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THE PRE-SCHOOL CHILD IN NATIONAL DEVELOPMENT

presented by
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* This is a preliminary translation which has not been revised.

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I. IMPORTANCE OF THE PRE-SCHOOL AGE IN THE PRESENT AND FUTURE OF THE COMMUNITY

1. Importance of individual differentiation

During the pre-school stage (0 to 6 years), we find, mixed with the hereditary current of the individual, a countless number of both morphological and psychic factors such as: the processes of maturation, physical growth, and behaviour patterns, individual reactions and adaptation mechanisms, personal peculiarities acquired by identification, self-knowledge and its projection toward knowledge of the outer world, values acquired by experience, psycho-biological adjustments, etc., which integrate the basic personality which, development and future education will only slightly modify and transform, most particularly in the socio-emotional field, which persists within the individual, together with his typical personality, dominated and dependent in his later life on the primitive nucleo acquired or developed in pre-school years.

A very limited enumeration of the incalculable volume of transformations and bio-physical acquisitions of the pre-school child, permits us to demonstrate how important these years are to him in the development of the human being, and above all, in forming the dynamic foundation of an organic and psychic system that will make its peculiar adjustments to its surroundings: in other words, in the formation of the final personality of each individual. Such an outline might be summarized in the following terms:

(a) In the biological field, changes are continuous, from a neo-natal state of small dimensions and rudimentary functional mechanisms that are barely adequate as adaptive reactions, completely dependent on the maternal symbiosis, incapable of movement and the search for its own means of subsistence, upward to a state of being that, at the end of the pre-school period, has greatly expanded, both in its corporal proportions and in physiological maturation, specially in the sensory-motor mechanisms, such as voluntary locomotion conscious movement and a balance which favours the play of fine psychomotor correlation.

(b) In the first recognition sphere and the intellectual stage that follows, transformation takes place, from the absolute ignorance of the neonatal period and the capacity of self-recognition and of exploration and knowledge of surroundings. At the end of the pre-school period, we discover the acquisition of symbolic forms, the constitution of concepts and the expansion of multiple intellectual capacities (attention, concentration, imagination, abstraction, analysis, judgement, reasoning, etc., etc.) that become constantly finer and more discriminating.

(c) In the social-affective field, the transformation takes place between a state of maternal dependence and proceeds from the violent neo-natal explosions of primitive emotion-developing up to the state of emotional harmony, independence and adequate adaptation to a proper socio-emotional adjustment with the surroundings.

2. Social importance of the pre-school child and its basic role in the development of the community

From the point of view of society, a child, during the pre-school years gradually acquires a consciousness of the difference between himself and others, between the "I" and the "Not I", or, in other words, recognition of himself as an entity separate from others, as well as the ability to remember past experiences and integrate them into the present in order to obtain a very rudimentary view of the future. Parallel to the foregoing process, and in a very different degree, a transformation takes place that changes a completely dependent being, irresponsible and a-social (such as in a child at the age of three), into an independent individual, a responsible being with a tendency toward social adjustment; all of which, added to the product of the inter-action between external stimuli and natural qualities, constitutes what some psychologists call individualization, of the stages of which, the pre-school phase is the most important. Consequently the complete future of each human being depends almost entirely on the correct individualization, of the person in these first fundamental stages of his life, and consequently on them depend also the future of societies and nations.

On the other hand, the great malleability and the high degree of vulnerability which, both physically and psychologically exist in these early years of childhood, have been amply proven and these bring as a consequence, two important facts in the evaluation of their role in national development:

(a) That the privations or physical or psychological damage suffered during the pre-school age will exert indelible effects during the rest of the life of the individual; and

(b) That, just as this sensitive phase of life is overly susceptible to damage, is it equally responsive to benefic actions; consequently, in relation to the present and future of nations, every possible measure should be taken in behalf of pre-school age children, in view of the undeniable effect it will have both in the immediate and the lasting future of the person.

3. The pre-school child in programmes of national development

The great responsibility of different nations in the aid and adequate upbringing of children, begun from the earliest age and continuing through the first five or six years of life, which may be considered essentially formative, is apparent for the insurance of their future.

In almost all countries, children between the age of two and six or seven, have received less attention, since generally both sanitary social and educational programmes concentrate on the first stages of development (pre-natal and early infancy) and school age. This lack of attention to the pre-school-age child is also apparent in the family circle, where

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it is common to give much attention to the child in its first year of life, and then forget him; the English have called this "The Neglected Age", the forgotten age, and it precisely coincides with what hygienists consider "The Crucial Age".

Lack of attention from state organizations for this pre-school age, is a long-standing custom; almost 20 years ago, the IX Panamerican Congress on Children, meeting in Caracas in 1948, declared that "the pre-school phase of children's lives is still pedagogically and socially neglected in many American countries", and this is still true today. Thus, according to the detailed information that follows, the health indexes of the pre-school age are still quite unfavourable in Latin American countries; and, the following declarations have been made in UNICEF sessions on the needs of small children (1,2): "Sanitation programmes usually dedicate much of their attention to the periods of birth and the earliest infancy. Then, when the child is seven, the educational programmes undertake his care. But in general, national services and plans barely take into consideration the care of children between their earliest infancy and the beginning of their schooling". "As a consequence of the discussions by several official commissions of planification, the broader questions of the participation of childhood and youth in national development has been taken into consideration. Nevertheless, very little has been done up to this time and at this level, to identify the needs of very young children or to consider the place that they occupy in national development programmes." It is interesting to note that, in these meetings of UNICEF, even the delegates of the most highly developed countries, give voice to urgent expressions concerning the lack of protection for pre-school children.

It is also important that action in benefic of children of pre-school age, become a part of the national development plans of Latin American countries for the following reasons:

(a) The rapid growth of population, specially of low age groups in the countries that are in the process of development; among Latin American countries, the percentage of population under five years of age is between 16 and 18 per cent with regard to the general population and in contrast with the indexes under 12 per cent in developed countries.

(b) Existant sanitary services have benefitted children in earliest infancy more than children of pre-school age, for the mortality rate of children under one year of age in Latin American countries is three and even four times greater than that of industrialized countries; but the mortality rate of children from one to five years of age, although it has decreased, is still from 20 to 30 times higher than in industrialized countries.

(c) The pre-school age is much more vulnerable to surrounding conditions, both physical and psycho-social. Problems of infections, of nutrition, of accidents, of physical defects and personality problems are more frequent and have greater influence on the future during this period of development.

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(d) The rapid social changes that are taking place in Latin American countries (over-population of some areas migrations, industrialization, working mothers, cultural changes, etc.) bring with them the need to study new adaptations of sanitary and well-fare measures as well as of educational policies, in order to satisfy the specific needs of the pre-school-aged child, and, if possible, to project action as of this moment toward the future.

(e) The poverty of educational systems for the very young child (particularly for children from 3 to 6) is so great in Latin American countries that it is a positive necessity that this age group of such great importance, be included in some form and capacity, within the rest of the planning for the education of older children.

(f) As the pre-school child spends the greater part of his time in the family circle and here directly receives the influence of its physical and psycho-social care, consideration within national plans, of the formation or strengthening of the family within each country (sanitation programmes, housing programmes, employment, capacitation of parents, urban planning, agriculture, social services, the application of justice, community development programmes, etc.) would bring as a result the indirect reevaluation of all these plans in benefit of the pre-school-aged child.

4. Influence of national development on the pre-school aged child

The tremendous bio-psycho-social malleability of children during the first stages of their development, and the deep and multiple changes that are being undergone by countries today, and particularly those countries that are in the process of development, might bring up the question in an opposite sense with respect to the influence, in its different degrees of form and intensity, of the progress of each nation on the bio-psycho patterns of children of the pre-school age.

It is difficult at the first attempt, to give a definite answer to such a question, due principally to the fact that it is not yet possible to evaluate either in extent or mood, the effects that new physical, social and cultural media may have on children. Nevertheless, if we take into consideration the reports and accumulated experiences in different types of countries, we may reach the following general conclusions concerning the matter:

(a) There is certain evidence that problems of a socio-affective type among pre-school age and school aged children have been less frequent and of lesser intensity in countries where industrialization and urban progress have been less pronounced, and, specially, where a greater number of mothers remain in the home.

(b) On the other hand, there is definite proof that physical welfare among pre-school aged children in developed countries, betters appreciably in direct proportion to the industrialization and other socio-economic

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progress that is marked. We can cite various examples such as: the decrease in the rate of infant and pre-school age mortality, decrease in preventable diseases, betterment of living conditions for defective or sub-normal children, increase in the nutrition rate and favourable changes in patterns of physical growth. What is more, within the present rates of sanitary administration, the qualitative and quantitative assessment of conditions favouring a lower mortality rate, together with the collective increase in norms of growth in groups of healthy children, constitute precise measurements for the evaluation of progress in sanitary and social conditions of any given geographical area.

(c) From the point of view of socio-affective aspects of pre-school children in relation to national development on the other hand, it is impossible to establish a positive correlation between such terms; or, at the most, studies are being made and media identified according to the experiences obtained in countries of great development for counteracting the various problems of a socio-emotional type that have appeared in children as a consequence of elements and situations that are unfavourable from a psycho-social point of view, derived from industrialization. In these countries, the neglect of children with regard to their emotional, educational and recreational needs is a serious problem of difficult solution, and of immense impact on the child, arising from the constant and surprising increase in the number of mothers who work outside their homes.

In the United States of America, for example (3), according to a survey made by the Census Office, in February of 1965, one out of each four mothers of children under six years of age, were working outside their homes, and, according to the Department of Labour of the same country, an increase of 43 per cent was expected during the decade of 1970.

5. The pre-school age in the future of humanity

As of the last fifty years educators have used scientific methods: observing and evaluating the capacity of each student, using active procedures, stimulating reasoning power and graded methods, trying to establish a psychic and intellectual harmony between the child and his surroundings, parallel to the stages of his development, sowing proper attitudes, adequate behaviour and moral comportment both of individual and social nature among school children and adolescents.

Apparently these efforts have had no effect on the mass of population that has received them, since today more than ever, we find unreasoned emotions in play, social and effective mal-adjustment, social struggle, attacks on established values, and a growing impatience and violence in social and political currents of an "atomic" humanity, that disparees of its survival. These trends show once and for all that scientific methods, together with the educators who put them in practice have failed, since they have not been able to obtain any tangible effects in the behaviour of individuals.

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In the face of these disheartening results, two principal causes have been brought to light:

(a) Retarded action, which be interpreted as meaning that in our times, methods and educational programmes are being applied to school - age or adolescent children - which is too late. They are being used on groups in which personality has already been completely established.

(b) Integral ignorance of the child, of his psycho-biology and, above all, of his reactions and adaptations to his surroundings, as well as of the interaction of the various stages of childhood; all of which results in an incomplete scientific basis for guidance plans for children.

"It seems to us" stated an outstanding educator, "that pre-school education, based on a profound knowledge of children, would be the first step toward a solid education of personality on which the world might lay its hopes ..."

II. CONDITIONS OF PRE-SCHOOL AGE CHILDREN IN LATIN AMERICA

1. Problem of Numbers: Pre-School-Age Population

The fact that the general population of the greater part of Latin American countries is growing at a rate (approximately 2.5 per cent per year) higher than that of any other part of the world, and the decrease in infant mortality during the last decades has been - brought about in almost all these countries, has brought as a consequence a considerable expansion in the lower age groups in proportion to the rest of the total population. From this fact, arises the first unfavourable condition, such as the enormous size of the pre-school age population, which now registers some 32 million children under the age of five (applying an average percentage of 16 over 200 million inhabitants) in the countries of America, excluding Canada and the United States.

As may be observed in Table I, the percentages of children under 5 years of age in relation to the rest of the ages of the total population, varies between 12 and 19 per cent, with a median of 16.6 per cent, among the nations whose data is obtainable (4); these are extremely high indexes in comparison with those of Canada and the United States which are of 12 and 11 per cent. A single nation (Uruguay), has a lower proportion than those cited. The number of children between one and four years of age, is also high: its proportion ranging from 9 to 15 per cent, with a median of 13 per cent, in contrast with lower percentages of 9 per cent in Canada and United States. This high proportion of children in pre-school age depends greatly on the high birth rate characteristic of Latin America, and the consequent rate of annual population growth that ranges between 1.3 per cent up as high as 4 per cent, with a median of 3 per cent which is high enough if we consider that the average world growth per year is 1.8 per cent (5).

This huge number of pre-school children in Latin American countries, live and are scattered over rural areas (approximately 60 per cent of the total), and dwell particularly in places of under 2,000 inhabitants. With the exception of Venezuela, which has 36.3 per cent of rural population, almost all the other nations of Latin America have more than 50 per cent, as is the case in Honduras, where only 7 per cent of the total population relates to another circumstances which complicates the situation: the division of the working strength, which is much less productive in rural zones as compared to industrial zones, commercial zones or public services areas. Thus, for example, the national per capita income in Venezuela (\$ 585) is two or three time larger than that of any other Latin American country, and, nevertheless, five or six times lower than that of the United States.

We are, then, confronted with two great common problems that at the outset affect Latin American children of pre-school age: (a) the high proportion of children included in this group that live in scattered communities; and (b) general conditions of poverty of varying intensity in different zones.

2. Health and Welfare Conditions

(a) Mortality among children of the pre-school group

The analysis of the causes of diseases and death among members of the pre-school-age group, leads us to knowledge of the characteristics of regional pathology, and constitutes a fundamental basis for the building of programmes of aid and well-fare, both individual and social.

It is also true at present, that the pre-school-age mortality is considered a significant and sensitive measure of general sanitary conditions in any geographical area, together with the rate of infant mortality (deaths in infants under one year of age) which was almost the only measure, during former periods, of the sanitation level of infancy and even the sanitation level of the community.

In countries with high levels of sanitation, it may be observed that the coefficients of deaths in infants under one year of age has decreased in such a way that it is almost equal to that of the death rate among pre-school children, which is not the case in countries of poor hygienic conditions, particularly in our Latin American countries, where disease and death among pre-school children are still very high. In this respect, a former Venezuelan Minister of Public Health remarked; "A reduction in infant mortality, without attention to the conditions that affect the death rate among children during their first to fifth year of life, often results in impeding the death of a child during its first twelve months only for it to die a little later, between one and five".(6)

The high figures of mortality among pre-school children, characteristic of our Latin American countries, denotes an important problem in public health. Table II shows that the total death rate among children under five, is generally over 20 per 1,000 inhabitants, at least in the case of ten countries, and, on the other hand, in the United States, this rate is of 5.7 per 1,000.

Mortality in the age group between 1 and 4 years, is very high and quite variable, between 5 and 33 per 1,000. While in certain areas it is over 20 (in Guatemala it reaches 33.2) on the other hand, in the United States and Canada, it is 0.9 and 1.1 respectively. Mortality in this 1 to 4 year old group, represents quite accurately, the mortality of the age group included between two and six years of age (7).

The coefficients of mortality of the 1 to 4 year old group does not tend to decrease in Latin American countries. Quite the contrary, in some of them, such coefficients threaten to increase. This and the fact that the nations that have the highest infant mortality rate, or the highest death rate in infants under one year of age (Table II) makes us think that the problems of health in the pre-school-age child has not received adequate attention, and that a greater effort has been made to better conditions for children of lesser age.

The five principal causes of death in children belonging to the 1 to 4 year old group, in the 18 countries for which data is available (4) in order of frequency, were the following (Table III):

1. Cause of Death: Gastro-intestinal diseases:

In Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Dominican Republic, Venezuela, with coefficients between 87 in Venezuela and 661 in Guatemala per 100,000 inhabitants. These same coefficients for the United States and Canada are of 3 and 4 respectively.

2. Cause of Death: Influenza and Pneumonia

In Colombia, Costa Rica, Chile, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Dominican Republic, Venezuela: with coefficients between 45 (Dominican Republic) and 626 (Guatemala) per 100,000 inhabitants. These same coefficients for the United States and Canada are 13 and 14, respectively.

3. Cause of Death: Infectious or contagious diseases (measles plus tetanus, whooping cough plus measles, malaria, etc.).

In Guatemala, Mexico, Nicaragua, Paraguay, Peru, El Salvador, Ecuador, Chile, Costa Rica. With coefficients between 25 (Panama) and 607 (Guatemala) per 100,000 inhabitants. In six nations, tetanus appears as the cause of death in this age group, with coefficients of 15 (El Salvador) to 10.5 (Nicaragua), per 100,000 inhabitants. In Chile diphtheria occupies the fifth place in frequency with a coefficient of 13.3.

4. Cause of Death: Bronchitis

In Costa Rica, Ecuador, El Salvador, Guatemala, Mexico, Paraguay, Peru with coefficients that vary between 28 (Costa Rica) and 242 (2) Guatemala per 100,000 inhabitants.

5. Cause of Death: Various conditions: highest frequency accidents

Infectious diseases, diseases caused by deficiencies (Vitamin deficiency, etc.) and others, such as congenital malformation, tumors, etc.

(b) Morbidity

It is also interesting to consider the quantity and type of diseases that are most frequent in the pre-school age, which although in many cases do not cause death, nevertheless, damage and produce consequences over a period of time. Studies carried on in Venezuela (7), among 4,403 hospitalized children from two to six years of age, showed the following diseases with greatest frequency:

A. <u>Diseases subject to preventive action</u>	<u>Percentage of total</u>
i) Infecto-contagious diseases (excepting tuberculosis and siphilis)	14.0
ii) Dificiency diseases (Avitaminosis, multiple deficiency, dystrophies or malnutrition, etc.)	12.0
iii) Accurate respiratory diseases	8.8
iv) Accidents	7.4
v) Liarrhoea (gastro-intestinal diseases)	7.0
vi) Parasitosis	5.0
Other avoidable diseases (tuberculosis, anaemia, nephritis, siphilis, etc.)	12.0
 B. <u>Diseases only slightly subject to preventive action</u>	
i) Adenoidism (tonsillitis, adenoiditis, etc.)	15.0
ii) Surgical cases	11.0
iii) Others (Malformations, tumors, asthma, reumatism, alergy, etc.)	7.8

In synthesis, the following facts may be discerned concerning the health conditions in the pre-school group of Latin American:

1. High mortality: In the greater part of these countries ten times more children die during this period than in developed countries; no tendency toward a lowering of this mortality has been observed.
2. Approximately 85 to 90 per cent of the total number of deaths or diseases present in the pre-school group, are due to completely avoidable causes.
3. The presence of gastrointestinal diseases as the most frequent cause of death, followed by infectious diseases, malnutrition and diseases of the respiratory track, proclaims the results of lack of regional sanitations, food, etc., that are so frequent in these countries and that prevail over children in this group, and to these factors, we must add the fact that mal-nutrition aggravates gastro-intestinal, infectious and respiratory complaints.
4. The factors that most frequent cause deaths and diseases among children of this age, have almost disappeared in countries with a high sanitary-social level.

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(c) The problem of mal-nutrition

Deficiency conditions, and particularly those of nutrition, caused by a lack of proteins, is one of the most serious problems, and one that is almost a specific among the pre-school children of Latin America. The bulk of the problem can not be properly evaluated by a simple study of the death rate figures, as many of the children affected do not die, but it is possible to measure its enormous importance by means of the great number of patients that daily attend public clinics seeking relief from these conditions, and by its demonstrable consequences in the aggravation of other diseases, in retardatory effects and in other problems to be observed in growth and psycholological development, both immediate and very surely in the future, as will be proven in another section of this study in which we deal with the bio-psycho-social status of our peoples.

In its effects on mortality, mal-nutrition (states of proteinic mal-nutrition, multi-deficiency syndromes, specific avitaminosis) figures in four nations as one of the five principal causes of death in this age group; and in a recent study of problems of nutrition in Latin America made by the FAO/WHO (8), these countries offer three groups of varying categories related to the intensity of mortality caused by mal-nutrition:

i) The first group of low mortality; such as Uruguay and Argentina, with coefficients varying between 0.3 and 0.8 per 100,000 inhabitants.

ii) A second group of nations, of medium mortality, such as Peru, Chile and Venezuela with coefficients of from 5 to 8 per 100,000 inhabitants.

iii) A third group of high mortality such as the Republic of Colombia, Costa Rica, El Salvador, Mexico, Guatemala, etc., with coefficients up to 30 per 100,000 inhabitants.

The high frequency of mal-nutrition is also observable in the large number of children who are taken to clinics or pediatric social services for consultation concerning these complaints, by the figures on hospitalization with symptoms of severe mal-nutrition, and by the high percentages of pre-school and school children who are apparently "healthy" but who suffer from a sub-normal state of nutrition. In Venezuela (9), according to the figures of the National Nutrition Institute, over 300,000 cases of nutritional complaints are observed annually (goiter, anaemia, beriberi, scurby, pelagr , rickets, diabetes, multiple-deficiency syndrome avitaminosis A, arriboflavinosis and others), in almost 500 rural medical centers that exist throughout the country. Approximately these same diseases constitute from 5 to 10 per cent of the statistics for admission to children's hospitals; and in this same country, 35 per cent of the school children present symptoms of sub-normal nutrition (7).

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The state of mal-nutrition depends on three main factors:

i) Low consumption of essential foods; according to data from the Panamerican Sanitation Office (10), in 10 Latin American countries; the daily per capita consumption of calories varies between 1,960 and 3,100; in some areas, the supply of animal proteins is less than 10 grams per person per day, and, very frequently, cereals constitute 78 per cent of the source of total consumption of such proteins. The low consumption of low quality proteins causes specific diseases, and also lowers resistance to infections and causes sub-normal growth development.

ii) Low buying power to acquire foods, suffered by extensive groups of population; according to a report from the Panamerican Health Organization (5), "While, in the United States, a skilled worker earns money enough to buy a kilogram of meat in only twenty minutes, in four Latin American countries, he must work more than two hours to buy the same amount. A similar situation obtains with respect to other foods".

iii) Lack of knowledge concerning the value of certain foods; sometimes it would be possible to use certain foods of high nutritive value, which, due to ignorance, cultural habits or tradition, are not consumed.

The problem of mal-nutrition is also intimately connected to the mechanisms of production and distribution in each country. In the greater part of the Latin American countries, food production has been increasing, nevertheless this process has been very slow; food production per capita in 1963 was lower than in 1953 (5).

3. The present day socio-cultural structure in relation to life and development of the pre-school group

(a) Environmental

Unfavourable environment conditions (defects in city planning, in adequate housing, poor sewage disposal, improper water supply, etc.) constitute a common note in the greater part of Latin American countries and have an enormous effect in the propagnation of diseases and the necessary conditions for growth and development of children, specially in the pre-school age, which is so vulnerable in the face of these factors.

Gastro-intestinal diseases what constitute the first cause of disease and death among pre-school age Latin Americans, depend almost entirely on the poor conditions of the public water supply. In twenty of this group of countries, 39 per cent of the urban population lacks adequate water supply. It is calculated that approximately 100 million inhabitants of Latin American lack such service (10). Rural areas are much more affected by this lack. And we might say the same of sewage and garbage disposal.

/(b) Housing

(b) Housing and other environmental conditions

There are different types of economic and social situations among which the pre-school child grows and develops; we may be dealing with rural or urban zones, with large or small family groups; of good, medium or poor housing in improvised huts; of abundance or restriction of foods, of frequency of diseases; of cultural traditions concerning the upbringing and education of children, etc. Within this group of nations, and according to the classification suggested in a recent report of the UNICEF (1), the most frequent economic-social conditions are the following (in order of urgency of attention):

i) City out-skirt zones: Small children who live in the "belts" of huts or farm shacks on the out skirts of large and expanding cities, or in certain zones within the cities, constitute our most urgent problem. The population of these zones is almost completely the result of migration from rural areas of people who are completely ignorant and unprepared for the task of rearing and education children. They "organize" or "build" neighbourhoods without plans of any type and most certainly without the most elemental measures of sanitation. Another fact is that the men of the families earn very little and the lack of paternal responsibility is notorious.

The mother must look after her children and attend to the support of the family. Children are left alone in unwholesome houses or shacks or are allowed to run wild in the allies or cleared land where the neighbourhood has grown up.

ii) Rural zones: Children who grow up in these areas also suffer but less intensely from unfavourable environmental conditions, particularly with respect to poverty, ignorance and lack of hygiene. These zones offer the problem of being difficult for the organization of welfare or educational programmes, due to the fact that the population is scattered and the geophysical conditions are extremely variable.

iii) Incorporated villages: Here we refer to children who live in the traditionally established sectors or in new zones that have been incorporated into great cities. Generally, in these zones, we find better sanitary and social services, and the parents, aside from having a better working capacity are less ignorant and more conscious of the need for education of their children.

(c) Education and conditions of parents

A high rate of illiteracy is still to be found among adults in many countries of Latin America. This, added to the errors and mistaken practices traditional in the rearing of children constitute unfavourable elements for child development.

One fact that is becoming very clear in Latin America and is becoming of great importance in the lowering of bio-psychic conditions within the family is the constantly increasing tendency to precocious juvenile procreation, which brings with it serious consequences of two types: i) a greater tendency to produce abnormalities and physical defects due to the

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lack of maturity of the mothers; and ii) greater inexperience and irresponsibility in the raising of the family. As may be observed in the following data, in every 100 couples, the number of wives under 15 varies from 5.5 (Venezuela) to 0.4 (Bolivia) among the nations on which data is obtainable. In the United States and Canada, these rates are of 0.3 and 0.1 respectively (4).

<u>Country</u>	<u>Percentage of the ages of wives per 100 couples</u>	
	<u>Under 15</u>	<u>From 15 to 19</u>
Venezuela	5.5	36.5
Honduras	4.0	45.0
Guatemala	3.8	41.8
Peru	3.0	28.8
Panama	3.0	28.8
Costa Rica	2.5	41.7
El Salvador	2.4	36.7
Colombia	2.0	37.1
Chile	1.9	28.2
Argentina	1.2	22.1
Paraguay	1.0	33.2
Bolivia	0.4	22.4

These figures on mothers who are too young for procreation are undoubtedly much higher among illegal unions of couples.

The civil estate of the children procreated, is another interesting factor. In Latin America, the percentage of illegitimate children is generally very high. According to available data (4) we find the following conditions existent between 1956 and 1962:

<u>Country</u>	<u>Percentage of illegitimate births</u>
Panama	64.5
Dominican Republic	64.4
Venezuela	53.1
Paraguay	44.4
Peru	41.8
El Salvador	34.8
Ecuador	32.8

/Country

<u>Country</u>	<u>Percentage of illegitimate births</u>
Argentina	29.5
Costa Rica	27.0
Mexico	24.7
Colombia	23.2
Chile	20.5
United States	5.0
Canada	4.5

In Latin America, the divorce rates are not so high. They fluctuate between 0.14 (Honduras per 1,000 inhabitants, to 0.63 (Uruguay); in the United States, the rate is of 2.2 (4). But, on the other hand, it is a common case to find that the father has abandoned the family.

(d) Social Institutions for Pre-School Protection

No data was available concerning the present availability of different types of institutions for protection of the pre-school child. Generally, there are two large groups;

i) Services for preventive action: These are activities carried on the materno-infantil centers or child-care posts, which almost always belong to sanitary units or general public health services. In these centers, the greatest activity has been concentrated on the stages included between the pre-natal period and the age of two years. Within these limits growth, feeding, immunization practices, etc. are watched and controlled.

ii) Welfare services: These include hospitals and public pediatric clinics, social services, specialized services (mental hygiene, training of defectives, etc.), nursery, homes, pre-school homes, kindergartens, nurseries, family placement, etc.

It is a well known fact that in the greater part of Latin America, all these resources are completely insufficient for the present needs. In Venezuela, for example, only about 3 per cent of the total pre-school population is cared for by the infantil-maternal hygiene services of the Ministry of Public Health and Welfare.

In the face of such a serious problem as that presented by mal-nutrition there are no well-planned or complete programmes for the eradication of this ill.

There are only a few attempts which deserve to be mentioned, such as the production and commercialization of foods principally of vegetable origin (in Brazil and Colombia) and the P.L. Programme for pre-school children in Venezuela, which consists in the free provision through local centers of the Ministry of Public Health of a milk product of high nutritive value, to undernourished children who have been previously selected by doctors on the staff. In 1960 approximately 35,000 children received care from the P.L.

Table 1

PERCENTAGES OF THE POPULATION UNDER 5 YEARS OF AGE AND FROM 1 TO 4,
WITH RESPECT TO THE GENERAL POPULATION; BIRTH RATES PER
1000 INHABITANTS (1961-1962) AND ANNUAL GROWTH RATE
BETWEEN THE TWO MOST RECENT CENSUSES (APPROXIMATELY
FROM 1950 TO 1960), IN VARIOUS NATIONS
OR AREAS OF AMERICA

Nation or area	Percentages of the total population		Birth rate per 1 000 inhabitants	Annual Growth rate between recent censuses
	Under 5	From 1 to 4		
Honduras	19.0	14.8	45.3	3.0
Costa Rica	18.7	14.8	49.8	4.0
Nicaragua	18.2	-	40.8	3.3
Venezuela	17.8	13.8	45.4	4.0
Dominican Republic	17.6	13.9	40.4	3.5
El Salvador	17.3	13.3	49.4	2.8
Ecuador	17.0	-	46.8	3.1
Peru	16.8	13.3	38.2	2.5
Guatemala	16.8	13.1	51.2	3.0
Colombia	16.7	13.0	43.4	2.2
Panama	16.7	13.1	39.6	2.9
Mexico	16.6	13.0	43.4	3.1
Jamaica	16.6	-	41.0	1.3
Paraguay	16.3	12.8	27.9	2.6
Brazil	16.2	12.5	33.0	3.1
Trinidad and Tobago	15.9	-	38.2	2.9
Puerto Rico	15.0	-	31.4	0.6
Chile	15.0	10.2	38.0	3.1
Cuba	12.7	11.2	32.5	2.1
Haiti	12.2	9.8	-	3.0
Uruguay	9.8	-	22.5	1.6
Canada	12.3	9.8	26.1	2.7
United States	11.3	9.0	23.2	1.6

Population data generally refers to the years 1960-1963. Birth rates correspond to 1961; and annual growth rates, according to censuses raised around 1950 and 1960 (4 and 5).

Table 2

DEATH RATE AMONG CHILDREN FROM 1 TO 4, OF CHILDREN UNDER
(1960-1962) PER 1 000 INHABITANTS, AND INFANT
MORTALITY PER 1 000 LIVE BIRTHS (1961), IN
VARIOUS LATIN AMERICAN COUNTRIES (4)

Nations	Pre-school age mortality rate per 1 000 inhabitants		Infant mortality rates per 1 000 live births Under 1
	From 1 to 4	Under 5	
Guatemala	33.2	51.8	84.8
Ecuador	23.3	45.1	102.9
El Salvador	16.4	32.7	70.0
Mexico	13.3	30.0	70.2
Colombia	11.5	35.8	89.6
Peru	11.1	24.3	93.2
Dominican Republic	10.4	27.4	102.3
Paraguay	8.9	23.7	44.3
Costa Rica	7.7	21.4	76.7
Nicaragua	7.1	17.2	65.1
Panama	7.1	15.4	54.8
Chile	7.0	31.8	117.0
Venezuela	5.4	15.7	53.3
Canada	1.1	6.5	27.2
United States	0.9	5.7	25.3

Table 3

THE FIVE PRINCIPAL CAUSES OF DEATH IN ORDER OF THEIR IMPORTANCE,
AMONG CHILDREN FROM 1 TO 4 YEARS OF AGE IN 18 COUNTRIES OF
LATIN AMERICA WHERE DATA IS AVAILABLE (1960-1962) (4)

Diseases causing death	Number of countries and order of causes				
	1st	2nd	3rd	4th	5th
Gastrointestinal	11	3	2	-	2
Influenza and pneumonia	4	10	3	1	-
Infectious and contagious	-	7	9	2	-
Bronchitis	-	1	1	7	3
Accidents	-	1	2	4	-

III. THE BASES FOR THE DEVELOPMENT OF THE PRE-SCHOOL CHILD, ITS CHARACTERISTICS AND CONDITIONS IN LATIN AMERICA

There is an extensive bibliography (11, 12, 13, 14, 15, 16, 17 and 18) on the biopsychic characteristics of the pre-school child; but in the present report note will be taken only of the more important factors and expressions of the child's growth and proper development and the traits themselves which should be taken into account in programmes for their protection, with a view toward national development.

1. Recognition of the child's nature as the basis for all planning

In view of all the profound cultural, social, economic and political changes in the present-day world, which have brought with them qualitative and quantitative modifications in the extrinsic factors of human development, the question might arise as to the advisability of reviewing the concept of the child as regards a "dosage" of stimuli on the hereditary nucleus of the subject attuned to its evolutive stages; but since this review cannot be carried out due to lack of knowledge, it is concluded then that all kinds of individual or collective programmes for child guidance and assistance should be based, essentially, on the full recognition of the child as an individual in its growth and development, and as a being eminently sensitive to its human environment.

Various principles inherent to the nature of a child may be established, in outline form, which are fundamental to all planning:

(a) The child is a biological, psychological and social being whose many components are integrated along the road which leads to a "well-developed" adulthood, and is provided with a dynamic organization of systems of spontaneous, or acquired conduct, by means of apprenticeship.

(b) The child is a developing being and for this reason, very changeable in accordance with the stimuli received and its own evolutive stages. For example: the one-year old child has little in common with the month-old baby, and the two or three-year old child has almost nothing in common with the school-age child or the adolescent, from the standpoint of its characteristics or its physical or psychological needs, hence in relation to the programmes for care and education. Also the procedures and even the attitudes of those conducting the programmes should be changeable and ever more in accordance with new adaptive forms.

(c) The child is a social organism, a being with a specific link to environment. From the symbiosis with its mother, to the family or community position, the child needs adequate inter-personal relations and apprenticeship and for this reason the indirect action programmes find therein their basis and application.

/(d) The

(d) The child is a being endowed with an individuality that should be respected and attended as such; consequently, the orienting guide of all programming should be the realization and acceptance of the fact that each child is different from another; and that "grouping", "classification", etc., is not in keeping with the child's nature, or should at least be very carefully studied.

2. Significance of the prenatal period

Biologically, during the prenatal period, the new being acquires its own organic equipment, together with the potentialities for later development and adaptation to the external physical, social and cultural environment. But this biological endowment, fruit of inheritance, should be favoured in such a way that at the moment of birth optimum physical and psychological characteristics have been obtained; or, on the contrary, the product of conception may receive irreparable harm from many factors, to a great extent preventable, that act through the mother; such as, maternal desnutrition, infections, intoxications, shocks, (disfunciones) etc. It may be said that from the moment of fertilization to the birth of the new being, there exists a kind of continuous menace, in which various factors may produce fortuitously, effects on the future individual, in an ample range of variability, from grave effects such as the death or severe deformation of the fetus, to minimal changes or slight emotional maladjustments.

From the psycho-social viewpoint, the circumstances of a social and cultural nature that surround the newborn child are significant for it is at this level that the new individual should commence to construct his personality, based on the personality of the parents, the patterns of family life and the emotional atmosphere found in the home. In this regard, it is necessary to keep in mind the emotional changes that due to various causes (psychic impact of the pregnancy, maternal or paternal sentiments, intra-family relationships, etc.) occur in the parents' feelings caused by the new prenatal situation and which may have effects on the future child and on the parents' functions.

In accordance with the most extensive and recent studies (19 and 20) an outline may be made of the factors which should be kept in mind during the prenatal period for the purpose of taking the corresponding preventive measures:

(a) General factors: social, economic, demographic, environmental.

(i) Maternal age: less favourable results in very young mothers or those over 40 years of age.

(ii) High pregnancy rates (more than 4 pregnancies) in correlation with the increased risk, especially in young mothers with close-spaced pregnancies.

/(iii) Less

(iii) Less favourable results of pregnancies in groups of low socio-economic conditions.

(iv) Fluctuation in the incidence of various kinds of malformation with relation to secular changes (war, economic depressions, disasters or social changes).

(b) Maternal factors

(i) Correlation between maternal nutrition and the results of the pregnancy.

(ii) Adverse effects of the complications of the pregnancy, such as: toxemia, placenta praevia, hemorrhage.

(iii) Fetus-maternal relationship of blood type as concerns the effects of erythroblastosis and those of the electrophoretic pattern of the mother.

(iv) Unfavourable effects on the pregnancy as a result of maternal endocrine malfunction (diabetes, thyroid disorders).

(v) Inadequate influence due to excessive physical activity of the mother.

(c) Specific environmental factors

(i) The following maternal infections are a poor influence on the fetus: toxoplasmosis, syphilis, brucellosis, and various viruses (rubeola, poliomyelitis, coxsackie, herpes and salivary glandular disorders).

(ii) Risk of congenital defects due to massive exposure to X-Rays during the first trimester of pregnancy; equal consideration should also be given to the action of certain medication and toxins received by the mother.

3. The role of the infantile stage, basic for pre-school development

According to traditional belief, the infantile stage, or early infancy, encompasses the period from birth to two years of age, even though at the present time there is a tendency, especially in international agencies, to limit this period from birth to 12 or 18 months of age; for this reason it is also called "early infancy" in order to distinguish it from the next stage of pre-school, or "early childhood" from 12 or 18 months of age to 6 years of age.

/The infantile

The infantile stage is characterized by its ineptitude, especially psycho-social, for the child is essentially dependant upon its mother, by the numerous and rapid bio-physic changes and by the great vulnerability to external agents, and the high coefficients of morbi-mortality; for these reasons, it has been favoured in the field of protection by both parents and governmental agencies of medical-social welfare. Nevertheless, this early infancy period should continue to be of first importance in protection due to those circumstances and because it is a fundamental basis in the adequate physical and psychological organization of the pre-school stage, since it is at this infantile period that a series of very important acquisitions for the individual's future are attained, such as the following: (21)

(a) The establishment of an adequate socio-affective relationship with the mother; or that the step from a close maternal bond, the symbiosis of the newborn, to an almost independent conduct, is one of the tasks of greatest importance, since it is the basis for the development of future sentiments toward itself and toward the persons and the external world; moreover, it also awakens the capacity for affection, reinforces the feeling of security and stimulates the evaluations made in regard to faculties, privations, dangers, failures, security, etc.

(b) Capacity for exploring environment (through the use of the mouth, eyes, ears, hands).

(c) Attainment of motor abilities: to move around, coordination of hands and eyes, initiation of equilibrium.

(d) Beginning of self-knowledge and the differentiation between the child and other beings.

In order that early infancy attain such important acquisitions, the following basic necessities must be satisfied:

(a) Adequate physical care for the child's wellbeing and preventive measures against illness proper to this stage.

(b) Especially, care in feeding (in keeping with the rhythm of appetite, nutritional needs, emotional needs, satisfaction of sucking needs).

(c) Maternal contact, in sufficient amount and quality.

(d) Social stimulation (expressions of affection, communication, play).

(e) Satisfactory conditions in the physical environment (climate, housing, health, clothing, etc.)

4. Bio-psycho-social characteristics and role of the pre-school stage

In a general manner, the pre-school age is a period of transition between one stage of development and another, in which the organism, while receiving numerous impacts that menace its weaknesses, makes an effort by means of multiple changes and adaptations, to carry out the transformation from an organically and psychologically inept and dependent subject, as is that of early infancy, to that of an almost independent person with quite a lot of conceptual and perceptive knowledge, and above all, possessing a great equilibrium with his environment; it should be pointed out at this point that an adequate attainment of such transformations, proper to the pre-school stage, is very difficult, even under the most favourable conditions.

Pre-school characteristics may be summed up in the following manner:(7)

(a) Growth and general morphology

Growth continues in the pre-school stage at an accelerated rhythm, but nevertheless with less intensity than that of early infancy; all the anthropometric measurements which in early infancy showed sharply accentuated curves become less steep and more rhythmic during the pre-school period.

The skull grows slowly in comparison with the appreciable increase in the facial part of the head. The dental arches become firmer, to give room for the permanent teeth, during the school stage.

The skeletal system continues to mature; thus in the region of the carpus, from 4 nuclei of ossification at two years of age, 7 nuclei exist at the age of 6. The muscular system progresses considerably and takes on greater firmness in its various functions not only volitive but also expressive (attitudes, facial changes) and the maintenance of body balance. Among the numerous psychomotor acquisitions proper to the pre-school period two stand out particularly: balance and muscular co-ordination. But it is interesting to point out the ease with which muscular fatigue is brought on, which has been described as inherent to the years of early infancy, and much greater in intensity in proportion to the size of the subject; due to this two rules have been established and should be kept in mind while conducting pre-school activities:

(i) The periods of activity, followed by rest periods, should correspond to the age of the child; the smaller the child the shorter the period of activity; and

(ii) The smaller the child the shorter the period of fixed attention (in persistence) and greater the need for postural changes.

/The various

The various organs and apparatus continue to develop throughout the pre-school period, with certain significant facts, such as: great hypertrophy of the lymphatic system, stabilization of physiological constants (respiratory, circulatory, hematological, etc.) acquisitions of sufficient maturity, especially of the digestive and urinary apparatuses and the nervous system.

The sensorial functions, especially the visual and auditive, reach high levels of yield, since during the pre-school age a notable integration of the sensory-perceptive mechanisms of "registry" or discrimination of intelligence takes place. The tremendous progress of the visual function goes from a very rudimentary visual-manual correlation of early infancy, to a well-defined vision at the end of the pre-school period, of correct "focus", precise visual-motor postures with great economy of effort (control and perfecting in movements and control in the use of tools and instruments) and a perfect sense of direction. Also, at the end of the pre-school period, the binocular and stereopsis, or depth perception functions are stabilized. It should be stressed that the care and safeguarding of the visual function should be commenced in the early years, by means of an evolutive visual examination, in order to recognize disorders in time and thus avoid difficulties in learning (reading and writing) and conduct problems in the older child. Hearing progresses considerably, since during the pre-school years two more discriminatory levels of hearing, than those of the nursing baby, commence and take shape: one could be called the **significant level**, during which, the child is capable of relating the **stimulous** auditive sense, to its content; the other **symbolic level**, in which, in addition to understanding of the sound is added the phonic production integrated to the thing heard and understood; that is, the formation of articulate language, which develops greatly during the pre-school years.

The mechanisms of the regulation of growth are not known perfectly as yet but there is evidence that the potencial of growth depends on inheritance and that it reaches a maximum under optimal environmental conditions; moreover, it appears that genetic factors are not truly active until the age of three years, since before that time environmental factors dominate. For example, the statistical correlation between the present height of a child and his adult height, and also the correlation between his present height and the height of his parents, is very low in the early years of childhood, but suddenly increases and remains high, after the age of 3. Thus it is important to keep in mind that during the early pre-school years environmental factors may unfavourably influence growth, in direct proportion to the time of duration and the intensity of action.

(b) Immuno-biological mechanisms

Their characteristics are:

/(i) Decrease

(i) Decrease or loss of the natural immune state (to various germs) transmitted by the mother during pregnancy, through the placenta.

(ii) Considerable increase of opportunities for contagion of various infectious diseases due to the social expansion and independent movement proper to the pre-school child; these opportunities for contagion are related to ecological conditions (housing, epidemiological patterns, environmental health conditions, demography, etc.).

(iii) Greater facility (reactivation of the reticulo-endotelial system, lymphatic hypertrophy) for the attainment of an immune state in certain cases, through light infections, without acquiring the illness. For example, immunity indexes for poliomyelitis in underdeveloped countries where active immunization has not been carried out, are almost the same as those of countries which have carried out massive programmes of vaccination.(22)

(iv) Greater frequency of some infectious illness during the pre-school age. For example, in Venezuela, the percentages of frequency between 1 and 6 years with relation to the general total of all ages, are the following: 74 per cent for measles, 65 per cent for whooping cough and 54 per cent for diphtheria.(7) In France, from 45 per cent to 73 per cent of all the cases of measles occur in children from 1 to 6 years of age (18).

(v) It is, then, essential to carry out in an individual manner, as a public health service, extensive programmes of vaccination during the periods of early and later infancy, as an integral part of the normal development of the child.

(c) Psycho-social development

A considerable amount of psycho-evolutive events are undergone by the human being during the pre-school stage; this is true to such a degree that these are never surpassed at any other period, in the same amount of time; but for the effects of a practical evaluation of the psycho-social needs of the pre-school child, the following outline may be made: (7)

(i) Motivity: rapid progress in locomotion and manual dexterity. From the faltering walk acquired at 12 to 15 months of age, the child goes to a confident walk with rhythmic movements at 2 1/2 to 3 years of age; the running step attained at from 18 to 21 months of age is perfected at 2 to 3 years of age or is combined with jumping at 4 years of age. Climbing and jumping are acquisitions at the end of the pre-school period. Manipulation ability becomes ever more specific and refined: handling of the pencil, building with blocks, modeling with clay and plastiline, throwing and catching of balls, stringing of beads, etc.

/(ii) Intellectual

(ii) Intellectual development: is shown by the great progress achieved in the perceptive, conceptual, adaptive, communicative (language) aspects, etc., up to the end of the pre-school age, to the discovery and control of the fundamental intellectual operations such as: classification, comparison, analysis, synthesis, abstraction, etc. The way in which the spontaneous drawings of the child evolve demonstrates the many intellectual acquisitions made during the pre-school period. In a study carried out by the author (7) on normal Venezuelan pre-school children, the scoring on the test on drawing of Goodenough's human figure, was almost equal to that made by American children.

As regards the practice of pre-school guidance, two basic facts should be kept in mind:

- (a) The intellectual contingent of the pre-school child goes mainly toward a concrete channeling of problems (sensory-motor experiences, symbolic activities) and situations, which serve as a preparation and basis for the later formation of logical thought; and
- (b) At 5 to 6 years of age, intellectual progress and the appearance and advance of creative activities, permit the child to plan and carry out various tasks, by himself.

(iii) Evolution of language: rapid quantitative advances (increase in vocabulary, from 3 words at one year of age to several thousand after the age of 6) and qualitative (from the "word-phrase" used at the end of the first year, to the complete formation of the sentence, achieved by the end of the pre-school period). In regard to the language-personality relationship, the evolution mentioned by Piaget (23) could be kept in mind, in two stages:

- (a) Egocentric language: it has no social function, the child talks to himself, it is the monologue stage in which the phrases serve to reinforce the action more than anything else; it lasts from 3 to 7 years of age; and
- (b) Socialized language: in which the child integrates information between him and his questioner. Piaget reports a 45 per cent language egocentricity between 4 and 7 years of age.

(iv) Emotional development

- (a) Importance of personality factors and the need for satisfying the child's socio-affective needs.

The topic of personality is extremely important in the pre-school child, for two main reasons: (a) because during this period of life all that changeable and complicated aggregate of the forces of expression,

/sentiments, attitudes,

sentiments, attitudes, reactions and conduct that go to make up a person or his way of being, are given impetus, are organized and integrated: this is the person's personality; and (b) because at the end of this period the formation of individuality has almost been completed, together with the potentialities and acquisitions in projection toward the social environment in which the child acts, which will change very little in the coming years due to reasons of education or environment, conserving always, the "very personal" nucleus of each person.

In order to obtain a correct development and well-being and establish the education of the pre-school child, it is necessary that a minimum of socio-affective needs be satisfied, such as the following: need for love, security, acceptance as a person, dependence, authority and discipline, opportunity to make good acquisitions, self-appreciation and self-respect, recognition and a sense of equality.

(b) Emotional characteristics

During the first two years of life almost all of the common emotions are established, both the pleasant as well as the unpleasant, such as: anger, fear, affection, jealousy, anguish, etc. From 4 to 6 years of age, other emotional states are differentiated, such as: hope, love of parents, self-confidence, shame, anxiety, annoyance, envy, etc.

The emotional characteristics of the pre-school child may be summed up as follows: (7)

- (i) The emotions of the child get more complex with age.
- (ii) The kinds of emotion and their intensity fluctuate greatly, since they are not connected with fixed associations; thus the answers may be directed, varyingly, toward persons, animals or certain objects.
- (iii) The emotions of the pre-school child have no moral implications since the conventionalism of values has not yet been established.
- (iv) The emotional expression of the pre-school child are real explosions, blind discharges of energy, diffuse in corporal manifestations, but are more controlled in expression and localized in certain corporal zones as the child grows older.
- (v) Throughout the pre-school stage it is typical to find an emotional conflict between the "I" and the "Not I", that is, between desires and possibilities; between impulses and authorization, spontaneity and frustration; this conflict decreases later in the school age child, when the mechanisms of psychological "defense" enter into play.

/(c) Sociability:

(c) Sociability: the family as a psycho-social necessity

The various psychological schools are agreed to consider the pre-school period as one of great importance in the psycho-social formation, almost definitive, of each individual; and the quality of that formation will depend on the manner and extension of how the inter-relations with persons around them, especially in the family, are "carried out" and "developed".

The pre-school child lives in a very extensive social world, but one which is much more indifferent than that of the school child; he personifies both persons as well as animals and inanimate objects; his perception of persons is more imaginative than real; for example, other children may be seen more as protagonists of the child's fantasies than as possible friends or companions.

During the pre-school period, social perceptions are more and more advanced and complex, which leads to the formation of a conduct adequate to the child's "social needs" and not to facts of addition or expansion. Essentially, the child's social relations originate and expand within the family: at the beginning, in the newborn child, the social bond is formed by the small mother-child circle, but in the following months and years, with the introduction of other social experiences, such as the father, brothers and sisters, friends and companions in kindergarten, etc., social acquisitions are considerably enlarged and above all, opportunities are created for carrying out "social training" or for acquiring the adequate forms of behaviour in relation to other people and for feeling the satisfaction of self-recognition.

Only within the family does the child have the opportunity of innumerable social perceptions, such as: the feeling of affection, authority, dependence or independence, security, sex knowledge, recognition or disapproval of his conduct, encouragement of his progress, interpretation of his rudimentary language, etc. No matter how the family structures vary in accordance with societies and cultures, anthropologists and psychologists are agreed that the family should be considered as a miniature society in which, during the pre-school years, the child forms his social patterns, or his underlying attitudes toward passiveness, violence, acceptance or rebuff of authority, or the instinctive sexual forces; and in later years, his social behaviour will have to be interpreted in accordance with the way in which he previously established his intra-family relationships.

From the viewpoint of social apprenticeship it must be kept in mind that during the pre-school age, the recreational or play activities are the basic and most adequate means for the child to gradually establish social relations which are much more important for the child during the period in which the child attends a kindergarten.

/(d) Summary

- (d) Summary of acquisitions of the pre-school age
- (a) The attainment of notable motor progress, of the large muscles and dexterity; formation of the faculty of equilibrium.
 - (b) Mental progress: sharpness of perceptive sense, formation of concepts, formation of attention, concentration, imagination, observation, analysis, etc.
 - (c) Increased sociability: adjustment to environment and self social recognition, formation of bonds of friendship, mutual aid, harmonizing of interests, adjustment with adults and other children, etc.
 - (d) Emotional balance: harmonizing of primitive violent emotions, replaced by attitudes and behaviour which is less tense, or creative. Acquisition of the sense of security and confidence.
 - (e) Socio-affective intra-family adjustment: independence from the parents, relations with brothers and sisters, understanding of discipline, formation and observance of adequate habits.
5. Aspects of growth, development and conditions of the pre-school child in Latin America

(a) The deficits of physical growth

In many countries, growth studies of various social groups of children, used as a direct method for evaluation of the state of the masses, have shown the direct correlation between socio-economic conditions and indexes of growth, or between these and social impact (regional disasters, war, etc.); Latin American countries have not escaped this correlation, which is a great disadvantage for developing countries; in accordance with various studies (7, 24, 25) the growth of the child, especially during the pre-school stage, presents in these countries, two very important characteristics:

(i) Greater frequency of low growth rates of children of all ages, with relation to similar frequency of developed countries. Thus, for example, in Venezuela (7,24) the values of the percentiles 10 and 50 of normal Venezuelan children, under 7 years of age, are found at lower positions than equal indexes of American children. In Mexico, in accordance with reports by Ramos Galvan and associates (25 and 26) in numerous groups of children of low-income groups who are attending kindergarten in Mexico City, the weight and height indexes ranged between 91 per cent and 93 per cent of the normal patterns of regional sampling;

/ and also,

and also, the studies carried out on 3,000 school-age Mexican children (27 and 28) belonging to population groups enjoying satisfactory economic and social conditions, the median corresponding very closely to the position of minus one standard deviation of similar indexes of American children.

(ii) During the lactation period growth curves and figures occupy similar positions or, at times, superior positions to equivalents in developed countries; but from the age of 1 to 1 1/2 years these growth rates suffer a deceleration of certain intensity up to the age of 2 or 3, and then continue at a slightly lower rate throughout the pre-school stage. In accordance with studies carried out by the author in Venezuela (7 and 24), if the data on weight and height were compared, for example, with the well known charts of Stuart (Harvard Public Health School), the decrease in growth rates of the Venezuelan child can be observed from the age of 9 to 10 months, reaching a maximum decrease at two years of age, and from that time on there is a slight increase which brings the rates very close, but these are always slightly below those of the American children; these same results were obtained by making equal comparisons with the Tanner charts (29) on London children or with the growth charts of the University of Iowa, as can be observed in a very extensive study made by Pérez Cañas and associates (30) among children of various geographic areas and penurious socio-economic means. Equally unfavourable characteristics of pre-school growth indexes have been shown in children from other Latin American countries; as in Mexico, for example, where Ramos Galvan and associates and Canales-Galvan et al (25, 26, 27) carried out studies on considerable groups of unselected Mexican children and found a deceleration of somatometric values (weight and height, especially) which reached a maximum deficit at the age of three years, and then increased slowly from 4 years of age on, "to recuperate in the first years of school and then stabilized at a figure of around 96 per cent of the normal average". In other nations, such as in Peru (31), the figures are very similar.

This characteristic of Latin American pre-school growth, seen also in other developing countries, and the fact that for the neonatal period and the first months of life the growth patterns are equal or even slightly higher than similar ones in developed countries, allows the isolation of the genetic, constitutional or geographic factors as responsible for these deficits; possibly these are due to the socio-economic differences that affect unfavourably the nutrition of these children or perhaps they are due to inadequate educational guidance which act on an age of great maternal dependence on the cultural patterns of these nations, when the child is unable to obtain food for himself.

(b) The mal-nutrition problem of the Latin American pre-school child and its consequences on the present and future.

The problem of mal-nutrition is one of the most severe and transcendent for Latin American children for two main reasons:

/(a) because

(a) because of its enormous frequency; and (b) because its attack has greater consequences since it acts on ages that are essentially formative and plastic, as are the first years of life, and this represents an imminent danger of deterioration for present and future generations.

The great frequency of malnutrition, particularly among pre-school age children, may be easily proved by statistics on mortality, morbidity and the results of dietetic surveys and of studies on the nutritional status of groups of "healthy" populations in several Latin American communities.

As was said before, the mortality due to vitamin deficiencies and other illnesses provoked by lack of certain elements in the body, has fifth or sixth place among the total causes of death in children between 1 and 4 years of age. But it must be emphasized that gastro-intestinal ailments constitute the primary cause of pre-school deaths in most of the Latin American countries, and that there is great evidence (32) that most of these deaths take place among the groups between 1 month and 5 years of age, and are due to the joint action of malnutrition plus infection. In this respect Prof. Oropeza (32), Chief of the Pediatrics Department of the Central University of Venezuela, points out the following quite well: "malnutrition accompanied by diarrhea is the rule among our people. But since all this falls with under the common denominator of gastro- enteritis, we cannot define, from the national point of view, how much of it is due to malnutrition, and how much to infection".

In another portion of this report the great frequency with which Latin American children go for medical consultations to the public or private welfare centers, as victims of diseases caused by nutritional deficiencies (general chronic malnutrition, Kwashiorker's syndrome (multivitaminic deficiency), specific vitamin deficiencies, anemia, etc.) was pointed out, as well as the high rate of hospitalization for children suffering from the same ailments.

Besides growth rates, unfavourable for Latin American pre-school children and conditioned by the effects of malnutrition, mentioned previously, we must also emphasize the habitual deficiency in the daily consumption of food among the general population and particularly among the children in these countries. Thus, dietetic surveys in almost all of the Latin American countries show quantitative (low calorie yield) and qualitative deficiencies (deficient intake of proteins) in a high percentage of the children; (34), and in like manner as for somatometric responses, it seems that the food deficiencies are more serious the younger the age of the child. For example, Craviotto (35) in a survey made in Mexico City, "found that the percentage of children that took animal proteins was 42, 49, 58 and 67 per cent respectively for the ages from 1 to 3, 4 to 6, 7 to 9, and 10 to 12 years". At higher ages, even

/in conditions

in conditions of poverty or of abundance, there is a tendency to provide a better diet than what is given to a younger infant, "this finding seems to be the rule in all the regions of the world where advanced mal-nutrition is prevalent".

In regard to dietetic deficiencies, in a recent report on the health of the Americas, presented by the Pan American Health Organization, the following is said: "In these countries the per capita consumption varies from 2,080 to 3,140 calories per day. The amount of proteins, fats and oils consumed is quite varied, with relatively high values in a few countries and much lower ones in others. Besides in those countries where the daily intake is low, the deficiency of protective foods is relatively higher than that in calories. On the other hand, in countries where the intake of animal proteins is low - as may be seen by the consumption of milk and meat - the consumption of vegetable proteins such as vegetables and nuts, is high. Since the last mentioned products cannot be used to feed an infant, a severe problem of protein deficiency arises during the time of weaning the child and immediately afterwards, due to the absence of animal proteins, particularly milk, in the diet". "It is known that the problem of protein malnutrition is greatly extended. However, it seems very difficult to measure it in terms of mortality statistics. The infantile multi-lack syndrome, which is a state of protein deficiency, frequently occurs in children at the time of weaning and after it, in Mexico, Central America, and most countries of South America". (34).

The problem of pre-school malnutrition is also important due to its consequences on the children that suffer from it, particularly in relation to the production of deterioration not only in growth, but also on psychological development, present or future of these same affected groups, and consequently, due to its oft-mentioned frequency, on the unfavourable effect it events on the bio-psycho-social status of our nations.

Experiments on animals have shown that when these are subjected to deficient diets, particularly during the first stages of life, permanent body changes take place, especially in certain parameters such as size, length of legs, composition of the muscle masses, etc., which do not attain their regular adult size. On the other hand, Acheson (36) among others (37, 38, 39) has shown that when the strength or growth rate of the child is temporarily reduced by any pathological agent, the subject never does attain the size that corresponds to his genetic pattern. Various other studies (9,40) undertaken in Latin American children affected by severe malnutrition processes, especially those called Kwashiorker or multi-vitamin deficiency syndromes have shown evidence of intense delays in growth or the psychological development of the child, which are quite important. In an investigation undertaken by the author (9) in numerous cases studied of this disease to convalescence, and then followed-up for a period of 3 to 4 years, the following important results were obtained:

/(i) Almost all

(i) Almost all cases presented an intense retardation in growth, which varied between 50 per cent and 60 per cent deficit, in relation to the regional standard patterns; and 64 per cent in some cases continued to have slow growth until 3 to 4 years after suffering from this disease, in spite of the disappearance of the symptoms and that, in many of these cases, nutritional conditions were greatly improved.

(ii) In 95 per cent of the cases a delay in bone development was observed, and 85 per cent continued to present, although in a lesser degree, delays in bone development several years after having suffered from this disease.

(iii) According to research on the psychological development of these children using Gesell's tests, in almost all cases an evident delay of said development was seen, which was variable in intensity, with a quotient of average development of 65 (G.D. - 65), but much more marked in language aspects and the personal-social behaviour, and almost null in the field of adaptative behaviour (intellectual equivalents). No further changes were discovered in intelligence tests. In 75 per cent of the cases, although less intense, these delays in development and certain changes of personality persisted for several years after the disease.

As a practical conclusion and in relation to the measures to be instituted, it is evident that the problems of malnutrition in the Latin American countries are due to the following main factors:

(i) Above all, to the lack of protective foods rich in proteins, vitamins (meat, milk, eggs, fruits and fresh vegetables). Thus in the poor sections or slums that so frequently surround the urban areas or are in the rural ones, the nutrition of the breast-milk-fed infant or the pre-school child, is extremely deficient from the quantitative point of view (low percentage of calories) and also qualitative, since it is almost always constituted by solutions of flour, with little or no milk, corn and beans, brown sugar or unrefined sugar and very few fruits or vegetables. Said food deficiencies are the result of the inadequate socio-economic conditions already mentioned, and the complex problems of food production and distribution.

(ii) Due to inadequate habits and regional cultural patterns: Either because of economic need or bad habits, in many Latin American countries the infant continues to be breast-fed by the mother until he is 1 or 2 years old; but since the rate of natural breast-feeding is low, and since it almost always happens that the mother does not have sufficient natural milk to fulfill the child's requirements, these mothers often make use of inadequate dietetic supplements, usually gruels made of flour and sugar with some liquid, or starchy solutions, which have a very low cost, but which at least satisfy the immediate hunger of the child. Sometimes the onset of a new pregnancy forces the mother to a sudden weaning of the child, and her milk is not replaced by an adequate food.

/(iii) The lack of

(iii) The lack of learning, not only in the parents, but in all other people that care for the child, who sometimes have foods available that have an excellent nutritional value but which they do not feed to the child either due to ignorance or erroneous ideas. However, this factor is less frequent.

(c) Other unfavourable physical conditions

Infectious and parasite produced illnesses are much less frequent and severe in developing countries (41), and for this reason, infectious ailments, particularly of the digestive tract, respiratory tract and some produced by virus, constitute one of the main causes of morbidity-mortality in the Latin American countries. In this case, the greater frequency of infections and the increase in their severity may be explained by the following factors:

(i) Infection increases the consumption of calories and proteins, and lessens appetite even for long periods of time, thus contributing to the onset of malnutrition.

(ii) Malnutrition, in turn, increases the receptivity and lessens the possibilities of production of defense mechanisms; and

(iii) Inadequate environmental conditions, particularly crowding in unsanitary quarters and the lack of hygiene observed with the child and the quarters, increase the chances of contagion.

Thus, for example, the mortality rates for measles in several Latin American countries are high amongst the main causes for pre-school deaths and the coefficients are twenty times higher than in the U.S.A. and the countries of Western Europe. In African countries which have sub-standard medical and social conditions, the mortality rate is also high, as is the frequency of infectious disease. Senegal, for example, reports that measles accounts for almost half of the deaths occurring between the first and the fourth year of life.

Parasites, especially intestinal parasites, are very common in Latin America and they seem to favour pre-school and school children; between 50 per cent and 90 per cent prevalence is reported in pre-school groups of supposedly "healthy" population. In a recent Venezuelan (42) study of 200 cases of amoebiasis, 72 per cent occurred in children of 1 to 6 years of age, and the average age of fatal cases was 3 1/2. The socio-sanitary conditions of 83 per cent of the cases were extremely low, and only 11 per cent had good nutrition. We may assume then that parasitosis surely acts in the same manner and is influenced by the same factors as infections. To this we must add that the most common such as necatoriasis, the bilharziosis and ascariasis have been known to cause anemia.

/Accidents (traumas)

Accidents (traumas, poisonings, etc.) pose another threat to the welfare of the Latin American child, but even so do not reach the high proportions common in the more developed countries. For example, in the U.S.A., Canada and countries of Western Europe, accidents occupy first place amongst the causes of pre-school mortality. In Latin America, accidents take fourth, fifth or sixth place as a frequent cause of death; it is significant to note, however, that these factors tend to increase in frequency, both in sickness and in death statistics. In 1936 in Venezuela, one out of each 100 deaths was caused by an accident, but in 1959, 6 out of 100 were so caused.

The great activity and the curious and investigating spirit of the pre-schooler, added to the carelessness of adults is the cause of the great frequency of this pathological item in pre-school ages. In an extensive study undertaken by Venezuela (43) of 28,231 children under 15 years old who had suffered accidents, the following interesting aspects were noted:

(i) 30 per cent of the total accidents were to pre-schoolers (1-4 years).

(ii) Amongst the pre-schoolers, the main accidents, in order of frequency, were as follows: falls, bruises (by falls or objects thrown), lesions caused by cutting or puncturing instruments, animal lesions, poisonings, burns, introduction of foreign objects, accidents caused by motor vehicles.

(iii) It was found that the adults charged with looking after the children showed great negligence (54 per cent were alone at the time of the accident).

(iv) A definite relationship was demonstrated between socio-economic conditions and frequency of accidents, particularly living conditions. The frequency was greatest among children living on farms or in apartments.

We feel that, although it is not a problem of the Latin American pre-schooler specifically, the importance of the early discovery and adequate treatment and rehabilitation of children with physical defects and disabilities, must be stressed. Especially when it is known that the best corrections and adaptations to life are achieved during this early period. It must be noted that there are very few countries in Latin America where well-integrated programs are being carried out to solve this type of problem.

/From the

From the point of view of physical motor incapacities (defects of posture, paralysis, orthopedic alterations, cerebral paralysis, etc.) and sensory incapacities (hearing, sight) all the experts agree that they must be found, treated and re-habilitated during the first, pre-school years, because the progress achieved and the correction of deformities favour the growth and balance of the personality, and from an early age create useful compensating functions. Deafness, complete or partial, breaks off communication between the child and the adult and therefore leads to language defects or, in severe cases, to dumbness as well. The same may be said of visual defects.

Unfortunately, the few existing programmes being carried out by some Latin American countries to try and remedy physical defects (motor, sensory, etc.) are being undertaken at the beginning of the school years, when chances of success are less. The same may be assumed of assistance to mentally sub-normal children; their problem as well as that of those suffering from personality disorders, would seem to be less urgent than that of the others already mentioned, but we must keep in mind that these problems may be assumed to be even greater in Latin American countries since conditioning factors are present that expand them and make them more severe, such as unfavourable social, economic, educational and cultural indexes.

(d) Psychological development patterns of Latin America

We have little information regarding the characteristics of the Latin American pre-schooler. These must be subordinate to various genetic, racial, constitutional, physical (natal, epidemic, nutritional, climatic, environmental, etc.) socio-economic, cultural, etc. factors, and since many of these factors are unfavourable in developing countries, it may be assumed that development patterns in our countries are also unfavourably modified in accordance with the placement of each of the geographic areas.

In view of some preliminary studies made in Mexico and Venezuela (44, 45, 21, 46), there is some evidence that the development patterns of the Latin American child especially under 6 years old, presents some interesting characteristics, as follows:

(i) The newly-born (studied by the Gesell method) show an equal or higher, but never lower level of psycho-motor development as children studied in North-America or Western Europe.

(ii) In the successive months, however, a decline may be noted in the results of the tests, the lowest point being from 18 to 24 months; this decline in development compared to the standards of more advanced countries is more apparent in language and in personal-social conduct; but in the motor stages, on the contrary, development is slightly higher especially in the first year.

/These development

These development characteristics are very similar to those reported by other developing countries in other continents. Thus Geber (47) calls attention to some precocity encountered in psycho-motor development amongst African children (Uganda) using the Gesell method, during the first months, only to have them slow down at about 18 months. It has also been shown that "westernized" African children (48) in Uganda do not, during their first year, show the same rate of advance and slowing down at 18 months which can be observed in African children brought up in the traditional medium. Falade (49) gets similar results regarding Senegalese children.

My own studies (7) on the normative development patterns of a pre-school group of Venezuelans from middle class and very poor socio-economic mediums, investigated through the Gesell method, and compared with the standards of North-American children gave the following conclusions: the motor levels were slightly superior, the levels of adaptative conduct (intellectual equivalents) were the same and the levels of language and personal-social behaviour were at a slightly inferior level.

(e) Conditions and effects of the psycho-social factors

The socio-economic conditions of a given people affect the child through the organization and workings of the family group. There is reason to believe that, in various areas of the world, psychological development varies according to the different levels or family types and strange as it may seem it has been possible to establish a similar relationship between the effects of the social surroundings and the physical growth of the child; Graffar (50) has demonstrated that in a technically homogeneous population, children who come from socially underprivileged groups are smaller and thinner compared to those who enjoy better socio-economic conditions.

Many types of social factors are mentioned as affecting infant welfare, such as profession and education of the parents, salaries or family income, family components, type of housing, type of population (urban, rural, industrialized or not, etc.).

The unfavourable conditions which, in Latin American countries are most frequent and have the greatest influence are as follows:

(i) Living conditions: we are all familiar with the small, narrow rickety huts lacking all protection and with no sanitary facilities (waterless and no sewage disposal), which are common in the slums surrounding large cities and are also found in rural zones. In these "ranchos", as they are called, the possibilities of contagion for infectious illnesses are augmented.

/(ii) Financial

(ii) Financial resources or family income: this is one of the factors which greatly influences the welfare of the child, but at the same time it is subordinate to the parents' occupation, their education, degree of industrialization, etc. We have already mentioned the high index of ignorance and unemployment which exists in Latin American countries.

(iii) Parents' education: this contributes that the children be brought up in a better way and also to better the economic level of the family, a series of intrinsic qualities also depend on the cultural level of the parents - these are necessary for the better development of the pre-schooler. They are: better nutrition and the prevention of infection; the stimulus of genetic potentialities towards motor, emotional intellectual and social development. It is clear that the proper psycho-social functioning of the family unit depends on the type of education received by the parents. Besides the high index of illiteracy already mentioned, which reveals ignorance and the inability to encourage and maintain a good affective intrafamiliar atmosphere for the proper bringing up of children, there is another factor which must be added: the tendency towards a precocious juvenile procreation with a high frequency index between the ages of 12 and 18.

(f) Conditions of the Latin American family with regard to the development and welfare of the pre-schooler

The psycho-social structure of the family depends on the type of people by which it is surrounded. It is therefore that in Latin American countries, this structure will with great frequency be at a disadvantage in providing for the development and welfare of the child since it is constantly being influenced by the before mentioned socio-economic defects.

On the other hand, psychologists have proved that the child's behaviour depends and adjusts itself to the example set by the adults of his social group; therefore it cannot be good for the child's welfare to live in the family structure common to Latin America, where the child develops practically alone, with no good examples to follow, where the father is completely absent in many cases (high percentage of illegitimacy, abandonment, divorce, etc.) and where the mother has very often to work outside the home in order to shoulder all or part of the family burden.

We are thus landed with a changing family structure, incomplete functional integrity (physical or biological) confused and unstable for the child, where he habitually does not find either model adults with whom he can identify himself, (principally mother or father) or the quality of physical or socio-affective care which is necessary for his proper development.

In other, less frequent cases, the Latin American child can count on a different type structure or family model, where in a large family group which gives him care and affection he is stifled by rigid model adults who are

/burdened by

burdened by a series of customs and habits handed down through various generations. The child's personality, disciplined to conform to a predetermined pattern cannot count on stimuli nor on freedom of action for its development.

We are faced with the before-mentioned inadequate conditions offered by the predominant Latin American family structure and also by the trend present in most of our cities, towards industrialization programmes must be encouraged that will, besides trying to better the general socio-economic levels, also make plans for a better family structure, where the relationship between father-mother-child shall be one of intense emotional exchange, adequate and harmonious; where the child may find "figures" or well defined persons to take care of, lead him and give him affection. A favourable atmosphere must be created that will insure his moral and emotional stability, a home where he may find affection, the means of expressing his impulses, disciplinary patterns, social, intellectual and emotional stimulus, and parents who will recognize and accept him, serving as his models through their well balanced conduct.

(g) The problem of separation from the mother or the lack of maternal care and methods of prevention

Present and inadequate socio-sanitary conditions (illegitimacy, abandonment, divorce, broken marriages, unemployment, working mothers, ignorance, etc.) and the rapid industrialization procedures which are being undertaken in many Latin American countries lead us to point out that we may expect a progressive increase in the number of abandoned children who lack totally or in part all adequate physical and emotional intra-familial care (especially maternal care). It might therefore be wise to think on the measures to be taken to avoid present and future effects of the lack of socio-affective care of the child during the first stages of his development. One of the greatest social challenges presented to intensely industrialized countries with firm socio-economic progress, is that of securing appropriate attention for the children of mothers who suddenly have found work outside the home. For example, according to the Census Bureau of the U.S.A. (3) in February of this year the number of these working mothers with children under 6 was doubled in the last 15 years and the tendency is for this number to double again during the decade of 1970. Also, working mothers have increased the number of their offspring: of the total of those under 14, 31 per cent is under 6 years (almost 4 million), and of these last, almost half are under 3 years of age.

The work of many pediatricians, psychiatrist and psychologists has testified to the importance for the future of individuals, of establishing an adequate socio-affective relationship between mother and child during the first years of life; it has also been established that the lack of maternal care has a negative effect upon the child. The following facts deserve mention (51, 52, 53, 54):

/(i) Maternal

(i) Maternal separation provokes changes in development which range from simple retardation to intense psychic disturbances (lack of affection syndrome).

(ii) The time at which a child is most vulnerable to stress because of lack of maternal care is variable, but it is generally between the first and second year of life; the fifth year is the end of the danger period.

(iii) The intensity of the effects of lack of affection is in direct proportion to the duration of the separation, and in inverse proportion to the age of the child at the time of that separation (if he is over 5 months old); and

(iv) Long-term effects of maternal separation during the first years have been described; thus Bowlby (51) has encountered greater juvenile delinquency amongst persons who were not brought up by their mothers during their infancy; and, what is worse, a high percentage of persons incapable of affection.

When revising and evaluating the effects of the lack of maternal care during the pre-school period (53) it is significant to note that, within the concept of "maternal" must be included both the affection and the physical care given to the child by one or various persons, (generally, by the mother but sometimes by another member of the family who substitutes for her) and such a person as well as other members of the family circle must be constant in so far as possible in order to ensure the child's best evolution. That is to say, that the specific quality of the emotional inter-relationship is more important than the actual physical presence of the mother; and that sudden changes in the socio-emotional atmosphere of the family provoke distress reactions or confused states which manifest themselves in violent protests or apathy, lack of interest or psychic regression of the child.

On the other hand, it has also been made clear that the absence of the father image from the family group is entirely unfavourable and obstructs the child's self-identification.

Preventive measures against the effects of "maternal absence" should be put into effect in the places responsible for the care of the child while the mother is absent, through persons other than the mother in the child's home, or through social institutions (nursery-homes or nursery schools, etc.). These measures can be based on two general principles:

(i) The preparation of the child for maternal separation or to the new manner in which he is to receive attention, and

(ii) Good-quality substitute maternal care; above all to see to it that proper attitudes are instilled into the adults charged with the care of the child and the establishment of what can be called the "expression-comprehension" link between the child and the person caring for him.

For institutions that handle large groups of children while the mother is absent, certain fundamental principles have been established, such as the following:

- (i) To divide the children's community into small groups.
- (ii) To see to it that the personnel is fairly constant in order to encourage lasting socio-affective relationships.
- (iii) To avoid the "automation" of activities since this tends to obstruct development of own initiative or of the child's individuality.

In conclusion, it might be pointed out that it is very infrequent in present Latin American institutions dedicated to child care, even in those whose activities are predominantly educational to have the inter-relationship with parents taken into account; this kind of "penetration", (in a way) of the presence as well as the socio-affective character of the parents in the activities and general life of the institution is mostly disregarded.

6. Resumé of the bio-psycho-social needs of the pre-schooler

Here we will only refer to the individual needs and leave social and needs for assistance for another chapter of this paper (IV).

- (a) Recognition and understanding of the biological and psycho-social nature of the pre-school period.
- (b) Physical care necessary for his welfare and preventive measures against sickness and other problems of this age:
 - (i) Vigilance of growth and nutritional state. To provide his nutritional requirements in a satisfactory manner both as to quantity and quality as to psychological attitudes.
 - (ii) Control of infectious-contagious diseases (sanitary measures, immunization programmes, etc.).
 - (iii) Control and treatment of illness caused by parasites.
 - (iv) Protective measures against accidents.
 - (v) The finding and correction of physical defects and disabilities.
 - (vi) Help for dental problems.
 - (vii) Formation and carrying out of good habits.

/(c) Conditions

(c) Conditions necessary for psychological development

- (i) An appropriate family atmosphere; well structured from a socio-affective point of view.
 - (ii) Facilities for intellectual development (to stimulate the formation of concepts, games of perception, investigation, exploration construction, drawing, modelling, etc.).
 - (iii) Encouragement and channeling of the imagination and creative activities (drawing, history, stories, legends, inventions, etc.).
 - (iv) The stimulus to reach emotional stability (control of fear, channeling of aggression, of anger, reinforcement of feeling of security, balance in love relationships, orientation of egocentric impulses, use of emotional expressions, etc.).
 - (v) Getting used to social situations (creation of a pleasant atmosphere, helping the child in his social experiences, giving him a chance, to respect and lead his games, to encourage evaluations and moral concerns; gratitude, sympathy, cordiality, co-operation, understanding, mutual aid, etc.).
- (d) Recognition, stimulus and respect towards games or recreative activities as basic means for pre-school education.
- (e) Good physical surroundings (home, hygiene, dress, climate, recreation zones, etc.).

IV. THE EDUCATIONAL NEEDS OF PRE-SCHOOLERS

In accordance with the recommendation made by the International Conference of Public Instruction (UNESCO - B.I.E.), "it is necessary that the child be given an adequate education at the earliest possible time" (55), because his future personality structure is almost totally dependent on his individual development and on his early achievements in the physical, intellectual, moral and socio-affective field. This is a period that is very vulnerable to negative factors, but at the same time responds easily to educational procedures.

Besides, world socio-political and cultural changes, make the educational problem more urgent and justify the establishment of ways and means whereby a good adjustment between the child's nature and the physical and social structure of his environment may be achieved.

1. Pre-school educational means

The pre-schooler's need for education has been admitted and also recommended by technical international organizations (55), which encourage its establishment in all nations; however some difficulties arise when we try to pinpoint the ways and means to achieve this.

It is the general opinion (56) that during the first 3 years the child should be educated within its own family group; "the education of the child during infancy is the primary duty and inalienable right of its parents" (55). Nevertheless, urban changes and the increase in the number of mothers working outside the home or other circumstances (numerous family, help to the husband, social work) have led to the formation of establishments and methods that will at least in part help and replace the educational function of the family, especially the mother.

The family will of course continue to be the most favourable medium for the development of the child's personality, but there is some evidence that even under the best of conditions, the family of modern times is not in a position to satisfy, by itself, all the educational necessities of a small child (at least not after 3 or 4 years of age). The family must be helped through certain procedures or through certain types of establishments (nursery school, creche, infant homes, kindergarten, maternal schools, etc.).

The education provided by the family comprises: training of habits, encouraging independence, increase of motor abilities, formation of language and concepts and socio-affective adjustment. The last word has not yet been written regarding the techniques of this education, but certain conditions are widely recognized as being indispensable:

- (a) a well integrated family group;
- (b) satisfaction of the minimum emotional needs of the child;
- (c) recognition of his individual characteristics; in this way the persons charged with his education must develop their own methods of dealing with each child and adapted to him;
- (d) training of teaching;
- (e) correct parental example and attitude, also from other adults;
- (f) an understanding discipline;

Usually, it is difficult to obtain these conditions. In Latin American countries this type of education is hindered by the ignorance of the majority of parents, and the frequency of family maladjustments as well as errors, traditional ideas and unfavourable socio-economic conditions. However, some methods of aid could be utilized and should prove to be most useful such as: "educational courses for parents" - "mothers' clubs" - "home economics clubs", - "welfare service and family education", and all methods of divulging information so as to form a better conscience and sense of responsibility in the public regarding the educational needs of the pre-schooler.

2. Educational establishments

There are various types of establishments dedicated to pre-school education. In a 1961 world investigation in 65 countries (55) no less than 10 names for these were mentioned: "nursery school", "nursery classes", "kindergarten", "play school", "casa cuna", "crèche", "crèche-kinder", "class-kindergarten", "écoles gardiennes", "jardín de infancia", "escuela maternal", etc. These offer various recourses towards the development of the child and are essentially educational but they also supply social needs since, without trying to substitute for the family, they complement its educational function and try to help it in other ways (groups of mothers caring for the child some hours).

From a practical point of view and in accordance with the two first stages of the child's evolution, the various establishments may be grouped into two principal types (55):

- (a) "Casa-cuna" ("nursery school, "crèche", "crèche-kinder", "guardería diurna", "day nursery", "casa maternal", "play school", etc.); generally for children under 3 or 4; their mission is more helpful than educational (care and feeding of the child) and,

/(b) "Kindergarten"

(b) "Kindergarten" ("jardín de infancia", "nursery classes", etc.): for slightly older children from 3 or 4 years up to 6-7; their objective is primarily educational and they serve to bridge the gap between the inter-family education and the beginning of primary education.

The kindergarten also has a social function and allows the child to achieve a better adjustment between the family and the external world through group experiences. At the same time it influences parent comprehension of the conduct and habits of the child.

These educational establishments may vary slightly in their organization, support, admission and age requirements etc. in accordance with the different communities, but they must be ruled by common principles, the main ones being (55):

(a) in their formation the state and development of education in each country must be taken into account, as well as the situation of children's groups in the communities; their establishment is absolutely indispensable in those urban or industrialized zones where female labour is mainly employed;

(b) assistance should be optional: the minimum admission age may vary but the termination of these schools must coincide with the lawful age for entering primary school;

(c) when there is a scarcity of such establishments, admission must be conditioned to special needs and family situations;

(d) the children's groups should be formed at different maturity levels; such groups should not be larger than 25 for each teacher;

(e) the timetable should adjust to local conditions;

(f) the schools should offer all elements to facilitate the harmonious development of the child's personality through methods based on: education through games and play (free or suggested), methods of expression, manual crafts, spontaneous observation, daily experience etc. excluding teachings which belong to primary education;

(g) teacher's freedom of action;

(h) additional medical service for preventive action;

(i) the co-operation of the school with the family is essential. The parents must be helped to know their educational responsibilities;

(j) the personnel (teachers etc.) should receive a specialized education; where there is a scarcity of teachers, persons with educational experience could be used as well as those with special aptitudes and special training through intensive courses;

/(k) locale

(k) locale and equipment must be related to the needs of the children; especially with regard to security and sanitation; it is best to have a building for this special purpose;

(l) in some districts (industrial, slums) the establishment shall at the same time provide social assistance (provide nourishment as well as special and social services);

3. Condition of pre-school education in Latin America

The condition of pre-school education for children in Latin-America is very deficient. It does not even come near the level of industrialized countries; it is further aggravated by unfavourable family conditions, especially the parents' inadequate preparation. Generally the great majority of parents lack elementary knowledge and also possessions (home, furniture, sanitation etc.) that could favour education.

According to available data (4, 7, 55, 57) obtained in 1960 for 13 countries, educational conditions for pre-schoolers may be stated thus:

(a) organization and type of institution: all the countries have kindergartens (or "jardines de infancia", "infant school" and casas-cuna (crèche - day nurseries), official, private, financed by parents or by industries or by philanthropic organizations. Two of the nations had no official government institution.

Education is optional in all of the countries; in some of them there are "classes" added to the elementary education section.

Admission age is from 3 to 6 years for kindergartens and for the nursery-schools, from 3 months on.

In certain areas of Mexico there exist "homes of the insured" which depend on the Mexican Institute of Social Security and where well qualified teachers care for the children while their mothers do other things (industrially, socially or for recreation).

There is no country with a special department devoted to the promotion and organization of pre-school education; generally speaking what little supervision exists is carried out by the board of elementary education (Ministry of Education).

(b) social and medical aspects: in several countries, the establishments operate in zones near industrial sections in order to help mothers who work outside the home; but there is almost no contact with the families; sometimes this is done through "parents' associations". Seven countries mention medical supervision of the children who go to the kindergarten and a few others mention supplying free light meals.

/(c) methods:

(c) methods: these are very similar in all countries; all have as their objective the full development of the child through free activity, his own experiences with the surrounding world, the creative stimulus and the protection of his physical health. Four nations mention the Froebel, Montessori and Decroly methods; one mentions "Centres of Interest". No mention is made of family "penetration" in the kindergartens activities.

(d) grading and training of teachers: seven nations have specialization courses open to teachers for pre-school education, usually lasting 2 years; in Brazil 1 year and in Mexico 3 years. In the other countries teachers receive no special preparation, or are transferred from primary education after receiving a short training course.

(e) availability of pre-school establishments: table IV shows the very low number of pre-school establishments. For the nations giving data the percentage of registered children in relation to the general total of the same age group varies between 0.7 and 5.3 per cent (the approximate total number of children from 3 to 6 years old was obtained applying the average of 10 per cent; in fully developed countries out of every 100 people 8.9 are from 3 to 6 years old). These percentages might be raised somewhat if calculated on the total children only 5 to 6 years old. In the United States (55) in the year 1959, 64.3 per cent of the 5 year old children were in kindergarten; and 98 per cent of all 6 year olds were being educated in institutions (first grade).

(f) possibilities for development: at that time (1960-1961) none of the countries were ready to promote the development of pre-school education. The most frequently pointed out obstacles, are as follows:

- (i) the need of granting priority to elementary education;
- (ii) lack of financial resources;
- (iii) lack of specialized personnel;
- (iv) lack of space and equipment;
- (v) little understanding and co-operation from parents.

Table 4

DATA ON THE STATE OF PRE-SCHOOL EDUCATION IN SOME
LATIN AMERICAN COUNTRIES (4, 7, 55, 57)

Nations	Approximate number of children from 3 to 6 years	Number of children enrolled	Percentage of enrollment on the total	Number of teachers	Number of children per teacher	Number of schoolhouses	
						Public	Private
Argentina	1 995 000	74 999	3.8	3 587	21	1 106	355
Brazil	7 096 000	77 943	0.9	5 631	-	1 200	1 240
Colombia	1 444 000	10 380	0.7	346	37	60	286
El Salvador	245 000	13 036	5.3	409	31	89	32
Guatemala	375 700	16 221	4.3	375	43	244	140
Honduras	183 800	2 755	1.5	64	43	11	20
Mexico	3 501 100	74 709	2.1	2 601	28	826	202
Panama	106 100	3 231	3.0	54	60	19	42
Paraguay	173 200	4 113	2.3	138	33	55	47
Peru	969 000	22 381	2.3	527	41	163	7
Venezuela	736 500	24 610	3.4	-	-	174	257

V. SOCIO-SANITARY METHODS FOR THE PRE-SCHOOLER'S WELFARE

Methods of sanitary assistance are very important as aids to communities or regional governments for helping the pre-school child. There are two important types of service: (a) service by indirect action, which tries to improve the social and sanitary conditions of the child's environment and (b) direct action, whether on the child or his parents, especially the mother.

1. Sanitation

The child receives benefits from any programme which improves community conditions such as sanitation, water supply, immunization campaigns etc.; even more so in Latin American countries where the main illnesses for this age group (gastro-intestinal, respiratory, parasitic, malnutrition) completely depend on the conditions of his environment.

(a) Social services

Generally speaking, social services could be coordinated by a central office or department in each nation, that would undertake the investigation, planning, co-ordination and administration of social welfare programmes. This action upon living conditions, work, unemployment recreation, disabilities and social security is necessary in order to better the welfare of the small child.

Attention must be called to the great influence exercised by organizations and activities that tend to strengthen the physical and spiritual structure of the family, such as: welfare service and family education, home economics schools, parent's clubs, family subsidies, adult orientation and training etc.

(b) Legislation

Socially oriented laws that refer to the protection of the family, the responsibility of parents and the State, are important for the child's welfare. Besides general legislation (national constitution, civil and penal code, right to work etc.) it is most interesting that the child be directly protected by more specific laws and rules, according to each nation's characteristics, such as: statutes on minors, laws on family protection (facilities for owning homes, scholarships and jobs favouring the persons who have minor children etc.) on juvenile courts, adoption, State tutelage, etc.

2. Direct action methods

(a) Hygiene for mother and child

In trying to reach the total concept of health it is necessary that services to the mother and child develop integrated programmes from pre-natal development in a longitudinal sense to a horizontal approach which embraces all the physical, emotional and social aspects of the child.

The organization, promotion and distribution of sanitation services would depend on the urgent need for them or on conditions (socio-economic, sanitary, geographic) that require them.

Within the framework of mother and child hygiene, the pre-school section should develop a programme of activities in accordance with the characteristics of each community; but in general, the following aspects should be covered:

- (i) growth control and control of nutritional state;
- (ii) control of infectious-contagious diseases (immunization programmes, improvement of environment, etc.);
- (iii) to combat parasitosis;
- (iv) the identification and correction of physical defects;
- (v) general medical examination;
- (vi) dental control;
- (vii) vigilance over psychological development;
- (viii) prevention of accidents;
- (ix) influence upon family environment (consultation with parents, home visits, general educational activity, collateral social services "mothers' clubs" etc.).

(b) Institutions and other social services

In many groups of pre-school children new types of physical and socio-affective needs have arisen as a consequence of social change (industrialization, migration from rural zones to the great urban centres, increase in the number of mothers who work outside the home etc.); such needs have had to be fulfilled by means of specific institutions of which the principal are:

(i) Day nurseries (casas-cunas, jardines de infancia, guarderías diurnas, nursery schools): these are most necessary to children from poor districts or for children whose mother has to leave home to work. They fulfill the following functions:

- (a) Care for the child at times when he cannot receive it from his mother;
- (b) Food is provided and also certain preventive health measures;
- (c) Stimulus towards development (motor abilities, training in good habits, social initiation etc.);
- (d) Opportunities for adult education.

There has been speculation as to whether Day-nurseries (especially those which take children less than three years old) may be harmful in that they break the link with the mother, a link which is so very important to the future emotional balance of the personality; but it has not been demonstrated that these establishments have any negative effect on the child's development as long as they do provide certain functional conditions in accordance with the child's nature such as enough time for the mother to be with her child, the encouraging of the parents to take part in the activities of the establishment, and the presence of qualified and understanding staff. Besides, the child from 2 to 3 years old needs social stimulus and this cannot be offered except by collective life.

The more industrialized countries increase the number of their day-nurseries constantly. Thus the United States according to their project "Head Start" (3), extended this service to 500,000 children between 4 and 5 years of age in establishments located in poor districts, with the purpose of offering to children of limited physical and social opportunities, better resources for their growth, development and well-being through special centres with social service, hygiene and educational activities.

All international organizations (1) also recommend creation of new day-nurseries: "there are many countries which upon studying the needs of small children, agree that priority must be given to impoverished districts, as in these places day-nurseries play a most important role" (1).

(ii) Specialized services: The vulnerability of pre-school children, makes it necessary to provide them with a series of services of medical assistance, very necessary to their welfare, as follows:

- (a) Curative medical assistance (pediatric service, hospitalization for children): where children with various types of illnesses may be cured (medical disease, surgery, traumatic etc.).

/(b) Infant

- (b) Infant mental health services (habit clinics, orientation clinics, "Child Guidance centres"): for the study and treatment of the child's various psychic problems (bad conduct, emotional conflicts, difficulties at home, misbehaviour, etc.);
- (c) Nutrition clinics or services: to investigate and treat all the causes that can alter the child's normal nutrition. Generally, educational problems are associated with this, as in the provision of protective food;
- (d) Specialized services: to care for children with various defects, such as language and hearing services, orthopedia, infant odontology, ophthalmology, nuerology, etc.;
- (e) Other social services: such as "foster-homes", "family subsidies", offices for family welfare and education, etc. are also necessary but not as much as the above mentioned, for the welfare of the small child.

VI. THE PLANNING OF RESOURCES FOR THE PROTECTION OF CHILDREN OF PRE-SCHOOL AGE

The Latin American countries have to recognize their negligence, almost indifference about the welfare and development of children of pre-school age, but, above all, they have to understand and take into account the biological and human abundance at this age, as being the wealth of today and a basis for better communities in the future. Accordingly, it is imperative for each nation to devise well formulated plans in relation to the needs of the children and available help, but always in accordance with general plans of national development in each country.

Due to the fact that the Latin American pre-schooler has numerous needs of different order and complex origins, it becomes difficult to devise a total planning especially if it establishes the adequate links between the various resources and fields of activity, in other words, between the local or national organizations which fragment, due to specialization, the total responsibility.

However, the general principles of its planning should be the following:

(a) Objectives

In these countries, with the problems stated above, the main objectives for this age group are:

/(i) Health

- (i) Health
- (ii) Nutrition
- (iii) Care and education (better opportunities for the personality development of children).

The problem of undernourishment is so manifest that it should be emphasized in the general planning of children's welfare.

(b) Adaptation and establishment of priorities

The programmes should be adapted to the geographic and socio-economic situation of each country. The fixing of priorities for the programmes of activities should be done in accordance with the different conditions in which the pre-schooler lives, urban or rural zones, large or small family groups, good or poor housing, endemic illness, cultural traditions, etc.

It is useful to follow the classification suggested in UNICEF (1), in relation to the different circumstances of pre-schoolers going from maximum to minimum needs:

- (i) Suburban zones, or areas of small farms or huts which form the belt of all expanding cities, or poor sections in urban zones. These constitute the problem which needs immediate attention;
- (ii) Rural zones, hardly protected (due to their dispersed population and demographic conditions), but they require, at least, a minimal action to solve the numerous problems so common to the previous group: poverty, unsanitary conditions and ignorance;
- (iii) Incorporated population: it refers to social groups already established or to the new low-income urbanized zones. In this case, for many groups the environmental conditions are good and parents have more knowledge and understanding and help their children. But on the other hand, the problem of taking care of the children and the problem of their education persist because in this group there can be a great number of mothers who have to go to work, are busy in other activities which do not let them take care of their children nor give them the education they need.

(c) Making use of available resources

Due attention should be given to the present services and programmes and see if they are really advantageous to small children. Once analyzed they can be enlarged or revised if necessary.

/(d) Direct

- (d) Direct action on the children through their families
- (e) Total use of resources

Well integrated plans should result from the use of all resources, whether official (national, provincial, municipal) or private.

- (f) Previous or simultaneous campaigns of diffusion and publicity

The results of the programmes of activity are better when the people have a better knowledge of the needs and nature of small children. This helps parents to be more responsible for the well-being and care of their children.

SHORT-TERM PLANS

I. For urban zones

1. Most urgent health problems:

- (a) to enlarge the number of children attended by present mother-child health services;
- (b) revision of zones of influence, promotion of new services in places where they are urgently needed (suburbs, poor farms, etc.);
- (c) programmes of massive immunization in communities;
- (d) intensification of general programmes of sanitation (water supply, sewage disposal, etc.);
- (e) depending on personnel and other means: enlargement of hospital and medical services (treatment of the physically-handicapped, etc.);
- (f) sanitary education;

2. Nutrition problems

- (a) preparing or enlargement of programmes of production and distribution of supplementary food, with these minimum requisites:
 - i) it has to be rich in proteins preferably administered to children from one to seven years of age; ii) it should be easily available and inexpensive. It is not advisable to give it away free (58); iii) made from raw materials from each country (plant seeds, cereals, fish). At present, certain programmes are being developed with products like Incaparina (Central America), Fortifex (Brazil);

/(b) Subsidies

- (b) Subsidies for industries producing food rich in proteins in order to make it cheaper for the population;
- (c) Family subsidies for those in need;
- (d) Nutrition centre or clinics for consultation and treatment in the most severe cases of malnutrition.

3. Social problems

- (a) Enlarge the available means to improve the family welfare (housing, work, subsidies, legislation, educational services, home economics, parents clubs, etc.).
- (b) Improvement of institutions (nursery schools, kindergartens) preferably in industrial zones and poor sections, playgrounds, parks.

4. Educational problem

- (a) Stimulus, supervision and betterment of educational institutions (nursery schools, kindergartens) already functioning. In many countries, large sums come from private sources.
- (b) Organizing of short-term intensive courses (by ministries of education, health or welfare, etc.) to prepare personnel, especially teachers who are essential for the creation and expansion of educational institutions for pre-schoolers.
- (c) Plans for construction of simple school-houses with the minimum educational requirements. They can be in parks, in open spaces, or as a part of primary schools. Here we should remember the excellent results of "Bal Mandir" and "Balwadi" or small centres for urban or rural pre-schoolers, and planned in India to fill an educational "Minimum Standard Pre-school" (59);
- (d) Creation of an especial department for pre-school education in conformity with the regulations of the Ministry of Education of each country in order to start long-term educational plans.

II. For rural zones

- 1. Intensify the preventive activities developed by rural medical centres or rural health centres especially those related to mother-child services (immunization, control and treatment of endemic illness, participation in programmes of distribution of supplementary food, etc.).
- 2. In small towns, the official authorities could establish small committees to develop some activities to solve those social and educational problems which are considered most urgent in each place.

LONG-TERM PLANS

The plans suggested by UNICEF could be used with slight changes (1):

Material and Human Resources

Ministries or some other organizations	Programmes	
	Urban	Rural
Public Health Sanitation	<ol style="list-style-type: none"> 1. Mother-child health centres 2. Plan for hospitals, especial services, maternity hospitals, nutrition centres 3. Sanitation and nutrition plans 	<p>Mother-child health services in rural health centres.</p> <p>Sanitation plans</p>
Social Services (Official and Private) Social Services	<ol style="list-style-type: none"> 1. Measures to improve the family 2. Plans for day-nurseries according to needs 3. Recreation zones 4. Social Centres 5. Family Welfare Offices 	
Agriculture, Commerce, Promotion	<ol style="list-style-type: none"> 1. Production policy of basic foods (milk, meat, etc.) 2. Industrialization of other foods 3. Distribution 	<p>Teaching of Home Economics</p> <p>Farmers and raisers organizations</p>

/Education

Ministries or some other organizations	Programmes	
	Urban	Rural
<p>Education</p> <p>Private organizations</p> <p>Industrial enterprise</p> <p>Parents associations</p> <p>National associations for pre-schoolers</p>	<p>Kindergartens</p> <p>Starting school at the earliest age (5 to 6 years)</p> <p>Central office to plan pre-school education</p> <p>Complete course for specialized teachers</p> <p>Building plans and equipment for educational institutions</p> <p>Regulations of pre-school education technical orientation</p>	<p>Creation of small committees to promote certain educational activities</p> <p>Building and equipment with minimum requirements</p> <p>Intensive training of teachers and volunteers</p>
<p>Justice</p>	<p>Legislation on paternal responsibility and children protection</p>	
<p>Housing</p> <p>Welfare</p> <p>Work</p>	<p>Housing plans</p> <p>Urban projects</p> <p>Playground plans</p> <p>Responsability of employers regarding nurseries, kindergartens, social work centres, etc.</p>	
<p>Community development</p>	<p>Home economics</p> <p>Community Centres</p> <p>Community Services</p>	

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