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Problems of Children of School Age (14-18 years)

Report on a Working Group

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Note

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This report is also issued in French and Russian.

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1. INTRODUCTION

1.1 Opening session

A Working Group on Problems of Children of School Age III (14–18 years) was held by the WHO Regional Office for Europe, in collaboration with the Netherlands authorities, in Amsterdam from 6 to 10 June 1977. The meeting was attended by 19 temporary advisers from 14 countries in the Region, 3 staff members of the Regional Office, and 1 representative from WHO headquarters.

Dr P.O. Petersson was elected Chairman, Dr F. Wafelbakker was elected Vice-Chairman, and Dr M. Wagner acted as Rapporteur.

The meeting was opened by Dr D.K. Sokolov (Chief, Strengthening of Health Services, Regional Office for Europe) acting on behalf of the Regional Director. The group was welcomed to Amsterdam by Dr H.A.M. Elsen, Deputy Director-General of the Netherlands Ministry of Public Health and Environmental Hygiene, who pointed out that Amsterdam, with its reputation for problems of youth and with the studies of youth problems and innovative youth services undertaken there, was a very appropriate venue for the meeting. Dr Sokolov outlined the commitment of the Regional Office to family health and the new problems faced by children and youth in modern society. The Regional Office had organized many meetings and was cooperating with many international organizations in the matter. The interdisciplinary nature of the present Working Group was essential to the success of the effort because of the breadth and complexity of the problems of adolescents, he noted.

Dr P. Rönisch (Regional Officer for Maternal and Child Health) went on to review the historical development of WHO both at international and regional levels, and spoke of the increasing commitment that had recently begun to be given in the European Region to the problems of adolescence. The emphasis given by WHO headquarters to adolescent health over the past three years was pointed out in another address by Dr S. Alexaniants (Medical Officer, Maternal and Child Health, WHO headquarters).

1.2 Scope and purpose

The meeting was the last in a series of three working groups convened by the Regional Office for Europe to deal separately with the problems of children of the school age groups 5–9 years, 10–13 years, and 14–18 years. The three meetings were intended to provide the basis for a better understanding of the child and adolescent in society, which will be the subject of a WHO conference in 1978.

The Working Group agreed to the reports of the three groups having a similar format, to provide uniform documentation of the subject area. The

three working groups should be considered as a single series and the present report should be considered as a continuation of the reports on the first two meetings.[a,b] To provide additional continuity, it was agreed that the scope and purpose of the present meeting should be, so far as possible, in line with that of the previous two in the series.

While there were wide differences between and within countries, all areas of the Region had to be taken into account to obtain a balanced view, because every country has young people who are disadvantaged in one way or another. It was agreed that the meeting should consider all problems of those in the age group (health, educational, and social) and all services (health in and out of school, educational, social, and psychological) provided for them. Though the broad scope limited the detail with which any one problem or service could be discussed, it produced a general overview, identifying the problems and, in addition, the overlaps, gaps, and shortcomings in services.

2. CHARACTERISTICS OF THE AGE GROUP

The Working Group gave considerable emphasis to the biological, psychological, social, and sexual characteristics of young people. Participants agreed that while the word "children" had been used in the previous two reports and in the title of the present report, it was inappropriate for the age group in question and that the words "adolescent", "teenager", "youth", and "young person" would be used as synonyms to mean 14- to 18-year-olds. Naturally, this includes apprentices and young workers as well as those young people still at school.

2.1 Population characteristics

The number of young people in this age group in Europe is shown in Table 1 (the European Region of WHO is not geographically coextensive with Europe, but the same general trends apply).

The trends shown by the table are essentially the same as those for children 5–9 years of age and 10–14 years of age, described in the reports of the first two working groups. In the 15 years from 1965 to 1980 there will be a total world increase of 30% in the numbers of children 5–18 years of age, but this increase will be accounted for by projected increases in the

[a] **WHO Regional Office for Europe.** *Problems of children of school age (5–9 years).* Report on a Working Group. Copenhagen, 1976 (document ICP/MCH 004)

[b] **WHO Regional Office for Europe.** *Problems of children of school age (10–13 years).* Report on a Working Group. Copenhagen, 1977 (document ICP/MCH 006).

Table 1. Population projections (1965–1980) for the age group 15–19 years (by geographical region – figures in thousands)

Year	Europe	Western Europe	Southern Europe	Eastern Europe	Northern Europe	USSR
1965	35 330	10 734	10 022	8 131	6 443	18 467
1970	36 499	10 869	10 378	9 460	5 792	22 605
1975	37 398	11 474	10 788	9 113	6 023	24 174
1980	38 219	12 308	11 257	7 993	6 662	23 135

Source: **United Nations, Department of Economic and Social Affairs.** *World Population Prospects*, Population Studies No. 53, New York, 1973

developing countries. The European Region reflects the situation, for the increases in numbers of those aged 14–18 years are greater in developing areas of the Region. Eastern Europe shows an overall decrease in the number of young people in the age group. The differences are the result of changes in birth rates in different parts of the world.

2.2 Biological characteristics

The age period 14 to 18 years is characterized by intensive physical, sexual, psychological, and social growth. The Working Group restated the fact that the growth of the various parameters took place in an integrated and interdependent fashion. While it was artificial to treat in isolation any single parameter such as biological development for discussion, it helped understanding so long as the integrated nature of all parameters was kept in mind.

Biological development in adolescence has four elements: the growth spurt, gonadal growth and development, the development of secondary sexual characteristics and of various other organ systems permitting efficient body energy production. The growth spurt begins with an acceleration of growth in the fatty tissues leading to a temporary "rounding out" of body contours. This is followed by accelerated bone growth leading to a temporary thinning out of body contours with loose ligaments and kyphotic posturing. There is then an acceleration of muscle growth resulting finally in the adult body configuration. There is considerable variability in the ages of onset and completion of the various components of this growth spurt, the reason why one finds such great variation in size and shape among teenagers of the same chronological age.

While gonadal growth and development and the onset of secondary sexual characteristics begins during the same period as the growth spurt, their initial outward manifestations appear somewhat later – for example, menarche

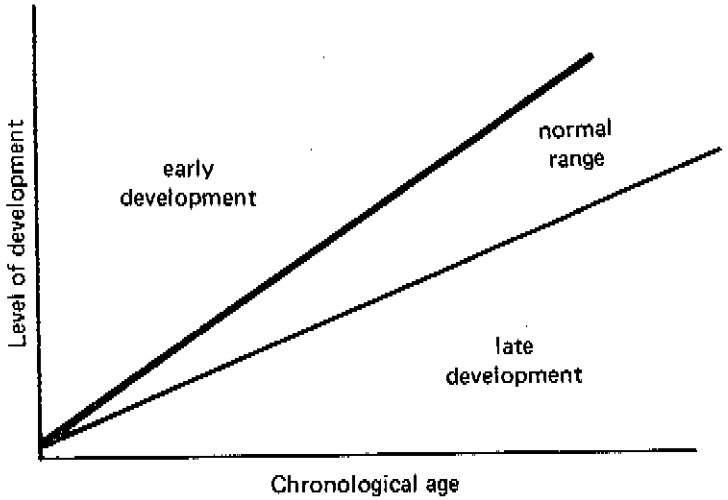
usually occurs about six months after the peak velocity of the growth spurt. The physiological changes associated with the development of the various other organ systems (respiratory, circulatory, neural, and muscular), while not as evident for the teenager, are equally important to the attainment of adult bodily functioning. The physiological changes, which also contribute to the divergence in male-female functioning include increases in muscle strength (male > female), metabolic rate (female > male), blood pressure (male > female), a decrease in pulse rate (male > female), and increases in haemoglobin concentration (male > female), respiratory function (male > female), and work capacity (male > female).

In recent times all phases of adolescent biological growth and development have been moving toward younger ages. Thus, for example, in the last 200 years the age of peak growth velocity in girls has fallen from 16 to 12 years of age and is decreasing by about nine months with each generation. The age of onset of puberty varies among countries of the European Region and also varies within countries, being usually lower in urban areas than rural areas. For this reason it is essential for each country to develop its own standards of biological development in children and youth. It is presumed, but not proven, that the earlier onset of puberty is the result of improved living conditions, health, nutrition, and environment.

Reactions to the profound biological changes of adolescence (by the adolescent, parents, peers, teachers, and others in the community) have an important impact on the overall development of young persons. If biological development is unusually early, before the usual concomitant psychosocial changes have had time to develop, the adolescent runs the risk of adjustment problems. If biological development is unusually late, the range of normalcy also increases (see Figure 1), with one of the results being that an individual who develops late can still be within the normal range, yet be perceived by himself and/or his peers as abnormal. With increasing age there is clearly an increasing variability in the level of development. This has important implications for the management of older teenagers who, in most countries in the Region, are tending more and more to remain at school.

The gap between chronological age and biological age, which reaches a peak during the adolescent age period, was considered by the Group to have two important implications for adolescents and for society. First, it was felt that chronological age should preferably not be used as the single or most important criterion when evaluating adolescents or building up health, educational, and social services for them: requirements for physical activity (physical education, sports) are better tied to the level of biological development than to age; decisions in a hospital on whether to send a teenager to a children's ward or to an adult ward are better made individually and should be based on development rather than a fixed age rule; etc. The second implication was considered to be the importance of teaching children the principles of biological development, including variations in puberty, before or at the onset of

Figure 1. Patterns of development



puberty. This subject, it was felt, should also be taught to all those involved with teenagers, including parents, teachers, psychologists, social workers, physicians, nurses, etc. Inappropriate psychosocial reactions to variations in biological development could thereby be prevented both in the teenager and in those around him and the evaluation of adolescents and services for them could be gradually changed and come to be based on levels of development rather than age.

The Working Group also considered the extremes of biological development in adolescence: delayed puberty, precocious puberty, undergrowth, overgrowth. Clearly, individuals suspected of such conditions needed the benefit of medical evaluation to rule out pathology. Such an evaluation should include evaluation of the growth chart, family history and bone age. It was the consensus of the Working Group that knowledge concerning the effects, positive and negative, of medical intervention (including hormonal therapy) in the growth and development process was as yet inadequate to make definitive recommendations.

2.3 Psychological characteristics

There are several different schools of thought regarding normal psychological development in adolescence, each with a somewhat different point of view and with a somewhat different emphasis: biological unfolding, experiential past, present social demands, etc. There is general agreement, however,

that: (1) adolescence, or the transformation from a child to an adult, is a natural process; (2) this process involves a variety of psychological characteristics including the attainment of adult abilities in abstract thinking, biological maturity coupled with temporary social immaturity producing transitory psychological stress, ideological instability, shifting emotional attachments (less to parents and more toward peers), occasional negative traits (including introversion, rebellion), a striving for independence, and identity formation; (3) the process inevitably engenders some conflict between the adolescent and the adult world; and, finally, (4) the latter conflict is aggravated by the complexity and rapidly changing nature of modern society.

The formation of personal identity among adolescents and their integration with society and the world around them received special attention by the Working Group. In more simple, static societies, such as those found in the rural zones and developing areas of the European Region, there may not be many identification models, role opportunities may be limited, and demands may be few, so that identity formation is rather quickly accomplished. In contrast, in rapidly changing, fragmented, complex societies, such as those found in urban areas and more developed parts of the Region, identity formation may be difficult and extended over a long period of time. Furthermore, a proper process of identification very much depends on adequate available role models (an important other person to serve as a model for oneself). In the more traditional areas of the Region, where family ties are still strong throughout adolescence, parents ordinarily serve as role models. In less traditional areas, family ties are loosened by the time adolescence is reached, but adequate role models are no less important. Finally, this need to use parents as role models for the identification process runs somewhat counter to the concomitant, equally important, task of establishing independence. How adequately the adolescent accomplishes the two tasks simultaneously through using the parents as a model, while at the same time pushing away from the parents, depends largely on how the parents react to and cope with their adolescent.

The process of adolescent psychological development clearly involves the adolescent-parent dyad. Problems which arise during this process can take their genesis in either or both sides of the dyad. It must be remembered that, while adolescence is a difficult phase, parents of adolescents, themselves usually in their late thirties or forties, are also in a difficult period of life and may well have their own problems. If both the adolescent and the parents are normal, problems which arise can probably be resolved through educating both the adolescent and the parents to the normal variations in adolescent development. If the parents are normal but the adolescent is not, in reaching a solution to the problem, services for the adolescent and education and support services for the parents will be needed. If the adolescent is normal but the parents are not, to reach a solution there will be a need for services for the parents, and education and support services for the adolescent. If

neither the adolescent nor the parents are normal, solutions to the problem will require the provision of services and a support system for the entire family. Because society is changing so rapidly today, no matter how well parents are adjusted personally, they may be confused in their attitudes and reactions to society and adolescence. This confusion can, in turn, damage their value as role models.

The process of adolescent psychological development also involves the local community and society at large. The increasing complexity of modern society has affected the period of adolescence (the time when the individual is no longer a child but not allowed to behave as an adult) by: (1) increasing its duration, (2) increasing its demands, (3) decreasing the possibilities it provides. But society, and especially the local community, can provide major assistance to this process of adolescent psychological development in several ways: schools can teach children and teenagers more about normal adolescent psychological development; education in parenthood can be provided for parents of adolescents and future parents of adolescents; support services can be provided to parents with problem teenagers; in those families where inadequate role models are available, parent surrogates can be provided either at school or in the neighbourhood.

2.4 Social characteristics

The process of socialization of the child is described in some detail in the earlier report of the Working Group on Problems of Children of School Age II (10–13 years).[a] The process continues during the age period 14–18 years, but special new problems arise such as the transition from compulsory schooling to the beginning of a work career or to higher education. The characteristics of the new problems of adolescent socialization have also been reviewed in earlier WHO publications.[b]

The newer problems of socialization for this age group in the Region are based to a large extent on certain characteristics of industrial and postindustrial society which confront most teenagers with several paradoxes. The first of

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[a] *op. cit.*

[b] (1) **WHO Regional Office for Europe.** *Problems of deviant social behaviour and delinquency in adolescents and young adults.* Report on a Working Group. Copenhagen, 1973 (document EURO 5425 III)

(2) WHO Technical Report Series, No. 609, 1977 (*Health needs of adolescents:* Report of a WHO Expert Committee)

(3) WHO Technical Report Series, No. 613, 1977 (*Child mental health and psychosocial development:* Report of a WHO Expert Committee)

(4) **WHO Regional Office for Europe.** *Major issues in juvenile delinquency.* Report on a Symposium. Copenhagen, 1974 (document EURO 5430 III)

the paradoxes, which are the root of the now typical adolescent-society conflict, is that at a time when the adolescent is searching for a personal identity, society offers him scarcely any family models with which he can identify. The extraordinarily rapid changes in society, resulting in the wellknown generation gap, cause a diminution or disappearance of the paternal image, and the adolescent must search through the complex system of industrialized communities for its equivalent. Because this is such a problem, large numbers of young people turn to the hero models of the mass media and sports or to more local peer group heroes such as gang leaders.

The second paradox is that, while society requires that adolescents conform to its values and standards, the recent acceleration of social change and concomitant disintegration of traditional values and standards makes it very difficult for adolescents first to discern and then to absorb an appropriate set of values and standards into their own lives.

A third paradox is that, while an important task of adolescence is the formation of long-range life-goals including finding a place in society, today's youth often form goals which are criticized by adults as inconsistent or inadequate. The fact that the goals often appear to be irrelevant is the result, at least in part, of the fact that over much of the European Region there is today no real place for young people to fit in, due to the increasing shortage of vocational openings and resultant high unemployment among young people.

The result of these paradoxes is that there is no properly planned entry of teenagers into adult society. As a consequence, many young people plan their own entry and develop alternative solutions to entry into adulthood. Some of these alternatives may be generally positive, resulting in alternative life styles which are consistent with the values of society but allow creative outlets for young people (such as music). Other alternatives, however, are negative and consist of a rejection of the values of society, self-destructive elements such as substance abuse (alcohol, drugs), suicide and attempted suicide, and defiance of authority through crime, even terrorism.

In its turn, society responds to these alternative solutions in a variety of ways. At family level, parents hardly know any longer which values and standards should form the basis for their authority. In the community and society at large, the response sometimes comes through straightforward repression of the alternative solution; sometimes through ambiguous attempts at comprehension (such as decriminalization of drug use); but occasionally through the development of preventive programmes aimed at encouraging positive rather than negative alternative solutions.

The process of socialization in young people of 14–18 years of age has important implications with regard to health services. Thus many teenagers associate traditional health personnel with the image of authority, and health education programmes often encounter psychosocial obstacles in persons of this age. These implications underlie many of the solutions for services for youth put forward in section 4 of this report.

2.5 Sexual development

The development of an individual's sexuality is a long and complicated process involving the interaction among biological, psychological and social factors. The process begins in early childhood and includes gender identity – that is, the development of the deep feeling that one is a boy or a girl. The beginning of the development of sex roles is to be found in early childhood too, that is, the outward manifestation of behaviour appropriate to a boy (man) or girl (woman). The proper development of both gender identity and sex role depends greatly on the psychosocial environment of the young child.

With the onset of puberty, a new stage in the development of sexuality begins. The biological changes, including the rapid growth of the reproductive organs and the production and release of the sex hormones, result in the development of secondary sexual characteristics (body hair, adult body configuration, etc.). The biological changes, in turn, combine with the psychosocial environment to produce a rapid increase in sexual interest and sexual behaviour.

One form of sexual interest and behaviour is that directed towards oneself. While it is common for younger children to explore their own bodies and occasionally to masturbate, this behaviour naturally increases during puberty. Masturbation is now accepted as being natural and healthy in adolescence (and in adulthood too) and is not regarded as a form of regression unless it replaces all other forms of sexual behaviour.

Another form of sexual interest and behaviour which develops rapidly in adolescence is the sexual preference for the object of special interest. During early adolescence it is typical for teenagers to develop close relationships with individuals of the same sex and it is normal that these relationships may occasionally include explicit homosexual behaviour. However, the persistence of such homosexual behaviour into later adolescence and adulthood to the exclusion of the development of heterosexual behaviour is a phenomenon still poorly understood. It is important, however, to recognize and accept the existence of the phenomenon and to consider it when evolving services for the age group.

In most cases the age period 14–18 years sees the rapid development of heterosexual preferences and behaviour. Although this interest and behaviour clearly has biological roots, the manner in which it develops and is expressed is profoundly influenced by the values and standards of the family and the community, society, and culture. The evaluation of adolescent sexuality may be divided into: courting behaviour; debut of sexual intercourse; sexual activity, contraceptive activity; living together, and family formation.

Courting behaviour includes the social and physical interaction between two people prior to marriage (usually including consideration of sexual intercourse, but in the present report the matter is discussed separately). Although there are vast differences in adolescent courting behaviour among the various

cultures and subcultures in the European Region, there is often an age-related progression of events from group social interaction involving both sexes, through social interaction involving only one couple (dating), to physical interaction between a couple (kissing, touching, and genital stimulation).[a,b]

Although there are only a few surveys of teenagers' sexual habits, the evidence suggests that the age of debut of sexual intercourse is falling. A few more recent examples from the European Region bear this out: in Sweden in 1976, the average age of first intercourse for both young men and women was 16 years;[c] in Yugoslavia in 1975, among 16-year-olds 55.8% of boys and 17.7% of girls had experienced sexual intercourse while among 18-year-olds 64.4% of boys and 31% of girls had experienced intercourse;[d] in the United Kingdom, nearly a quarter of 15-year-olds regularly engage in genital apposition and about 10% have had sexual intercourse;[e] in Denmark in 1970, the mean age of first sexual intercourse was 16 for young men and 17 for young women and 53% of men and 44% of women had sexual intercourse before their 17th birthday;[f] also in Denmark in 1975, 5% of 14-year-olds in a rural area had already had their first experience of sexual intercourse.[g]

It appears that the age at which young people become sexually active on a regular basis is also falling, although there is even less systematic evidence in this case. One of the few examples is from Denmark, where it was reported in 1970 that sexual intercourse was experienced once or more a week among 38% of young men 15–17 years of age, 55% of young men 18 years of age, 56% of young women 15–17 years of age, 74% of young women 18 years of age.[h]

There is much more available evidence with regard to contraceptive activity among adolescents. There appear to be wide variations in the use of contraceptive practices among teenagers in the Region, as illustrated by the

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[a] **Kooy, G.** *Jongeren en seksualitet* [The young person and sexuality], 1976

[b] **Schofield, M.** *The sexual behaviour of young people.* London, Longmans, 1965

[c] **Sundstrom, K.** Young people's sexual habits in today's Swedish society. *Current Sweden*, 125, The Swedish Institute (1976)

[d] **Stampar, D.** *Contraception in adolescence.* Paper presented at a Meeting on Contraception in Adolescents, Amsterdam, 20–22 April 1975

[e] **Williamson, J.D.** *Social and psychological risks.* Copenhagen, WHO Regional Office for Europe (unedited document ICP/MCH 010 BD4, 4 May 1977)

[f] **Henriksen, O. & Høgh, E.** *Storbyungdom livsstil og sexvaner* [Young people of the capital. Lifestyle and sexual habits]. Copenhagen, 1970

[g] **Hessellund, H.** Unpublished manuscript

[h] **Henriksen, O. & Høgh, E.** *op. cit.*

following surveys. In Yugoslavia in 1975, only 25% of young women 15–19 years of age had ever used contraception.[a] In Great Britain in 1974, 95% of young women 10–20 years of age had never used contraception.[b] In Denmark in 1970, 85% of young men and 80% of young women were regular users of contraception.[c]

The choice of contraceptive used by teenagers is an important consideration. Condoms and withdrawal appear to be the most common methods used by younger adolescents while the diaphragm and oral contraceptives (the pill) become more popular among older teenagers. The rhythm method is still very often used but its effectiveness depends on menstrual regularity and a high degree of self-discipline, both often missing in young people. Unfortunately, these studies also show that large numbers of sexually active adolescents use no form of contraception.

Each form of contraception has special implications for teenagers. The withdrawal technique can be effective but requires a degree of self-discipline not characteristic of many young people. The condom is considered a safe and desirable method for young people. It is easily available in most areas of the Region, serves the additional function of protection against sexually transmitted diseases and is actively promoted among young people in certain countries. The diaphragm is both safe and effective but requires a degree of sophistication and planning often not seen in teenagers. The intrauterine device (IUD) has become increasingly popular for young women in the past 10 years. It is reliable, does not require self-discipline and does not affect the hormonal cycle. Oral contraceptives (the pill) present special problems for the young teenage woman. The biological maturation process is probably not complete until 2 to 3 years after menarche. Since there is a lack of knowledge about the effects of hormonal contraception during maturation, it is recommended that young women at risk of sexual exposure and unwanted pregnancy during the early adolescent period use non-steroidal contraception.

Much of this absence of adolescent contraception is due to ignorance of the various methods available, and also to the gap between theoretical knowledge and practice. In one country in the Region with a long-established and highly developed programme of sex education in the public schools, studies have shown that contraceptive information is given in school later than information on conception, even though contraceptive use increases if contraceptive information is given earlier;[d] 80% of young women 15–19 years

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[a] **Stampar, D.** *op. cit.*

[b] **Stewart, M.** Birth control clinic for teenagers. *Family Planning*, 23: 10–23 (1974)

[c] **Henriksen, O. & Høgh, E.** *op. cit.*

[d] **Hertoft, P.** *Unge mænds seksuelle adfærd, viden og holdning* [The sexual behaviour, knowledge and attitudes of young men]. Copenhagen, 1968

of age had never received personal guidance regarding contraception,[a] only 25% of teenagers feel they received adequate information regarding contraception.[b] The literature also shows that though there is usually a high percentage of teenage women in many of the industrialized countries who have received sexual education and are aware of contraceptive methods, many still do not put this knowledge into practice. One study[c] suggested three main reasons for this fact: teenage women do not know where to get contraceptives; they misunderstand the methods and are afraid of them; they have an all-pervading feeling that pregnancy cannot happen to them. This lack of knowledge and gap between theoretical knowledge and practice with regard to contraception has important implications for education and services (see section 4 below).

The final stage in the development of sexuality is living together and family formation. Here too we are at present faced with a paucity of systematic documentation. It is known that in most of the industrialized areas of the European Region (and the world) the age at time of first marriage is increasing. This is at least partly the result of the lengthening time required in industrialized countries to complete one's education and/or training and the wish to postpone marriage and children until a career is established.

In Britain, and undoubtedly certain other countries in the Region, first marriage very often follows a first pregnancy, but in an age-related fashion – under 15 years of age all pregnancies were conceived before marriage and 60% of these pregnancies had been terminated by induced abortion without marriage, while between 16 and 19 years of age there was a steady decrease in induced abortion and a steady increase in "forced" (after pregnancy) marriage.[d]

But what has not been documented sufficiently is what happens prior to marriage. Due to the earlier age of puberty and earlier age of sexual activity, psychosocial development lags behind biological development. In some areas of the Region, one result of this lag has been a steady increase in cohabitation (living together) prior to marriage. Cohabitation may enable older adolescents to complement the already existing development of their physical sexuality with the further development of their psychosocial sexuality. At all events, it is clear that there is an increasing tendency for older adolescents (and young adults) to live together for shorter or longer periods of time prior to

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[a] **Ussing, J. & Bruun-Schmidt, H.** *Nogle resultater fra fertilitetsundersøgelsen* [Some results of investigation into fertility]. Social Research Institute, Study 22, Copenhagen, 1972

[b] **Henriksen, O. & Høgh, E.** *op. cit.*

[c] **Kinch, R. & Kruger, E.** Some sociomedical aspects on adolescent pregnancy. *Int. J. gyn. Obstet.*, 8: 480–486 (1970)

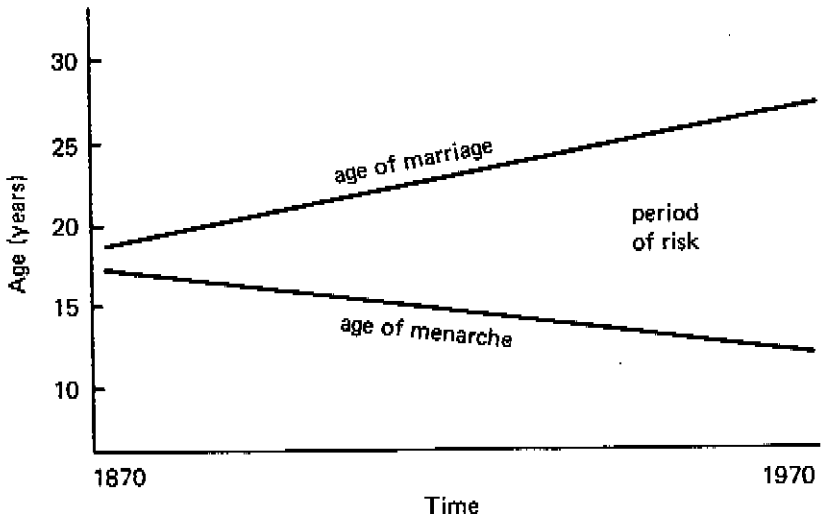
[d] **Jeanneret, O.** That awkward age. *World Health*, WHO, Geneva (December 1976)

marriage, and it is important to recognize and accept the existence of this phenomenon when planning education and service programmes (see section 4).

The phenomena of the falling age of puberty onset, of debut of sexual activity, and the increasing age of marriage combine to produce another characteristic of present-day adolescent sexual development, an extended period of pregnancy risk among fertile couples who are not married and do not want children. This is shown graphically in Figure 2. This widening period of risk has major implications with regard both to the development of problems surrounding adolescent sexuality (see section 3.1 below) and to the development of education and service programmes for teenagers (see section 4 below).

As we have seen, the development of adolescent sexuality is closely tied to the values and standards of the society in which teenagers live, and carries with it many implications in terms of ethics, religion, work, and family and social structure. It is therefore imperative for each society in the European Region to evaluate this trend in sexuality in its own terms and to evolve educational and service programmes commensurate with its own values and standards.

Figure 2. Increasing period of risk of pregnancy



3. PROBLEMS OF THE AGE GROUP

For the purpose of discussion, the Working Group divided the problems created by the continuing trends in adolescent development into two categories: biological and psychosocial. The Group nevertheless repeatedly

emphasized the artificial nature of such categorization, the obvious overlaps, and, more importantly, the interactions between what are two aspects of a single phenomenon. Some potential solutions to these problems were discussed at the same time. More general proposals by the Working Group are presented in section 4 below.

3.1 Biological problems

3.1.1 *Mortality and morbidity among young people*

Adolescents in the developed countries together with younger children of school age have the lowest mortality rates in the world: the risk of dying is between 1 and 2 per 1000 per annum. The higher risk for boys, already apparent in infancy, goes on increasing with age; in the age group under discussion, the mortality rate is two or three times higher for young men than for young women.[a] The principal cause of mortality is accidents, discussed separately below. Far behind accidents, two other causes of death in adolescence vie for second place: leukaemia and malignant tumours, and suicide (see also below). Infections have lost their former importance among other causes of death, though they remain an important problem in the less developed areas of the Region.

It was pointed out at the meeting that though the mortality rate among teenagers is low, the morbidity picture, clearly a more important indicator of health status, is cloudy. For every fatal accident there are more non-fatal accidents, for every completed suicide there are many attempted suicides, but data on morbidity is sparse, biased, and inadequate. Most available data come from medical treatment institutions such as hospitals, and reveal only a narrow segment of teenage morbidity. As an example, while most experts acknowledge that acne is perhaps the most prevalent physical disorder of adolescence, and certainly an important daily concern of the teenagers afflicted, it does not usually appear in the small amount of available morbidity data. The Working Group joined with the two previous working groups in recommending an improvement in the system of collecting information on morbidity in children and youth. Participants also urged involvement by school health services in any such data collection activities.

Accidents, a problem of enormous proportions, are the leading cause of mortality and a major cause of morbidity in this age group. Fatal accidents are much more common among young men than among young women; in one country in the Region, male mortality from accidents alone exceeds the total female mortality in adolescence.[a] In another country in the Region, 6 out of 10 male deaths and 3 out of 10 female deaths among young people were from accidents. Road traffic accidents are the most common type of

[a] Jeanneret, O. *op. cit.*

fatality among teenagers and account for about one-third of accident mortality. Among younger teenagers the most important type of fatal road traffic accident involves the motorcycle or motor-assisted cycle. Each year a young motorcyclist has 1 chance in 50 of being killed or seriously injured while riding this type of vehicle. Among older teenagers the automobile rapidly gains importance as a vehicle of death. Accident morbidity in adolescence is less well documented but clearly important. As much as 12.5% of all morbidity in this age group may be attributed to accidents but since it is estimated that only one-quarter of all those involved in accidents receive medical attention, the morbidity figure clearly represents only the tip of the iceberg. Another source of accident mortality and morbidity in adolescence, industrial accidents, is as yet poorly documented. Teenagers just entering industrial work are inexperienced and unaware of many job hazards, and this often leads to calamity.

The Working Group discussed the reasons behind the very high frequency of serious accidents in adolescence. The reasons are multiple and complex and include poorer coordination as a consequence of the growth spurt; inexperience with adult machinery such as motorcycles, automobiles, and industrial machinery; the need to "test the limits" of the newly entered adult world; an, as yet immature, concept (fear) of death; the need to take conspicuous risks to demonstrate supposedly adult bravery; and the use of psychotropic agents which reduce coordination and judgement. Perhaps the most important overall reason is that the socially defined and induced forced extension of childhood into later and later teenage has inevitably resulted in more or less greatly increased stress throughout the adolescent years. It is well known that stressed individuals have poorer ability to concentrate, poorer coordination, and weaker judgement.

It was suggested that solutions for the problem of accidents in this age group should focus on control of access to dangerous machinery (motorcycles, automobiles, industrial machines); control of access to psychotropic agents; the development of alternative ways to test limits more safely (for example, motorcycle parks with safety equipment); the identification of "risk takers"; and the identification of individuals with dangerous levels of stress.

There are three main avenues to implement the above: research, education, and legislation. Research in this sphere should give prominence to the study of various subgroups of the heterogeneous teenage population: the out-of-school unemployed, young parents, psychotropic drug users, risk takers, etc. Education programmes should shift away from simple prohibitions to approaches which concentrate on changing stress-producing social pressures and finding less harmful ways of reducing stress. Examples of such education programmes might be the encouragement of teenage heroes (both cultural heroes such as rock-music stars and local heroes such as gang leaders) to serve as positive models. Legislative programmes should control access to dangerous machinery and psychotropic drugs, and encourage the development

of legitimate, but nonetheless sufficiently exciting, activities which allow limits to be tested and stress to be reduced.

3.1.2 *Adolescent nutrition*

Another important biological problem of adolescence mentioned by participants was the question of malnutrition. If it is remembered that malnutrition includes not only too little but also too much as well as improperly balanced diets, then malnutrition is obviously a problem for the developed as well as for the developing areas of the Region. It has been well understood for some time that nutrition is critical during periods of rapid growth and development. While the prenatal and infant periods have been the focus of much nutritional study, adolescence has been surprisingly neglected as another period of rapid growth and development. Nutrition is the final product of a number of factors including dietary habits, food intake, digestion, metabolism, etc., but little is known about the role of any of these factors during adolescence. One example pointed out at the meeting was that, in most areas of the Region, the family meal is becoming less and less important to the dietary patterns of teenagers. Food fads, preprocessed foods, public catering (at school or work), snacks, soft drinks, etc., are all becoming more and more relevant to the dietary habits of teenagers, yet the nutritional values of these foods are in many cases unknown. Care must be taken not to assume that these new types of foods are "bad", for it is likely that in some cases they may prove to be of equal or better nutritional value than more traditional foods. In fact the basic nutritional requirements of adolescents have yet to be clearly established, though they must be different from either children or adults because of the growth spurt, sexual development, increased physical exercise, increased metabolic rates, and emotional stress. In addition there is a need to determine the nutritional requirements of adolescent pregnancy, a special but clearly important case.

Another issue as regards nutritional problems of adolescence involves the extremes of overweight and underweight. Both are as yet poorly understood but are strongly influenced by and in turn themselves influence the psychosocial development of the young person. Obesity is a common problem for teenagers and its evaluation and management is complicated by the interaction of biological (hormonal) and psychosocial factors. Underweight is caused by a multiplicity of factors, including, for example, those present in developing areas of the Region where undernutrition is the common lot of wide segments of the population; those present in normal teenagers who only appear underweight because of the growth spurt; those in normal teenagers who are truly underweight as a result of an excessively harsh self-imposed diet for aesthetic purposes; and/or those seen in young people suffering from *anorexia nervosa*. Since the management of even these four causative factors is radically different, it is important for each case to be carefully evaluated psychosocially as well as physically before any "treatment" is initiated.

A further, and equally poorly understood, issue in the nutrition of adolescence is the long-term effects of nutrition during teenage years. These long-term effects need to be studied in at least three different ways: effects on growth and development during adolescence; effects on the development of life-long adult dietary habits; and effects on the development of chronic diseases, such as cardiovascular diseases, in adult life.

The last, but by no means least, important issue related to nutrition during adolescence is the undernutrition that still exists in some parts of the Region's developing areas. The focus of attention here has also tended to be on the earliest years of life and more study about its impact on the adolescent is needed.

It is clear that the highest priority with regard to solutions for the nutritional problems of adolescence must be given to applied research. Armed with such knowledge the next priority would be the development of improved programmes of nutrition education which would begin during the pre-teen and early teenage periods. It is to be hoped that such nutrition education would take into account information on the existing dietary habits of teenagers and, rather than try to force them to completely change their habits, would assist them to adapt eating practices so as to ensure good nutrition using the foods popular with young people. Attention could also be given to legislation to ensure that the newer types of foods used more and more frequently by teenagers are of high quality.

3.1.3 *Adolescent pregnancy*

The biological problems discussed by the Working Group included those which may occur as a result of sexual development: pregnancy, childbirth, induced abortion, and sexually transmitted diseases. The falling age of onset of puberty and sexual activity has resulted in an increase in the period of risk for sexual exposure in fertile teenage couples. If these phenomena are not accompanied by a *simultaneous* increase in use of effective contraception, it was noted, the natural consequence is an increase in adolescent pregnancy. And since marriages are taking place at a later age, the pregnancies will probably be unwanted. This is what has happened at least in the more developed areas of the Region where pregnancy in adolescence has increased over the past decades to near-epidemic proportions. The data available on the extent of adolescent pregnancy in the Region are sporadic. Since, however, the result of pregnancy is either birth or induced abortion, the figures to be given at any one time on birth and abortion will indicate the extent of the problem.[a]

[a] WHO Technical Report Series, No. 583, 1977 (*Pregnancy and abortion in adolescence:* Report of a WHO meeting)

In reviewing the sequence of events in the various countries resulting from the shifts in adolescent sexual behaviour, a pattern emerges. This pattern is illustrated graphically in Figure 3. The first stage in this pattern has just been presented – increasing sexual activity without a simultaneous increase in contraceptive activity, resulting in an increase in adolescent pregnancy. In order to see what happens next we must look at adolescent childbirth and induced abortion.

The second stage in the pattern of events is that the increasing adolescent pregnancy results in increasing adolescent childbirth as illustrated by the following figures. In Denmark and Sweden there was a rapid increase in the birth rate among 15- to 19-year-olds during the nineteen-fifties and early nineteen-sixties, reaching a peak in the late nineteen-sixties, followed by a steady decrease. In the United Kingdom a similar rise in the adolescent birth rates has continued to more recent times.[a] In 1955 about 200 women under 15 years of age gave birth, in 1966 approximately 1000 women under 15 years of age gave birth, and in 1971, 1267 women under 15 years of age gave birth. In 1976 in France some 60 000 children were born to mothers under age 20 (7% of all births). Some 10 000 of these were born to mothers aged 17 or under, including 3000 to mothers aged 16 or below.[b]

The consequences of adolescent pregnancy and childbirth are of importance. Under 17 years of age the pregnant woman is at greater medical risk in terms of both mortality and morbidity (increased toxaemia, third-trimester bleeding, and complications of labour). Childbirth under 17 years of age is also associated with greater foetal mortality, more premature delivery and low birth weight, and more perinatal mortality, infant mortality and congenital malformations. The psychosocial consequences of adolescent childbirth are also considerable and include early school leaving; premature marriage with a greater risk of subsequent break-up; childbirth to parents who are unmarried or not living together, or who are sometimes single parents, and in any case almost children. The psychological stress and social disruption inherent in all of these situations is apparent.

The third stage in the adolescent pregnancy pattern results from a gradual increase in the use of contraceptives and rapid increase in induced abortion, resulting in a fall in the birth rate but not in the pregnancy rate. As with childbirth, data available on the frequency of induced abortions among adolescents are sporadic but suggest an increase in most countries, as illustrated by the following: in 1973 the percentage of all induced abortions on women under 20 years of age in seven countries of the Region ranged from 8.7% to

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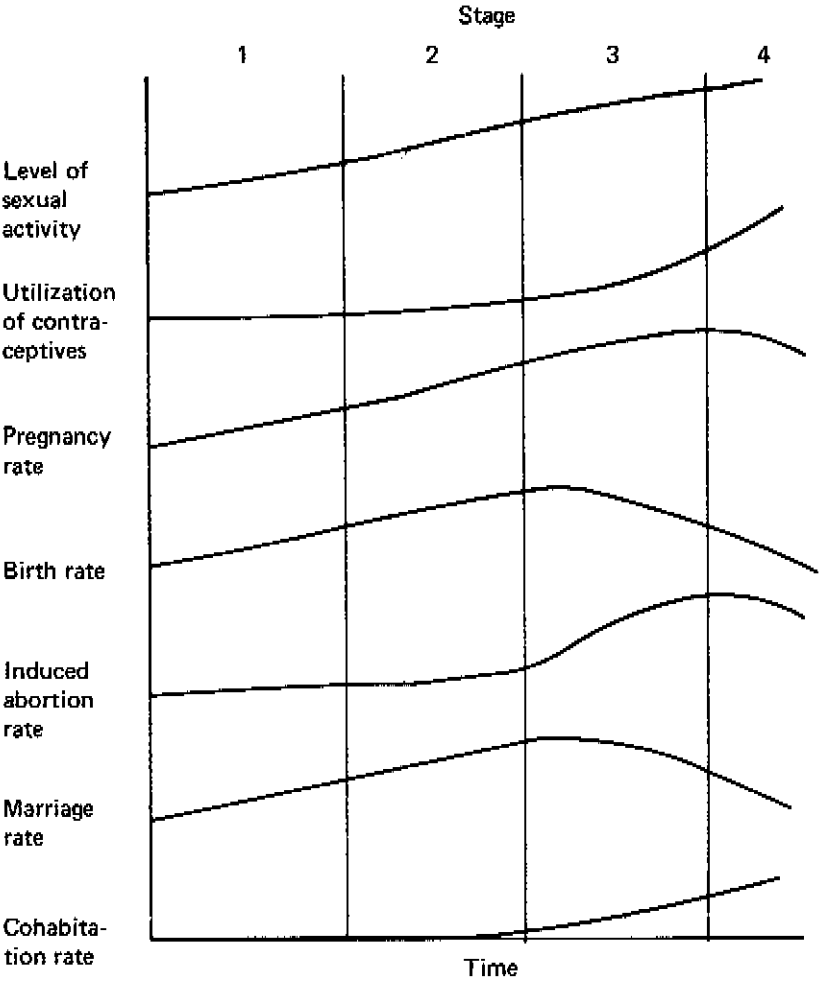
[a] **Williamson, J.D.** *Social and psychological risks.* Copenhagen, WHO Regional Office for Europe (unedited document ICP/MCH 010 BD4, 4 May 1977)

[b] **Jeanneret, O.** *op. cit.*

Figure 3. Trends in adolescent pregnancies



24%. The induced abortion rate among 15- to 19-year-olds in Denmark[a] rose from 1.6 per 1000 in 1962 to 8.5 per 1000 in 1970. Recent Swedish trends are illustrated in the following table.

Table 2. Pregnancies, births, abortions among Swedish teenagers*

Year	Pregnancies	Births	Abortions	Percentage of pregnancies ended by abortion
1971	13 800	9 300	4 500	32.6
1972	14 700	9 000	5 700	38.8
1973	14 200	8 200	6 000	42.2
1974	15 900	8 400	7 500	47.2
1975	15 200	7 500	7 700	50.6

* **Sundström, K.** Young people's sexual habits in today's Swedish society. *Current Sweden*, **125**, The Swedish Institute (1976)

The rate of induced abortion per pregnancy (as opposed to childbirth) tends to be higher the younger the adolescent. The younger the woman, the higher tends to be the rate of induced abortion in the second trimester (as opposed to the much safer induced abortion in the first trimester).

The consequences of induced abortion remain cloudy. While earlier studies from several countries suggested an increase in pre-term deliveries following abortion, more recent studies from other countries have not borne out this finding. WHO headquarters has arranged a collaborative research project on the medical consequences of induced abortion involving a number of countries; it is hoped that the results will shed light on this very important question.[b] The psychosocial consequences of abortion are also unclear. A review of the scientific literature reveals only negative individual case reports and no adequate controlled studies. Preliminary results of a controlled nationwide study in Denmark[c] of the question suggest that, while women with psychological problems may have abortions more frequently, it does not appear that induced abortion is followed by more than the average number of psychiatric hospitalizations.

[a] **Bræstrup, A.** Teenage pregnancies in Denmark. *J. biosoc. Sci.*, 6: 471–475 (1974)

[b] For information on this study the reader is referred to the Human Reproduction Unit, WHO headquarters

[c] **Wagner, M.** Communication to the Working Group

The Working Group emphasized two points concerning induced abortion during adolescence. Since induced abortion is intervention rather than primary prevention of pregnancy, emphasis should be on contraception rather than abortion as the method of choice in controlling adolescent pregnancy. Secondly, an abortion is probably preferable to childbirth for a teenage woman with an unwanted pregnancy in most cases, since the choice is between the consequences of abortion and those of an unwanted pregnancy, unwanted childbirth and, most importantly, an unwanted child.

The fourth stage in adolescent pregnancy trends is tentative only but is suggested by preliminary data emanating from certain areas of the Region. This, as we have seen from Figure 3, is the greater increase in contraceptive activity and consequent decrease in adolescent pregnancy and therefore of induced abortion. Although there are no hard data to demonstrate increased contraceptive activity, it can be surmised from the fact that adolescent pregnancy rates in countries like Sweden and Denmark have levelled off and may be slightly falling (the adolescent induced-abortion rate in these countries has also reached a peak) and the only other explanation, decreasing sexual activity, seems implausible. If such a fourth stage subsequently proves to be the case this would be a most hopeful sign since, as already stated, contraception is clearly the best way of preventing unwanted pregnancy, induced abortion, and the medical risks and psychosocial consequences associated with teenage childbirth.

The pattern of events in adolescent fertility, presented graphically in Figure 3, will obviously vary considerably from country to country but in general the Working Group felt the situation in the Region to be as follows: countries in Scandinavia may be entering stage 4; countries in central and north-western Europe may be in early or late stage 3; countries in southern Europe may be in stage 1 or 2; countries in eastern Europe may be in stage 1 or 2 with regard to sexual activity, contraceptive activity, pregnancy rate, marriage rate and cohabitation rate, but in stage 3 or 4 with regard to birth rate and induced abortion rate.

3.1.4 *Sexually transmitted diseases*

Any discussion of biological problems in adolescence which are related to sexual development must also take account of sexually transmitted diseases (STD). The dramatic increase in the incidence of such diseases (most importantly gonorrhea but also syphilis) among adolescents has been well documented elsewhere.[a] The recrudescence of these diseases is rooted in a complex interaction of socioeconomic, psychosocial, and biological factors. The prevention and treatment of sexually transmitted diseases in teenagers is especially difficult for several reasons. Although one reason given is the

[a] e.g., *World Health*, May 1975 (*passim*)

assumed high degree of promiscuity among sexually active young people, it is not necessarily always so. For example, in one study[a] less than 22% of sexually active teenagers changed partners over a one-year period and in a second study[b] the figure was only 14%. Another reason for difficulty in the prevention and treatment of these diseases in young people is the latter's ignorance or misconceptions regarding the diseases, a point to bear in mind when developing educational programmes on sexuality (see section 4.1.3 below). One further reason is hesitation and/or reluctance among young people to seek medical advice from traditional medical sources concerning suspected sexually transmitted diseases, and their greater willingness to have recourse to alternative, less conventional youth medical services.

It was felt important to re-emphasize that every "biological" problem presented is clearly rooted in and/or closely tied to the psychosocial development of the adolescent. The fact has important implications for the various solutions posed by the Working Group.

3.2 Psychosocial problems

3.2.1 *General*

The psychosocial problems discussed were the use of tobacco, alcohol and drugs; suicide; juvenile delinquency; school-leaving. While these problems in many instances have biological consequences, the etiology is psychosocial. It was stressed by the Group that since they are basically social (rather than medical) in origin, their evaluation and management should not be limited to the medical approach. Thus, rather than "diagnosing" an individual who exhibits one of these psychosocial "symptoms" as being "sick" or a "problem", it is usually more worthwhile to view the individual as being in a certain social situation and as therefore having special needs. The Working Group also stressed that because of the rapid communications in modern society, psychosocial processes influencing the development of psychosocial problems in adolescents are more or less common to the whole European Region. The way in which teenagers react to these processes, however, is influenced by local conditions and varies considerably from country to country, and even within the separate countries. There are in general, nevertheless, three categories of maladaptation to these psychosocial processes which are widely encountered in the Region. First is a passive form of coping which includes varying degrees of withdrawal from school-leaving to "dropping out" of

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[a] **Kinch, R. & Kruger, E.** Some sociomedical aspects of adolescent pregnancy. *Int. J. Gyn. Obstet.*, 8: 480 (1970)

[b] **McCance, C. & Hall, D.** Sexual behaviour and contraceptive practice of unmarried females. *Brit. med. J.*, 2: 694 (1972)

society in general, to its most extreme form – suicide. Second is an aggressive form of coping which includes juvenile delinquency, gang violence and its most extreme form – terrorism. The third category includes some compromise reaction, such as instability at school or work, running away from home, and substance abuse (alcoholism, drug abuse). Whichever form the reaction takes in any particular teenager, it is most important not to blame the victim, i.e., to label him or her "sick" or "bad", but rather to understand that the reaction is an inappropriate (and usually self-defeating) attempt to cope with the psychosocial stresses of adolescence.

Each of the psychosocial problems reviewed here is of such magnitude and complexity that it is possible only to highlight some of the important issues in each case and some of the directions for the future.

3.2.2 *Substance abuse*

The first psychosocial problem discussed was the use of tobacco, alcohol, and drugs. The consensus of opinion was that the use of tobacco is a different phenomenon from the use of alcohol and drugs and should be considered separately. The use of tobacco by teenagers is widespread and while in some countries it appears to be increasing, in other countries it may be decreasing. In England, the following statistics apply:[a] 5% of 10-year-olds smoke on occasion; 98% of adolescents who do smoke do so regularly and of these only 15% can be expected to stop; most male smokers start the habit at 13 years, most females begin smoking at 15 years; the age that the habit is taken up is falling and the proportion of young women smoking is increasing. By contrast, one recent study in the USSR[b] found that in the last few years the percentage of those who smoke among children and adolescents in one city has decreased as follows: 1971 – 20.1%; 1973 – 18%; 1975 – 17.5%; 1977 – 16.3%. In the same study it was found that 15.2% of these smoked more than 20 cigarettes a day, 53.7% between 10 and 20 per day, and the remainder less than 10. Knowledge that smoking may be harmful is not enough to prevent smoking. From the same Russian study, it emerged that 77.6% of the young smokers considered smoking to be dangerous but continued to smoke because "I enjoy it" or "I am too weak willed to stop". The harmful effects of smoking to the smoker and to those around him are well documented. It has also been clearly shown that the number of children and adolescents smoking is much higher when their parents smoke too.

The use of alcohol and drugs is perhaps the classic example of a psychosocial prop – used by insecure and/or stressed adolescents to help bear the weight of what is perceived to be a complex, hostile life. The use of alcohol

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[a] **Williamson, J.D.** Communication to the Working Group

[b] **Sokolov, D.K.** Communication to the Working Group

by teenagers is particularly widespread in the Region. In London, 90% of adults questioned[a] started drinking alcohol at 15 years of age; among 18-year-olds about 33% drank heavily on occasion, about 20% drank heavily regularly, and about 2% are dependent on alcohol; between 1951 and 1971 the number of convictions of adolescents in the United Kingdom for drunkenness and offences related to drinking nearly doubled.

It is more difficult to determine the prevalence of cannabis consumption among young people because of legal restrictions against it. Nevertheless, its use appears to be increasing in most parts of the Region. This is illustrated by the fact that, despite slight relaxation of laws against cannabis in the United Kingdom, the number of people prosecuted for using it nearly doubled between 1969 and 1972;[a] it is estimated that more than 80% of British students smoke cannabis at least occasionally. There is still no answer to the two basic questions as to whether cannabis use leads to more dangerous drug abuse or whether it is intrinsically harmful. On the other hand the serious and harmful effects of the "hard" drugs (heroin, etc.) are unquestionable and their increasing consumption among young people of the Region is a tragic fact of the day.

In reviewing the available solutions to the problem of substance abuse in adolescence three types of research are needed. The first type of research will more clearly define the problem through the study of the demographic characteristics and long-term effects of substance abuse. Here it is essential for each country to determine the characteristics of teenage alcohol and drug abuse in its own areas so as to rationalize treatment programme planning. A second type of research, study of the sources of stress which lie behind adolescent substance abuse, is needed to identify the root causes of the problem. Such information will allow development of more preventive approaches which focus on ways of reducing the stresses. The third type of research needed consists of experimental approaches to services, including programme evaluation. For example, pilot programmes could focus on the use of significant models (including remote heroes and peer group leaders) who have successfully resisted substance abuse and found more positive solutions to their stresses.

The seriousness of substance abuse and the magnitude of the problem in young people demand that solutions include the immediate establishment of services for this problem even while awaiting the results of research. In this, the Working Group agreed that much more effective use could be made of the school as one setting for such services. Some schools, for example, might wish to consider intervention programmes for teenagers such as clinics to reduce smoking and drug abuse (see section 4.1.1 below). It is equally important to make more effective use of the local community as a setting for such services. The use of already established programmes such as youth clubs

[a] Williamson, J.D. Communication to the Working Group

for this purpose as well as the development of new innovations such as youth advisory services (section 4.3) is essential if it is hoped to begin making inroads against this epidemic problem.

3.2.3 *Suicide*

The second psychosocial problem discussed was suicide, the second or third leading cause of death in 14- to 18-year-olds in Europe. While the suicide rate for all ages in the Region has been fairly stable in the recent past, the nineteen-sixties saw a significant increase in suicides in the age group 15–24 years, and in the nineteen-seventies there has also been an increase in the suicide rate below 15 years of age. Furthermore, it is estimated that for every death from suicide there are from 3 to 10 attempted suicides.

Investigations into the causes of suicide reveal that it is very rarely associated with psychosis. The causes tend to be basically social in nature and related to stresses in the family, the school or society. Among the causes of suicide one frequently encounters family conflicts (between parents, between parents and young people). Other data suggest a frequent association with stress at school. For example in one country in the Region, analyses of suicide in young people reveal a significant increase in both attempted and successful suicide at the age when compulsory primary school ends and the secondary schooling begins.[a] Further analysis in the same country revealed a seasonal variation in the suicide rate in adolescents with the highest rates during examinations and the lowest rates during school holidays. It is also generally agreed that the effects of industrialization, including the prolongation of childhood, education and training, and the penetration of newer economic pressures into youth culture and the family all increase the stress inherent in adolescent years. Another factor implicated in suicide among younger people is the sometimes childish wish to spite others and an ill-developed realization of the finality of death. Though it is a known fact that suicide attempts may be a cry for help, often no one turns up to help and the attempt may tragically succeed. Attempted or successful suicide in adolescence is associated with lower socioeconomic status, less education, school problems, social isolation, substance abuse, juvenile delinquency, and generally with those who may be called the "social losers".

As regards solutions to the problem, the same research approaches as outlined for substance abuse are needed. Research to define the extent and character of the problem more clearly must be done individually by each country because of differences in the definitions and systems of registration. A careful registration and detailed epidemiological analysis of suicide is a basic need in every country. Research into suicide-producing stresses in society and into the characteristics of risk groups and the warning signals is an

[a] Bozkowa, K. Communication to the Working Group

equally important research task. Experimental approaches to services which make use of research findings and which include programme evaluation are the third type of research needed in this field.

Services to combat teenage suicides form the other component of the solution. Much is already known about the risk groups and the antecedents of youthful suicides and this knowledge should be put to immediate use. Here too the Working Group stressed the important role of the school. First, schools need to reassess ways in which their policies contribute to the suicide problem. For example, with increasing the school-leaving age, it is usual for teachers to become more subject-oriented and less student-oriented, and this is often accompanied by the gradual disappearance of any prospect of close and supportive student-teacher relationships. Schools might develop programmes which alert teachers to risk groups and the danger signals; allow for the development of a one-to-one relationship between student and teacher; and strengthen the guidance programme for selected students. Services to combat teenage suicide should also include support systems for families in conflict (see section 4.3 below). Consideration should also be given to the development of special programmes such as telephone "hot-lines", etc., for assistance to teenagers who consider or attempt suicide.

3.2.4 *Delinquency*

Another psychosocial problem of adolescence is delinquency, reviewed by the 1972 Working Group on Problems of Deviant Social Behaviour and Delinquency in Adolescents and Young Adults[a] and the 1973 Symposium on Major Issues in Juvenile Delinquency.[b] The evidence suggests that adolescent delinquency continues to be an increasing problem in most, if not all, areas of the Region. The increase in the problem is illustrated by a study of age-specific registered crime rates in one country in the Region.[c] Between 1950 and 1970 in the country in question the registered crime rates did not significantly increase for women (of all ages) or for men over 21 years of age. But for men between 12 and 21 years of age there was a steady increase in the registered crime rate during this 20-year period. The increase in adolescent delinquency is apparent, since the study was limited to registered crimes and since it is estimated that among young men in this age group unregistered crimes far exceed registered crimes.

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[a] **WHO Regional Office for Europe.** *Problems of deviant social behaviour and delinquency in adolescents and young adults.* Report on a Working Group. Copenhagen, 1973 (document EURO 5425 III)

[b] **WHO Regional Office for Europe.** *Major issues in juvenile deliquency.* Report on a Symposium. Copenhagen, 1974 (document EURO 5430 III)

[c] **Timmerman, H.** Communication to the Working Group

As with other psychosocial problems, there seems to be a relationship between adolescent delinquency and school attendance. Since the crime rates for young men drop after they leave school, delinquency is probably to some extent the result of the frustrations and stresses of schooling. It has also been found to be associated with unemployment and with substance abuse.

The solutions for this type of delinquency are similar to those of the other psychosocial problems. Each country needs to study the nature and extent of its own adolescent delinquency and the factors which underlie it. Innovative services need to be established and evaluated. With regard to such services it is important to note that it might be worthwhile attaching less importance to punishment for such delinquency; the country in the Region with perhaps the least punitive approach also has the lowest rate of recidivism.[a]

3.2.5 *Leaving school and finding work*

The last psychosocial problem of adolescence discussed by the Working Group was school-leaving and work entry. With regard to school-leaving, three facts of modern industrial society are key elements in creating this problem: the trend towards prolonged, mass, general education for this age group; the fact that education is the key to social mobility in today's world; and the fact that the economic crises of recent times make it less and less likely that an adolescent will be able to realize his own chosen vocational aspirations. Thus, today's teenager faces longer and longer schooling which becomes more and more important for "success", with less and less opportunity of achieving that "success" later. This in turn creates parental pressure and school pressure on the adolescent, resulting in concomitant stress. If the pressures and stresses become too great, one method of coping is to withdraw from the contest by leaving school precipitately. Consequently, more and more young people in the European Region leave school before the completion of studies.

When adolescents leave school they enter the job market. In western Europe they come face to face with a serious problem of unemployment. While the unemployment rate varies among countries, in every case the rate is highest in three "high-risk" groups: the young, the women, the minority groups. In the European Common Market countries in 1976, 4 out of 10 unemployed were adolescents. It is clear that such out-of-school, unemployed young people are at risk for psychosocial problems such as feelings of inadequacy, feelings of alienation from society, inadequate income, lack of direction and meaningful use of time. On the other hand, in eastern Europe, there is a labour shortage and no unemployment. The economic and social realities there too are, however, such that it is often not possible for young people to do what they wish when they leave school. Their vocational placement

[a] Timmerman, H. Communication to the Working Group

depends on many factors, some out of the control of the individual, and include school achievement, place of residence, and what is available in the job market. It is clear that job placement which is not congruent with the wishes and goals of the adolescent will also contain potential for psychosocial problems, such as resentment, frustration, alienation from society, loss of goals.

When the adolescent finds a job, the question of vocational suitability arises. A job is suitable if it corresponds to his wishes and to his psychological and physical abilities. We have already seen that, whether the underlying issue is unemployment or mandatory employment, the realities of today's job market inevitably result in a decrease in job suitability for young people. In most countries efforts to achieve job suitability include a medical examination prior to employment. As many as 10% of adolescents receiving this examination are assessed as having reduced work capacity for physical reasons. As with all mass screening procedures, the risks of false positives (overdiagnosing) and more or less permanent labelling of individuals are inevitable in the process. In most countries it is also required that places of employment be controlled for health risks. In one country it was found that over a quarter of adolescents were working in jobs with a health risk.

The job suitability of young migrants is a special problem touched on by the Working Group. The special problems of these young people (two cultures, two languages, family adjustment away from familiar surroundings, access only to the poorest jobs) have been considered in previous reports[a] but need more study.

Solutions to problems raised by school-leaving and job entry will, of necessity, vary in different areas of the Region depending on local conditions. In countries with unemployment, for example, programmes are needed which will attract young people into meaningful activities, often by expanding their opportunities of involvement in human services. In all countries in the Region, vocational education programmes, in and out of schools, should be reassessed in the light of the realities of the job market (see section 4.1.2 below). Screening programmes for job suitability also need reassessment to reduce any tendencies to overdiagnosing and/or labelling. Studies are needed to evaluate the effectiveness of health risk control measures in places of employment. Such studies should include evaluation of industrial accidents in adolescents so as to determine the extent to which they are age-related – that is, related to the biological and psychosocial characteristics and problems of this age group.

[a] **WHO Regional Office for Europe.** *Health aspects of labour migration.* Report on a Working Group. Copenhagen, 1974 (document EURO 4003)

4. SOLUTIONS

4.1 Educational programmes

4.1.1 *Schools*

The role of the school in modern industrial society is changing from that of a tool for economic development to that of the education of young people for a meaningful life. This changing role has necessitated a re-evaluation of the entire schooling process, including what is to be taught, how it is to be taught and the place of the school in the rest of society. The changing role of the school and the urgent need to reassess schooling is nowhere more apparent than in relation to adolescent years. We have already seen that the school may be a partial cause of some problems in teenagers (substance abuse, suicide, adolescent delinquency, dropping-out of school) through its contribution to the pressures and stresses of adolescence. The first task of schools with adolescents is to continue to study the relationship between the school and these problems. This should be followed, in turn, by significant changes in school policy aimed at reducing these pressures and stresses as much as possible and, at the same time, providing a milieu which is supportive and helps to broaden the personality rather than being punitive and constricting.

The Working Group emphasized two important principles which should be kept in mind as schools change their policies to meet these newer responsibilities. The first principle, the need to open up the school and to integrate it more closely with the family and the community, was discussed in the reports on the two earlier working groups in this series. The second principle is particularly relevant to adolescents, the need to put increasing emphasis on developmental age rather than chronological age in school. The hiatus between chronological age and developmental age, pointed out earlier, is obviously of clear and vital relevance to school policy, including establishing requirements, placing or grouping students, etc. Naturally, the school has the further responsibility of providing education relevant to the present-day needs and problems of teenagers.

4.1.2 *Vocational education*

Any programme of vocational education in the schools should attempt to prepare the young person for satisfying work, not just finding him or her a job. For this it is important to have integrated programmes beginning before adolescence, as was noted by the Working Group on Problems of Children of School Age (10–13 years)[a] and including psychosocial and

[a] **WHO Regional Office for Europe.** *Problems of children of school age (10–13 years).* Report on a Working Group, Copenhagen, 1977 (document ICP/MCH 006)

physical assessment of the individual and guidance on an individual basis. The aim of this guidance is better understanding of the particular adolescent's own abilities, interests and desires. Vocational education programmes for young women should include parenthood as at least a legitimate temporary career, with the option for a more permanent career in a child care profession or elsewhere. We have already seen that adolescent pregnancy is widespread; programmes must also be geared to meet the special vocational needs of teenage parents.

In developing realistic vocational education programmes in schools, close cooperation must be established between schools and industry. This can be best accomplished by both bringing industry into the schools and bringing schools into industry. This is being done in a number of countries in the Region. In one country, for example, there are occupational physicians who specialize in adolescence and who work closely with the schools. In several countries there are programmes in which students work one day a week at a local factory which results in the development of special relationships between the factory and the school. Such cooperation between schools and industry should include collaboration between the vocational education programme in the school and the occupational health programme in the community. It can result in industrial management and occupational health personnel being able to learn more about the characteristics, needs and problems of adolescents, and in vocational education programmes in the schools providing an opportunity to learn more about the realities of the job market.

4.1.3 *Health education (including sex education)*

Health education programmes in the schools need to be tailored to the gradually developing needs of children as they grow up (see also the two previous working groups in the series). School health education programmes should also take place in school and out in the community. They need to be integrated methodologically; i.e., the teaching methods should be geared to the level of development of the students. This is particularly pertinent for teenagers since, as pointed out earlier, the latter's process of socialization frequently tends to make them suspicious of adult authority and adult ways, and this may lead in turn to psychosocial obstacles to more traditional educational approaches. Less traditional methods of health education are needed with adolescents, methods which are less inclined to state "this is right, that is wrong, this is what you should and should not do", than to emphasize the facts and risks but to leave the choice to the individual; to allow them to find out for themselves through trial and error; to use hero and peer models; to encourage them to care for themselves and know when and where to seek information and/or advice.

Health education programmes ought also to be subject integrated. The subjects taught should be age-specific and relevant to the general needs and

problems of pupils. This is also particularly true for teenagers since, as we have seen, the characteristics and problems of adolescents are unique. The Working Group considered several subjects which need special attention in health education programmes for 14- to 18-year-olds: growth and development; accidents; substance abuse; nutrition; sexuality and living together.

The need for education concerning normal growth and development has been pointed out above (see sections 2.2 and 2.3). Learning about the hiatus between biological age and chronological age will help reduce inappropriate psychosocial reactions to normal variations in biological development. Similarly, learning about adolescent psychological and social development will enhance the ability of the teenager to adapt to his own development and to accept the psychosocial variations of his peers. Such education on adolescence should begin prior to adolescence, and the classroom is an excellent place to demonstrate these gaps and variations.

The importance of teaching teenagers about nutrition, the dangers of accidents and substance abuse should not be underestimated. With regard to accidents and substance abuse, the emphasis should be on changing stress-producing social pressures and finding less harmful ways of reducing stress. Nutrition education should help them to adapt their eating practices to ensure good nutrition using foods popular with young people.

The Working Group placed special emphasis on the need for education in sexuality and in problems of living together. The earlier discussion in this report on sexual development (section 2.5) and problems associated with sexual development (section 3.1) makes it apparent that there is an increasing and urgent need for this type of educational programme. The increasing period of risk of unwanted pregnancy has resulted in growing numbers of pregnant adolescents. While induced abortion may be better than an unwanted child, contraception is better than an unwanted pregnancy and the best path to improved contraception is education for responsible sexual behaviour. Increasing sexual activity among teenagers is a fact and, rather than ignoring its existence or trying to stamp it out, it would seem more expedient to educate young people so that such activity becomes a positive and constructive experience in the developmental process leading to responsible adulthood. Moreover, since cohabitation is increasing, at least in some areas of the Region, and since most people eventually marry, it is equally important to teach young people how living together can be a positive and constructive experience.

There is evidence that existing educational programmes in sexuality and living together are not meeting this urgent need. Surveys of young people reveal ignorance and misconceptions regarding sexuality and a serious gap between knowledge and practice. We have seen (section 2.5 above) that studies reveal remaining inadequacies even in a country in the Region with a long-established and highly developed programme of sex education. Consequently it behoves health and educational authorities in every part of the Region to reassess and further develop their educational programmes in sexuality and living together.

In developing these programmes further certain principles need stressing. First, education in sexuality should begin in the early school years; be progressive and continuous during the school years; and be integrated with the rest of the school curriculum. The Working Group agreed with the Working Group on the Problems of Children of School Age (10–13 years) that "by 13 years of age children should have received all the necessary sexual information (facts)"[a] and further emphasized that this information should include all the facts concerning contraception. The focus during the age period 14–18 years should be on the psychosocial parameters of sexuality and cohabitation and on the development of healthy attitudes towards the two matters.

Health authorities should collaborate with educational authorities in curriculum development for school programmes in sexuality. Parents also need to be involved in curriculum development and the programme in the school should be viewed as complementary, and should support the training which students receive at home. The curriculum should place emphasis on the positive aspects of sexuality – the development of responsible sexual behaviour and satisfying interpersonal relationships. It is essential that young people learn, prior to the onset of puberty, all aspects of normal sexual development (biological and psychosocial) including normal variations, in order to prevent unnecessary anxieties during their pubertal years. During the adolescent years they should also receive information concerning more unusual variations in sexuality such as homosexuality. The curriculum during the age period 14–18 years should place emphasis on preparation for living together, family life, and parenthood. Finally the curriculum must also contain information on sexually transmitted diseases, their symptoms, their consequences and, most importantly, their prevention.

In developing educational programmes in sexuality for adolescents, special attention must be given to appropriate methodologies. A pragmatic approach which uses a variety of teaching methods is needed. Teaching should take place in the school classroom and out of the classroom; out of school in the doctor's office (during medical examinations), in youth clubs, in nontraditional youth clinics (see section 4.3 below), as well as in the home. Teaching should be both on an individual and a group basis and should make it possible for the adolescent to pose questions anonymously (telephone hotlines, question-and-answer columns in newspapers and magazines, etc.). Teaching should involve parents, school teachers, psychologists, physicians, nurses, social workers, and informed peers. In developing these programmes it is essential to include a programme evaluation element so that the effectiveness of the educational process can be measured and the necessary changes made.

Any new or improved educational programmes on sexuality and living together must have the endorsement and backing of the community. The

[a] *op. cit.*

content of the programme should be locally determined and based on local conditions, social *mores*, etc., and will naturally vary from area to area. Each society, however, must accept responsibility for developing legislation which provides an adequate mandate and support for these programmes.

4.2 Health services

The characteristics and problems of adolescence are such that the special needs of this age group can be met only by a wide variety of services, including health services. This network of services and the place of health services in it is illustrated in Figure 4.

4.2.1 *Primary health care*

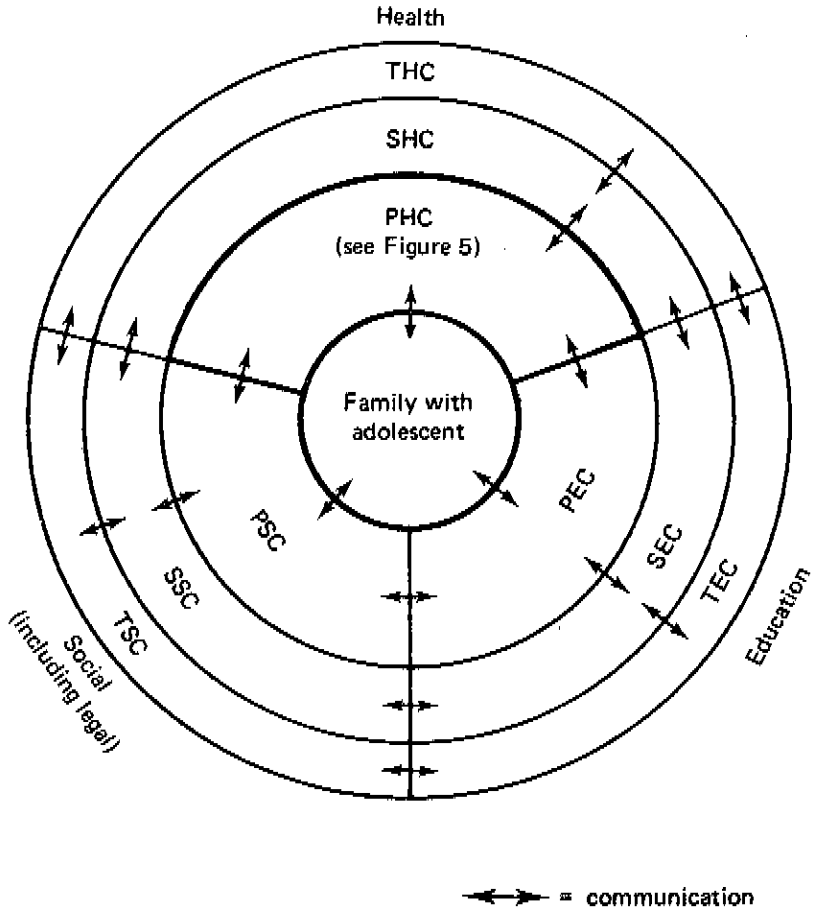
Within the health care system for adolescents (as within any health care system) the largest and most important services are contained in primary health care.

The present-day view of primary health care is that medical and other forms of health care should be provided within the local community while remaining integrated with the national health care services; they should have, wherever possible, a preventive approach designed to meet the needs of the population they serve; and they should be multidisciplinary in character, replacing the older forms of individual medical practice with the use of teams involving as many of the health professions as are locally available.

Primary health care for adolescents includes both preventive and curative services, both traditional and nontraditional, as illustrated in Figure 5. The traditional primary health care services are the formal professional medical services (doctor, nurse, school doctor, etc.) suitable in general for managing the more traditional health problems of teenagers. The traditional primary health care services are organized in a variety of ways in the European Region, depending on the overall organization of health care within a given country. Basically, there are two systems. In eastern Europe, primary health care up to 15 years, both preventive and curative, is provided by a neighbourhood paediatrician and by a neighbourhood adult family physician after the age of 15. In western Europe, preventive primary health care is provided by public child health centres, school health services, etc. Up to the age of 15, curative primary health care is provided either by a paediatrician or by a general practitioner, while after 15 it is provided by the general practitioner. The Working Group agreed that the important factor is not the way the services are organized and who provides the care but rather what the functions of the service are (how they are given and what they include).

Several important functions should be included in traditional primary health care services for adolescents. First the provider of a service must be able to communicate with a teenager, i.e., to provide a service which is both

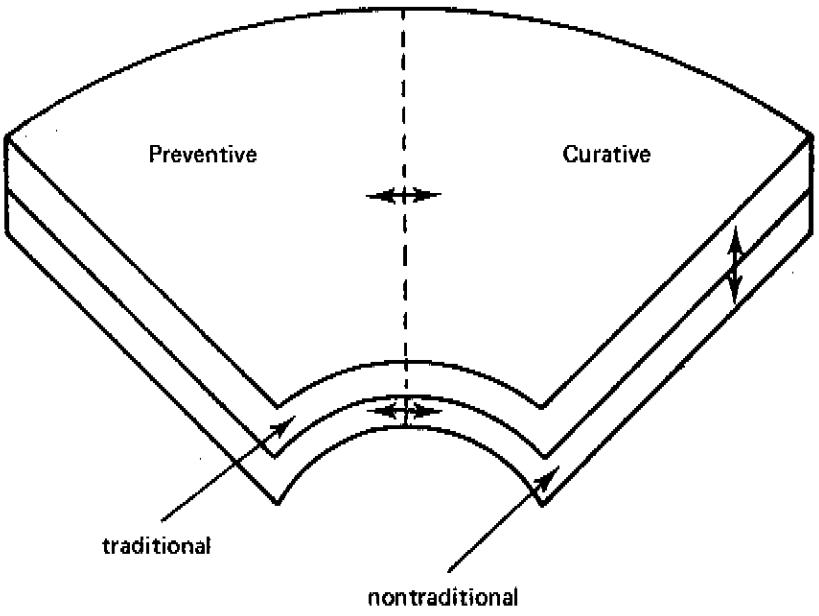
Figure 4. Overall services for adolescents



P – primary
S – secondary
T – tertiary

PHC – primary health care
PSC – primary social care
PEC – primary educational care, etc.

Figure 5. Primary Health Care
(section of Figure 4)



= communication

accessible and acceptable. It has already been noted that the socialization process in young people often results in suspicion of adults. The health provider must find ways of overcoming such suspicion in gaining the confidence of the teenager. Inherent in establishing such confidence is the issue of confidentiality. For example, how can a doctor establish the confidence of an adolescent patient and serve as the advocate of the patient while still maintaining a good relationship with the parents? One possible solution to this dilemma, if the adolescent is brought to the doctor by the parents, is for the doctor first to see the adolescent and parents together but then to obtain agreement for them to be seen by him separately in subsequent sessions before being jointly interviewed later. Such a procedure allows the doctor to establish a private relationship with the adolescent, to hear the problem from both sides, and later to improve communication between parent and adolescent by bringing them together. If the adolescent in any case comes to the doctor alone, it is probably preferable to assure him or her that all information will be held in confidence unless both agree to bring in the parents or other outsiders.

Another important function to be included in traditional primary health care services for adolescents is the ability of the service provider to communicate with the other elements in the service network: secondary and tertiary health, social, legal, educational, and nontraditional services (see Figures 4 and 5). The Working Group put special emphasis on the importance of evaluating the health referral system for adolescents in all countries and on raising the status and respectability of those nontraditional services which come within the traditional sector.

It is important to discuss not only how traditional primary health care services for adolescents should be provided but what functions they should include. In addition to the traditional curative medical services (treatment for acne, stomach pains, etc.), emphasis should be placed on preventive services. Involvement in preventive care will include occupational health services (see section 4.1.2) and assistance in the management of psychosocial needs and problems. Thus, for example, primary health care providers should be involved in the prevention and treatment of problems related to sexual development in adolescence. Primary care physicians should give information to their teenage patients on sexual development, contraception, premarital guidance, and parenthood.

No matter how well organized and properly functioning the traditional primary health care services for adolescents may be, there will always be a need for additional nontraditional services. On the one hand, the bureaucratic nature of traditional services, with waiting lists, appointments, opening hours, etc., often conflicts with the needs of teenagers. On the other hand, the professionalized nature of traditional services, older highly-trained adults, is often feared by teenagers, especially by those who have developed suspicion of adults. Nontraditional primary health care services for adolescents, then, should have a nonbureaucratic, nonprofessionalized approach. Some of the

ways in which these are commonly organized include: being open during the evening; operating on a "walk-in" basis; catering for young workers; maintaining a casual, nonprofessional-like ambiance; permitting access without parental permission; and guaranteeing anonymity. Nontraditional services may be established to meet specific urgent, local needs of teenagers, such as clinics for problems of substance abuse, for sexual problems, etc., or they may be established to meet all the primary health care needs of teenagers who, for whatever reason, will not avail themselves of the traditional services.

One of the common characteristics of nontraditional primary health care services for adolescents is a heavy emphasis on self-care and peer help. In the past traditional services have tended to ignore or play down the importance of the contribution to be made by the individual and his peers in his own health care. But in adolescence this is particularly important and is a fact of life which the nontraditional services have recognized. Figure 6 illustrates the communications within a family, together with the teenage peer network which exists outside the family. It is this which the nontraditional services have tapped as a resource.

Not only do communities need both traditional and nontraditional primary health care services for adolescents but, by having both types of services and establishing good communications between them, both types of services can learn from each other. Nontraditional services can be supported by the authorities and, as they evolve effective methods of serving teenagers, the methods can be incorporated into the more traditional sector, gradually reducing the differences between the two types of service.

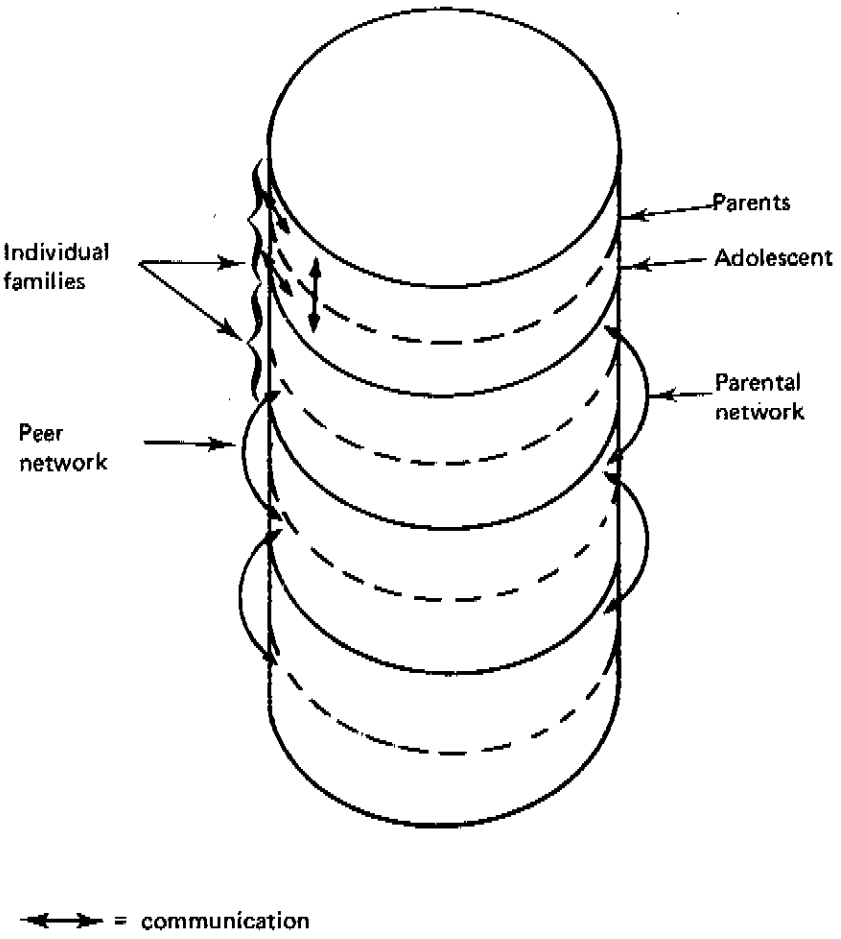
In the more developing areas of the European Region, primary health care for adolescents must begin with the development of an infrastructure of effective traditional services. Because of limited professional resources, emphasis can be placed on the use, not only of members of associated professions and volunteers, but also on peer help and self-care. Since teenagers in these areas still tend, in general, to be better integrated with the family structure, stress can be given to family support services. Nontraditional services are also needed but may use different methods, perhaps being limited to a special evening clinic in premises normally used for social, cultural or religious purposes.

4.2.2 *Secondary and tertiary health care*

Adolescents also need to have access to secondary and tertiary health care services.[a] With regard to such secondary and tertiary health care services, it was asked whether or not there was a need for a specialty in adolescent

[a] Secondary health care involves management by medical specialists, including hospitalization. Tertiary health care involves management by the most highly-specialized and technical services, such as intensive care units, cardiac surgery units, etc.

Figure 6. Families with adolescents
(section of Figure 4)



medicine. There was general agreement that a country's first consideration must be for the development of a good primary health care system for adolescents, using the basic family medicine system (paediatrician or general practitioner) of that country. If a good primary health care system for teenagers already exists, then there might be important advantages in developing a specialty in adolescent medicine, for it would provide a place to refer young people with special problems beyond the competence of the provider of primary care. Adolescent medicine specialists could be either paediatricians or internal medicine specialists with at least three years' experience in adolescent medicine. They could be located in outpatient and inpatient adolescent units in secondary and tertiary health care facilities. The age group they would serve might vary, depending on the organization of health services and, more importantly, on the developmental level of the individual patient, but in general young people between 14 and 21 years of age might be referred to them. The advantages of having such specialists would include knowing how to communicate with the age group, even allaying the fears of the most recalcitrant patient; knowing all the special characteristics and problems of adolescence; and knowing how to communicate with and coordinate all elements of the service network from tertiary medical superspecialists to young service providers in nontraditional programmes.

Adolescents requiring secondary or tertiary health care still have the usual needs of all teenagers. Thus, for example, during hospitalization it is important to maintain confidentiality between the patient and the health team; fully comprehend all his problems; assist him to continue schooling; give him the company of other adolescents to allow continuing socialization; and permit visits by friends and parents. Satisfying these needs clearly requires the services of a multidisciplinary team (doctors, nurses, social workers, teachers, psychologists) and is easiest to do by locating him in an adolescent unit. Hospitals with sufficient teenage patients should maintain such adolescent units. If the adolescent patient population of an institution does not justify a special unit, then the decision for placement in a children's or an adult unit should be made on an individual basis depending on the developmental (not age) level of the patient. Every attempt should be made to meet the special needs that have just been discussed.

Adolescents with handicaps and/or chronic diseases also have the usual needs of teenagers in addition to the special needs associated with their particular health problem. Not only do they usually require secondary or tertiary health care, but their health problem often produces special educational and vocational needs. Such young people place the highest demands on the health care system, demands which can only be satisfied by a multidisciplinary, carefully coordinated system of services involving health, educational, and social service personnel.

In providing health care for adolescents, it is most important for all health care providers to have training in the characteristics and problems of the age

group. This should be given as part of the undergraduate and postgraduate curriculum of all physicians, nurses, psychologists, teachers, and social workers, and should be both theoretical and practical.

4.3 General services

As mentioned earlier, the special needs of adolescents must be met by a wide variety of services. In addition to health services, social services, legal services and educational services must be provided (see Figure 4). It is imperative, however, not to draw traditional lines between the various types of service. The complex nature of teenagers' problems (i.e., every "biological" problem presented was seen to have psychosocial implications) demands close integration of services. Furthermore, as with health services, the general services must also include both traditional and nontraditional approaches (the two layers illustrated for primary health care in Figure 5 should exist for all services).

In responding to the increasing problems of adolescents today, countries can expand the number and scope of the more conventional general services. Thus, for example, most countries have youth organizations and youth clubs providing important services for teenagers. While these organizations and clubs will vary from area to area depending on local customs and needs, they all need to provide the possibility for informal guidance and for individual initiative in choosing activities, as discussed in greater detail by the Working Group on Problems of Children of School Age (10–13).[a]

There is an equally urgent need to expand the number and scope of nontraditional general services for adolescents. These nontraditional general services for teenagers are often called youth advisory services.[b] The youth advisory services have the same characteristics as those described for nontraditional primary health care services for adolescents (see section 4.2.1 above) and fill an equally important gap in services for young people. In fact, those responsible for the development of nontraditional health care and general services for young people long ago recognized the need to abolish traditional lines between professional disciplines and services and so today there is no gap between nontraditional primary health care services and other youth advisory services. Thus, for example, youth advisory services of all types place emphasis on self-care and peer help (see Figure 6).

General services for adolescents, whether conventional or nontraditional, must perform certain functions if they are to meet the needs of young people. Perhaps the most important function is that of advice and counselling. This

[a] **WHO Regional Office for Europe.** *Problems of children of school age (10–13 years).* Report on a Working Group. Copenhagen, 1977, section 3.3.2 (document ICP/MCH 006)

[b] **WHO Regional Office for Europe.** *Youth advisory services.* Report on a Working Group. Copenhagen, 1976 (document ICP/MNH 016 III (1))

advice should include counselling in psychosocial, legal, vocational, and educational matters. The counselling may be formal or informal, on an individual or group basis. It is important to provide the possibility for anonymous counselling independent of parents, school or authorities, so that teenagers may avail themselves of the service without fear of being reported to parents or police or of being judged. It is also important to provide facilities for round-the-clock emergency counselling – perhaps through a telephone hot-line.

Another valuable function of general services for young people is to provide opportunities for leisure, recreation and culture. This function can be performed in a variety of ways and settings but emphasis should always be placed on the initiative of the young people themselves in organizing such activities. Special programmes for leisure, recreation and culture can also be organized for adolescents with special problems (alcoholics, drug addicts, physically handicapped, etc.) and may take a variety of forms such as, for example, holiday camps. Here, however, the long-range goal should be to integrate the young people into normal society as much as possible and as soon as possible.

The degree of parental involvement in general services for adolescents will vary, usually depending on the appropriateness in each individual case. Most teenagers are still closely involved with their family structure and so, in addition to providing special services for young people, it is equally important for society to provide family support services both for families with teenagers and for teenage families (i.e., families with teenage parents).

The Working Group agreed that a couplet by Hendrick Marsman, a Dutch poet, from the poem "The Old Man and the Youth", summed up the needs of adolescents:

"Grandly and rousingly I want to live!
Do you hear? Father, mother, world, graveyard!".

5. RECOMMENDATIONS

The Working Group made the following recommendations.

1. Adolescence should be viewed as a normal period in development with special needs requiring special services and should not be defined *per se* as a health problem.

2. Each country in the Region should develop its own standards of biological development (physical and sexual) for this age period. There is a further need to develop better methods of measurement of adolescent psychological and social development.

3. Because of the normal dysjunction between chronological age and biological, psychological and social age found during this age period it is important to teach the principles of adolescent growth and development to children (prior to their puberty) and to all those involved with adolescents (parents, teachers, nurses, physicians, social workers, etc.). For the same reason it is important to use developmental age rather than chronological age as far as possible in evaluating teenagers, in developing activity requirements for teenagers, and in developing and administering services to teenagers.

4. Adolescents exhibiting the extremes of biological development need medical evaluation. Knowledge concerning the potentially positive and negative consequences of medical intervention in the growth and development process of adolescence is as yet inadequate. Consideration should be given to organizing a meeting on this topic.

5. More data is needed on adolescent morbidity (including psychosocial deviations) and age-specific mortality (e.g., accidents). School health services might become involved in collecting some of this data.

6. More information is needed on sexual development and sexuality during adolescence (including patterns of fertility behaviour, fertility control and family formation). Such information should be collected locally and should include psychosocial parameters. Governments need to recognize the sexual maturation of adolescence as an important issue and facilitate the collection of information and determination of needs in this area. Consideration should be given to arranging a meeting on this topic.

7. More studies are needed on adolescent pregnancy, abortion, childbirth, and parenthood. Such studies should lead to broad social programmes with an emphasis on contraception to reduce the incidence of unwanted adolescent pregnancy and abortion (especially repeated abortion and late abortion).

8. Educational programmes for children and youth on sexuality, preparation for living together, and parenthood, need to be more fully developed. Such educational programmes are best determined locally, through collaboration among parents, educational authorities and health authorities.

9. The nutritional needs of adolescence are important but poorly understood. More information is needed including, for example, eating habits and their relationship to nutrition, the long-term effects of nutrition during teenage on health in adulthood and old age, and nutritional needs during adolescent pregnancy.

10. Each country must determine the characteristics of smoking, alcohol abuse and drug abuse among adolescents in its national territory (including demographic characteristics, predeterminants such as stress, relationships to schooling, long-term effects) and then develop its own programmes to combat these problems based on its own information.

11. Accidents are an important problem in adolescence and innovative approaches are needed. Consideration should be given to organizing a meeting on accidents in adolescence.

12. As teenage suicide is increasing in most of the European Region, each country needs adolescent suicide prevention and treatment services, including identification of risk groups and counselling for attempted suicides.

13. There is an urgent need for family support systems for families with teenage children and for families with teenage parents. The support services should focus on teenagers from problem families and on families with problem teenagers. They should include youth advisory services and parent advisory services.

14. Less traditional health and social programmes are a vitally important component of services for teenagers. Youth clubs are a most valuable service and should include the possibility of individual and group initiative as well as the possibility of support services such as informal guidance.

15. Occupational health programmes for adolescents need to be broadly based and should aim at the optimum suitability of jobs and the best vocational satisfaction. Programmes should include vocational counselling in schools (including preparation for the realities of the job market), programmes in industry to assist young people in their adjustment to commencing work, and alternative solutions for the adolescent unemployed.

16. The role of the school in adolescence is in need of reassessment, including its role in preparation for a vocation, its role in preparation for family life, and its relationship to substance abuse, juvenile delinquency and suicide.

17. Irrespective of their structure, all health services for adolescents need to include a fully developed primary health care programme which includes an emphasis on preventive services and integration or close cooperation between preventive and curative services; effective communication between the adolescent, the adolescent's family and the health care provider; effective communication among primary, secondary and tertiary health care services; effective communication among health services, social services and educational programmes; an increasing part to be played by self-care and peer care; non-traditional as well as traditional approaches to provision of services; special training in adolescent health for all health care providers involved with teenagers; and the development of health care providers who are specialists in adolescent problems.

Annex

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[a] Participation expenses not paid by WHO