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NUTRITION PROBLEMS AND PROGRAMS IN CENTRAL AMERICA

A. Summary of Nutrition Status in Central America

Malnutrition continues to be a serious problem for Central America and Panama. Indications of improvement have been eroded by recent economic recession and political upheavals. An estimated 1.5 million families are affected by adverse nutrition conditions which result in high mortality, morbidity and other ill effects for both children and adults. Children, however, are the most seriously affected. Over 25 percent of children in the region under the age of five years suffer from moderate to severe protein calorie malnutrition which causes height and weight retardation, impairs cognitive development, and results in low productive performance in later life. These high rates of malnutrition contribute to the sustained high rates of infant and child mortality.

The distribution of malnutrition* varies widely within the region (see Table I). Nutrition surveys conducted by the Institute of Nutrition of Central America and Panama (INCAP) in Central America between 1965 and 1967 demonstrated that

* Malnutrition, or undernutrition, is the inadequate consumption and biological utilization of food. The most sensitive measures of undernutrition are anthropometric measures, i.e. weight for age as a percent of standard reference population. For the purposes of this paper, severe malnutrition is less than 60% weight for age of the standard reference population. Chronic malnutrition is less than 75% weight for age.

the type and magnitude of nutrition problems varied from country to country but tended to be more serious in Guatemala, El Salvador, and Honduras and of less magnitude in Nicaragua, Costa Rica, and Panama. More recent information for the region estimated that 30 to 65 percent of all households consumed fewer than the minimum daily requirements for calories. Costa Rica and Panama had the smallest proportions of households with inadequate diets while Honduras and Guatemala had the largest. Specific nutrient deficiencies of iron, iodine, and vitamin A are prevalent in Central America and result in high rates of nutrition diseases such as anemia (iron deficiency), goiter (iodine deficiency), and xerophthalmia (vitamin A blindness) among adults and children.

The problem of malnutrition is inseparable from the poverty syndrome. The factors which cause malnutrition are directly linked to the long term economic and social structures of

Central American societies which exacerbate food and income distribution problems and to short term situations which arise from economic recession and upheaval. The most direct mechanisms for resolving the malnutrition problem are through agricultural production and food strategies in combination with health care strategies.

In the Central American region, a large proportion of the malnourished are rural landless or near-landless families. Agricultural strategies will have a positive nutrition effect

on this population if they increase the incomes of families at risk of malnutrition and/or reduce the price of staple foods which they must purchase. The malnourished urban consumer will be reached by production and consumption policies which reduce the price of staple foods.

The objective of the health sector in achieving nutrition goals should be to reduce infections and improve the utilization of food. To address the malnutrition problem therefore, health strategies must focus on the delivery of primary health care designed to:

1. reduce gastrointestinal infections and childhood diseases;
2. identify mothers and children at nutrition risk and provide them short term food supplementation;
3. provide appropriate nutrition and health education.

Health programs alone cannot be expected to resolve the malnutrition problem. Evidence from studies in Guatemala indicate that while a well focused primary health care program can dramatically reduce infant and child mortality, reductions in the prevalence of malnutrition do not occur until the food consumption problem is also adequately addressed through interventions in agriculture, employment, education, housing, etc.

B. Nutrition Programs in Central America

AID Nutrition Programming

The main thrust of nutrition programs in the Central American region from 1975-80 was multi-sectoral nutrition planning. "Nutrition Sector Loans" were implemented in Honduras, Costa Rica, Nicaragua and El Salvador which provided assistance: to establish and strengthen nutrition planning institutions, to perform nutrition assessments, and to evaluate existing policies and programs with regard to nutrition impact. A number of these loans also included food fortification activities including vitamin and mineral fortification of basic foods and development of new, fortified weaning foods. Nutrition components were added to health services including: nutrition surveillance, nutrition education, promotion of breastfeeding, etc., in Panama, Costa Rica, Guatemala and El Salvador.

PL480 Title II foods are used to support health and nutrition interventions for the most disadvantaged groups; to provide supplementary feeding to school children, pregnant and lactating women, and infants and children under five; to provide food for the Food for Work programs; and to provide the raw inputs for food processing. All countries in the region with the exception of Belize have been recipients of Title II food programs.

Central American Country Efforts in Nutrition

GUATEMALA

A multisectoral commission was established within the Secretariat of the National Planning Council in 1977. In 1978 the Commission completed the first National Food and Nutrition Plan for the period 1979-82, and in 1979 the Food and Nutrition Department (DAN) was created within the Guatemalan Economic Planning Council. The National Food and Nutrition Plan established a series of institutional policies and programs to increase food production, improve health and environmental sanitation, and expand nutrition education and food distribution to vulnerable groups.

The Food and Nutrition Department (DAN) has organized tripartite commissions with the participation of its technicians and the sectoral planning units of the executing organization (Ministry of Health, Ministry of Agriculture) to promote the coordination and implementation of food and nutrition programs.

The GOG has reduced the prevalence of goiter and vitamin A deficiency induced blindness as public health problems by the fortification of salt with iodine and sugar with vitamin A.

EL SALVADOR

A National Food/Nutrition Policy was defined in 1977 following a National Nutrition Seminar. One of the policy's

most important programs, the National Food and Nutrition Program (PAN) was also developed and approved that year. An Executive Committee made up of five ministerial representatives was created to supervise implementation of the PAN as well as other strategic programs.

Ongoing nutrition projects are oriented toward: improving the production and marketing of basic foods, promoting fishing and cattle raising, industrializing nutritionally enriched corn flour, preventing infectious diseases through vaccination and environmental sanitation, extending supplementary food programs, and reorienting and strengthening nutrition education programs.

HONDURAS

In 1976 the Government included the Nutrition Sector as one of the areas of concern of the Planning Council (CONSUPLANE). It subsequently established a Food and Nutrition Analysis and Planning System (SAPLAN) as a multi-institutional unit, headed up by CONSUPLANE, to be responsible for food and nutrition planning.

SAPLAN, with the financial support of AID, initiated a series of experimental projects with the assistance of the participating institutions and INCAP. These projects encompass environmental sanitation and potable water, food production and aquaculture, income surveys, assessments of food consumption and expenditures, nutrition surveillance and nutrition education.

In 1979, SAPLAN published a National Food and Nutrition Plan for 1979-83, employing a multisectoral approach. The Plan established goals and objectives for the period and identifies 21 specific investment programs and 17 operational projects which can significantly improve the nutrition status of the rural and urban poor.

The GOH has reduced the prevalence of goiter and vitamin A blindness through fortification of salt and sugar.

NICARAGUA

During 1978-79, the war caused the dismantling of the National Nutrition Planning Unit and a corresponding disruption of its efforts in the nutrition area. The new Ministry of Health expressed interest in the formation of an Intersectoral Food/Nutrition Commission to promote nutrition activities and it is AID's understanding that a series of nutrition activities have been designed and implemented.

COSTA RICA

In 1975 a food and nutrition program was approved for financing under the Law of Social Development and Family Allotment. An Intersectoral Coordinating Committee was created to plan and administer the program and the Ministry of Health was given major responsibility for the execution of nutrition programs. It supports activities such as education and

nutrition centers, comprehensive child care centers, nutrition surveillance programs, school lunch and community garden programs, preventive health services in rural communities, and supplementary food programs for children in certain rural and urban areas. The government, in cooperation with INCAP and with AID financial support has also developed a Multisectoral Nutrition Information System (SIN) to support food and nutrition projects

The GOCR has eliminated goiter and vitamin A blindness as public health problems through the fortification of salt and sugar.

PANAMA

The Ministry of Health has given high priority to the solution of Panama's nutrition problems and it has established a number of programs involving community participation. In 1972, a Constitutional Reform Law established the legal responsibility of the GOP to ensure adequate nutrition of its population and an AID loan was used to improve health and nutrition conditions in rural communities. The Ministry of Health carries out a number of nutrition related programs including supplementary food distribution, fortification of food, nutrition education, and the establishment of recuperation centers.

Regional Institutional Efforts

All countries in the region have recognized the need for action to address the malnutrition problem and most have now passed from the planning stage to carrying out specific food and nutrition programs. The countries have also recognized that they need specialized technical assistance and training. Most technical assistance needs are currently being provided by the Institute of Nutrition of Central America and Panama (INCAP).

INCAP is a regional technical organization created in 1949 through an agreement signed by representatives of the Governments of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama, and the Pan American Health Organization. INCAP's mission is to study the nutrition problems of the region, seek means for their solution, and assist its member countries in the effective application of these solutions. These tasks require the execution of activities in the fields of research, training, and technical assistance.

In 1980, the Directing Council of INCAP, made up of the Ministries of Health of the six Central American Countries and PAHO representatives identified three high priority areas for INCAP:

1. training and development of human resources with emphasis on in-service training in member countries;
2. technical assistance to member countries; and
3. applied research activities in member countries.

Financial support for the reorientation and implementation of these priority activities through AID's Regional Office for Central American Programs has helped INCAP expand its outreach efforts in response to national problems. AID's support to INCAP includes funding for:

1. Technical assistance to help countries of the region:
 - identify, develop, implement and evaluate programs and projects which will alleviate nutrition deficiencies affecting the rural poor, and
 - design and implement applied research programs which directly address questions relevant to national food and nutrition programs and projects;
2. Train member country personnel to improve their capacity to design or redesign, implement and evaluate the programs that the countries of the region have chosen as most appropriate to confront their nutrition problems;

3. Support for INCAP's country liaison offices and the establishment of systems to:

facilitate the identification of specific technical assistance, training and information needs at the country level, and improve INCAP's capability to respond promptly to these needs.

II. RECOMMENDATIONS FOR IMPROVING NUTRITION IN CENTRAL AMERICA

The severity of malnutrition and its fundamental causes differ among the Central American countries. It is appropriate to classify malnutrition in the region into two broad but overlapping stages and to make recommendations based on that division. The two stages are as follows:

1. Chronic energy deficits for all household members dominate as the basic nutrition problem as a result of inadequate food consumption due to low purchasing power and high relative prices for food, small farm size or lack of access to productive land, low productivity, etc. Lack of access to basic services (i.e. health services, sanitation and clean water, housing, etc) contributes to malnutrition in this case but is not as critical to the resolution of malnutrition as is addressing the household food deficit problem.

2. Food deficiencies remain for only certain vulnerable groups (such as young children and pregnant or lactating women) in particular geographic areas. The predominant nutrition problem shifts to access of the vulnerable groups to a package of basic services (i.e. primary health care services, sanitation and clean water, housing etc.).

The countries of northern Central America--Guatemala, El Salvador, and Honduras--generally fall into the first stage, while the southern tier countries--Panama, Costa Rica, and Nicaragua--fall into the second stage.

Recommendation for stage one countries:

1. Priority should be given to formulating appropriate food and agricultural policies which address the fundamental problem of chronic household food deficits. In order of priority, these policies should include:

a. agricultural policy which aims to increase farm production and productivity, e.g.: appropriate price incentives, access to an appropriate package of production inputs and services, and access to land;

b. agricultural extension programs for commercially viable farms which include food crop production and post harvest storage for family food supply in addition to commercial crop production;

c. employment generation for rural areas which includes off-season employment and rural enterprise development especially for post harvest activities; and

d. consumer subsidies for appropriate secondary food staples to support food consumption needs of poor urban and rural households until other policies and programs become operational.

2. Selective primary health care services that include sanitary waste disposal and potable water supply should be expanded, particularly in rural areas.

Recommendations for stage two countries:

1. Priority should be given to the extension of primary health care services targeted to less accessible areas (for Costa Rica support for maintenance of an already adequate system).

2. Agricultural extension programs should be targeted to the entire family in geographically inaccessible areas with emphasis on production and storage for family food supply.

Recommendations for all countries:

1. In all countries of the region, malnutrition in urban areas is increasingly a problem associated with female heads of

households. Employment generating programs specifically targeted to this particular population group need to be developed and implemented. Food subsidy and/or food supplementation programs will need to be used to alleviate the malnutrition in these households in the short term, until employment programs become operational and begin to increase household income levels.

2. Targeted supplementary feeding programs for vulnerable groups (children under the age of 5 years, pregnant and lactating women, populations suffering from seasonal deficiencies) need to be supported until other policies and programs become operational and function effectively. It must be recognized that supplementary feeding programs used alone cannot resolve the nutrition problem.

3. Foreign exchange and other resources need to be provided to support fortification programs designed to eradicate vitamin and mineral deficiency diseases (salt with iodine to eradicate goiter and sugar with vitamin A to eliminate nutrition blindness) in countries that already have these programs but cannot continue to maintain them due to foreign exchange constraints. Similar programs should be implemented in countries that do not have them.

4. Support should be provided to INCAP to expand its training, technical assistance and research efforts in the region.

Activities to be expanded should include: in-service training and development of human resources, technical assistance for nutrition monitoring and surveillance, program design, implementation and evaluation, applied research in health, nutrition, and agriculture in the individual countries.

TABLE I
Nutrition Status - Central America

	<u>% Children below 75% Weight for Age</u>	<u>% of Minimum Daily Calorie Requirement* available (1978)</u>
Belize	13 (1978)	n/a
Costa Rica	8.6 (1978)	114
El Salvador	22.6 (1977)	94
Guatemala	30.5 (1977)	92
Honduras	31.0 (1966)	93
Nicaragua	15.0 (1966)	110
Panama	15.8 (1980)	104

* The calorie deficient population (malnourished) will be significant if calorie availability does not exceed minimum requirements by at least 20%. Using this criteria (availability = 120% requirement) all countries in Central America have calorie deficient groups (geographically, by income, and/or by age in their significant populations).

TABLE II
PERCENTAGE OF CHILDREN 0 TO 59 MONTHS WITH WEIGHT FOR AGE
RETARDATION IN LATIN AMERICA

Central America		
	Total Children Examined	Percentage Children below 75% of Weight for Age
Belize (1978) **		3.0
Costa Rica (1978)	3,063	8.6
El Salvador (1977)	786	2.6
Guatemala (1977)	578	30.5
Honduras (1966)	-	31.0
Nicaragua (1966)	-	15.0
Panama (1980)	3,314	15.8
Mexico and South America		
Brazil (1975) *	10,447,000	21.1
Chile (1975)	881,517	4.1
Ecuador (1965-69)	9,000	10.8
Mexico (1963-79)	-	18.6
Paraguay (1973)	41,750	2.9
Peru (1965-71)	83,165	11.7
Venezuela (1974)	23,271	13.6

* Data refers to children under the age of 18 years.

** Survey on children under the age of 3.