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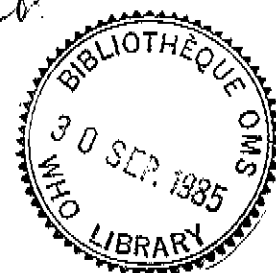
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*Child Health Services
Child Development
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SCHOOL-AGE CHILDREN - A SPECIAL TARGET GROUP?
AN INTRODUCTORY CONSIDERATION OF THREE APPROACHES

by

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Introduction

This document sets out to provide a background to which the participants in the International Consultation organized on the initiative of WHO are invited to address their comments, suggestions and criticisms, page by page.

It obviously does not attempt comprehensive coverage of a subject whose very wide scope must be clear to all.

It takes a global and transcultural view of the question, although the writer has not the necessary experience to provide illustrations from the Third World.

Each of the approaches discussed has already been the subject of a wide variety of considerations and publications, which could not all be enumerated or quoted here. References have mainly been drawn from work dealing with this age-group and published:

- by WHO, especially by the Regional Office for Europe;
- in the industrialized countries;
- in the French-speaking countries (the writer's mother tongue is French).

This is naturally an arbitrary selection, but participants will no doubt contribute to the Consultation with documents from their own region or country, and in the light of their own training and professional experience.

A final point: this document is deliberately couched in philosophical and qualitative terms, and no mention will be found of mortality or morbidity data, or any other type of health indicator, even when reference is made to health needs.

A. The traditional approach: a medical approach

The traditional approach was originally concerned to identify the health needs of children within the twofold medical perspective of diseases and disease (accident or disability) risks.

1. Diseases

For the health authorities, it was above all important to identify the diseases which were:

- (a) Prevalent in that age-group;
- (b) For which prevention, in particular primary prevention, was possible, useful and advantageous as compared with treatment, or even with secondary prevention (early detection);
- (c) and which, in the absence of prevention/treatment, were of serious concern to the authorities in terms of their impact on the mortality, morbidity or residual disablement of the children affected by them.

On the other hand, however, it was of little importance that initiative and/or active participation on the part of the children or their families should be required. We will take two classic diseases to illustrate this point: tuberculosis and dental caries.

1.1 Tuberculosis has a special place among the highly prevalent communicable diseases of this age-group for at least three reasons:

- its many possible sources: patients with lung disease, animals, milk;
- its high rate of fatality when disseminated in the blood stream (tubercular meningitis) and when not adequately treated;
- tertiary forms often giving rise to long-term disablement, as for example in tuberculosis of the bones or the kidneys.

In many parts of the world today, tuberculosis exactly fulfils conditions (a) to (c) above, just as it did throughout the first half of this century in the industrialized countries.

1.2 In the category of noncommunicable diseases, dental caries is a disease which doctors often tend to neglect or regard as unimportant. It is true that it is practically never fatal, but it may prove to cause more serious impairment than has long been admitted when an adolescent's entire permanent dentition is affected, and when the disease is prevalent among the entire child population, or at least a very large part of it.

If it is not prevented, it causes unsuspected ravages in all parts of the world among populations who are experiencing far-reaching changes in their eating habits. The radical solution, of extracting infected teeth is recognized as a handicap to chewing, and even to speech, while when "conservative" treatment in the form of fillings is given, the cost is a matter for concern at all levels - individual, family and social.

2. Risks

The priority accorded to diseases was and still is paralleled by an essential concern with risks (1). The nature of these risks has of course evolved, both in time and in space, moving successively from the influence of miasmas to infectious germs and chromosome mutations, and recently reverting to pollution, this time in a diversity of forms: physical (noise), chemical (emissions from industrial and domestic sources and motor traffic), biological (food additives), psychosociological (violence and pornography) etc.

Can it be said that, in different ways and to varying degrees, all these forms of pollution are a threat to this age-group in all parts of the world? Each participant in this Consultation will readily be able to suggest a number of relevant examples drawn from professional experience.

2.1 It is obvious that the evaluation of risk does not require the same tools of measurement as that of disease; it is not expressed in terms of mortality, morbidity or residual invalidity, but rather in terms of probability: absolute risk, relative risk, attributable risk and attributable risk fraction are indicators routinely used by epidemiologists (as for example in (2), (3)).

"The hypothesis on which the risk approach rests, therefore, is that the more accurate these measures of risk are the more clearly will the need for help be understood, and the better (or more effective) will be the response" (4). But further on in the introduction to this excellent study, E. M. Backett et al. recognize that "what is not known without careful research is how much more efficient and effective such a process is than health care without the use of the risk data" (4).

2.2 Reference to just one well-known example will help to show this difference and its effects. In all parts of the world, there are inducements to school-age children to take up cigarette smoking; many will not go further than a few trial attempts, others will sooner or later give up the habit they adopt at this age, but a certain proportion (which varies depending on a whole range of influences which have not all yet been identified and are not all measurable) of these young people will become long-term, and sometimes lifelong smokers.

Now, there has been a great deal of experience (5) which shows that the argument of the likelihood of severe future disease such as arterial disease (coronary involvement in particular) or respiratory disease (chronic bronchitis with or without emphysema, bronchial cancer) has no effect on school-age children - nor, indeed, on adolescents - for at least two types of reasons:

- (a) these diseases seem to belong to too remote a future;
- (b) on receiving a preventive message in the form of a warning, any child who has begun to master abstract reasoning can point to cases of heavy smokers (in their own family circle) who have reached a ripe old age without any problem!

It is therefore necessary to find, and to arm health educators, with arguments that are more convincing for this age-group. There are two main lines of approach:

- (a) verification of the immediate lowering of young smokers' cardiac and respiratory stamina (6);
- (b) demonstration, for example with a cloth filter, of the suspended particles deposited from the smoke exhaled by smokers.

It will be noted that neither of these arguments has to do with a specific disease, but rather with a short-, medium- or long-term risk: in the first instance, the risk of continued or increased diminution of athletic potential (no demonstrable pathology as yet), and in the second case, the risk that the epithelium and the lower lymphatic filters of the respiratory tract will be unable to "digest" the harmful substances inhaled.

While cigarette smoke is visible and also constitutes an annoyance for non-smokers, it must be remembered that only a few of the hundreds of chemicals it contains (7) have yet been identified as actual or likely causal agents for the diseases that have been mentioned, and that there are other, unsuspected, essentially endogenous risk factors which affect both the likelihood of the onset of these diseases at the individual level and the time between exposure and possible onset (8).

3. Social and medical implications

Rather than citing other examples of risk, we will now briefly examine the possible implications for medical and social action of the usual attitude to the diseases and risks which have been described. In summary:*

- children with tuberculosis will be hospitalized, at least to start with;
- children with primary tubercular infection will very likely be placed in preventive institutions (insofar as the community has them);
- children in families where an adult is expectorating Koch's bacilli will be temporarily removed from their environment (especially if they have not been vaccinated) if the patient is receiving outpatient treatment;
- although there is no reason to remove children with bad dental caries from their natural environment, they will be forced to undergo treatment of a type which may be considered exacting for the children, demanding for their families (in terms of time and transport), and costly both for families and the community, depending on the way in which this type of health care is financed;
- in the industrialized countries, children exposed to atmospheric pollution,** even if it is seasonal and even if they show no symptoms, are catered for by health measures approved by the community and generally provided by the school health services, such as individual placement on a varying but fairly long-term basis in mountain, schools or, more recently, a period of winter residential instruction in the mountains in the form of "snow classes".

In none of these cases is active participation required on the part of the patients or children exposed to risk. It is quite a different matter for the other two approaches which we shall now consider.

* All the examples chosen are generally applicable to children of the age-group under consideration at this consultation.

** For the purpose of this argument, here taken to be general pollution rather than pollution from tobacco smoke.

B. A more recent approach: health promotion

A second and more recent approach prefers to place the health needs of children in a perspective which gives greater emphasis to health promotion than to protection vis-à-vis diseases or even risks.

1. Rationale

For the health authorities who have accepted the concept of positive health^{*}, this is especially justified in the age-group under consideration for one or more of the following reasons:

(a) mortality, morbidity and the "consumption" of health care are all three at their lowest level - at least in Europe - (10), particularly in relation to the nearest two age-groups:

- pre-schoolchildren, on the one hand, may suffer from kwashiorkor in parts of the world where weaning involves important nutritional risks, or from intoxications or accidents in the home in other regions;
- adolescent school-leavers, on the other hand, are exposed to the risk of accidents of all kinds (11), to the consequences of indiscriminate sexual activity which are generally considered detrimental to health (12), and to other consequences of temerity or risk-taking behaviour (13);

(b) with respect to earlier diseases with a high rate of fatality, the least viable individuals have disappeared from the cohorts which reach school-age, so that the concept of the "healthy children effect" may here be suggested (by analogy with the "healthy workers effect" which will be familiar to occupational physicians);

(c) most children in this age-group will also have benefited from the preventive measures administered at an earlier stage in their life, in particular, immunization against common infectious diseases;

(d) for the minority of children in this age-group with lasting impairments to their health (those with mental, physical or mixed handicaps, or suffering from a long-term disease), the present trend is to develop their remaining potential rather than to underscore their respective deficiencies, disabilities and handicaps^{**};

(e) schooling itself - both of healthy children and of handicapped children integrated into the school system (14) - may play an appreciable part in enhancing good health, with the essential proviso that all aspects of "school-working conditions" be planned in such a way as to stimulate (rather than to interfere with) the physical, intellectual, emotional and psychosocial capacities of the majority of the pupils;

(f) the concept of good health - of being "at ease" and able to function effectively in one's own setting - appears to be accessible to most children of school age once they have reached a certain level of intellectual development; moreover, this concept seems to be compatible with the advantages of the emotional balance achieved during the "latency phase" which has been described by psychoanalysts and is characteristic of this age-group until the appearance of the first signs of adolescence.

2. Possible social and medical implications

The implications of this broader concept based on health, or on positive health, are implicit in the foregoing considerations. We will nevertheless examine them briefly:

* "Definition of the problems of children [...] should always be in terms of health rather than of disease ..." (9).

** According to the terms of Wood's classification, adopted by WHO.

(a) the generally good state of health of the majority of children in this age-group (intercurrent diseases rapidly abate and/or are easily curable) allows minimum recourse to the health system, i.e. to the image of an all-powerful medicine which is experienced passively - and this is also true for vaccination;

(b) the process by which most children gradually learn to take responsibility for their own health may easily be initiated and maintained:

- hygiene and balanced diet;
- daily brushing of teeth;
- harmonious division of time for study, sport, preferred leisure activities and sleep;
- familiarization with the normal functioning of the body, its systems and tissues;
- gradual development towards psychological understanding of the functioning of the family, school and community, assuming a basis of good individual health;
- spontaneous consultation of school health service personnel to obtain replies to their health concerns.

(c) for the minority of children with handicaps and chronic diseases, a comparable learning process leading to mastery of their remaining potential may lead to lasting progress, in itself conducive to gradual achievement of autonomy (e.g. young diabetics who learn to check their own glycaemia balance and to administer their daily insulin injections);

(d) with the possibilities offered by "upward education", schoolchildren may be able to "export" to their families the knowledge and attitudes they have acquired at school, which may sometimes help to reduce health risks for other members of the family. There are numerous examples, of which we will mention the following:

- in the industrialized countries, extension of the use of toothbrush and toothpaste to other members of the family;
- in developing countries, carry-over to the home medicine chest of the principles and applications of "maintenance" learnt in class in connection with the school pharmacy.

C. A new approach: individual and collective wellbeing

In a third and still more recent approach, the concept of the needs of children is extended beyond the traditional notion of health, and even beyond health promotion, to embrace individual and collective wellbeing, where factors of an economic and social nature will play an even more important role at the microsocial level of the family and the macrosocial level of the community.

1. Rationale

While not attempting to cover the extensive literature devoted to this concept of need, we will nevertheless take a few quotations and illustrations to justify this enlargement.

- 1.1 In the WHO "Glossary of health care terminology", health needs are defined as "scientifically (biologically, epidemiologically, etc.) determined deficiencies in health that call for preventive, curative and eventually (= where appropriate?) control or eradication measures" (15).
- 1.2 In the dictionary of epidemiological terms published by the International Epidemiological Association, the definition "specific indicators of disease or premature death that require intervention because their level is above that generally accepted in the society or community in question" is supplemented by one essential comment: "it must be explicitly stated that 'needs' always reflect prevailing value judgements ..." (16).

1.3 Under the term overall needs, M. Manciaux et al. remind us that children's needs can be categorized as follows:

- physical needs: shelter, food, clothing, which "however elementary these may be, ... are far from being guaranteed available to all ...";
- physiological needs: alternation of sleeping and waking, work and leisure, physical and mental activity, etc.;
- psychological and social needs, which have been better studied over the last 20 years: "love, security, new experiences, encouragement, stimulation, responsibilities".

Meanwhile, the needs of mothers, which are such that "they sometimes come into competition ... with those of their child(ren)" should not be overlooked (17).

Responses to needs of such a fundamental nature may obviously be expected to go beyond, and well beyond, the field of health (18).

1.4 But for children of any age, and especially in the age-group with which we are concerned, there is another dimension which must be added: development. From the wealth of literature dealing with individual development needs (19), we will here note the essential needs summarized in four points by U. Bromfen-Brenner (quoted by (20)) in terms of the educational setting for development:

1. A primary development setting is a place where children may observe and experiment under the guidance of those to whom they are linked by positive emotional relationships.
2. A secondary development setting is a place where children may consolidate their own previous experiences on their own.
3. The development potential of an educational setting depends on the support of others for those interacting with the children.
4. The development potential of an educational setting is proportional to the quantity and quality of links established with the other places in the children's environment.

2. Contemporary or recent nature of the main determining factors

The fundamental and/or overall needs outlined above have a multiplicity of implications, which are beyond the scope of the present document; however, it would seem essential at this point to stress certain present-day aspects of the main determining factors which may be termed exogenous: the family circle, the school environment and the process of schooling in particular, and peer groups, with reference to published documents, and in particular to WHO publications (21,22).

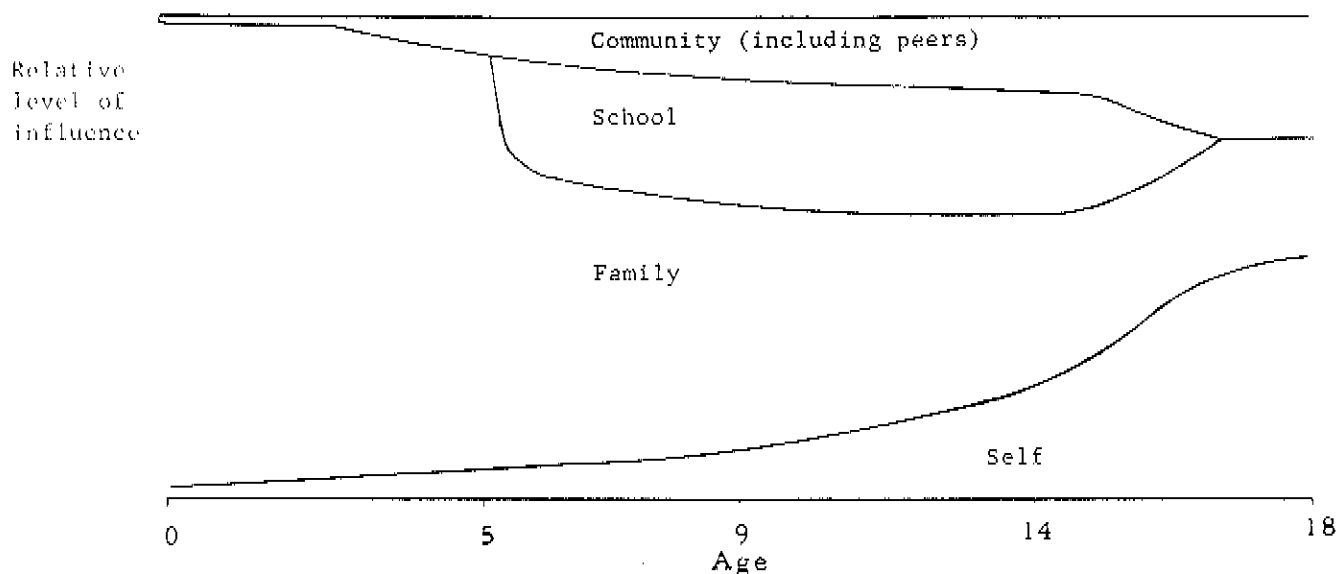
Figure 1 in (23) provides an easy visual illustration of the respective share of these factors in development and socialization. It "illustrates ... the growing involvement of the five to nine-year-old child in the community outside home and school ..." (23), although it does not attempt to indicate any quantified measurement.

For lack of familiarity with present-day family, school and community conditions in developing countries, the writer will confine the considerations that follow to the context of the industrialized countries.

2.1 The family circle

Since the beginning of the 1980s, the changes in family structures which took place during the two previous decades have been the subject of careful description by sociologists. For J. Kellerhals (24), for example, they can be summed up under three headings: conjugal mobility, conflict negotiation and educational ambiguity.

Fig. 1 INFLUENCE OF SOCIAL FACTORS ON DEVELOPMENT



2.1.1 A rising rate of divorce and a declining rate of marriage point to conjugal mobility as a major emerging cultural factor. An increasing number of children may therefore be expected to grow up either in a "reconstituted" family (where one adult is not a biological parent), or in a "single-parent" home, or among a set of adults that varies as time goes by. Hence, as a first consequence, there is an increasing blurring of what may still be considered as the family norm, which is now easier to describe in functional rather than in institutional terms. For lack of experience more relevant to these situations, "a not inconsiderable part of the population must in practice live out their lives in terms of guilt, deprivation or frustration ..." (25). There is a second consequence for the children: this mobility introduces a third, imprecise and fluctuating term between the traditional, hierarchical relationship of respect and obedience vis-à-vis parents (and teachers) and a relationship of equality with siblings and peer groups, so that children will hesitate to address certain demands to certain new members of their family circle because they cannot be confident that they are in a position to respond.

2.1.2 It is increasingly frequent to observe a negotiation of the "terms" of conjugal relationships, whether or not the couple has children: are there to be certain areas in which each spouse reserves autonomy? Is there a division and sharing of housework? Is the contract of limited or unlimited duration?

What is the effect of this negotiation of conflicting interests on the children? In the first place - if the couple has decided to have children - these children will be confronted with various members of the family whose roles will perhaps be less clear-cut and less stable than they were traditionally, and the effect will hopefully be instructive rather than destructive. It may then be asked - but sufficient time has not yet elapsed to confirm this - whether this process of negotiation will not extend to relations between generations, and involve children in situations of conflict in the wake of their parents.

2.1.3 Educational ambiguity would appear to be founded on two observations:

(a) the transmission of instructions, knowledge and habits (the essence of socialization) from parents to children tends to happen today "in considerable abstraction" (26), as a result of any of the following factors:

- geographical mobility;
- geographical distance between home and work - and also very often the nature of one or both parents' work, when this is in the tertiary sector;
- conversely, the strangeness for parents of their children's school world;

- the barrage of information which cannot be immediately assimilated and to which both parents and children are subjected, enhanced by the fact that the former are less well educated and the latter are younger and therefore less well equipped to deal with it.

The first effect is that educational relationships become a two-way process - where children are also initiating their parents into certain aspects of the culture in which they are enveloped -, or even a reverse process, in particular in cases where parents are slower than children to adapt culturally following migration by the family. The second effect is that "educational relationships are increasingly bound to be built upon the joint elaboration (by the child and the parent) of meaningful concepts which will not be immediately, simultaneously or unequivocally clear to the two partners". The process therefore continues as if the parents were tempted to go on "showing the child the invisible rather than teaching him to organize the unpredictable for himself" (27).

(b) With a multiplicity of didactic activities focused on the child, contradictions may arise: parents are less and less inclined to expect services from their children than affection, which must be overtly expressed, together with a "social identity" which some parents may prefer to their own professional identity. They would like to fit the child to an image which will make him both "homo ludens" and "homo sapiens", an ambition also pursued by the school (28). But, in so far as the school is deliberately setting out to be less strictly formal, the aim, as neatly put by J. Voneche (29), would seem to be that children should "play at learning", just as play should be educational and they "learn to play".

2.1.4 If the soundness of these observations (made, as we have said, in a western industrialized country) is recognized, it becomes clear that a medical model of prevention can no longer be applied to situations of family discord or parenting deficiencies (30).

2.2 Schooling and the school environment

"The beginning of formal schooling is an abrupt and profound change for the child", states the report of a working group of the European Region of WHO which met in 1975 (31). Whatever progress may have been proposed or achieved in many countries to try to alleviate the abruptness of this change, one must wonder how far it can possibly be other than profound (cf. Fig. 1), for, as the report later stresses "... increasing technology and social change have resulted in increasing societal and parental pressure for success in learning at school" (32).

Adjustment to the school setting, which is required - and indeed, demanded - by the school, depends not only on the degree of "disparity between home and school" (33), but also on the child's ability to "adjust to the pressure to perform" (34).

For a minority of children - and temporarily for many others - adjustment is not achieved and the child may react by developing symptoms of a psychosomatic (e.g. intestinal colic) or behavioural nature (e.g. truancy) (34).

Several difficulties may ensue, which may be tentatively summarized as follows:

- (a) at the individual level, these symptoms encourage families and schools to consult doctors and/or psychologists for treatment or follow-up which is often narrowly addressed to the symptom;
- (b) at the individual level again, if the pupil's maladjustment comes to be attributed to slow learning,* he runs the threefold risk:
 - of being shunted into an alternative to so-called "normal" schooling, with all the familiar difficulties of reintegration (36);
 - of receiving a medical diagnosis when the problem is psychosocial (cf. for example (37));

* This slow learning is itself a "common symptom for a variety of diagnoses, e.g. retardation, dyslexia, perceptual motor dysfunction and social deprivation" (35).

- of suffering a Pygmalion effect (38);

(c) at the institutional level, any substantial and progressive increase in the numbers of the maladjusted minority must raise the question of the extent to which an increasing share of responsibility for the maladjustment observed may lie with the school itself; the working group which has already been mentioned makes no bones about this when it states that: "... if some slow-learning children are perhaps retarded, so too is the present system for managing the condition" (39).

However complex these difficulties may be - and their analysis is well beyond the scope of this document - we may attempt to consider the means to a global and more objective solution, in terms of optimization: how can the educational system be developed, notwithstanding the imperatives and constraints of all kinds which bear upon it, so that as many children as possible are ready to leave school at the appropriate age, having acquired, at the pace best suited to their individual needs, the best possible grounding to face the life that lies before them?

The difference between developing specific concepts of optimization and setting up the means to evaluate their effects is, of course, about as great as bringing children into the world and bringing them up!

There remains the whole problem of schooling for children with different types of handicap and long-term diseases (cf. for example (40)), to which we can only make a passing reference.

Lastly, there is obviously a great deal to say about the transition from school to working life, but in so far as this takes place at the upper end of what is conventionally known as "school age", we will merely make a brief mention of the three main obstacles to this transition posed by industrial society (41):

- the increasing tendency to continue with lengthy studies beyond compulsory school age, so as to obtain a degree or qualification from a university or other institution of higher education;
- the level of education, which has become "the key to movement up the social scale" (41);
- the discrepancy between individual work aspirations and the limited choices resulting from the general economic recession: for all too many young people who are old enough to enter the world of work, the only prospect is "non-work" (42).

2.3 Peer groups

The socializing role of peer groups in adolescence is well known (43), but in post-industrial society it begins to take effect at an earlier stage in life, when "family ties begin to loosen and peer relationships assume greater importance" (44), i.e., for the vast majority of children, on starting school. If they are welcomed into the home by parents, classmates will readily come to visit their sons or daughters, and this must surely be one of the easiest ways of forestalling the tendency for school-age gangs to take too soon and too exclusively to the streets - although children need to find someone at home when they come out of school, which increasingly tends not to be the case in a large number of countries.

The WHO-EURO working group which met in 1976 (45) saw an increasing role of peer groups in the socialization of school-age children from the age of 10 onwards: "in peer groups, the child becomes acquainted with specific subcultures that often have their own rules based on their own social norms and values ... Indeed, for children coming from poorly functioning families, such peer groups may become basic reference groups" (45).

2.4 It is necessary to go beyond the factors influencing the process of socialization that have been mentioned so far (family, school, peer groups), and to consider factors of a more macrosocial nature arising from urbanization and technological (computerization, automation) and economic change: "changes in employment and housing [of parents] ..., in the roles and occupational status of women [as mothers], and in value systems ...", etc. (46). These factors assume paramount importance where family migration is followed by extended rootlessness.

Conclusion

This consideration of three approaches to the health of school-age children would be less incomplete if it had been possible to include a brief account of the health services specifically aimed at this age-group, their origin and variety, and their respective impact on the nature, relevance and prospects of these approaches. This would need to be done from the standpoint of concrete situations, such as those described in two recent publications from the New World, the first of which deals with the evolution of preventive intervention strategies (47), and the second with the impact of the current changes in the world economy (48) on the health of children and on health services for children.

The first of these works (47) also shows the responses of the paediatric sector, which are indicative of changes in health needs as perceived by private health service providers: "community paediatrics" as a public health oriented response to the needs of poorly served populations, and "developmental paediatrics" to cater for the special needs of children with a variety of developmental problems. Meanwhile, paediatric practice has already adapted its methods to the "new morbidity", which mainly encompasses emotional, behavioural and learning problems.

This final reference to the "new morbidity" observed in one of the most advanced societies of the post-industrial era brings us to the conclusion that, as new approaches emerge, the old approaches are not necessarily outdated or obsolete: if, after moving from morbidity to risk, from risk to health promotion, from health promotion to wellbeing in a wider sense, we now come back to morbidity, albeit to new morbidity, this is surely a sign - and perhaps the proof - that everything is changing ...

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