

simplification, we only present a selected subgroup of the 32 comunas in the Province.

There is abundant information related to nutritional deficiency problems in the maternal-infant sector; thus, we can put together longitudinal data-sets that include a high proportion of the mother-infant population and which are very representative of that population. Considerably fewer background data are available for nutritional deficiency issues in other age-groups of the population, such as adults, the elderly, adolescents, etc., and there is even less information with respect to nutrient excess issues, conditions which have been gaining increased importance in the current epidemiological profile of the nation. We conclude the paper with a brief analysis of policies and programs that affect the nutritional status of the population and with the identification of the principle tasks still left to be completed in this area.

INDIRECT INDICATORS OF NUTRITIONAL STATUS

One can obtain an indirect evaluation of nutritional problems from an analysis of conditioning factors (eg socio-economic level, availability of foods, etc) or of biological indicators recognized to be associated with illness (morbidity rates). This information has low specificity, but it is important because for same countries it represents the principle source of available data at the national level.

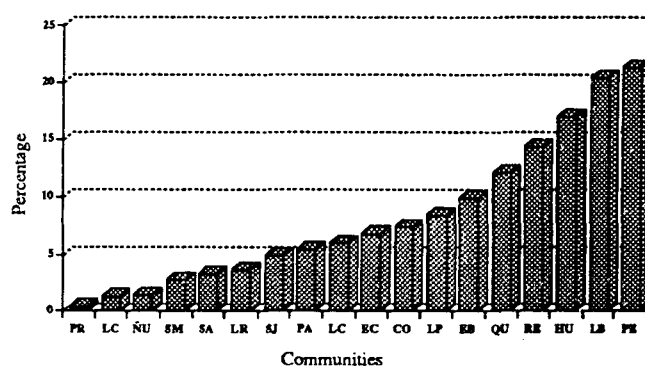
SOCIOECONOMIC INDICATORS

Poverty maps constructed on the basis of structural indicators (characteristics of the home, educational level, access to potable water and plumbing, household appliances, etc) or functional indicators (food purchasing power) allow us to identify families at risk of malnutrition. From national household and census data collected in 1982 it is estimated that 14% of Chilean families live in extreme poverty. This figure varies substantially from region to region within the Metropolitan Area (eg ranging from 2.3 to 21.4%), as with other indicators, but families living in the Metropolitan Area are better off on average than the national figure (8.9%). Likewise, within Santiago there exist marked differences, notably in some comunas the percentage of families living in extreme poverty is 20 times greater than that of families with a high level of socioeconomic development (Figure 1).

By other methods, it has been estimated that 35% of the nation's population live in extreme poverty because they are not able to satisfy their food requirements. The cost of a subsistence market basket for a typical family (average 4.5 persons) is equivalent to US\$125 monthly under circumstances in which the minimum wage is US\$88. That is to say, one needs 1.4 minimum wages just to cover the cost of food and 2.8 to take care of other basic necessities. Our studies in low income neighborhoods of Greater Santiago show that 80% of the families have salaries below the poverty line as so defined. Critics of our methods suggest that they over estimate poverty

because of difficulties inherent in the measurement of income, and because they do not take into consideration food assistance from health and education sector programs, which in the poorest quintiles can represent a significant contribution.

FIGURE 1
PERCENTAGE OF FAMILIES IN EXTREME POVERTY
IN DIFFERENT COMMUNITIES

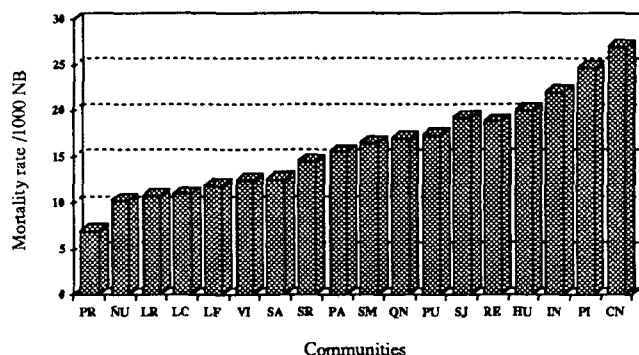


MORTALITY RATES

The infant and preschool mortality rates have traditionally been considered to be indirect indices of nutritional status because of the strong association they bear with the prevalence of malnutrition. Numerous studies conducted all across Latin America demonstrate that undernutrition plays an important role in 50% of deaths of under-five-year-olds (primary or secondary causes). In general, we consider an infant mortality rate above 30 per 1000 live births to reflect nutritional problems with the higher the mortality rate, the more severe the problems. In Chile, the 1991 infant mortality rate is estimated to be 15.5 per 1000 live births, a level which has fallen by 25% in the last six years. Santiago's rate is 10% below the national average, although there is marked variation depending on the level of development of the comuna (Figure 2). In areas in Santiago City with the most extremely adverse conditions, the risk of death in the first year of life can be four times higher than the city-wide average. An analogous situation occurs with preschool (under-five) mortality rates, although those for our capital (0.68 per 1000 preschoolers) are, on average, low in comparison to those of other countries in the Latin American region. This suggests a relatively adequate nutritional situation for this group.

The structure of overall mortality allows another approximation of the nutritional situation. In developing countries with high prevalences of undernutrition deaths are largely infectious in origin. As nutritional conditions improve, adult chronic diseases and accidents gain more importance. Chile shows a transitional situation (Table 1) with a significant

FIGURE 2
INFANT MORTALITY RATE IN SANTIAGO
IN DIFFERENT COMMUNITIES



increase in deaths due to chronic diseases during the last decades. There are two factors that contribute to this transition. One is the decline in deaths from infectious diseases especially diarrhea and bronchopneumonia; the other is the increase in absolute terms of life expectancy which results in a greater exposure to chronic disease risk factors. Death rates for cardiovascular diseases have been increasing, but when one calculates the rates adjusted for age one sees a distinct decline in fatalities from this cause in Santiago between 1984 and 1989. The high frequency of deaths related to overeating necessitates prioritizing activities for prevention and control.

DIRECT INDICATORS

Food intake. Both quantitative and qualitative evaluation of eating patterns are essential for defining nutritional policies and evaluating the effects of interventions. Very little information based on representative populations is available, however. In

the last 30 years only one national study (1974) has been conducted. It showed a mean energy intake of 1997 ± 787 kcal in Santiago, a level well below the recommended intake. Compared to the rest of the country, however, Santiago was in a rather favorable situation. According to the 1974 study a significant percentage of the national population ingested less than 70% of recommended intakes for one or several nutrients: energy, 24%; protein, 16%; vitamin A, 38%; and iron, 18%. In addition it showed that 20% of those interviewed had an energy intake above the recommended level.

Various studies conducted with less representative samples or in specific population groups (pregnant, adolescent, elderly, worker, lactating women etc.) tend to show the same situation; between 20 and 50% of the subjects had insufficient intake of energy, calcium, vitamin A, riboflavin, folate, or zinc, among other nutrients. All studies showed a strong association between nutrient intake and socioeconomic level.

Another source of indirect information comes from the analysis of household income surveys which are conducted periodically in most countries. In Chile they have been done about every 10 years (the most recent in 1988). All of them have included Santiago. Although there are some variations in methodology among them, they allow us to follow the principle trends in family expenditure. Total expenses and the outlay for food from the 1988 survey are shown in table 2. The households were stratified by income level, with the first quintile representing the 20% with the lowest income. The poorest families designated the highest portion of their financial resources to food, but this was clearly insufficient in relation to the cost of the subsistence market basket (which costs 27,000 pesos at the time of the survey), which suggests that many families were underfed.

From expenditures for food during 1978 and 1988, one can make estimations of intake (Figure 3). According to international

TABLE 1
CAUSES OF DEATH IN CHILE 1946 - 1986

Causes	1946 %	1956 %	1966 %	1976 %	1986 %
Circulatory System	11.2	12.0	10.8	21.1	27.4
Malignant Tumours	4.9	8.1	10.2	13.5	17.5
Trauma and Violence	4.9	6.6	8.5	9.3	12.2
Respiratory System	21.2	18.7	17.6	15.7	11.0
Infections and Parasities	20.9	17.8	7.3	5.1	3.5

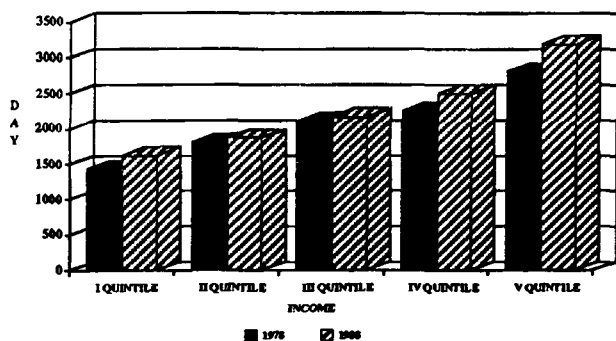
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TABLE 2
TOTAL FAMILY EXPENSES AND FOOD EXPENSES AS A PROPORTION OF FAMILY INCOME*

Income	Total expenses \$ thousands	Food expenses \$ thousands	Food expenses/Total expenses %
Quintil I	16.6	8.8	53.0
Quintil II	31.2	15.4	49.4
Quintil III	48.2	22.1	45.9
Quintil IV	76.6	30.4	39.7
Quintil V	207.8	48.2	23.2
TOTAL	76.1	25.0	32.9

* \$ From June 1988.

FIGURE 3
CALORIC INTAKE ACCORDING TO INCOME POLL
OF FAMILY BUDGET
INE 1978 AND 1988

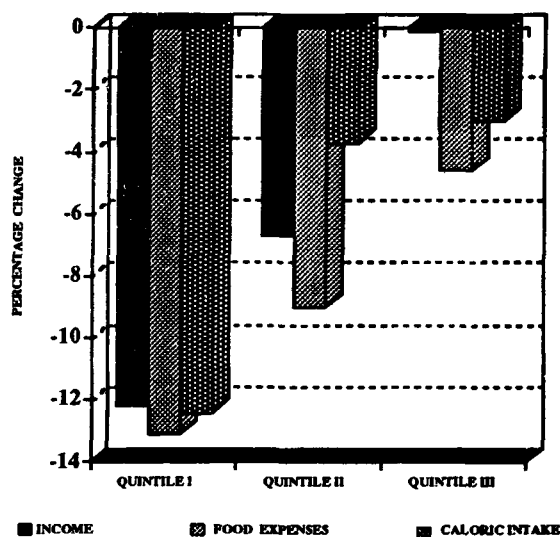


recommendations, 2200 kcal per capita are needed. Figure 3 points out an important energy gap in the families with fewer resources (equal to -775 kcal per day). Only quintile IV has a normal intake. The families in the upper quintile show an energy surplus. It is notable, when comparing the distinct quintiles, that differences in energy consumption are less than the differences in expenditure for food. For example, the lowest quintile spends 40% of what the third quintile spends, but has 67% the caloric intake of the middle quintile. This is explained by the purchase of less expensive energy sources (egg, bread, sugar, rice, oil), which represents a survival strategy for the poorest families. This translates into monotonous diets with a limited variety of items and a low intake of animal protein, fruits and vegetables. This could predispose these individuals to deficiencies of certain specific nutrients (such as iron, calcium, zinc, riboflavin and vitamin A).

The analysis of the latest two surveys demonstrates that in Chile the economic crisis of the 1980's affected the poorest families most intensely (Figure 4). The reductions in income

and in expenditure and consumption of foods were significant (-12%) in the lowest quintile, but not in the other four quintiles. Quintile V was the only group which increased in income. This indicates that social policies were not adequate for buffering the negative impact of the economic crisis.

FIGURE 4
PERCENTAGE VARIATION IN EXPENSES AND
CONSUMPTION PER CAPITA ACCORDING TO
INCOME, 1978-1988



Anthropometric studies. Body measurements represent the most widespread way to evaluate nutritional status. However, in their interpretation one must take into consideration that growth retardation represents only a relatively late phase of underfeeding, as the organism has mechanisms at its disposal to

adapt to a moderate deficit (by reducing physical activity, for example). Further more growth retardation is not always of nutritional origin and some may be the result of genetic variation.

Under-six-year-olds: The Ministry of Health performs a monthly evaluation of the nutritional status of the population coming in for well-baby and well-child care; this includes 75% of the under-six-year-olds in the country. Weight-for-age in relation to the French growth tables of Sempe is used as an indicator of nutritional status; a value of less than one standard deviation (Z-.0) is considered to diagnose undernutrition. Using this criterion, 7.1% of this population in the Metropolitan Area were undernourished in October 1991; of these, more than 90% had Grade I malnutrition. Deficits greater than 2 SD (Grade II) constituted 0.7% of the well-child population. The prevalence of Grade III was a whole order of magnitude lower, at 0.4 per thousand. Age-wise analysis shows a low prevalence (2.2%) in the first 6 months of life, which increases to a maximum of 9.6% in the second year, then recedes during the period from 2 to 5 years of age.

The evolution of this indicator over the last 17 years is shown in Figure 5. It points out a substantial decline between 1975 and 1982, then there is a period of stabilization until 1988 and finally a distinct drop thereafter. Throughout the whole period under analysis, the Metropolitan Area is close to the national average. However, as with all indicators, significant variation exists depending on the communal development, with a range from 3.8 to 12% (Figure 6).

The Ministry of Health also uses the weight-for-height index with relation to the WHO/NCHS tables. Based on this relationship, acute undernourishment (-1 SD) affects 3.4% of the under-six-year-olds. As distinct from that seen with the other indicators, the proportion of children with a deficit is uniform across the whole country, suggesting that this is an insensitive variable.

FIGURE 5
PREVALENCE OF UNDER NUTRITION IN CHILDREN UNDER 6 YEARS, 1975-1991

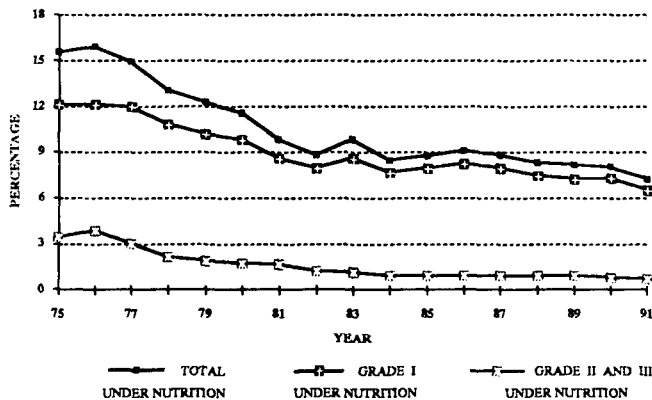
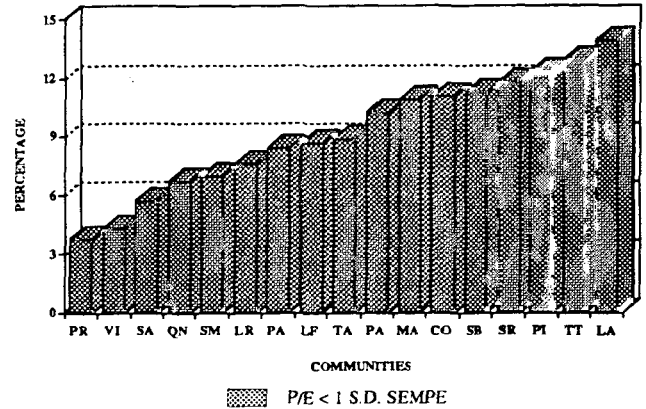


FIGURE 6
PREVALENCE OF UNDER NUTRITION IN CHILDREN UNDER 6 YEARS IN DIFFERENT COMMUNITIES



The foregoing information reflects a quite adequate nutritional status for this age group. Recognizing these achievements it is still necessary to point out that the majority of experts posed the need to replace the reference standard used for one with a greater international acceptance. The mean differences between the Sempe and the WHO/NCHS tables are relatively small (2-4%) but this produces a significant increase in the apparent rate of undernutrition. With this indicator the prevalence of a deficit in weight-for-age increases to 16%, although the majority of nutritional disturbances are still mild (-1 to -2 SD). Furthermore, there has been a concern to validate the representativeness of the information generated by the Ministry of Health. Various studies conducted by our group show a high correlation between the rate of undernutrition of the well-child population and the population at large. The population not covered by periodic examination is no more than 4% of all the poor, and its nutritional status seems to be similar to that of the population enrolled in the state-run health system. This allows us to reject the hypothesis that there exist "pockets of poverty" with severe nutritional deterioration.

The height-for-age index is a good indicator of an individual's nutritional history. A value of less than 1 SD of the American tables (NCHS) is seen in 30% of under-six-year-olds. This is significantly greater than the 16% which would be expected from the normal distribution curve. There is no consensus with regard to the interpretation of this finding. Some experts feel that it reflects chronic undernutrition, but others suggest it to be a genetic phenomenon based on the low prevalence of weight-for-age and weight-for-height malnutrition and the high frequency of height deficits from the first six months of life (25%).

The growth rate between two successive visits constitutes a very dynamic indicator to point out those critically at risk of undernutrition. From an operational point of view, the Ministry of Health considers "at risk" to be indicated by an increase in

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weight of less than 75% of that expected in under-two-year-olds and less than 50% of expected in preschoolers above that age. Using this criterion, 12% of the children within the state-run system would be considered to be at risk. This fraction increases to 22% in the second year of life, the period in which the greater incidence of undernutrition is seen.

There has been little concern for the study of juvenile obesity. The few studies that treat this subject have found a relatively small prevalence (4-8%) without gender differences.

Pregnant women: Prenatal care has a high coverage rate via the Ministry of Health, and every well-patient visit assesses the maternal nutritional status in relation to a nation, as standard (Rosso, Mardones). According to this criterion, 23% of pregnancies have been classified as low-weight, a proportion which has gone down by 20% in the last five years. The nutritional situation of only about half of the low-weight pregnancies has been improved; this suggests a rather poor effectiveness of this program as an intervention. The apparent high proportion of low-weight pregnancies is notable because it is nearly three times higher than the rate of undernutrition reported for non-pregnant women in the reproductive age. Also the proportion of new-borns weighing less than 2500 g (6.4%) or with sub-normal weight (19%) is relatively low in relation to the apparent prevalence of maternal undernutrition. This suggests that the standards that are being used could be over-estimating the ponderal deficit.

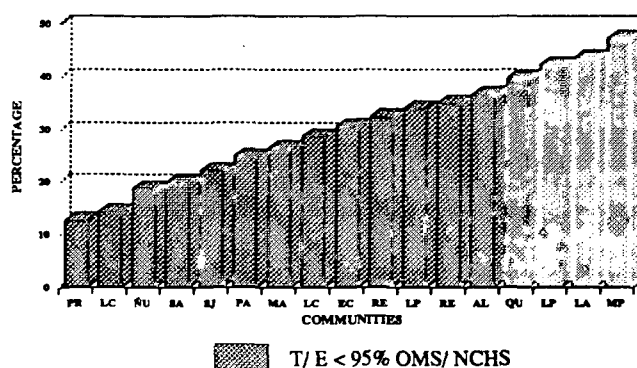
Also noteworthy in Chilean pregnancies is the high prevalence of overweight (19%) and obesity (18%). The risk of obesity shows a clear relationship to maternal age and parity, doubling in prevalence in grand-multips or in women over 35 years of age. In contrast to what is seen in other countries of the region, the reproductive cycle confers an increased risk of obesity on the population of urban Santiago.

Schoolchildren: Beginning in 1934 the Ministry of Education conducted height surveys of the grammar school population; this provided representative information for this group. Nevertheless, different nutritional evaluation criteria have been applied such that it is difficult to evaluate the trends. The most notable issue is a high prevalence of height retardation, in the order of 40% at the national level and somewhat lower in the Metropolitan Area. The prevalence of height retardation is progressive with age (increasing from 30 to 60% between 6 and 14 years); this shows that school feeding programs are insufficient to prevent nutritional damage. The proportion of children in the first year of school with a height below 95% of the WHO/NCHS standards is shown in Figure 7, illustrating important differences among the comunas of Santiago.

Obesity of school children also constitutes a public health problem beginning with adolescence. At this age, a substantial increase in the prevalence of obesity (weight-for-height > 120%) is seen in girls, reaching 20-25%. By contrast boys

maintain a significantly lower prevalence (5-10%). It is not clear why this sexual dimorphism exists.

FIGURE 7
PREVALENCE OF STUNTING IN THE FIRST YEAR OF SCHOOL IN DIFFERENT COMMUNITIES



Adults. The adult population has been the least studied, from the nutritional point of view, and existing studies make it difficult to extrapolate the data to the population at large or to estimate trends. The prevalence of a weight deficit (weight-for-height < 90%) is estimated at 10% of the adult population, with similar rates for men and women and for persons of different socioeconomic strata. Contrary to what would be expected, one study showed a lower prevalence of weight deficit in women of a very low socioeconomic group.

The most important problem in the adult population is obesity, which affects an average of 20% of men and 30% of women. To this we must add a further 20% of more of people who can be classified as "overweight" (a weight between 110 and 119% of standard) Socioeconomic status is not associated with obesity prevalence in men, but it is in women with an inverse association (10% in the upper class and 40% in the lower). The frequency of obesity increases significantly with age in all income groups especially among women, reaching levels of 50% in lower class women over 50 years of age. Height also shows a strong, and inverse, association with obesity. Only 4.2% of the population sampled in the Metropolitan Area had subnormal retinol levels.

It is difficult to interpret this information when we look at it together with data on the ability to buy or to consume food which shows an important energy shortage in poor families. This could be explained by an overestimation of the requirements, by an underestimation of consumption, by a reduction in physical activity, or by adequate survival strategies that lead to the consumption of low cost foods rich in carbohydrates. What is certain is that in all social groups examined the nutritional problems of excess predominate. To this we can add the

presence of other risk factors such as smoking, hypertension and sedentary life-style (Table 3). In one study 82% of 1203 adults in Santiago had a sedentary life style, defined as performing less than 10 minutes of programmed physical activity twice a week.

FIGURE 8
PREVALENCE OF OBESITY IN WOMEN
ACCORDING TO HEIGHT AND
SOCIOECONOMIC CLASS

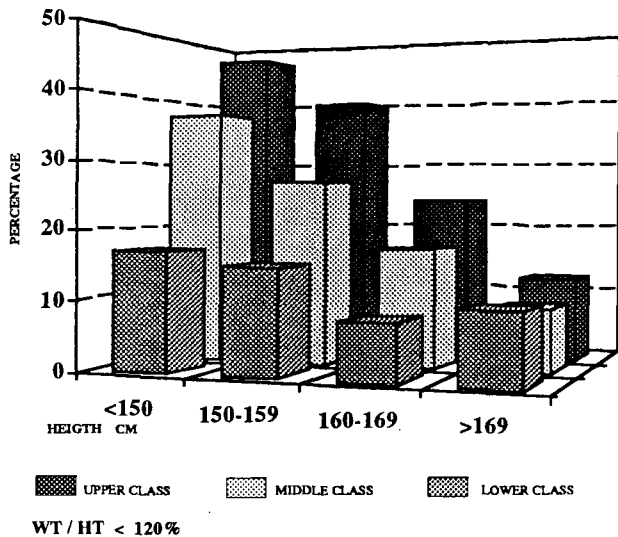


TABLE 3
PREVALENCE OF RISK FACTORS FOR CHRONIC
DISEASES

Risk Factor	Men %	Women %	Total %
Hypertension	8.6	9.1	8.8
Smoking	50.7	43.4	46.3
Obesity	13.2	22.7	18.0
Sedentary life style	75.6	86.9	82.4

Source: (13)

BIOCHEMICAL INDICATORS

Iron deficiency anaemia represents the principle specific nutrient deficiency which has continued to appear in all nutritional surveys that have used hematological indicators.

The prevalence of anaemia in the child of 6 to 24 months of age varies between 20 and 30%; this falls dramatically in the school age child to 3-5%. The other period of high vulnerability is pregnancy when rates of anaemia reach about 30%. If we analyze iron deficiency itself or the depletion of iron reserves (transferrin saturation, serum ferritin, or free erythrocyte protoporphyrin), the proportion of those with deficits practically doubles. Even when there was legislation which obligated iron fortification of wheat flour for bread-making, some 38 years ago, that measure was not sufficient to prevent anemia of the suckling child. More recently other foods distributed by the Ministry of Health for infant feeding (breast milk substitutes, weaning foods), have been iron fortified; the results of this have not been adequately evaluated.

Other specific deficiencies have been demonstrated, all be it in less representative samples. Recently, Bustos et al. (15) demonstrated, using enzymatic methods, high prevalences of riboflavin and pyridoxine deficiencies in pregnant women with normal weight-for-height. Zinc deficiencies have also been uncovered in preschoolers, school aged children and pregnant women; the functional significance of this has not been well defined. Hypovitaminosis A does not constitute a public health problem in Chile according to the national survey of cities with a population with critical degrees of poverty. They employ instruments especially designed to identify rigorously the homes which require urgent attention. They specify —but do not always abide by —a need that programs should be carried out decentralized, basing the primary responsibility for their applications and control in the city halls.

ANALYSIS OF SECTORIAL POLICIES THAT
INFLUENCE NUTRITIONAL STATUS

Social programs, in general, and alimentary programs, in particular, constitute one of the fundamental causes for improvement of the conditions of life in the poorest sectors which have been seen over the last 50 years. State intervention in this realm has a redistributive purpose and fulfills a crucial function of improving the nutritional situation and setting channels of upward social mobility. Currently, Chile invests about \$150 million (U.S.) annually in feeding programs, which represent about 0.5% of the GNP, which is greater than that seen in the majority of Latin American countries.

In many countries, traditional social policies have shown limitations in reaching the poorest groups, with the primary beneficiaries of this enormous state effort winding up being the middle and lower-middle classes. This can be explained, in part, by the fact that the most underprivileged are practically marginated from the economic system, either being unemployed, or with an unstable employment, or being self-employed in the informal economy. Another common limitation of the food programs is that they are not always directed to the most biologically vulnerable groups. In Chile, important advances

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have been made in both these directions, as a high percentage of the state outlay effectively reaches the poorest and the most vulnerable.

The Military Regimen in accordance with the ultraliberal economic concept that it imposed on the country, attributed to the state an extreme inefficiency in distribution. It asserted that progress in redistribution of wealth could only be obtained by growth in the economy. Nevertheless, it defined as one of the fundamental goals for its social policy the wiping out of extreme poverty; this stance required that selective policies that favored specific social and economic groups be put into action. This tried to "target" a substantial part of the social outlay, avoiding the unworthy "filtering" of this to the rest of the population. The upper- and middle-class social groups should finance with their own resources the benefits that they had formerly received from the state. The state should transfer to the private sector the job of producing and distributing the basic services so that the market forces, and not the apparatus of government, would be regulating access to these benefits. The state effort should be concentrated on programs oriented at households which were in no condition to satisfy basic needs, distributing subsidies according to need, and not according to ability to pay.

Recognizing the contributions of this approach, it is important to bear in mind that poverty and hunger have deep causes, rooted in the organization of society and in the basis of the economy. Thus, it is difficult to visualise the eradication of the problem of hunger through piecemeal actions that act primarily on the external manifestations of the phenomenon without attacking the permanent factors that generate and perpetuate them. The economic model accentuated the social inequalities, as is shown in surveys of household budgets and family expenditures. Under different political and economic conditions, the social programs must be maintained and intensified, as the subsidies constitute palliatives for poverty. Moreover, they are the programs whose benefits represent an investment in human capital. Along with these measures, the state should be fundamentally concerned to achieve economic growth with more equity, assuring participation of the populace and the integral nature of the social actions.

By definition, nutritional problems are multisectorial and actions which take into consideration their multicausality (i.e. health, education, employment, sanitation, economy, agriculture, etc.) are fundamental for their prevention and control. The nutritional advances achieved in our country are the result of adequate social policies, relatively integral, stable over time, and targetted to the most vulnerable groups. It is very difficult to establish, among the different sectorial programs, what has been the relative impact and importance for improving the nutrition situation. Without pretending to rank them, we can cite the following aspects:

1. Adequate coverage by health services with an emphasis on activities to foment and protect the health of the maternal

infant health group. This is complemented by creation of nutritional surveillance systems at the individual and at the collective levels (pregnancies and children below 6 y of age) and well-defined criteria for the actions to be taken to address nutritional deficits.

2. Family-planning programs which have reduced birth-rates and average family-size.
3. Maternal-infant health feeding programs of widespread cover age adequately targeted toward the population of highest vulnerability and with a preventive and curative focus. This is complemented with a network of services for children with nutritional deficiencies.
4. Services to the preschool child targeted to the extremely poor, in which the child receives alimentation, stimulation and educational activities.
5. An important increase in the distribution of drinking water and the systems for handling human excrement, especially in the urban population.
6. Improvement in the mean level of formal education of the population with the reduction of rates of illiteracy and an increase in the mean years of schooling.
7. Well-targeted school feeding programs which contribute to the decrease in school drop-outs, which improve school performance, and which promote equality of opportunity in the educational process.
8. Urbanization with a significant reduction in the rural population, a group with a traditionally greater nutritional vulnerability.
9. Agrarian policies that permit a significant growth in this sector and a lesser dependence on food imports.
10. An open market economy to international trade based on state intervention and stimulation of foreign and domestic investment, which has allowed for economic growth with relatively stable prices.

FINAL CONSIDERATIONS

Over the last half-century in Chile, there has been a preferential inclination toward maternal-infant health and nutrition, which has been translated into the execution of a variety of technically-adequate and well-administered feeding programs. Through the process of evaluation of both their process and their impact, the programs have improved and perfected their targeting. It is without a doubt that this fact has contributed to the reduction in the prevalence of undernutrition, of low birthweight, and of infant mortality, in synergistic conjunction with other social policies oriented at improving the factors contributing to the nutritional problem.

Despite the progress that has been achieved, however, it is important to point out some limitations of the current policies

and programs, limitations that suggest the need for their revision to improve their efficiency.

1. Over the last nine years (since 1982), there has been little progress on the nutritional situation with relatively stable rates of malnutrition and low birthweights.
2. The current nutritional assessment criteria do not appear to be the most adequate and the majority of academic bodies have been proposing for years that the standards be changed to those with the greatest international acceptability, namely those of the WHO/NCHS.
3. There has been little concern for the integrated development of the child, centered almost completely on efforts to favour physical growth in preschool children.
4. Despite the satisfactory evolution of mean nutritional indicators in the population, there are marked inequalities when data are disaggregated into smaller geographical units.
5. Based on obvious priorities, all of the investment in this area has been oriented to the nutritional deficit problems of the maternal-infant group, leaving aside other groups which also constitute public health problems such as adolescents, adults and seniors.
6. There has been insufficient concern at the public health level for the nutritional problems of excess or for diseases linked to feeding pattern, despite the high prevalence in adults of diabetes, hypertension, obesity, hypercholesterolemia, etc.
7. There are great deficits in the area of alimentary education for the population at large, and on quality control of foods consumed.
8. There is no national-level information from which to evaluate the extent of sub-alimentation, which in all studies appears to be many times higher than actual undernutrition. This can be explained by mechanisms of adaptation and accommodation to food deficit and always is associated with some retardation of physical growth.
9. Even when severe energy deficits have been overcome in the maternal-infantile population, there are still important problems with the quality and variety of food in the lower income groups, which results in the underconsumption of certain nutrients, e.g. calcium, iron, zinc, folic acid, riboflavin.
10. There is little coordination between the different state agencies that plan, administer and execute feeding programs. This fact is reflected at the local, regional and national level.
11. There is technical weakness in the administration of some state agencies in charge of planning and development activities in the areas of food and nutrition.

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