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Nutritional Situation in the World

J. M. BENGOA¹

1. Introduction

Mankind has rarely confronted such a confused and severe socio-economic situation as the present one. A series of events apprehended long before have interplayed with several unexpected situations and caused a critical, tragic and baffling global problem. Mankind has passed through difficult moments and, so far, has always been able to overcome the suffering and damage and rebuild a new society, usually of a higher standard. The present crisis, affecting the developed and developing countries, is of such magnitude that it is doubtful whether the world can effectively get over it.

2. Hunger in the past and the present crisis

Famines were quite frequent during past centuries, but these were usually due to devastating epidemics which diminished manpower and consequently agricultural production. The plague caused more than forty million deaths in Europe and brought in its trail one of the worst famines in history. On the other hand, the famine in Ireland in 1845 was followed by a typhus epidemic which decimated the survivors. In the past, the rule has been an association of epidemics and famines [1].

The actual crisis does not present the characteristics of past famines. It would be erroneous to think that man is in the midst of a global famine. There are certain limited geographical areas where, due to climatological conditions, serious food and nutrition problems have been created. Malnutrition in children of the third world is nothing new – it is a situation which has been in existence for years without receiving any world attention. However, the present crisis has reached a point of such magnitude that the world cannot afford to remain apathetic to this tragedy.

3. Distortion of statistics

The common urge of man to quantify all ecologic and environmental factors affecting him has also induced him to quantify hunger, with baffling

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results. In international conferences, in literature – including scientific literature – and especially in communication through social means, contradictory statements about the food and nutritional situation in the world have been made. The difficulty of interpreting terms so difficult to define as malnutrition, hunger, underfeeding, etc. is probably one important cause of this confusion, although it would not be difficult to understand in each case the criterion which has been followed to quantify the problem. During the last five years it has been said that one quarter of the world's population suffers from malnutrition, one half suffers from hunger and two thirds are underfed. Though each individual assessment might be more or less correct on the basis of the yardstick used, there is the danger of interpolating these figures, as is commonly done.

4. The double problem

Man is involved at the moment in two types of nutritional problem – basically similar but different in their social significance and future repercussions. One is the traditional chronic hunger of populations in developing countries from which it will be difficult to emerge without a reorganization of the world's social system, and the other, which happens periodically in limited geographical areas, is due to climatological causes or social disruption, to which immediate attention has to be given through all possible resources. Both problems overlap and reinforce each other, aggravating the chronic situation of malnutrition, hunger and undernourishment associated with violent episodes that act with more intensity in populations already seriously affected.

Each year there are about forty natural disasters [1], the principal ones caused by draughts and floods. It is generally felt that the number of such natural disasters has increased during the last few years, but it is possible that a better information and reporting system may have created a global awareness about such calamities.

At the beginning of 1975 there are broadly three geographical areas in the developing world with serious situations which might have far-reaching consequences. The generous aid provided to them does not produce the expected results, due to lack of the necessary minimum infra-structure to utilize the aid. It seems that in order to overcome the damage of such catastrophes it would be necessary to have a minimum administrative structure without which no amount of aid or assistance will make any significant impact. The threatened droughts of 1966/67 in India were solved by means of well-organized measures of such efficiency that it has been rightly described as “the disaster which never occurred” [1]. This implies that natural disasters may be reasonably predicted and in many cases prevented, provided that the catastrophe does not show violent proportions and the affected country has a minimum infra-structure of services.

5. Prevalence of malnutrition in the world

It is impossible to know with accuracy the magnitude of nutritional problems in the world in terms of the number of people affected. The most difficult problem is to identify the criterion which has to be chosen in order to define what is malnutrition. Apparently it will not be correct to establish the prevalence of malnutrition based on national, regional or international food availability. Undernourished populations can be considered as those which have a lower caloric or protein intake as compared to international pre-established levels. This type of information is important with certain limitations. The assessments of food consumption are also restricted due to their high cost.

The clinical criteria depend on the examination of subjects from a representative sample of the community and their classification according to anthropometrical and clinical signs (sometimes supplemented by biochemical signs). However, this is relatively expensive and experienced personnel is necessary. For these reasons this kind of survey is scarce and the samples generally very small ones.

A year ago, due to my work in the World Health Organization, I had the opportunity of carefully examining all the studies carried out in the last ten years in this area in different parts of the world [2]. The results showed that from 1963 to 1973, 101 studies were carried out in 59 developing countries and 266,800 children under 5 years of age were examined. The largest number of these studies used the Gomez classification as a criterion for the prevalence of malnutrition and its severity². Table 1 shows the results of these surveys. The median of severe forms of malnutrition for all countries was 2.3% with a range between 0.2 and 22.9%.

There are geographical areas where certain studies show an alarming situation, such as communities in Africa and Asia which present a prevalence of severe malnutrition of up to 20 or 22%.

The above global median of 23 per thousand of severe forms coincides in its magnitude with mortality of children from 1 to 4 years of age in the developing countries, as Ramos Galvan has pointed out in his studies in Mexico [3]. It is a coincidence which makes one suspect that untreated children with severe forms of malnutrition, which are the majority, die as a direct consequence of malnutrition or due to an infectious overlapping process. Therefore, we were not far from the truth 20 years ago when we pointed out that mortality between the ages of 1 to 4 years was a good indicator of the nutritional condition of a population [4].

Moderate forms (or children with second degree malnutrition) of malnutrition have considerable public health importance, as well as from the social

² The Gomez classification (Mexico) establishes as a first degree of malnutrition those children who have between 75 and 90% of their normal weight: second degree those who weigh between 60 and 74% of their normal weight and third degree those children with a weight 60% below normal.

Table 1. Prevalence of PCM by geographical areas

Geographical area	Number of countries	Number of surveys	Number of children examined	Severe forms		Moderate forms	
				median %	range %	median %	range %
Caribbean Islands	7	14	18 234	1.5	0.4-12.0	19.8	5.0-35.0
Central America, Mexico and Panama ..	7	8	9 616	2.0	1.1-5.9	18.8	10.8-27.5
South America	6	10	140 481	1.2	0.2-6.3	14.0	3.5-25.7
Africa (except North Africa)	16	30	35 908	3.2	0.5-22.9	25.0	7.3-66.0
North Africa and Middle East	10	17	14 099	2.6	0.3-10.1	19.0	6.4-81.7
South East Asia (except India)	6	8	2 689	1.6	1.4-1.8	18.0	8.3-60.0
India	1	6	32 259	2.6	1.1-20.0	16.0	15.4-52.7
Western Pacific	6	8	13 532	3.6	1.9-6.2	18.8	3.5-46.4
Total	59	101	266 818	2.3	0.2-22.9	18.8	3.5-81.7

development point of view. The 101 studies carried out in 59 developing countries showed a median of moderate forms of malnutrition of 18.8% with a range between 3.5 and 81.7%. Many surveys show a prevalence over 50%, especially in Asia and Africa.

It is difficult to judge up to what point the figures given above allow their extrapolation to evaluate the magnitude of malnutrition in the world. Only as an illustration and simple approximation, Table 2 gives the figures on a global scale if we assume that the samples were satisfactorily taken and if the criterion used to define and classify malnutrition is similar. In order to avoid serious sampling errors, only surveys which included more than 1,000 children were taken into account, which gave a total of 25 surveys with 173,000 children examined.

According to this extrapolation, and excluding Europe, the USA, Canada, Australia, China and Japan, the population under 5 years of age affected by severe malnutrition would be 10 million at a given moment. Possibly a large percentage of these children would die as a result of this process. The number of children with moderate malnutrition would be 89.5 million, with a total of 100 million of undernourished children over a total of 314 million children under 5 years of age.

Comparing the results of the surveys carried out during the decade 1963–73 with those of the former decade, there are no significant differences, which proves the chronic character of the problem with all its social magnitude. During 1963–73 there was no difference between the data of the first and second quinquennium.

A change is being observed in the last decades in the type or form of malnutrition – the same as the age of onset. While 20 or 30 years ago the edematous forms prevailed in the majority of the developing countries, nowadays nutritional marasmus is more often observed in various regions. This depends on the tendency of onset of malnutrition at an early age, observing an increase of malnutrition in children under one year. This could be explained by the early weaning practices, especially in urban areas of the developing countries. If the undernourished school age child and adult population were taken into account, figures would range in the hundreds of millions of undernourished people. This is the most that can be said at the moment about prevalence of malnutrition in the world. It is a problem of great magnitude with repercussions on human and social development which nobody can foresee, but it certainly threatens the base of present and future society.

6. Mortality and malnutrition

If studies about the prevalence of malnutrition are relatively scarce and their interpretation offers considerable difficulties, data about mortality due to malnutrition is even more limited. In countries which have good statistics there

Table 2

Area	Population 0-5 years in millions	Number of children with protein calorie malnutrition in millions		
		severe	moderate	total
Latin America	46	0.7	8.8	9.5
Africa	61	2.7	16.3	19.0
Asia*	206	6.6	64.4	71.0
Total	314	10.0	89.5	99.5

* Excluding China and Japan.

is no malnutrition and where there is malnutrition statistics are very deficient. What seems true is that if children suffering from severe malnutrition do not get medical assistance, the majority of them are running the risk of perishing. To obviate difficulties which the lack of data offers, it is necessary to undertake special research in population groups. Such is the case of the study carried out by the Pan American Health Organization [5].

This study, published in 1973, includes an exhaustive analysis of 35,095 deaths in 15 areas of Latin America in order to determine the cause of deaths in children under 5 years of age. The results are impressive, even though they only confirmed the importance of malnutrition as a cause of mortality in a particular region.

In 7% of the cases, malnutrition was the principal or direct cause of death and in 46.2% it was an associated cause. More than half of the deaths were due, directly or indirectly, to malnutrition. Graph 1 shows the differences according to children's age. Even when sanitary and socio-economic conditions are different in other parts of the world, similar figures or even worse characterize mortality in developing countries.

Even though official statistics are deficient, it is a fact that mortality, especially in children, is declining faster in developing countries than what was observed years ago in the developed countries. The differences in mortality among developed and developing countries are still noticeable, but this difference is decreasing in recent years. The developing countries, where 75% of the world's population lives, has actually a general mortality rate of 16.1 per thousand and life expectancy is of 50 years [6]. Forty years ago, the developing countries had a life expectancy of 32 years, the same as in the best times of the Roman Empire. In the developed countries the general mortality rate is 9.1 thousand and life expectancy is 70 years.

National averages do not offer, however, a real perspective of what happens in different geographic areas and among social groups. In India, for in-

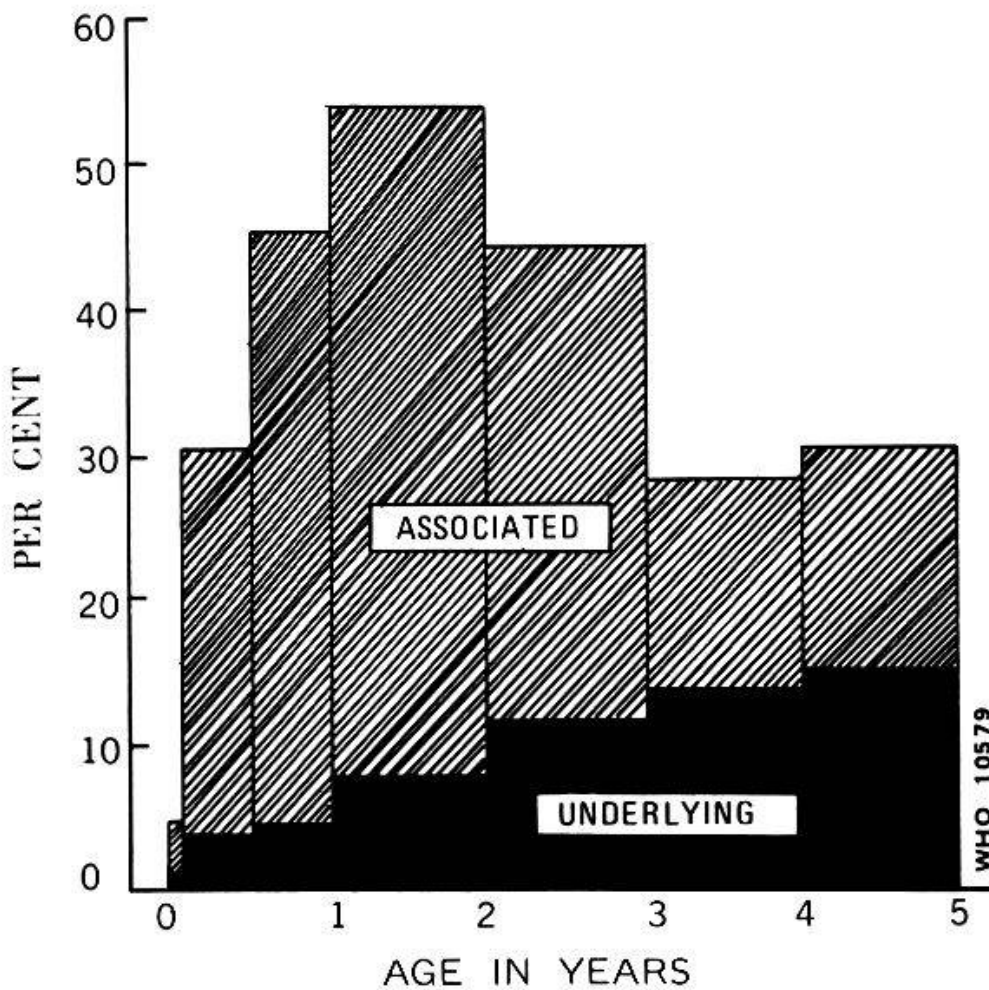


Figure 1. Percentage of deaths of children with nutrition as underlying or associated cause.

stance, in areas where famine is frequent, infant mortality is 180 per thousand, while in other areas it is only 60 per thousand. Differences among social groups seem to be even bigger.

The decrease in mortality which has taken place in developing countries has no parallel in history. While it took a century to decrease half of the mortality rates in the developed countries, developing countries have accomplished it in 20 years. This accomplishment of the developing countries may lead to an excessive optimistic interpretation. Different studies have proved that the decrease of mortality which happened 50 or 100 years ago in the advanced countries of today was mainly due to the improvement of living conditions, and specially to the improvement in nutrition [7]. This explains the time required to obtain figures which these countries have achieved today. On the other hand, there is no sign that the decrease which is attributed to the developing countries is due to a visible improvement of standards of living and much less to their nutritional condition, but is possibly due more to the extension of health and medical services, and especially to the availability of new drugs, unavailable 50 years ago. This would explain the speed with which the reduction of mortality

has been achieved in the developing countries if we compare it with the slow progress in the advanced countries of today.

7. The actual crisis and malnutrition in the world

As mentioned earlier, malnutrition in the world is not new. We are unable to visualize the impact which the present crisis will have on the nutritional situation – there are too many adverse events occurring at the same time. However, it does seem that there is no cause for alarm unless other unforeseen factors aggravate the situation. LESTER BROWN and ERIK ECKHOLM [8] have recently published a historical synthesis on the present situation which it is interesting to summarize.

The authors point out how each country tries by all means to ensure the necessary food for its population and that this has led to a world deficit of food. During the summer of 1972 the Soviet Union purchased a great amount of wheat from the United States before the American Government realized what was happening. The following summer the United States, which produce 85% of the total amount of soybeans on the international market, abruptly announced an export embargo on soybeans which caused worldwide diplomatic pressures, especially from Europe and Asia. For those countries where soybeans are a vital staple food this became a serious threat. In order to maintain prices Thailand banned rice exports and Brazil imposed export restrictions on meat and soybeans. This abrupt transition at the beginning of the 1970's of the world food economy from a buyers' market to a restricted sellers' market and the subsequent increase of prices was not foreseen. Between the end of 1972 and the end of 1973 the price of wheat tripled, followed by an increase in the price of rice. Soybeans doubled in price in 24 months and oil followed a few months later. From 1960 to 1972 the price of a bushel of wheat and a barrel of oil was the same. Towards the end of 1973 the price of a bushel of wheat was equal to two barrels of oil. During Christmas 1973 the price of oil increased, making the price of a barrel of oil higher than the price of a bushel of wheat.

The sudden increase in price of vital commodities so commonly seen in recent years raises one of the oldest questions among economists. What is the true value of a commodity? Wheat is a renewable resource, oil is not, say the above-mentioned authors, and they add that in the past the world's food economy has been plagued by chronic excess capacity at low prices, an era which is at an end and is being replaced by a period of more or less chronic scarcity and higher prices.

Together with the ratio resources-population, according to the above-mentioned authors, another burden is adding to the situation – the increased consumption of the “affluent society”. The developing countries consume about 200 kilos of grains (mainly cereals) which are consumed directly by human beings. In contrast, the average American uses almost a ton of grains, of which

only 100 kilos are consumed directly by human beings, the rest being used for animal food. A North American uses up to five times as much agricultural resources as an average inhabitant of a developing country. This explains why the demand for cereals has increased in such proportion, and if this continues, it will be impossible to supply the needs of the world's population. This increased demand occurs during years of favourable climatic conditions as well as during unfavourable ones.

It would be too simple to relate the nutritional problems of the world to the international economic factors. The impact which they may have in worsening the nutritional status of the developing countries may be important, but it will probably affect more the moderate forms of malnutrition due to sub-consumption than the severe forms. We base this statement on the fact that the severe forms of malnutrition are not a direct consequence of macro-economic or macro-ecologic factors but the result of the micro-environment of the family such as social and cultural patterns, repeated infections, ignorance about child feeding and other related factors.

However, the possibility of a worsening of the situation should be kept in mind with the cumulative effects that each crisis implies and which needs an urgent establishment of a preventive nutritional surveillance system all over the world.

8. The great dilemma

Mankind faces a great dilemma. If we want to balance the resources of the earth and reduce the gap between developed and developing countries, and within countries the gap between the rich and poor, we have to state in no uncertain terms the only two possible alternatives: either we succeed in raising the standard of the poor countries and societies to a level comparable with the prosperous countries and societies, or the latter will have to reduce their consumption rates. The first alternative is utopic, since some goods cannot be renewed, nor can the renewable ones cover all the "needs" of the population, if we consider as needs the actual consumption in prosperous countries and in affluent societies in developing countries.

Food production per capita has only slightly changed in the last 30 years. If the privileged societies have increased their food consumption to considerable proportions, it is obvious that other groups have reduced their consumption by the same proportion. It therefore stands to reason that until there is a significant increase in per capita production, particularly in developing countries, there cannot be an increase in per capita food consumption. It is true that the developed countries have achieved an increase in per capita food production superior to developing countries, but one should not forget the climatological and technological advantages in the developed countries.

Looking at the problem from a global standpoint, the possibility of increas-

ing nutritional levels in the developing countries depends, first of all, on their own efforts. If food production per capita does not increase, the position in developing countries could improve, to a certain extent, by the possible moderation of rich countries, as well as the affluent groups of developing countries.

A solution could be to identify the excessive consumption of the rich countries, the reduction of which may help to increase the levels of consumption of the poor countries. The most conspicuous example would be the consumption of animal protein. The developed countries consume 45 grams per person per day, while the consumption in developing countries is 9 grams. The difference may be even higher between extreme social groups in developing countries. We know that it is impossible for the earth to provide 45 grams of animal protein for its entire population, but in any case, this intake is not necessary to maintain nutrition at a highly satisfactory level. Consumption of cattle meat has increased in the developed countries in extraordinary proportions. In the United States, consumption doubled from 1950 to 1972 [8]. Fortunately, a certain decreasing tendency is observed which will not only benefit the world's grain market, but will be favourable to the health of American people. The same might be said for European countries, and for the upper classes in developing countries. This and other examples could be given of how rich countries could moderate their feeding habits to benefit their health and in the process assist vast populations in the developing countries.

9. Biological nutrition and social nutrition

There has been a certain tendency in the past to equate biological nutritional needs with the social satisfaction of a pleasant and varied diet. However, these are two different aspects. There are many developing countries which make comparisons between their dietary intake and that of the industrialized countries, setting targets of consumption which they could hardly reach and for which there is no biological justification. The biological need for food is considerably lower than the patterns of consumption which prosperous countries have practised over the years and it is a mistake to have a dietary intake of more than what is needed for reasons of health, family budget and other considerations. It would not be socially acceptable that a section of the population has an intake which only covers minimum nutritional needs, whilst another sector enjoys a luxurious food intake. There is a need to follow a compromise level between the two extremes – neither the strict biological level nor the extravagances of consumption.

If the amount of food available in the world is equally available to all its inhabitants, the biological need would easily be covered and there would neither be hunger nor malnutrition in the world. On the other hand, if the level of food intake practised in the developed countries is taken as the standard of requirement, the result would be a colossal global deficit. It is therefore neces-

sary to look for a formula of social justice in which all could have a nourishment that satisfies our biological needs and at the same time gives us a minimum of sensorial satisfaction without prejudice to health.

10. Conclusions

In nutrition, as in any other social problem, there are three concentric circles: one external at the international scale; one intermediate at the national scale, and finally, one internal at the family level. The drama of malnutrition takes place in all three circles, the causes are in all three and the solutions will have to be found in all of them.

In the *external circle* of international dimension, the perspectives are totally confused. To establish an international order in financial, economical and other related sectors, and above all of human solidarity, is not an easy task, but we hope that all necessary efforts will be made to achieve a just and equitable order. From what will be achieved in this circle depends a great deal on what can be done in the other two circles.

In the *intermediary circle* each country will have to build its own development without detriment to others and without expecting that the solutions come from abroad. National efforts in nutrition have been very scanty. There is no qualified personnel, there is no order of priority for resources, and little attention is given to man's development and his health, education and nutrition. The equation of food production/population requires special attention, as well as the grossly uneven distribution of income and wealth in developing countries.

The *inner circle*, relating to the family, includes the effects of maladjustments of the two outer circles, but there are other specific factors. If moderate malnutrition is explained by the imbalance in the external and the intermediate circle, severe malnutrition can only occur due to events in the family microecology. Primitive hygienic conditions, ignorance of the mother, repeated infections and several other factors contribute to precipitating severe malnutrition. Of course the three circles turn, but in a desparingly slow rhythm, as if the responsibility of pushing did not belong to everyone, and as if the consequences would not be felt by all. It is not only an economic challenge, it is above all a moral one.

Summary

The paper describes the international nutrition problem, with references to previous crisis in the world. It is stated that the present situation cannot be compared to the historical famines in the past. The causes and magnitude of the problem are quite different.

The information available on the nutritional situation in the world at present is scanty, erratic and contradictory. The criteria used for such evalua-

tion is not uniform, and this is the reason of the differences in the estimation of the magnitude of the problem.

According to the analysis of 101 surveys conducted in 59 developing countries during the last 10 years, in which more than 260,000 children below 5 years were examined, the percentage of cases of severe forms of malnutrition was of 2.3% and of moderate forms of 18.8%. However there are some areas where severe forms represent 10 or 20% of children examined.

Taking only the most representative surveys (25 out of 59) a rough estimation of the total number of malnourished children in developing countries gives the figure of 10 millions of severe forms and 90 millions of moderate forms.

The paper makes references to mortality trends in developing countries compared with the trends observed in developed countries. It is the view of the author that the recent dramatic decline on mortality in developing countries is due more to public health action, particularly the existence of new drugs, than to any significant improvement in the standard of living, including nutrition. A distinction is made on the differences between the biological needs of nutrients and the social satisfaction produced by food intake. In fact the biological needs are much less than the average consumption of the affluent society.

It is suggested that in order to raise the standards of nutrition in developing countries it would perhaps be necessary to moderate the excessive consumption, among other things, of proteins of animal origin in developed countries.

Finally the author strongly recommend to intensify the action on nutrition at international, national and family level.

Zusammenfassung

Diese Arbeit beschreibt das internationale Ernährungsproblem in Zusammenhang mit früheren Weltkrisen. Es wird behauptet, dass die jetzige Lage nicht mit vorausgegangenen geschichtlichen Nahrungskatastrophen zu vergleichen ist. Die Ursachen und der Umfang des Problems sind völlig verschieden.

Die vorliegenden Kenntnisse über die gegenwärtige Ernährungssituation der Erde sind spärlich, unrichtig und widersprüchlich. Der Grund der Schätzungsunterschiede ist, dass die für eine solche Beurteilung angewandten Massstäbe nicht einheitlich sind.

Im Einklang mit der Analyse von 101 Studien, die in den letzten zehn Jahren in 59 Entwicklungsländern stattgefunden haben, und wobei mehr als 260 000 Kinder unter 5 Jahren untersucht wurden, beträgt der Prozentsatz von schwerer Fehlernährung 2,3% und der von mässiger 18,8%. Es gibt jedoch Gebiete, in denen die schwerere Form bei 10 bis 20% der untersuchten Kinder anzutreffen ist.

Wenn man nur die repräsentativsten Studien berücksichtigt (25 von 59), erhält man, grob geschätzt, in den Entwicklungsländern insgesamt eine Kinderzahl von 10 Millionen schwerer und 90 Millionen mässiger Fehlernährung.

Die Arbeit vergleicht auch die Tendenz der Mortalität in den Entwicklungsländern mit derjenigen der Industrieländer. Der Verfasser ist der Ansicht, dass die kürzlich beobachtete dramatische Mortalitätsabnahme in den Entwicklungsländern eher auf eine öffentliche sanitäre Aktion – vor allem durch das Einführen neuer Medikamente –, als auf eine signifikante Besserung des Lebensstandards (Ernährung inbegriffen) zurückzuführen ist.

Es wird zwischen biologischen Bedürfnissen an Nahrungsmitteln sowie sozialer Befriedigung durch Nahrungsaufnahme unterschieden. Die biologischen Bedürfnisse sind in der Tat weniger ausgeprägt als der mittlere Verbrauch der gehobenen Gesellschaft. Um das Ernährungsniveau in den Entwicklungsländern zu erhöhen, wird der Vorschlag gemacht, den übermässigen Verbrauch vor allem an Proteinen tierischer Herkunft in den Industrieländern einzuschränken.

Résumé

Ce travail décrit le problème alimentaire international en se référant aux crises mondiales préalables. Selon l'auteur, la situation actuelle ne peut pas être comparée aux famines retenues dans l'histoire de l'humanité. Les causes et l'ampleur du problème actuel sont complètement différentes. Les informations à notre disposition sur la situation alimentaire actuelle dans le monde sont rares, erronées et contradictoires. Les critères utilisés pour de telles appréciations ne sont pas uniformes, et c'est là une des raisons qui explique les différences dans les valuations quantitatives du problème. Selon l'analyse de 101 études entreprises dans 59 pays en voie de développement pendant ces 10 dernières années, dans lesquels on a examiné plus de 260 000 enfants d'âge inférieur à 5 ans, on a obtenu un pourcentage de 2,3% de syndromes de malnutrition graves et de 18,8% de formes modérées. Il existe toutefois des pays dans lesquels la forme grave est constatée chez 10 à 20% des enfants examinés. En considérant seulement les études les plus représentatives (25 de 59), une évaluation grossière du chiffre total des enfants souffrant d'une dystrophie alimentaire dans les pays en voie de développement révèle 10 millions de formes graves et 90 millions de formes modérées. L'article rapporte aussi les tendances de la mortalité dans les pays en voie de développement, comparées à celles observées dans les pays déjà industrialisés. L'auteur pense que la diminution récente et impressionnante de la mortalité dans les pays en voie de développement est due plutôt à l'action sanitaire publique, en particulier à l'utilisation de nouveaux médicaments, qu'à une amélioration significative de la qualité de la vie, alimentation comprise. On fait une distinction entre les besoins alimentaires biologiques et la satisfaction sociale assurée par l'ingestion de nourriture. Effectivement, les besoins biologiques sont inférieurs à la consommation moyenne de la population riche. On suggère que pour augmenter le standard alimentaire dans les pays en voie de développement, il est peut-être nécessaire de diminuer, entre

autre, la consommation excessive de protéines animales dans les pays industrialisés. L'auteur recommande enfin chaudement d'intensifier sur le plan international, national et familial l'action visant à améliorer l'alimentation.

Riassunto

Questo lavoro descrive il problema alimentare internazionale, con riferimento alle precedenti crisi mondiali: secondo l'autore, la situazione attuale non può venir comparata alle carestie ricordate nella storia dell'umanità. Le cause e l'ampiezza del problema odierno sono completamente diverse. Le informazioni disponibili sull'attuale situazione alimentare mondiale sono scarse, erranee e contraddittorie. I criteri utilizzati per tali apprezzamenti non sono uniformi e questa è la ragione delle differenze nelle valutazioni quantitative del problema. Secondo l'analisi di 101 studi condotti in 59 paesi in via di sviluppo durante gli ultimi dieci anni, nel corso dei quali furono esaminati più di 260 000 bambini di età inferiore ai 5 anni, si sono ottenute percentuali del 2,3% di distrofie alimentari gravi, rispettivamente del 18,8 di distrofie moderate. Esistono tuttavia dei paesi nei quali la forma grave si riscontra nel 10-20% dei bambini esaminati. Considerando solo gli studi più rappresentativi (25 di 59), la valutazione grossolana della cifra totale di casi con distrofie alimentari infantili nei paesi in via di sviluppo rivela 10 milioni di forme gravi e 90 milioni di forme moderate. L'articolo riferisce pure le tendenze della mortalità nei paesi in via di sviluppo, paragonate e quelle osservate nei paesi già industrializzati. L'autore ritiene che la recente impressionante diminuzione della mortalità nei paesi in via di sviluppo è dovuta più all'azione sanitaria pubblica (particolarmente all'utilizzazione di nuovi farmaci), che ad un miglioramento significativo della qualità della vita, alimentazione compresa. Vien fatta una distinzione tra i bisogni alimentari biologici e l'appagamento sociale assicurato dell'ingestione di cibo. I bisogni biologici sono effettivamente inferiori al consumo medio della popolazione ricca. Si suggerisce che per aumentare lo standard alimentare nei paesi in via di sviluppo è forse necessario moderare tra l'altro il consumo eccessivo di proteine animali nei paesi industrializzati. L'autore raccomanda infine caldamente d'intensificare gli sforzi tendenti a migliorare l'alimentazione a livello internazionale, nazionale e familiare.

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