46% (Figure 2). Acute malnutrition (wasting) was found in 3.4% of the children in 1986 (Figure 3). The problem is especially serious in regions 4 (14.7%), 5 (9.1%) and 1 (6.1%). A recent assessment of height in school children attending first grade nation-wide (4) revealed that about 40% of them were stunted (Table 1), with the highest prevalences seen in the Departments of Lempira, Intibuca, Santa Barbara, Copan and La Paz (Regions 5, 2 and 3).

When the Assessment team used a nutritional risk score system based on the prevalence of global, chronic and acute malnutrition

# PORCENTAJE DE DESNUTRICION PESO-EDAD

ENCUESTA NACIONAL DE NUTRICION 1987

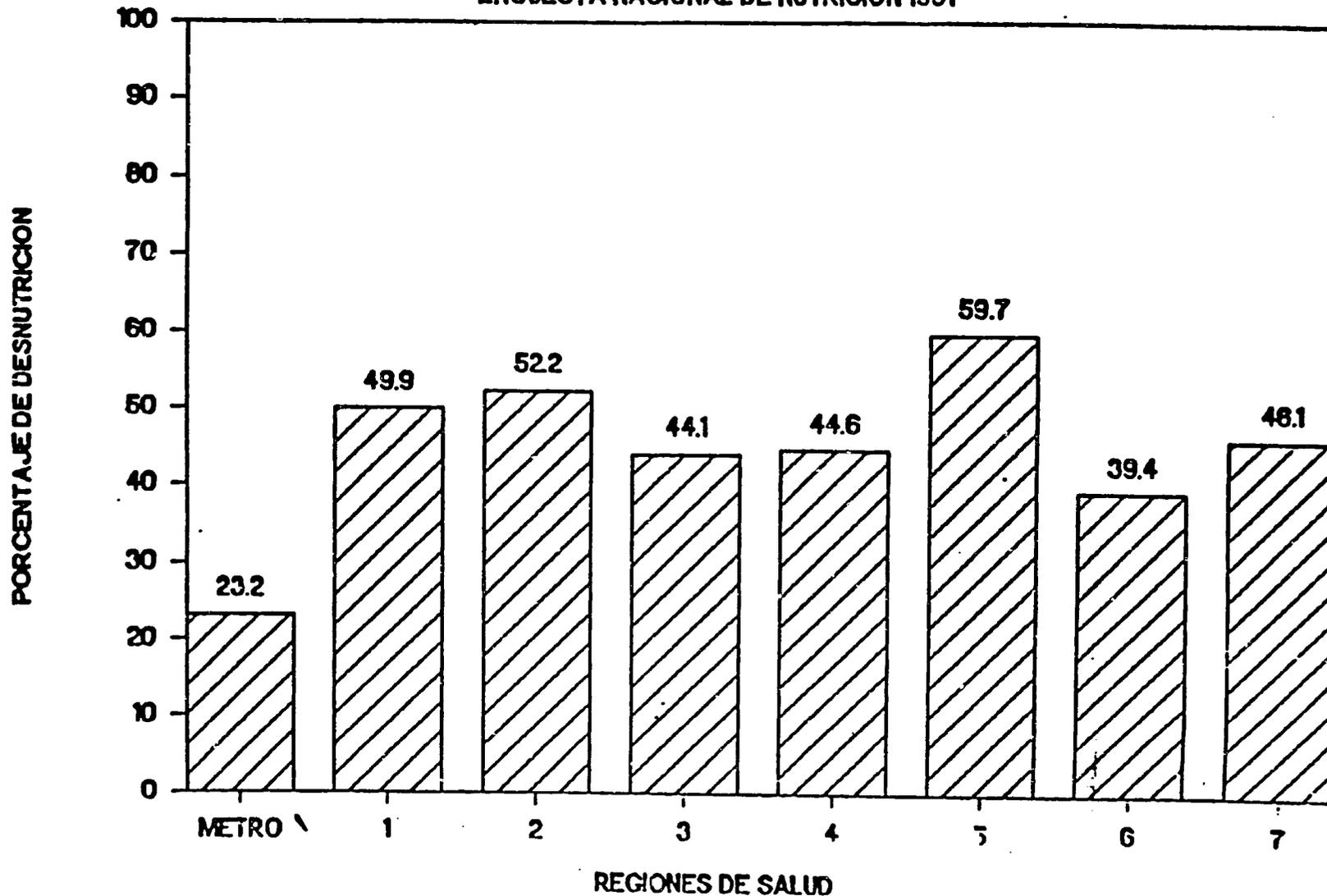


Source: Reference 4

FIGURE 2

# PORCENTAJE DE DESNUTRICION TALLA-EDAD

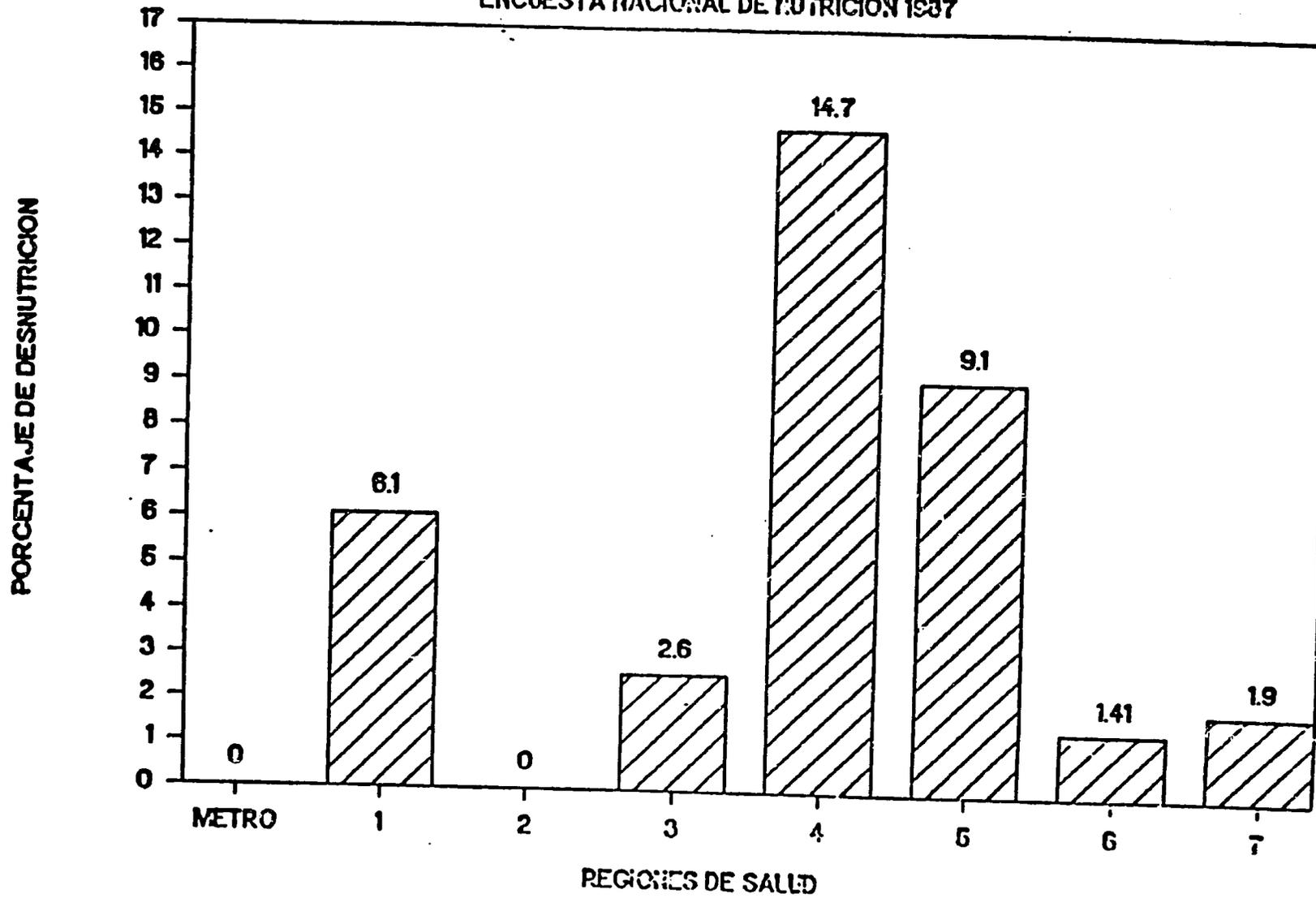
ENCUESTA NACIONAL DE NUTRICION 1987



Source: Reference 4

# PORCENTAJE DE DESNUTRICION PESO/TALLA

ENCUESTA NACIONAL DE NUTRICION 1987



Source: Reference 4

TABLE 1

CLASIFICACION DE LOS DEPARTAMENTOS SEGUN CATEGORIAS BASADAS EN LA PREVALENCIA DE DESNUTRICION REPORTADA  
PRIMER CENSO NACIONAL DE TALLA EN ESCOLARES DE PRIMER GRADO DE LA REPUBLICA DE HONDURAS, 1986.

RIESGO BAJO 0.0% A 19.9%	RIESGO MODERADO 20.0% A 35.9%	RIESGO ALTO 36.0% A 51.9%	RIESGO MUY ALTO 52.0% Y MAS
ISLAS DE LA BAHIA 10.8%	GRACIAS A DIOS 27.8%	OLANCHO 36.7%	LA PAZ 53.0%
	FRANCISCO MORAZAN 29.4%	YORO 39.3%	COPAN 55.2%
	VALLE 32.4%	COLON 39.6%	SANTA BARBARA 56.7%
	CORTES 32.7%	EL PARAISO 40.0%	INTIBUCA 60.7%
	CHOLUTECA 35.4%	COMAYAGUA 45.6%	LEMPIRA 62.1%
	ATLANTIDA 35.4%	OCOTEPEQUE 48.5%	

Source: Reference 4

R

found in the 1986 National Nutrition Survey, the following regional ranking of risk resulted, from highest to lowest (maximum score of 9):

Ranking of Nutritional Risk by Region

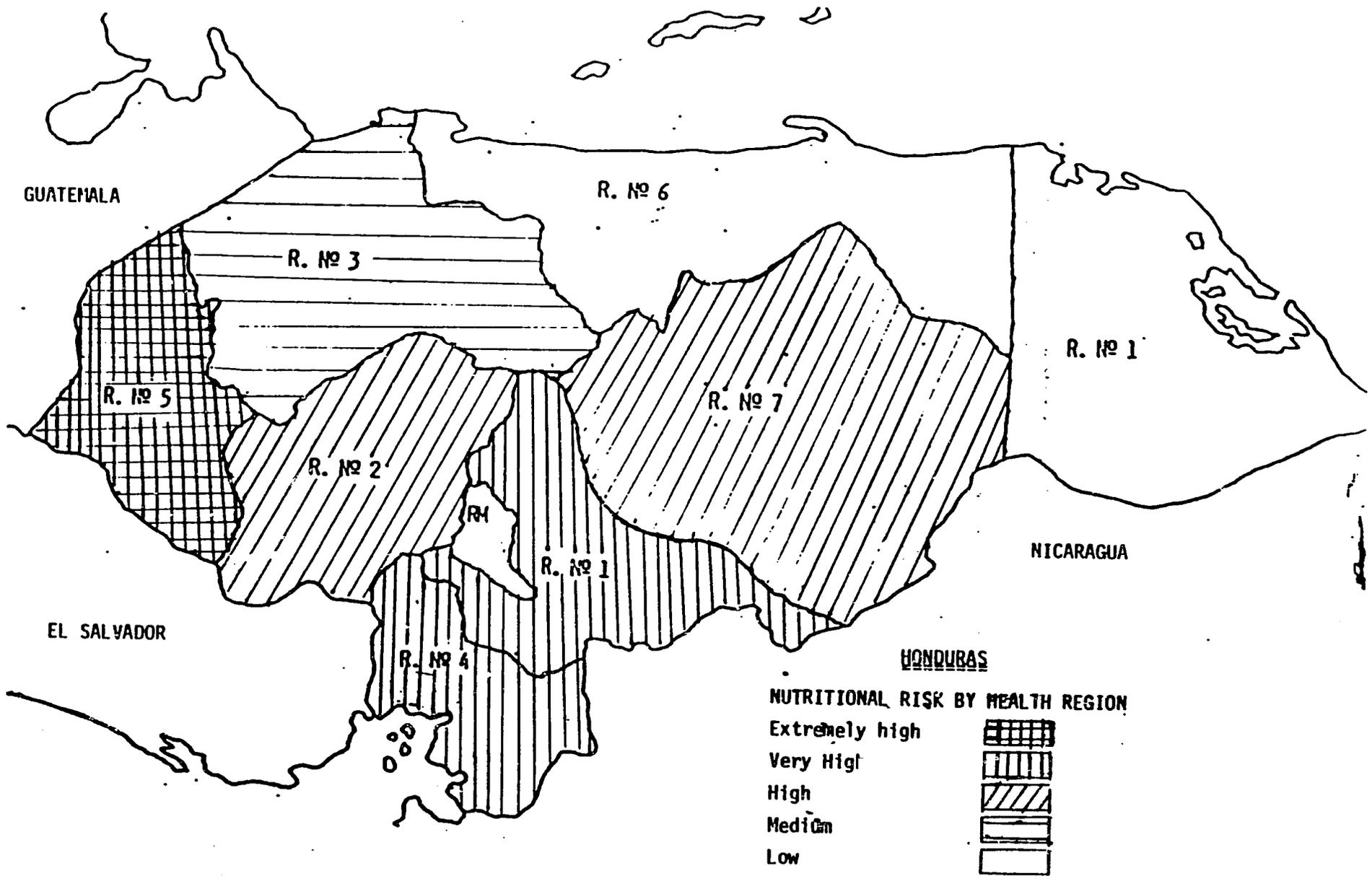
<u>Health Region</u>	<u>Risk Score</u>
5 (Lempira, Copan, Ocotepeque)	8 Extremely high
4 (Choluteca, Valle)	6 Very high
1 (El Paraiso, Morazan no metrop.)	6 Very high
2 (Intibuca, La Paz, Comayagua)	5 High
7 (Olancho)	5 High
3 (Santa Barbara, Cortes, Yoro)	4 Medium
6 (Atlantida, Colon)	2 Low
Metropolitan Tegucigalpa	0 Low

The highest risk area includes Health Regions 5,4,1,2 and 7 encompassing the southern two-thirds of the country, as is shown in the annexed map. However, areas of region 3 other than metropolitan San Pedro Sula may be considered at very high risk. In brief, the southern and western regions 5, 4, 1 and 2, as well as the eastern region 7, are clearly the ones at the highest health and nutritional risk.

Results of the Vitamin A and iodine status assessments were not yet available at the time of the Assessment visit. About 70% of the salt specimens taken from the homes included in the national sample did not have adequate levels of iodine (2), in spite of current legislation (since 1968). Vitamin A deficiency which had been controlled in the late 1970s through compulsory sugar fortification (instituted in 1976) has apparently increased. An assessment carried out in 1980 (6) found only 2.8% of the children with low serum vitamin A levels. However, law enforcement has subsequently failed to the extent that fortification is not currently practiced. There is thus a great concern that vitamin A deficiency may be a serious problem again. Iron deficiency anemia was found in 13% of the women included in the survey (2).

Breastfeeding and Infant Feeding Patterns

A declining trend was observed early in this decade in the traditionally high frequency and duration of breastfeeding, particularly in urban areas. This led to special efforts to



GUATEMALA

R. No 6

R. No 3

R. No 1

R. No 5

R. No 7

R. No 2

RM

R. No 1

NICARAGUA

EL SALVADOR

R. No 4

HONDURAS

**NUTRITIONAL RISK BY HEALTH REGION**

Extremely high



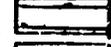
Very High



High



Medium



Low



reverse the trend by promoting changes in hospital and medical practices that were detrimental to breastfeeding. The proportion of urban women initiating breastfeeding increased from 80% in 1981 to 86% in 1984, whereas the corresponding figures for rural women were 94% and 95%. Mean duration of breastfeeding has also increased in urban women from 9.6 months in 1981 (ENPA) to 12.6 months in 1987 (ENESF). In rural women the increase was from 17.7 to 19.5 months in the same time interval. In spite of the inverse relationship between mother's years of education and duration of breastfeeding, duration increased consistently in all educational groups (2).

Preliminary tabulations of the 1987 Epidemiology and Family Health Survey (Tables 2-4) indicate that inappropriate weaning practices are a major problem. Weaning is characterized by extremely short duration of exclusive breastfeeding, too early introduction of supplementary foods and widespread use of bottle feeding (Tables 2 to 4). These problems are believed to be compounded by the poor nutritional quality and contamination of weaning preparations. Foods other than breast milk (water, other milks - mostly bottle feeding, coffee/tea, mush/porridges and juices) are introduced as early as the first month in a large proportion of cases. Other milks are given to about half of the infants at 1-2 months, and to about 60% at 34 months (Table 2). Early mixed feeding appears to be an ubiquitous problem, although it is more frequent in urban areas where other milks are given to about 80% of the infants at 3-4 months (Table 3).

About 44% of infants are exclusively breastfed for less than one month, 21% for 1-2 months and only 6% for 3-4 months (Table 4). Therefore, although women usually breastfeed for more than one year, especially in the rural areas, the potential nutritional and health benefits are minimized by early and increasingly frequent mixed-feeding. This often includes premature introduction of other milks and foods within the first 3-4 months. Mixed-feeding is introduced to 55% of the infants within the first month, to 74% between 1-2 months and to 87% between 3-4 months. The problem is also serious among the rural population, with only 7% practicing exclusive breastfeeding at 3-4 months. This trend is apparent even among illiterate women (14% exclusive breastfeeding at 3-4 months).

Although a number of KAP studies on breastfeeding and infant feeding have been carried out, their results are either not readily available or have not been analyzed. Previous accounts, presumably from ethnographic studies (7), describe beliefs about "hot/cold" foods, proper and inappropriate dietary practices during illnesses, "agitated breast-milk" caused by mother's emotions, tabus about colostrum, and "normal vs. abnormal" diarrhea and "empacho" (stomach upset).

TABLE 2

Percentage of Women with a Child Less than 2 Years of Age at the Time of Interview that Have Begun Supplementary Feeding by Type of Food and Age of the Child

Epidemiology and Family Health Survey, Honduras, 1987

Type of Food	Age of Child in Months				
	<1	1-2	3-4	5-6	7-24
Water	43.4	61.2	83.6	89.2	99.1
Other milks	31.4	48.3	59.0	65.5	78.1
Coffee/tea	11.7	21.5	33.7	47.6	77.5
Mush/porridge	10.9	16.0	29.7	44.1	68.5
Juice	7.3	21.9	48.5	64.4	82.4
Broth	1.4	14.7	52.7	80.5	98.3
Strained foods	0.7	8.0	34.1	58.6	79.7
Solid food	0.0	1.8	20.8	53.5	93.9
No. of Women	(136)	(325)	(262)	(279)	(2197)

Source: Reference 2

TABLE 3

Percentage of Women with a Child Less than 2 Years of Age at the Time of Interview that Have Begun Supplementary Feeding by Type of Food, Age and Residence

Epidemiology and Family Health Survey, Honduras, 1987

Type of Food	Age of Child in Months									
	<1		1-2		3-4		5-6		7+	
	U	R	U	R	U	R	U	R	U	R
Water	65.0	34.4	79.0	53.3	93.1	80.0	95.8	87.0	100.0	98.7
Other milks	58.5	19.8	69.7	38.9	78.7	51.3	82.9	59.3	90.5	72.7
Coffee/tea	11.9	11.6	17.0	23.6	25.3	37.0	40.5	50.0	65.7	82.7
Mush/porridge	11.9	10.4	14.0	16.9	29.3	29.8	42.7	44.7	68.6	68.7
Juice	9.5	6.3	32.3	17.3	68.0	40.8	84.0	57.5	94.3	77.1
Broth	0.0	2.1	16.0	14.2	62.7	48.7	90.7	76.9	98.7	98.1
Strained foods	2.4	0.0	12.1	6.2	57.3	25.0	77.6	51.9	87.4	76.3
Solid foods	0.0	0.0	0.0	2.7	28.0	18.0	52.7	53.7	93.5	94.1
No. of Women	(40)	(96)	(100)	(225)	(72)	(190)	(72)	(207)	(673)	(1524)

U = Urban  
R = Rural

Source: Reference 2

TABLE 4

Distribution of Women with a Child Less Than 2 Years of Age at the Time of Interview by Breastfeeding Practices, Supplementary Feeding and Age of the Child

Epidemiology and Family Health Survey, Honduras, 1987

Feeding	Age of Child in Months					
	All Ages	<1 Month	1-2	3-4	5-6	7+
Breastfeeding						
Exclusive	4.7	43.9	20.9	5.9	3.2	0.0
Breast & other milks	5.9	7.6	6.0	4.3	6.8	5.8
Breast & other foods*	21.8	25.0	31.0	33.6	31.2	17.7
Breast, other milks and other foods*	35.7	22.7	37.0	48.6	44.4	33.7
Not breastfeeding	31.9	0.8	5.1	7.5	14.3	42.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
No. of Women	(3170)	(132)	(316)	(253)	(279)	(2190)

\*Includes water, juice, coffee, teas, broth, porridge, strained or solid foods.

Source: Reference 2

## Food Production and Donated Foods

The staple food is corn, usually prepared as "tortillas", except in the north where the staple is rice and beans. The 1986 National Nutrition Survey found that about 80% of families produced corn, 60% cultivated beans, 50% bananas and 33% vegetables (2). About 16% of the national sample interviewed were beneficiaries of food distribution programs, the highest proportion being in region 6 (38%). Most (59%) received food commodities through the school feeding program. Another 14% obtained commodities from the Health services and 13% from other sources.

A more comprehensive assessment of the current nutritional situation of the country will be facilitated when the complete results of both the 1986 and 1987 National Nutrition and Epidemiology and Family Health Surveys are made fully available. The recent KAP surveys in nutrition and growth monitoring conducted by the MOH are also expected to provide useful planning data. As an example, those data will show the current extent to which vitamin A and iodine deficiencies continue being priority problems, as well as identify the high-risk population groups and geographic areas.

## IV. NUTRITION PLANS AND PROGRAMS

### Policies and Activities: 1950-1986

General concern about the nutritional problems in Honduras began in the early 1950s when a series of small scale studies conducted by INCAP heightened public awareness and led to the creation of the "Unidad de Nutricion" within the Ministry of Government, Development and Health. This unit was later transferred to the Secretariat of Public Health and Social Assistance. Detection and treatment of malnourished children and food distribution programs, such as the CARE school-feeding program, became the predominant approach to nutrition problems in the 1960s. Although there were some efforts to institute a coordinated national nutritional policy, nutrition was not a major priority until the results of the 1965 National Nutrition Survey (1) were reported in national seminars. By 1968 nutrition planning was formally designated an activity of the central government and the National Food and Nutrition Council (CNAN) was created. CNAN was a multi-sectoral body in charge of strengthening government policies for food, nutrition and related activities. In 1971 CNAN was integrated with the National Economic Planning Council (CONSUPLANE), and developed a number of explicit food and nutrition policies that were incorporated in the 1974/78 National Development Plan (8).

In 1976, after a national nutritional assessment conducted in 1975 concluded that the nutritional status of the population had not improved since 1965, the System for Analysis and Planning of Food and Nutrition (SAPLAN) was created within CONSUPLANE. This group was given major responsibility for nutrition planning, coordination and evaluation (8). SAPLAN was not directly responsible for implementing nutrition programs, but was in charge of administering a 5-year (1976-1981) USAID nutrition grant/loan; and receiving and channeling funds to a number of sectoral agencies responsible for direct project implementation. Major project activities included: analysis, planning and evaluation, e.g. establishing a national nutrition surveillance system and conducting a series of studies on the nature and causes of nutrition problems; nutrition education, involving a substantial amount of training and a series of radio spots on nutrition; water supply and environmental sanitation; and a series of small, community-level pilot projects.

The results of SAPLAN's activities were mixed, with few sound project achievements. Major efforts included completion of a national study for food and nutrition in 1978/80, and establishment of a nutritional surveillance system in the Danli area (9). It was, unfortunately, never expanded nation-wide. Most of the SAPLAN activities ended with the end of AID funds in 1981. SAPLAN was dissolved in 1983 and replaced by a small coordinating unit within CONSUPLANE, in charge of administering an interagency committee on food distribution programs (the only nutrition programs continuing since the 1950s). Later on INCAP and AID/ROCAP began working again on many of the same kinds of activities begun during the SAPLAN period (8).

Food distribution programs have been by far the most regular and concrete nutritional interventions carried out in Honduras. Since the 1950s, the U.S. government has supported these programs under P.L.480. Major food distribution programs are administered by CARE and CRS through Caritas, reaching an increasing number of beneficiaries (about 425,000 including 120,000 preschool children, pregnant and lactating women; and about 300,000 school children). There are also many other private and governmental food distribution programs in the country which receive donations from the World Food Program and the European Economic Community. The nutritional impact of the donated food has never been adequately assessed, but there is little possibility that they will be phased out in the near future.

#### SECPLAN

In 1987 CONSUPLANE was reorganized as the Ministerio de Planificación, Coordinación y Presupuesto (SECPLAN). SECPLAN has formulated a National Food and Nutrition Plan (10) integrated to the 1987-1990 national development plan. The multi-sectoral approach contemplates a series of actions aimed at ensuring food

security (in coordination with CADENSA), the establishment of a national food and nutrition surveillance system, the formulation of a food and nutrition education program and promotion of community participation. Some specific intervention programs have also been designed but financial support is still pending.

Hopefully, this new national food and nutrition plan will have strong political support from the central government to ensure that it would not become once again merely a "catalog of good intention". On the positive side, political commitment has materialized in the creation of the National Directorate for Food and Nutrition within the Ministry of Health, thus raising the organizational status and, most probably, improving the financial situation of the formerly weak and poorly managed MOH Division of Nutrition. The previous intensive training efforts may have also strengthened the technical and management capabilities of those working in public health nutrition. On the negative side, the fact remains that nutrition planning and programs are still supported mainly by external donors. At no time past or present has the Government invested significant amounts of its own funds in nutrition improvement projects. Historically, therefore, the implementing organizations have been relatively weak and underfunded. Thus there are few hopes of financial sustainability without continued external funding (8).

#### Directorate for Food and Nutrition

The new National Directorate for Food and Nutrition is being organized by Dr. Manuel Antonio Caceres, an experienced agronomist and rural extensionist, and will take major responsibilities for food and nutrition programs. Emphasis will probably be given to efforts to improve food production, particularly self-sufficient projects for small farmers, the establishment of a national food and nutrition surveillance system, community nutrition education, improved targetting of supplementary feeding programs, and community participation. The National Directorate for Food and Nutrition may be in a position to strengthen current nutrition programs and to develop new ones if it gets properly organized and becomes capable of translating theoretical thinking into concrete, clearly defined and well-designed implementation programs. The need for technical assistance in this regard is recognized by the current director and his staff. The Food and Nutrition Education Division, which was recently raised from a unit and has had new staff added, is described in the next section.

#### MOH Department of Infant Health

The Department of Infant Health, MOH Division of Maternal and Child Health, under the leadership of Dr. Jorge Humberto Melendez, a young enthusiastic pediatrician, is actively working in the planning and development of country-wide growth monitoring

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and promotion (GM/P) activities which are seen as the most suitable vehicle for the integration of child survival interventions and the implementation of community nutrition and health education. The growth monitoring activities are still in the early phases of planning and many technical, logistical and operational issues remain to be resolved. The team felt that substantial technical assistance would be beneficial at this early stage so that a sound program is developed. UNICEF is providing some support to GM/P but USAID's Health Sector II will be the primary source of funding.

### PROALMA

The potential of well-planned and carefully implemented actions to improve nutrition problems in Honduras is exemplified by PROALMA's significant achievements in promoting breastfeeding. The PROALMA Project, headed by Dr. Argentina de Chavez, an experienced and dedicated pediatrician, was designed as a response to the declining breastfeeding trends in Honduras in the early 1980s, which were particularly serious in urban areas. The hospital-based, "top-down" approach adopted by the project has proved very effective in the two implementation phases PROALMA I (1982-1985) and PROALMA II (1986-1988). Since hospital practices were clearly detrimental to breastfeeding, project activities have focused on bringing about changes in institutional policies and obstetric practices to make them supportive of breastfeeding. This was accomplished primarily by training physicians, nurses and other health professionals. PROALMA was initiated as a joint project between the MOH, the National Social Security Institute and the National Social Welfare Agency.

In visits to three hospitals in Tegucigalpa and San Pedro Sula, two major cities of Honduras, the AED team found major changes in institutional practices related to pre- and perinatal care. Institutionalization of rooming-in practices and elimination of bottle feeding of newborns, have had particularly good effects on the number of women successfully initiating breastfeeding. The enthusiasm of the PROALMA staff has been transmitted to the hospital staff. Interviews with the hospital directors, heads of pediatrics and obstetrics, as well as with nursing and auxiliary staff found them remarkably motivated and enthusiastic, something that the AED team rarely encounters. We were particularly struck by the fact that each of the hospital directors we talked with made observations about decreasing health care costs, incidence of infection and diarrhea in the children born in the hospitals as well as human benefits, and they attributed this to the program.

Findings from the project evaluation (12) and preliminary results from the 1987 Epidemiology and Family Health Survey (2) indicate there has been a significant impact on the initiation and duration of breastfeeding. A review of the data show the

following specific achievements: greater proportion of urban women initiating breastfeeding, longer duration of breastfeeding especially in the urban areas, and a slightly higher proportion of women breastfeeding exclusively during the first four months. The evaluation of PROALMA II currently in process will provide more solid information on the impact of the project.

Despite the gains since 1982, a great deal remains to be done to raise the proportion of women exclusively breastfeeding for the first four months, so that the full benefits for nutrition, diarrhea control and birth spacing can be achieved. Given the confusion that exists among health providers and parents about weaning, complementary feeding and maintenance of breastfeeding, the next phase of action for PROALMA should concentrate on promoting sound breastfeeding and weaning practices in the community. Current project impact is presently limited primarily to urban areas where most births occur in institutions. Although only about one-fourth of the 180,000 annual deliveries nationwide are attended in health institutions where the project has focused. The first two phases of PROALMA focused on the urban areas where breastfeeding decline was most serious. In the next phase, PROALMA hopes to extend to the whole country through a broader community approach and use of mass media.

#### Donor Plans

There are apparently abundant international financial resources for nutrition programs in Honduras, which may exceed the technical, operational and absorptive capacity of the public sector. This would imply the need for more effective coordination among donor agencies, particularly in regard to much needed technical assistance. International agencies providing and/or offering financial support for nutrition and related programs include: USAID (ROCAP and Honduras), the governments of France, Canada, Switzerland, Italy and Japan, the European Economic Commission, UNICEF, PAHO/WHO, FAO, UNDP, CADESCA, IDB and the World Bank. Private voluntary organizations are also involved in nutrition programs in the country, particularly CARE, Save the Children, Meals for Millions/Freedom from Hunger, and Catholic Relief Service (CRS).

USAID has provided substantial technical and economic support to both health and nutrition programs, and has been effective in promoting and assisting a major policy change which led to a significant shift in emphasis from hospital-based curative care towards preventive medicine and practice, concentrating on primary health care with emphasis on the country's poor (11). The health system currently operates through 3 national hospitals, 6 regional hospitals, 21 area hospitals, 120 CESAMOS (Health Centers with physician) and 506 CESARES (Rural Health Posts). Recently USAID has supported two major programs: Health Sector I and Rural Water and Sanitation. While Health Sector I

has concentrated on improving the MOH's management and support systems, the communications component has provided technical assistance through the Academy for Educational Development (AED) to promote four priority child survival interventions: oral rehydration therapy (ORT), expanded programs of immunization (EPI), acute respiratory infections (ARI), and growth monitoring and promotion (GM/P).

A Health Sector II initiative which will give even greater emphasis to nutrition, is to begin soon. Some of the Health Sector II priority areas are breastfeeding, growth monitoring, maternal and infant nutrition, as well as the development of an expanded educational/promotional system (mass media) also covering those nutritional areas. In Health Sector I, progress was made in integrating breastfeeding norms and procedures into the MOH national MCH program, with an emphasis on hospitals, through the National Program for Support of Breastfeeding (PROALMA). This program will be expanded under Health Sector II to focus on ambulatory health services and the community as a whole, including a strong public health communications program stressing exclusive breastfeeding over the first four months of the infant's life, appropriate weaning practices, and adequate dietary management of diarrhea and other illnesses. Nutrition activities under Health Sector II will also focus on improving the coverage and effectiveness of growth monitoring and promotion (GM/P), mass education programs for improvements in weaning practices and general infant feeding, and eventual provision of iron and vitamin A to pregnant women and small children.

#### V. RESOURCES FOR MANAGING COMMUNICATION ACTIVITIES

Honduras has an unusually well-developed public sector infrastructure for carrying out social marketing programs. There are also some good private sector groups.

##### Health Education Division

Over the past eight years Honduras has benefited from steady support from USAID in building-up the capability of the MOH's Division of Health Education to design, execute and evaluate communication programs using a well-established and rigorous methodology. The Division is the major Honduran counterpart of HEALTHCOM, whose resident advisor Dr. Patricio Barriga has developed a very positive working relationship. The Division has a core group of experienced technical staff who have been successful in developing and implementing a child survival communication strategy focused on ORT (initiated by PROCOSI in the early 1980s), immunizations, ARI and recently growth monitoring. Although, the Division has not developed strong management capacity and must constantly struggle to keep top staff, the Division is probably one of the most experienced and

competent in Latin America. Developing a nutrition communication program with this group would be a great advantage, and would provide a real test of what can be accomplished.

The Health Education Division has de facto become a key group for coordinating child survival activities and other health activities because of its role in producing educational materials and campaigns for virtually all the MOH's major programs. This role is being recognized and the Division under the leadership of the recently appointed director, Dr. Daniel Davila, has taken steps to deal with the different programs in an integrated fashion rather than simply provide communication support to disparate programs.

The Health Education Division has taken the lead in developing a Plan de Comunicación Integral to coordinate all major communication activities. The Plan, which will be presented to the Minister during the last week of May, includes nutrition education as an important component and enjoys the support of the Nutrition Education Division. If adopted, the Plan will facilitate more efficient management of the Division's research and media production activities. Another important expected benefit is that by looking at the different communication topics as a whole, it will facilitate linkage and integration of the different child survival messages. This will be particularly beneficial for nutrition which can be tied to many priority child survival topics including family planning and ORT.

A prime difficulty facing the Health Education Division is how to handle the increased volume of activity thrust its way. Without an expansion of staff, this is bound to cause bottlenecks. The Division will be starting a major new initiative in water and sanitation with UNICEF support, an AIDS Education Program (with some PAHO support) as well as a possible project with the Ministry of Education to develop health education materials for secondary schools. These new activities will occur together with the expanded topics to be promoted under USAID's Health Sector II (GM/P, weaning, maternal nutrition and breastfeeding). This will place considerable strain on the Division's capacity to continue producing quality programs. This is especially so since each new topic requires substantial formative research to identify the concrete, actionable messages needed to bring about behavioral change.

A second difficulty facing the Health Education Division is how to improve its management capability. The HEALTHCOM advisor feels that the Division, especially now that it faces an increased workload would benefit from training in management and design of communication programs.

Based on these observations the AED team recommends:

1. AID should explore with the MOH the need to add national staff to the Health Education Division. Other possibilities would be to obtain UNICEF funding to hire a high-level communication expert. The possibility of having the Directorate of Nutrition hire and second a communication expert should also be pursued (mentioned by Lic. Sanchez). This new Directorate, which has funding available, may find it attractive to have a presence and greater voice in the Health Education Division. With the planned nutrition communication activities under Health Sector II, their support may be forthcoming.
2. USAID in collaboration with the Health Education Division should study ways to strengthen the unit's management capacity. In the short term this might take the form of a second long-term expatriate communication advisor. In the slightly longer term, a management training program could be put in place to develop in-house capability -- or bring in additional talent to fill the gap.

#### Food and Nutrition Education Division

The Food and Nutrition Education Division, headed by Lic. Moises Sanchez, will be in charge of community food and nutrition education activities, and it is already working closely with the Division of Health Education of the MOH General Directorate for Health in formulating an integrated Child Survival Communications Strategy for the next three years. The roles and division of responsibility between the Health Education Division and Division of Nutrition Education have not been fully worked out since the latter was recently created. Discussions with both groups, however, suggest no serious overlap of functions or conflict of interest. Health Education is acknowledged to be the specialist in mass media and print materials. Nutrition Education sees its role more focused on community-level education and activities such as home gardens which can be used as educational tools.

#### Private Sector

Interviews with groups working in family planning and agriculture indicate that there is a wide variety of resources in Honduras needed for a social marketing effort. There is certainly a wide variety of talent for production of print, radio, and television materials. Research resources for consumer studies and the kind

of ethnographic work required for a nutrition communication program are few. Interviews with ASHONPLAFA and the Avance group, which recently began to market its research capabilities, indicate that this is an area where outside technical assistance may be needed given the few trained people in Honduras.

## VI. PRIORITIES FOR NUTRITION COMMUNICATION

Based on the review of nutritional problems in the country and of the ongoing and planned activities of the MOH and key donors, the Assessment team recommended that the USAID Mission give priority to:

- promotion of exclusive breastfeeding;
- promotion of growth monitoring and improved infant feeding practices;
- promotion of vitamin A, if the results of the 1987 Epidemiological Survey show this a widespread public health problem.

### Breastfeeding

The Mission has supported breastfeeding in Honduras since 1982 with a highly successful program operated by PROALMA. As stated above, this private Honduran voluntary association has done a very impressive job and is the most likely candidate to carry out future breastfeeding promotion efforts.

In the past PROALMA has been able to operate quite independently of the central-level MOH, while focusing its actions on health care professionals in the hospitals. Interviews with MOH officials and with PROALMA indicate that this independent stance --along with success--has caused some jealousies and hard feelings. Since funding for future PROALMA activities will need to come through bilateral USAID funds administered by the MOH, it will be important for PROALMA and the MOH to find mutually acceptable ways of coordinating activities in this important nutrition area.

During the Assessment team's visit the first step was taken to linking the education/communication activities of the two organizations. On May 25, the AED team met with Dra. Chavez, director of PROALMA; Dr. Melendez, director of the MCH Division's Child Health Programs; and Lic. Sanchez, director of (the) Food and Nutrition Education Division of the new Directorate of Nutrition to discuss plans for promoting breastfeeding in Honduras. The meeting was extremely positive. There seems to be consensus that the next big push to establish better breastfeeding practices needs to be linked to improved weaning

and to the MOH's new growth monitoring program. This was the first time these three groups had met and in a later encounter, by chance, with the three individuals, they all expressed satisfaction at the prospects of collaboration.

A follow-up meeting has been planned for June 6 to share action plans and discuss concrete division of responsibilities for major areas of action. The Nutrition Education Division expressed interest in community-level education to support the program; and the MCH Division indicated that PROALMA, with its flexibility to arrange field visits, could play an active role in the research phase needed to develop specific weaning-breastfeeding messages. Based on PROALMA's past performance record, the team feels that all possible alternatives should be explored to give them a lead role in the proposed breastfeeding promotion program. It is recommended that the social marketing program for breastfeeding focus on four priority areas:

- exclusive breastfeeding during the first four months;
- extension of supplemental breastfeeding to at least one year;
- use of contraceptives methods by lactating women; and
- appropriate introduction of complementary foods throughout the weaning period.

It is further recommended that the promotion program be closely linked with the MOH's growth monitoring program. It is also important for the PROALMA Project to work in close collaboration with the MCH Division, the Nutrition Directorate and the Health Education Division.

Three different options are proposed to give PROALMA the support it needs to carry out a successful communication campaign on these topics.

OPTION 1. Provide a resident advisor for 12-18 months to work with a specially recruited PROALMA social marketing staff member. This option would focus on strengthening private sector capability to carry out social marketing programs and would add to the existing capability of the Health Education Division, which has in the past had difficulty keeping good staff. A private sector source for child survival communication might help capture some of these resources. Also this option would take maximum advantage of PROALMA's proven ability to get things done efficiently.

OPTION 2. Provide periodic short-term technical assistance to a social marketing expert (although there are few social marketing experts in-country, there are individuals who have many of the skills needed). This person could be given short-term training by AED and provided with regular backstopping and technical direction.

OPTION 3. Have PROALMA hire a social marketing expert who would work directly with the Health Education Division in designing and executing a major mass media program and community-level education program. AED, through the Nutrition Communication Project, could provide periodic or long-term technical assistance to the PROALMA social marketing person dealing with breastfeeding. Such technical assistance would thus be shared between breastfeeding and the related nutrition activities planned under Health Sector II.

Because much has already been accomplished in changing breastfeeding behavior, the team recommends that the accomplishments and programmatic approach be documented. It is recommended that AID fund a consultant to review and summarize data on breastfeeding trends from the four or more baseline, evaluation and related studies such as the Epidemiology and Family Health Survey conducted in 1987. The AID-supported activities in Honduras have accomplished a great deal and are a model for Latin America. The data, however, are not presented clearly nor summarized in a convincing way. The summary should include only key findings and re-do some of the tables that are not presented in an easy-to-understand fashion. If the results are clearly explained, this important experience can be shared with program planners at AID and other agencies.

#### Growth Monitoring and Infant Feeding

The Assessment team fully supports the nutrition topics selected for priority attention under USAID's Health Sector II Project scheduled to begin in October 1988. The growth monitoring program now just getting underway (under Health Sector I) will be continued. Other topics to be addressed include: breastfeeding, weaning and maternal nutrition. Vitamin A could be added to any communication program directed at improving infant feeding practices if this were found to be a priority nutritional deficiency.

Considerable support from USAID will be needed to get the growth monitoring program underway. Support in program design would be especially valuable at this time, since the Maternal Child Health Division is seriously studying different service delivery models and will soon be making decisions about what the Honduras model should look like. Purchase of scales (originally to have been funded by UNICEF), training of health workers and various cadres

of community health workers will be other major areas where support will be needed.

The HEALTHCOM advisor has recently begun working with the Health Education Division on growth monitoring and has played a key role in raising issues about the goals of such programs and the importance of making the program an educationally-oriented and community-based one rather than a curative, surveillance-oriented one. It will be important to reinforce these recommendations. In particular, the team felt that MOH planners would benefit from learning about the experiences of other countries in structuring programs and training health workers so they can provide on-the-spot education to mothers whose children are not gaining weight satisfactorily. Such a well-focused growth monitoring program provides an excellent springboard and occasion for providing education about breastfeeding, weaning and proper infant feeding practices -- as well as other child survival components.

Technical guidance from AID is crucial at this point to help orient the nascent growth monitoring program towards a community-based approach with a strong promotion component. The promotion concept needs special attention if the health system is to be mobilized and health workers/volunteers trained to give specific instructions to mothers rather than generic messages about introducing "solids" or providing a more wholesome diet.

There are three specific ways the Nutrition Communication Project could provide assistance:

1. As a first step in orienting the GM/P program, the Nutrition Communication Project could provide technical assistance during the planned July Workshops being organized by the MCH Division. This will be a good opportunity to introduce new ideas and has the support of Dr. Melendez and Dr. Kaffie with whom the idea was discussed.
2. Provide assistance to HEALTHCOM on technical aspects of growth monitoring. This may be particularly helpful during the planning stage and the development of the formative research plan.
3. Provide a draft manual a growth monitoring/promotion counseling techniques for health workers. This has been developed with input from a number of experts in growth monitoring and is ready for field testing and adaptation.

Major emphasis of USAID support should be given to efforts to improve the coverage and effectiveness of growth monitoring linked to continued promotion of improved infant feeding practices. A strong communication program, using mass media as

well as effective interpersonal channels will be an essential part of a successful growth monitoring strategy.

### Vitamin A

Vitamin A is a possible priority topic to be addressed in a communication program. To date, however, there are very few data available on the severity or extent of the problem in Honduras other than consumption data which do not provide a reliable indication of vitamin A deficiency. Unfortunately, in the absence of Dr. Barahona, director of the MOH's Science and Research Division, the AED team was not able to examine the Vitamin A serology results from the 1987 survey (which were not incorporated in the preliminary tabulations which the team did review).

### VII. NEXT STEPS

1. Top priority will be given to working out a technical assistance plan to support communication activities planned under Health Sector II. This will require close coordination between HEALTHCOM, the Nutrition Communication Project and the USAID Mission. Based on the team's discussion with Robert Haladay, Margaret Parlato will meet with HEALTHCOM director, Mark Rasmuson, before his planned visit to Honduras in mid-June to develop recommendations.
2. Provide a list of candidates to the Mission for technical assistance to the MOH growth monitoring program planning workshop scheduled for July.
3. Plan a follow-up visit in August to develop an Agreement with the MOH/PROALMA; and a work plan and budget for the Mission. This visit can also be used to provide technical assistance to the MOH in developing the implementation plan for the growth monitoring communication program.

## APPENDIX A

### LIST OF CONTACTS

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A.P. 2024

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Dra. Ada de Romero, Jefe de Medicina Preventiva

Dr. José María Ochoa, Director Médico

Dr. Alberto Handel, Director regional del IHSS

Dr. Armando Bonilla, Asst. to Director Medicina Preventiva

Dr. Leonardo Landa, Jefe Pediatría

#### Hospital Leonardo Martínez, San Pedro Sula, Ministry of Health

Dr. Benjamin Abdu, Pediatra encargada de Lactancia Materna

#### Hospital Nacional del IHSS, Tegucigalpa

Dra. Norma Mendoza, PROALMA Director of Lactancia Materna Dept.

Dr. Benjamin Tarlin, Purperio Patológico

Dr. René Mejía Gallo, Jefe Recien Nacidos

Dr. Oscar González Ardon, Jefe Pediatría

Dr. Rolando Canales, Jefe Emergencias Pediátricas

Lic. Myriam Morales, Jefe Enf. Pediatría

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Mr. Arturo Diaz

Mr. Carlos Montoya

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Ing. M.A. Carceres, Director General

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Dr. Ricardo Kaffie, Director, MCH Division

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Dr. Jose Ochoa, Director, Departamento de Atención a la Mujer

### PROALMA

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Lic. Judy Canahuati, Advisor, (San Pedro Sula)

### SECPLAN. Secretaria de Planificación, Coordinación y Presupuesto

Dr. Carlos Cordero Suárez, Director, Departamento Alimentación y Nutrición

Dr. Maricela Zuniga, Nutritionist

Dr. Hernan Aguilar

### UNICEF

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Mr. Patricio Fuentes, Director

Dr. William Vargas, Regional Child Survival Advisor, Guatemala

### USAID

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Dr. Maria del Carmen Miranda, Health-Nutrition Officer

Mr. Juan Castillo, Nutrition Programs

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32-55-82 (h)

### OTHERS

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Telephone: 32-17-26

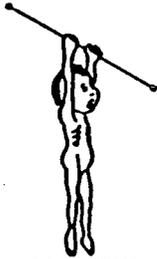
Sr. Marcial Solis, Director, ASHONPLAFA/Triton Project

Ms. Robin Archar, La Leche League

## APPENDIX B

### KEY DOCUMENTS REVIEWED

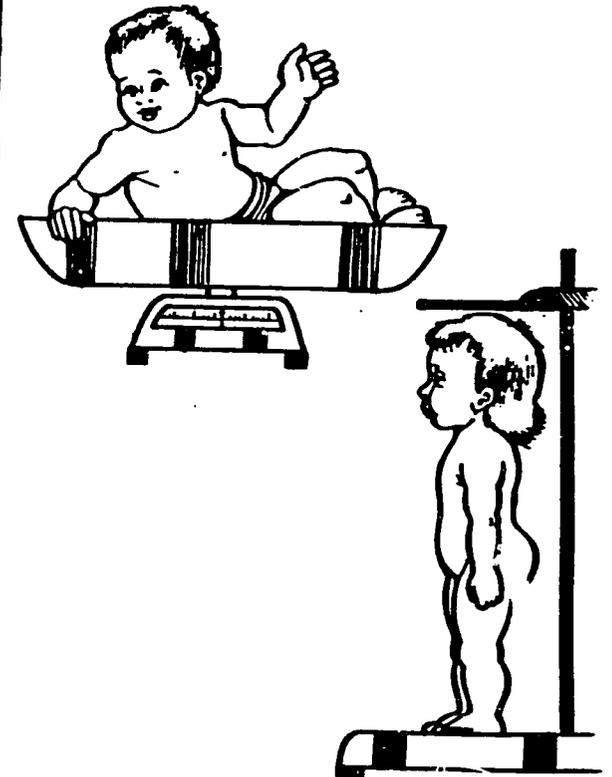
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FECHA CITA	 SUBIO PESO	 MANTUVO PESO	 BAJO PESO	 IRA	 DIARREA	OTRAS	EDAD	DESARROLLO
							2 MES	
							3 MES	
							4 MES	
							5 MES	
							6 MES	
							7 MES	
							8 MES	
							9 MES	
							10 MES	
							11 MES	
							12 MES	
							2 AÑOS	
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							4 AÑOS	
							5 AÑOS	

## TARJETA DEL NIÑO

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NOMBRE \_\_\_\_\_  
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 EDAD: \_\_\_\_\_  
 RESPONSABLE: \_\_\_\_\_  
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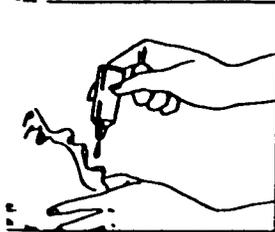


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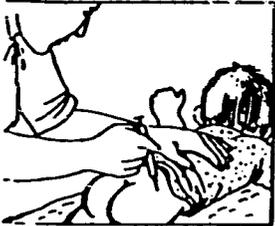
# PAI

**POLIOMIELITIS  
RES DOSIS.**



- 1ª DOSIS \_\_\_\_\_
- 2ª DOSIS \_\_\_\_\_
- 3ª DOSIS \_\_\_\_\_
- REFUERZO \_\_\_\_\_

**DIFTERIA, TOSFERINA, TETANOS (DPT)  
TRES DOSIS.**



- 1ª DOSIS \_\_\_\_\_
- 2ª DOSIS \_\_\_\_\_
- 3ª DOSIS \_\_\_\_\_
- REFUERZO \_\_\_\_\_

**ARAMPION  
UNA DOSIS.**



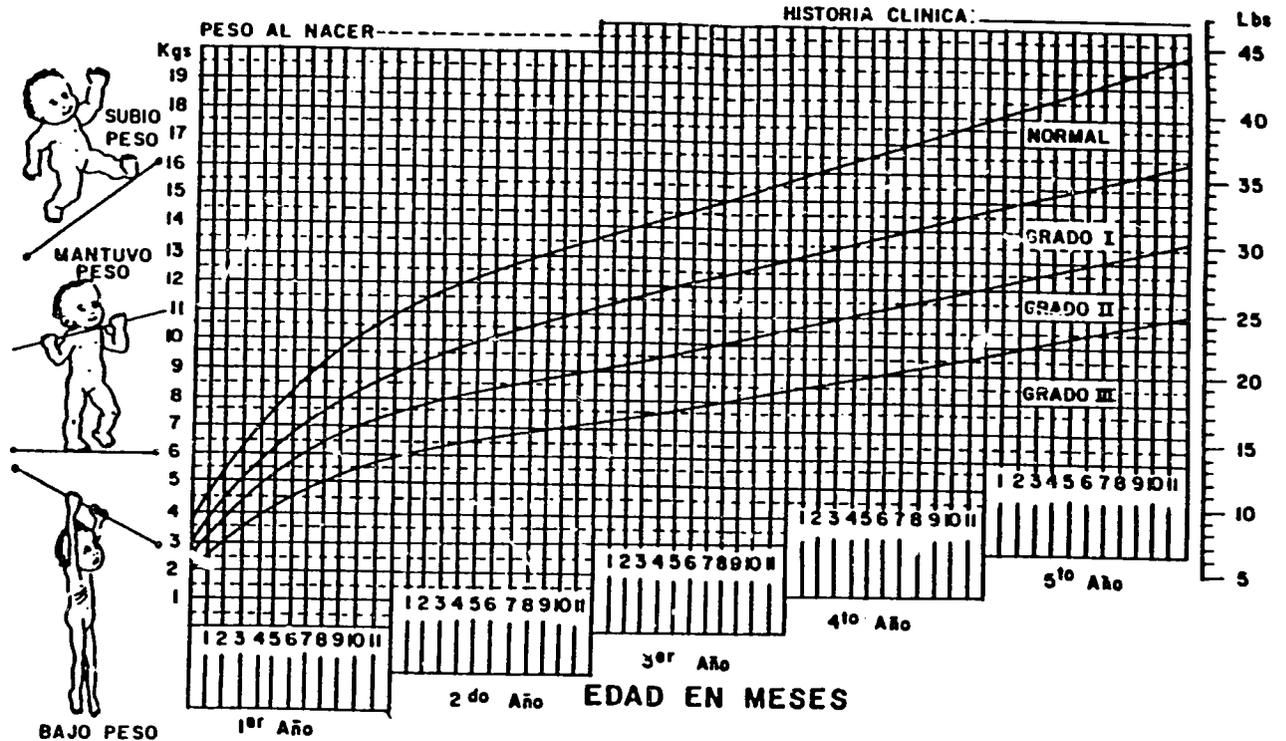
- DOSIS \_\_\_\_\_

**TUBERCULOSIS (BCG)  
DOS DOSIS.**



- 1ª DOSIS \_\_\_\_\_
- 2ª DOSIS \_\_\_\_\_

## GRAFICA PESO PARA EDAD



APPENDIX C

## Alimentación del niño

0-4 meses	de 4 a 6 meses	de 6 a 9 meses	de 9 a 12 meses