Facts for Policy Makers

on adolescent health and development

Inter Agency Taskforce on Young People

Prepared by WHO CAH
Financial support from UNAIDS
January 2006

Acknowledgements

This document was developed by WHO CAH for the Interagency Task Team on Young People. We would like to thank the following colleagues for their constructive contributions to the different section.
WHO: Jean-Dominique Lormand, Amalia Waxman, Annemieke Brand, Leanne Riley, Tim Armstrong, Marcus Stahlhofer, Myron Belfer, and Michelle Funk
UNFPA UNICEF UNFPA UNAIDS ILO UNESCO UNDCCP

This document was made possible through the financial support of UNAIDS

Copyright/disclaimers issues to be decided among IATT

Edited by …….
Printed in ……

Table of content

Part 1

Introduction

I. Scope of *Facts for policy makers*

What happens during the adolescent[1] period has important implications for the health and development of today's young people, for their future as adults and for the next generation. It affects individual adolescents, their families, their children, communities and countries, in the present as well as the years to come.

Governments are well aware of this, and a growing importance is given to young people. This is reflected in human right and international conventions such as the Convention on the Rights of the Child, CRC, and CEDAW. The international community set itself global goals on young people, during the UN General Assembly Special session on Children and particularly related to HIV/AIDS. The Millennium Development Goals constitute an important framework for action in countries for the international community

These instruments and goals say that, at the very minimum, young people need access to information, the opportunity to develop life skills, access to services, and a safe and supportive environment that ensures that they are protected from exploitation and their vulnerability reduced. Policies play an essential role in creating the environment that guarantees adolescents' access to these interventions. The importance of developing a supportive policy environment for adolescent health and development is expressed in the goal endorsed during the 2002 United Nations General Assembly Special Sessions on Children which states: *"Development and implementation of national health policies and programmes for adolescents, including goals and indicators, to promote their physical and mental health".*

This document provides guidance on the kinds of issues that need to be taken into consideration when developing and implementing policies that have implications for young people. While policies are guided by a variety of considerations that include the political climate, pressures from various interest groups, recent events and the like, policy makers should be informed by the best available evidence base. The policies outlined in this publication are based on the best available evidence, consensus or expert opinions about good practice and -whenever possible- reflect experiences from application and evaluative research in countries.

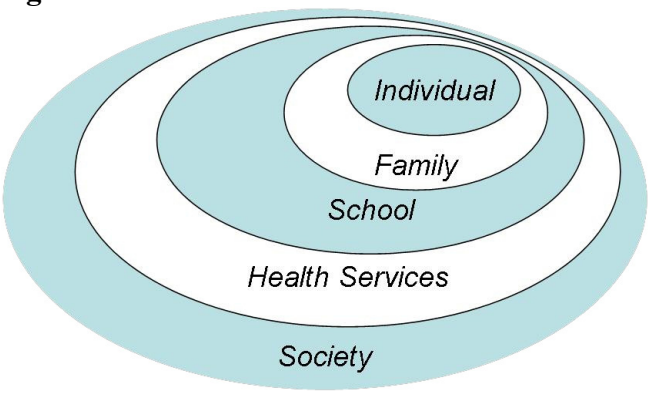
This document is for policy makers and other groups who contribute to the process of developing policies, such as professional organizations, NGOs and activists. Policies are not the domain of "policy makers" alone. Many groups and individuals contribute to the formulation of policies. The contribution can range from influencing or spearheading a policy debate ("policy champions"), to supporting the formulation of the policy environment. At the same time, the policy environment affects all professionals and other people working for and with adolescents. Knowledge about how the policy environment affects their work and the lives of adolescents is therefore an important asset.

[1] WHO defines adolescents as 10-19 years of age and of young people 10-24 years old. The UN defines youth as between 15-24 years old. Unless otherwise specified these terms have been used interchangeably.

Facts for policy makers **is structured** around 8 core health and development issues:

1. Adolescent Development,
2. Pregnancy and Contraceptive Choices,
3. HIV/AIDS and Sexually Transmitted Infections (STI);
4. Violence and Injuries;
5. Alcohol, Tobacco & Other Substances;
6. Mental Health;
7. Nutrition; and
8. Physical Activity & Recreation.

Figure 1



Policy issues are identified following an "ecological model" of the main targets or audiences for the policies and policy interventions (**Figure 1)**. These categories are broad descriptors. For instance, Individual level are adolescents and their peers, society level encompasses issues to do with the community at large, the (mass) media and legal and regulatory environment.

This publication is closely **linked** with another IATT document *Facts for Adolescents*. *Facts for adolescents* provides an overview of basic information on the same 8 themes as this document, that all people who have responsibilities for the health and development of young people need to know and be able to pass on to adolescents.

This document does not attempt to deal with broader social and economic development issues that impact upon the lives of young people. Education, citizenship, poverty and employment, among others, are very important for the healthy development of young people but mostly go beyond the scope of this document.

There is a strong rationale for arguing that among the most effective polices for promoting healthy adolescent development and the preventing a health problems and behaviors, are those that promote improved early and late childhood development. It is indeed important that policy makers adopt a life course approach to link child and adolescent health and development. At the same time, irrespective of the attention any society has paid to childhood development in the policy environment, the second decade of life provides second chances. Optimizing the potential healthy development of every new generation of adolescents is not only a matter of human rights, but also among the most efficient interventions for public health. It is also cost-effective as it provides an insurance for good returns on the huge financial and human investments made all throughout child health and development. Effective policies for adolescents are needed to harness that potential.

II What do we mean by policy for adolescent health and development?

When talking about policies for adolescent health and development this document refers to a variety of tools developed in the political, legal and health arena that interact and together form the policy environment. This is illustrated in ***Table 1*** with examples of adolescent health and development related policies. This representation indicates that policy expressions exist at various levels (for example from international to sub national level) and that these are tools in the political (national adolescent health policy), legislative (youth code) or public health domain (standards for adolescent friendly services).

Table 1: Examples of policy environment for adolescent health at different levels

	Forms of Policy	Forms of Legislation
International	**International Agreements &Consensus building document** Resolutions o World Health Assembly Resolutions o UN General Assembly Resolution UN Declarations and Platforms of Action o International Conference on Population and Development (ICPD) o Special Session on Children (SSOC) o Millennium Development Goals	**International Laws/ legal instruments Treaties and Conventions** Treaties o International Human Rights Treaties o International Covenant on Civil and Political Rights Conventions o Convention on the Rights of the Child (1989) o The convention on the Elimination of All Forms of Discrimination against Women (1979) o Framework Convention Tobacco Control (2003
Regional	**Regional Agreements** o WHO Regional Committee Resolutions o WHO Region Strategies on health of adolescents o European vehicle safety standards	**Regional Treaties** o African Charter on the Rights and Welfare of Child o African Charter on Human and Peoples' Rights o Inter-American Convention on the Prevention, Punishment and Eradication of Violence against Women (1994)
National	**National Policy** o National Adolescent Health Policy o National Youth Policy **National Strategy/Plan/Program** o National adolescent sexual and reproductive health strategy o National plan for HIV and young people o National Road Safety plan	**National Codes** o Youth codes **National Legislation/ Domestic Laws** o Mandatory laws for data reporting (STI) o Consent and confidentiality in medical treatment o Age of consent to marriage, sexual activity, o Minimum age for purchase of tobacco and alcohol products o National Road Safety Legislation

The national policy level tends to function as the main reference. However, with increased decentralization in many countries the importance of district or state level policy is growing. In "federal" states the centre of gravity lies at the state level, many a times. At the same time, the ever growing number of international treaties and conventions has increased the influence of international policy environment has on national policies. As an example, see the framework convention on tobacco, the role of Millennium Development Goals (MDGs) and poverty reduction strategies (PRSPs) play in setting national priorities and policies

Table 1 also shows how policies, laws and regulations tend to be related to each others, legitimizing some behaviors or interventions and sanctioning others. For example, policies to improve road safety may refer to education of road users on the use of safety measures and alcohol consumption. Regulations and laws will stipulate that the wearing of safety helmets is compulsory and indicate maximum alcohol blood level norms which can be subject to enforcement through the policing and judicial system.

II.1 How does the policy environment contribute to the health and development of adolescents

Policies (and their formulation process) have three generic functions:

1. they **sanction** interventions by building broad social and political consensus and commitment for interventions for adolescents. For example around the introduction of sexuality education;
2. they **regulate** by promoting or prohibiting certain behaviors, commodities and environments and helps to legitimize or prohibit behaviors by individuals or institutions For example, a policy may stipulate that all adolescents above a certain age have access to confidential HIV testing and counseling. Or it may prohibit marketing of tobacco products to minors. Often these policies go hand in hand with legislation that enables punitive reinforcement.
3. They identify **mechanisms or means** that affect implementation of interventions, and their funding. In some countries, for example, policy formulation resulted in a law that defined a fixed percentage of all public sector spending to be directed towards youth. Other countries issued decrees by which tobacco taxes were channeled to tobacco prevention programs targeting young people. It is clear that the "effectiveness" of policies is strongly enhanced if they include provision that ensure the resources required for the implementation of the interventions they promote.

For governments and organizations policy formulation is one of the mechanisms to increase the likelihood that sustained attention is being given to the specific issue and that budget allocations are made accordingly. With frequent political changes in institutions and governments, the existence of adopted policies with sufficient budget allocations also increase the likelihood that interventions can be sustained over time.

Consultative processes in the policy formulation allow for the development of broad consensus about sensitive topics. Once consensus is reached and confirmed through policy, individual professionals working in adolescent health and development programmes can align their activities. Policy expressions on sensitive issues such as those related to education on sexuality and

reproduction in schools or the provision of contraceptive and other reproductive health services to adolescents, and clear stipulations on parental consent, provide professionals with the necessary "support" and sometimes legal protection for their work.

The opposite is also true. In some cases the absence of a clear policy on for example minimal age of access to contraceptives, service providers may be reluctant to provide these service to younger adolescents. Policy statements that clearly spell out what age limits and confidentiality and consent procedures exist, are therefore one way to improve adolescents accessibility to these services and hence contribute to better coverage. Table 2 below provides examples of how policies try to affect the target audiences at the different 'ecological' levels.

Table 2 Examples of the functions policy plays at various levels

Function / *Level*	***Sanction*** *"create the space to …"*	***Regulate*** *"say what people must do…"*
Individual	▪ Participation in decisions concerning their health wellbeing and future	• Seat belts & helmet use • Use of illicit drugs • Buying or consuming alcohol below the minimum age • Tobacco use in public spaces • Adults to engage in sexual relations with adolescent below legal age of consent
Family	• Promote girls access to education • Promote parenting skills • Promote parents role model by being physical active.	• Prohibit corporal punishment of children
School	• Information on Sexuality & reproductive health	• Prohibit corporal punishment of children • Age of compulsory schooling
Health & Social Services	• Information on Sexuality & reproductive health • Adolescent friendly health services • Access to contraceptive technologies without parental consent over a certain age or	• Obtain parental or spousal consent as a precondition to undergo certain treatments •
Society - general	Youth parliament or other forms of participation in political processes	• Tobacco use in public spaces
- Commercial sector		• Sales of tobacco or alcohol to legal minors • Marketing to legal minors • Sale of fire arms to minors
- Media, news & entertainment		• Programming time for violent or sexually explicit movies • Timing of certain type of publicity

It is obvious from the above description of how polices influence programming that different forms of policies serve different purposes. Some policies are 'aspirational' in nature and try to move broad agendas, like is true of many international agreements such as ICPD. Others target precise behaviors and may, for example aim at reducing tobacco use or drunk driving and propose specific policy options and enforcement mechanisms like taxation of tobacco products or law enforcement of drunk driving..

II.2 Ensuring policies address vulnerable populations

For all policies that are adopted and implemented, it is crucial to carry out an analysis of its impact on different groups of vulnerable adolescents. This is in accordance with human rights principles, particularly that of non-discrimination that will be discussed in Part 2 of this document. It also follows public health principles or targeting interventions to those groups with highest disease burden or risk.

There are several vulnerable groups that require special policy attention. They may be adolescents living in special circumstances such as adolescents living on the street or those in poverty. Or adolescents belonging to specific social or ethnic groups. A special group often overlloked is constituted by adolescents with disabilities . Other ways of defining vulnerable groups is by focusing on specific behaviors, such as adolescents who inject drugs or those engaged in commercial sex work. These groups might be vulnerable to see their development opportunities and health status jeopardized. For many policy options put forward in this document, these vulnerable groups should be taken into account or, in some instances be the focus of interventions. The analysis of what the vulnerable or target group of policies are will depend on local circumstances and culture. Therefore, policy makers are urged to carry out an a vulnerability and targeting analysis for each policy and intervention mentioned in this document.

Box 2

- GO!
  We have sufficient evidence to recommend widespread implementation NOW, provided that there is careful monitoring of coverage, quality and cost, and operations research to help us better understand how to improve implementation.
- Ready
  There is now good evidence that these interventions can have some impact, we are making progress with understanding the mechanisms of action, and we feel confident that we should be promoting these interventions widely *provided* that they are being carefully evaluated both in terms of impact and process (so that we can begin to develop quality criteria, and better understand how to implement effectively).
- Steady
  There has been some consolidation of the knowledge base, some research indicating associations, some initial experiences with developing interventions, but there is a need for serious intervention development and research ... these interventions we would NOT recommend for widespread implementation at this stage until more research has been completed.
- Do-NOT-go
  Interventions, for which there is strong evidence that they are *not* effective.

II.3 Evidence for policies

Policies are only as effective as the interventions they promote. Evidence that identifies the (cost)-effective interventions and way to implement them are therefore key inputs for policy makers. Policies that promote effective interventions together with the political and financial commitment behind them are themselves important determinants of the quality and scale at which these interventions might be implemented.

To identify (cost)effective interventions, policy makers and programme managers alike face the challenge to assess what level of evidence is

available to base their decisions. The important question to pose is: "does the available evidence warrant to start, continue or stop a policy intervention?". The *Steady, Ready, Go* framework **(box 2**) is a useful tool to think about the levels and strength of available evidence. The good news is that increasingly evidence on interventions targeting adolescents is becoming available. On interventions to prevent and manage STI/HIV and injuries. In other areas the evidence base remains thin. For many interventions more evidence is needed on how they work in resource poor or culturally different settings.

Therefore, an important role of policy is to
stimulate and support continuous investments in evaluation and research on interventions to produce more evidence. This also includes the careful monitoring and evaluation of the effects of policies themselves. This implies that policy makers should always have access to up-to-date data on trend in key indicators of the health status and behaviors of adolescents as well as the risk and protective factors that influence their healthy development.

II.4 Developing the policy environment: a matter of time

Shaping the policy environment requires a long term vision . The formulation of policies tends to take a long time, often several years between inception and final adoption. The formulation or development process has to be planned for. It normally consists of various stages. A start up phase in which situation analysis is done and stakeholders are identified. During the formulation process extensive involvement of a large group of stakeholders will take place during carefully staged consensus building processes. At this stage the right kind of evidence on policy options and effective interventions is a key input. The last stage involved approval and endorsement by stakeholders and politicians and sometimes legislators. Some references are provided to documents that provide guidance and lessons learned on the development of policies and strategies for adolescent health and development.

The political nature of approving or adopting policies or laws adds more uncertainty and explains why policies often remain draft documents for a long time. Attempts to make shortcuts, particularly by reducing on some of the consensus building stakeholder involvement might seems attractive from a timesaving point of view, but it can easily backfire and delay the process even more. For example, in several countries the implementation of policies to incorporate sexual education in the national education curricula was set back due to insufficient consultation with important stakeholders.
For other policies, the time factor requires prompt action. In various countries violent acts by adolescents (towards other or themselves) that attracted extensive media coverage, or publication of comparison data between countries on a particular indicator such as adolescent pregnancy, might suddenly prompt political attention and lead to pressure for quick policy responses. Such 'opportunities' are best seized when policy makers and professionals have sufficient evidence to ensure the best policy options will be supported.

The policy recommendations in section 3 of this document provide the kind of guidance policy makers should have access to evidence based information at all times.

Recommended reading materials

- The legislative and Policy environment for adolescent health in Latin America and the Caribbean, PAHO, 1999.
- YOUTH Policy Formulation Manual, United Nations, 1999. (http://www.un.org/esa/socdev/unyin/documents/escap.pdf)
- Making Adolescent Policy Happen; WHO 2004 (draft)
- Developing National Policies to Prevent Violence and Injuries. A guideline for policy-makers and planners. WHO 2005.
- Youth Reproductive Health Policy Database, FHI-Youthnet (http://youth-policy.com/compendium.cfm)

Part 2

Human rights

and the

Adolescent Health Policy Environment

2.1 Human rights: a legal framework for policies

International human rights treaties should guide the formulation, implementation, monitoring and evaluation of all national policies, strategies, and laws. Most governments in the world have ratified the various legally binding treaties such as the **Convention on the Rights of the Child (CRC)**. Thereby they have committed themselves to respect, protect and fulfil these fundamental rights and freedoms of children and adolescents though the formulation and implementation of policies, laws and programmes which are in conformity with the provisions in the CRC. Many provisions of the CRC have a direct or indirect bearing on adolescents' enjoyment of the highest attainable standard of health and development. In 2003, the United Nations Committee on the Rights of the Child, the expert body assigned with the task of monitoring the efforts made by countries in the implementation of the CRC, adopted **General Comment No. 4** on adolescent health and development (see WWW.OHCHR.ORG). This document outlines the important adolescent health and development issues in the context of the CRC, and which provides guidance and support to governments in meeting their legal obligations under the CRC vis-à-vis adolescent health and development. Another **General Comment No. 3** deals specifically with the issue of HIV.

A number of human rights treaties are particularly relevant for adolescents' health and development. For example the **Convention on the Elimination of all forms of Discrimination Against Women (CEDAW)** includes important provisions on the elimination of gender discrimination concerning issues such as marriage and access to health care services, including sexual and reproductive health care. CEDAW General Recommendation No. 21, (1994) refers, for example, to raising the age of consent for marriage for girls.

Bound by international law, governments are duty bearers. Therefore, governments have a legal obligation to ensure that their laws, policies and practices reflect the human rights norms and standards in the treaties, which they have ratified.

2.2 Human rights guide the content of the policies

At a minimum, key human right principles should guide all policies, laws and practices, which have a direct or indirect bearing on the life, survival and development of adolescents. These are:

- Non-discrimination.
- Acting always in the best interest of the child
- Respecting the child's right to life
- Survival and development to the fullest potential;
- Respecting the views of adolescents. This principle is intimately linked to the notion of adolescent participation.

The CRC provides a holistic, normative and legal framework for addressing the health and development needs of adolescents, firmly grounded in law. General Comment No. 4 provides detailed information on and guidance in the measures governments should take to address adolescent health and development. These measures are summarized by the 3 key intervention areas the GC identifies: a safe and supportive environment, information provision and skills development, counselling and health services, need to be addressed within the framework of the CRC. For example,

- *CRC Article 13, 17* states that adolescents should have access to information on their rights, on adopting and maintaining healthy behaviours related use and abuse of tobacco, alcohol and other substances, on positive mental health and sexual development should be enforced by supportive policies. This information should be appropriate and this implies that adolescents should be protected from harmful information.
- *CRC Article 24* supports the right to access treatment. This implies that adolescents should have access to services like sexual health information, STI testing and treatment, HIV testing and care, treatment of drug and alcohol abuse, contraception counselling.

2. 3 Human right provide guidance for monitoring and evaluation

Under the various conventions, countries are required to periodically report on progress towards realization the rights of adolescents. In order to report on progress and trends relevant indicators for adolescent health and development have to be monitored. Human rights therefore provide a legal basis for monitoring adolescent health and development indicators.

In addition, key right principles such as non-discrimination, point to the duty of states disaggregate data by relevant age- and sex- and vulnerable group. This allows to monitor health status inequities as well as access to and utilization of goods, services and facilities among adolescents.

Every 5 year the situation of children and adolescents is monitored by the Committee on the Rights of the Child. In the reports and concluding observations that the Committee has produced over the last years many issues related to adolescent health have been raised.

Reference documents

- Convention on the Rights of the Child (http://www.unhchr.ch/html/menu3/b/k2crc.htm)
- CRC Committee General Comment 3 on HIV and Comment 4 on Adolescent Health and Development (http://www.ohchr.org/english/bodies/crc/comments.htm)
- CEDAW
- United Nations Committee on Economic, Social and Cultural Rights, General Comment No. 14 on the right to the highest attainable standard of health, adopted by the in 2000.
- A rights-sensitive programming framework for adolescent sexual and reproductive health, WHO, 2005. (draft)

Part 3

Facts for Policy Makers

Facts for professionals involved in the formulation, implementation and monitoring of policies regarding adolescent:

1. Adolescent Development
2. Pregnancy and Contraceptive Choices
3. HIV/AIDS and STI
4. Violence and Injuries
5. Alcohol, Tobacco & Other Substances
6. Mental Health
7. Nutrition
8. Physical activity & Recreation

1. Facts for Policy Makers on Adolescent Development

Why is adolescent development important?

Adolescence is a period of rapid biological, psychological and social changes. This period represents the transition to adulthood. During this period spermarche and menarche mark the entry into reproductive age for boys and girls. During adolescence young people learn to take on adult roles, responsibilities and behaviors. This implies that adolescents experiment first time behaviors, modeling on the behaviors of adults and peers. In this period the young person develops a personal identity which includes a sexual identity.
In accordance with the CRC concept of evolving capacity and often stipulated in national legislation adolescents also acquire an independent legal identity with increased decision taking capacities. While in most countries majority is attained by age 18, often adult responsibilities and rights are granted at earlier ages in various circumstances. Married adolescents obtain adult status. Between 16 and 45%(regional averages) of adolescent girls are married before age 18 and globally by age 20 nearly 50% of women are married, while only a small proportion of men (between 10-20%) get married before age 20 (DHS based NAS data,2004). Before reaching age of majority, in many legal systems adolescents can give informed consent to sexual activity, or providing consent to obtaining certain medical interventions or are entitled confidentiality including towards their parents.
During the second decade, an increasing share of adolescents leave school and start productive life, either at home or jobs in the formal or -more often-informal sector. Globally, school attendance rates in 10-14 years old are 80% for boys and 75% for girls. At ages 15-19 these rates go down to 50% and 41% respectively.

Individual level

- Policies should ensure that adolescents receive sufficient information to understanding the biological physical and psychological changes and their consequences that will occur during puberty.
- Policies should ensure adolescents are informed about their rights, including their right to access health and other services.
- Policies should ensure adolescents are informed about the policy environment governing consent and confidentiality.

Family level

- Policies should ensure that parents are knowledgeable about the biological physical and psychological changes and their consequences that will occur during puberty of their children.

- Social policies should ensure parents and legal caretakers are able to provide a favorable environment and opportunities for adolescents' development in areas related to education, recreation and physical activity opportunities as well as care in case in disease and disability.
- Policies should support parenting skills that foster positive relationships between parents and their adolescents
- Policies on the legal access of adolescents to medical information and treatment, as well as the right to confidentiality and the instances in which parental consent is required should be communicated to parents.
- Policies should support families to delay the age of marriage, particularly of their adolescents girls, until the internationally recommended age of 18 (CEDAW, CRC etc)

School

- Policies should ensure opportunities for adolescents to continue their education. Higher educational attainment is associated with a variety of health and development indicators such as lower adolescent pregnancy rates and overall fertility levels, higher income in later life and with better health and survival indicators of the next generation children. Gender disparities in access to schooling, most often affecting girls should be addressed.
- Policies should ensure schools can fulfill their role in providing a safe and supportive environment for the healthy development of adolescents. This includes fostering connections between the school and the adolescent and the provision of relevant and developmentally appropriate information and skills related to the psychosocial and biological development process adolescents experience.
- Policies should support the provision of life skills based education in support of healthy development.

Health services

- Policies should ensure that health services are organized to and health service providers trained to assess the biological, psychological and social development of adolescent clients and detect deviancy from normal development. This detection include but go beyond screening for eyesight and hearing functions, and should encompass sexual maturation and mental disorders including depression.
- Evidence from many countries shows adolescents have lowest annual clinician visit of all age groups. Some national guidelines (such as GAPS from USA) promote adolescents to at visit health services 3 times during the second decade of life. These checkup should include a developmental nd behavioral assessment and updating vaccination if relevant.. There is fair to good evidence on the effectiveness of counseling by health service providers on a variety of topics. These include fat consumption and caloric intake, Folic Acid, tobacco cessation, problem drinking, physical activity and safe sexual practices.
- Policy makers should be aware that too frequent screening programs to detect health issues , including for participation in physical activity programs may have little impact ion health outcomes and not be cost-efficient.
- Policies should ensure services are in place to detect and treat learning disabilities, treatment for behavioral and attention deficit disorders, and physical handicaps in order to minimize their effect on the healthy emotional, cognitive and physical development of the adolescent

- Policies should ensure that the evolving capacities of the adolescent are translated in increased participation in decision making regarding health issues. This includes a clearly defined legal framework that delineate minimum age above which the adolescent is legally considered a 'mature minor' able to consent or refuse consent for a medical treatment or procedure. This framework should also identify criteria for health workers to determine whether the adolescent is competent to take decisions. Health institutions should establish standard operating procedures regarding confidentiality and determining competence, and service providers should be trained in the application of these procedures.

Societal level

- Existing policies should be reviewed, in line with the principle of non-discrimination to ensure no sex based bias exists in the legal minimum age of consent to marriage, to sexual activity and other provisions related to the protection and healthy development of adolescents (CRC General Comments No. 4)

- Policies should discourage or prohibit cultural practices that can have negative consequences for the healthy development of the adolescent. These include female genital mutilation or cutting, unsafe ways of male circumcision and early marriage during adolescence, that may increase the risk of HIV infection, early pregnancy and problems in obstetric problems during childbirth for mother an child.

Recommended reading

WHO Laws and policies for adolescents, 1987

Consent and confidentiality among minors and adolescents, WHO, unpublished 2006

Skills for health: WHO information series on school health document 9, 2003.

CRC General Comments No. 4 on adolescent health and development

2. Facts for Policy Makers
on Pregnancy and Contraceptive Choices

Why are pregnancy and contraceptive choices important?

Pregnancy and childbirth during adolescence is common in all regions of the world. Between 20 and 50 % of women have had their first child before the age 20. Each year over 15 million babies are born to adolescent mothers. An estimated 4 million adolescent pregnancies end in abortions, of which 2.5 million under unsafe conditions. The higher risk related to pregnancies and abortions in young women leads to an estimated 70.000 maternal deaths among women 15-19 each year plus considerable morbidity including infertility. Young people may report increasing levels of awareness of contraceptive methods, however contraceptive prevalence rates among adolescents tend to be low. Average contraceptive prevalence rates in the regions of the world varies from 20-28% for sexually active women 15-19 year old. Unmet need for contraceptives is estimated between 10- 47%. (World bank, 2005 chapter 49 on adolescent health)

Less data is available about contraceptive behaviors of adolescent males. In four African countries, between 24 and 59% of 15-19 year old men used a condom with the last sexual partner. (Opportunity in crisis, UNICEF ,WHO,UNAIDS)

Individual level

- Policies should support adolescents to obtain the information and skills they need to prevent pregnancy. Good quality programmes on sexual and reproductive health (including STI/HIV) can effectively delay first intercourse, protect sexually active young people from STI, including HIV, and from pregnancy. Research has indicated that quality sex education programmes do not encourage early initiation, can delay onset of intercourse, increase use of condoms and contraceptives in general, reduce the number of sexual partners and the frequency of intercourse.

- Policies should ensure that abstinence, correct condoms use and limiting sexual partners are important options for adolescents against the dual risk of HIV/STI and unwanted pregnancy. A growing body of research indicates that programmes supporting abstinence only are less effective against unprotected sex than programmes that include abstinence as one of the options.

- Effective policies acknowledge that responsible and safe sexual behaviour can be learned and that sexual and reproductive health education is best started before the onset of sexual activity. Education efforts have to be gender sensitive for both boys and girls and reflect the developmental stages during adolescence, acknowledging that not all adolescents can be reached using a single intervention strategy.

- Adolescents should be informed about existing services, potential limitations to their access and/or requirement of informed consent based on age or marital status considerations.

- Policies should ensure that pregnant girls are encouraged to seek adequate ante natal services and partum care services during pregnancy and childbirth.

- Policies should support adolescent girls to continue education in the case of pregnancy and after childbirth.

- Policies should foster the active engagement of adolescent male partners of pregnant adolescent girls in the care for their pregnant partners, before during and after childbirth and in childcare.

- Sexual violence increases the risk of unwanted pregnancy in adolescent girls. Adolescents girls should be taught skills to minimize the risk of sexual violence. They also should be offered access to services to in case of sexual abuse such counselling and legal support.

- Strengthen the skills of older adolescents to be peer educators and counsellors for younger adolescents on issues related to relationships, sexuality, contraceptive and pregnancy.

Family level

- Families play an important role in the sexual and reproductive health education and trajectory of their children. Policies should support parents to be equipped with adequate knowledge and skills to provide guidance to their adolescents on sexuality, contraception, pregnancy and childbirth.

- Family connectedness and other factors in family can play a protective role against too early sexual initiation and unwanted pregnancy.

- Better education of girls is directly associated with later onset of pregnancy and childbearing in adolescent girls. Policies should be developed to encourage families to maintain adolescent girls in school such as though grant or targeted subsidies systems, provided good targeting and monitoring are in place (Growing up global, National Research council USA).

- Parents should be informed about the risks of unprotected sex of adolescents, and the dangers of early childbearing in adolescents. In cultures where this is common, parents should also be sensitized about the health and development risks that accompany early marriage implies.

Schools based approaches

- Develop school policies and train teachers to ensure the delivery of good quality skills based sexuality education in schools
- Developing strategies to retain girls as long as possible in secondary education plays an important role in the prevention of early pregnancy and childbirth. A growing number of countries has implemented policies to ensure the continuation of education possibilities for pregnant adolescents and adolescent mothers. Jamaica has included a provision for adolescent fathers enrolled in schools to be given paternity time.

- Policies should encourage schools to develop counselling and referral services prevent and to deal with the consequences of unprotected sex including pregnancy.

Health services

- Health services should be organised to provide age appropriate information and counselling on contraception, pregnancy prevention and related STI/HIV prevention and testing through quality service provision approaches adapted to adolescents.

- Health workers capacity to provide age appropriate information and counselling on contraception, pregnancy prevention and care should be strengthened.

- Medical guidelines should reflect that any method medically safe for an adult is also safe for adolescents. The only exception to this statement is Depo-Provera®; the prolonged use of which may negatively affect bone-mineral density in adolescents. In general, methods that are safe for healthy adults at low risk for STIs are also safe for healthy adolescents at low risk for STIs. Condoms play a special role, not only as the contraceptive of choice for male adolescents but also to protect from the dual risk of pregnancy and STI including HIV.

- Policies should ensure adolescent girls at risk for pregnancy are treated for anemia, under nutrition, receive preventive interventions as iron and foliate or Vitamin A supplementation as appropriate; have complete vaccination status (in particular rubella and tetanus booster), as well as receive protein/energy supplementation in cases of severe undernourished women). Pregnant young women should receive counseling to stop smoking and alcohol consumption.

- Policies should seek to promote early pre-natal care seeking in pregnant adolescent girls. Several tried strategies combining ante natal services with those for pregnancy diagnosis and abortion counseling.

- Current policies, regulations and laws should be reviewed to ensure they present no barriers for adolescents to receiving reproductive health services and commodities like contraceptives and condoms. Where laws and policies exist that forbid unmarried minors access or require spousal consent, these laws should be amended in accordance with the CRC stipulations. Where age restrictions or parental (or spousal) consent requirement for adolescents apply to access to reproductive or contraceptive services, these should be reviewed in the light of current contraceptive needs in adolescents taking into account the principle of 'best interest of the child'.

- In addition, health service providers as well as parents and adolescents should be informed about the laws, policies and regulations regarding the access of adolescents to reproductive health services related to pregnancy and contraception.

Societal level

- There is evidence that good quality media campaigns supported by individual or school based interventions including service provision can lead to positive behaviour change that prevents

unwanted pregnancy in adolescents. Policies should support media based approaches to influence adolescent norms and behaviours. In addition, media approaches should be used to influence parental and societal norms towards responsible adolescent sexual and contraceptive behaviours, including care seeking behaviours.

- Laws and policies regarding the provision of reproductive health information (including sexuality education), in and out of schools should be assessed and when restrictive amended to reflect the articles in the Convention of the Rights of the Child (see annex).

Recommended Reading

- The implications of early marriage for HIV/AIDS policy, Pop Council, 2004.
- (www. pcouncil.org/CM.pfd)

- Adolescent Pregnancy WHO discussion paper on adolescence , CAH, WHO , 2004

- Contraception Issues in Adolescent Health and Development. WHO discussion paper on adolescence, CAH, WHO, 2004

- Youth Reproductive Health Policy Database, FHI-Youthnet (http://youth-policy.com/compendium.cfm)

3. Facts for Policy Makers on HIV/AIDS and STI

Why is HIV/AIDS and STI important?

Young people are at the centre of the HIV/AIDS pandemic in terms of transmission, vulnerability and impact. Fifty percent of the transmission takes place in 15-24 year olds: it is estimated that every day 6,000 young people become infected with HIV, and that one quarter of people living with HIV and AIDS are under that age of 25 years. Young people are also frequently the parents of the 2,000 children who become infected every day through mother-to-child transmission.

Adolescents and youth are disproportionately infected in both concentrated and generalized epidemics, with young girls being particularly seriously affected in generalized epidemics. Young people are an important group to consider both in terms of *where the virus is*, and, because of their vulnerability, *where the virus is going*. Adequate attention is therefore required to the general population of adolescents and youth, and to those vulnerable young people who are most at risk of becoming infected with HIV (for example girls in generalized epidemics, young injecting drug users and sex workers in concentrated epidemics).

Adolescents in general are at risk of sexually transmitted infections (STI). Of the estimated 330 million new STI cases each year, at least 100 Million are thought to be in young people. STI's, particularly when untreated, increase the risk of HIV infection. In addition, STI may increase the risk of infertility, especially Chlamydia. Infection with the Human Papilloma Virus (HPV) increases the risk of cervical cancer.

In addition to there being a sound public health rationale for a focus on this age group, young people have also been explicitly mentioned in a number of global goals and targets focusing on HIV/AIDS. These include the MDGs, the ICPD+5 and the UN General Assembly Special Sessions on AIDS, and on Children. Not only have governments committed themselves to decrease HIV prevalence in this age group, but these action plans also make a commitment to ensuring that young people have access to the **information**, **skills** and **services** that they need to prevent themselves from becoming infected with HIV. They also outline a range of interventions to decrease young people's **vulnerability** to HIV, and to strengthening the response to children orphaned by AIDS, the majority of whom are adolescents.

Many of the underlying behaviours, determinants and interventions are the same, or similar for HIV, STIs, pregnancy prevention and other aspects of sexual and reproductive health. Policies should therefore make every effort to develop synergy rather than competition between these different aspects of adolescent health and development.

Young people not only need to be beneficiaries of HIV/AIDS prevention and care programmes, but they are also an important resource, and can make significant contributions to the development and implementation of policies.

Individual level

- The main route of HIV transmission is sexual intercourse. This is frequently not voluntary, but forced as a result of economic and socio-cultural pressures, exploitation and abuse. At an individual level, there are a range of behaviours that can avoid or decrease transmission. Young people should be encouraged to delay penetrative sex, since this is the only 100% effective way of ensuring that they will not become infected with HIV through sexual activity. Many young people do not have sex, and they should be supported to continue to abstain through access to appropriate information and skills.

- However, data from around the world indicate that in many countries a high proportion of young people initiate sex during adolescence (often voluntarily, but frequently coerced), and they should therefore have access to the information, skills and services that they need to decrease their risk of HIV infection, through limiting the number of partners, using condoms, and seeking treatment for STIs. There is strong evidence that if condoms are used consistently and correctly they can have a significant impact on decreasing transmission of HIV. There is no evidence that providing young people either with age-appropriate information or with condoms increases their sexual activity.

- Injecting drugs using shared needles and syringes is an important route of HIV transmission in concentrated epidemics. Harm reduction interventions (clean needles and syringes, and substitution therapy) can have an important impact on decreasing the HIV transmission associated with injecting drug use.

- Access to information, skills and services is at the heart of all of these approaches to risk reduction. In addition, it is important to ensure that policies include a focus on interventions to decrease vulnerability at the individual level. Many young people are forced to have sex because of economic or social pressures, and it is important to develop policies that protect them and other vulnerable groups at high risk of HIV, such as young injecting drug users, and young women and men forced into commercial, exploitative sex.

Family level

- There is a growing body of research demonstrating the important role that parents play in helping young people avoid behaviours that increase their risk of HIV, for example early sexual debut, and the use of alcohol and drugs. Policies should help to strengthen parents ability to provide the necessary information and support.

- At the same time, in some countries, much of the gender-based violence and coerced sex affecting young people comes from within the family or from known adults. So policies also need to ensure that young people are adequately protected, including within the family setting.

- Young people often bear the brunt of the impact of HIV/AIDS, and governments need to include a focus on ensuring that young people's rights to education and health are fulfilled, particularly important for orphans, and that they are not made more vulnerable through stigma and discrimination. In addition, young people may be doing much of the caring for family members who are living with AIDS, and this needs to receive adequate attention.

- Young people whose parents are infected with HIV need to be protected through adequate attention to inheritance laws.

Schools based approaches

- Education itself is protective, and on-going policies to increase enrolment and retention in primary and secondary schools will make an important contribution to HIV prevention.

- There is now good evidence that schools-based programmes that provide information and skills to young people, and that meet a number of quality criteria, can have a positive impact on safer sex.

- Young girls are vulnerable in schools to sexual abuse from peers or teachers. School policies need to give adequate attention to preventing such abuse and ensuring that schools provide a safe and supportive environment for young people, that they decrease not increase their vulnerability.

- Young people living with HIV or otherwise affected by HIV, for example AIDS orphans, also have a right to education, and policies should protect this right.

Health services

- There is now a good evidence base for a set of interventions that health services should provide for the prevention, treatment and care of HIV/AIDS among young people. This includes information and counselling; risk reduction through condoms and harm reduction interventions; and the diagnosis, treatment and care for STIs and HIV.

- There is also growing evidence that with appropriate changes to service providers and service facilities, and linkages to the community and other sectors, increased use of health services by young people can be generated. Policies therefore need to include a focus on making sure that the health system is more responsive to the needs of adolescents and youth.

- Many millions of young people are infected with HIV. Some of these adolescents and youth will require treatment, and policies that deal with increasing access to ARVs and treatment of opportunistic infections need to ensure that young people also have access to such services. Many young people will however need care and support more than treatment, and these needs should receive appropriate attention in national HIV/AIDS policies

- Although many millions of young people are infected with HIV, the vast majority of young people who are living with HIV do not know that they have been infected. Testing is therefore very important, and young people's access to testing should be enhanced. However, policies should ensure that such testing is not seen as an end in itself, but as a means to accessing prevention, treatment, care and support.

- For all of the above it will be important that national policies and legislation deal effectively with issues of consent and confidentiality to enable young people to benefit from available services. In addition policies need to encourage and facilitate linkages between the health sector and others, including schools, social services and the media. It will also be important to ensure that policies support outreach to particularly vulnerable groups of young people at high risk of HIV, including young injecting drug users, young sex workers, and young men who have sex with men.

- Health services should consider to provide HPV vaccines to young people before they become sexually active.

Societal level

- Social values and norms play an important role in sexual practices, and policies and legislation need to ensure that young people's sexual rights are respected, protected and fulfilled. In particular early marriage needs to be decreased, since in addition to other reasons for preventing early marriage, there is growing evidence that when there is a significant age difference between the husband and the wife, marriage may increase young people's vulnerability to HIV/AIDS.

- There is growing evidence of the positive role that the media can play in providing young people with information, and influencing individual attitudes and behaviours.

- There is also evidence that interventions through existing community structures can make important contributions to the prevention of HIV among young people. This include community-based marketing and distribution of condoms. Policies that ensure young unmarried people have access to condoms will be crucial for the prevention of HIV transmission.

Recommended further reading

- Evidence on HIV and Young People, WHO Technical Report Series 2006

- Confidentiality and Consent, WHO 2006

- **POLICY BRIEF: REDUCTION OF HIV TRANSMISSION THROUGH OUTREACH** WHO/HIV/2004.02
- **POLICY BRIEF: PROVISION OF STERILE INJECTING EQUIPMENT TO REDUCE HIV TRANSMISSION** WHO/HIV/2004.03
- **POLICY BRIEF:REDUCTION OF HIV TRANSMISSION THROUGH DRUG-DEPENDENCETREATMENT** WHO/HIV/2004.04

- Youth Reproductive Health Policy Database, FHI-Youthnet (http://youth-policy.com/compendium.cfm)

4. Facts for Policy Makers
on Injuries and Violence

Why are injury and violence important?

Injury and violence are major causes of adolescent death, morbidity and disability. Injuries due to road traffic, homicide, war as well as other unintentional injuries are major constituents of the General Burden of Disease in all countries [1]. Adolescents, in particular males, are disproportionately affected by injuries and violence. On some violence indicators the trend is not positive: homicide rates in adolescent males in 60 countries have doubled between 1985 and 1994[1]. Adolescents are both victims and perpetrators of sexual and other forms of violence. Although reliable trend data is not available, we know that adolescence is the most vulnerable period for sexual violence, with girls specifically at risk. Evidence from a variety of countries shows that between 7% – 47% of adolescent females reported their first experience of sexual intercourse as (somewhat) forced, compared to 0.2% – 32 % of adolescent males (World Report on Violence and Health 2003) Those living in low income countries or belonging to lower socio-economic status within any given country are especially vulnerable.

General

A growing and relatively good body of evidence exist that supports policy options for dealing with injuries and violence among adolescent. This evidence however is not well distributed over the different areas: more is knows about prevention of road traffic injuries than on prevention of violence. A review of evidence revealed that tailoring the interventions that seem to work to the realities of young people is paramount. This includes using a developmental approach, i.e. consider the various developmental stages of childhood, adolescence and early adulthood to tailor specific interventions. Sex and gender differences in injury and violence related behavior should be taken into account.

Individual level

- Policies to reduce violence should support social development interventions. These involves building of competencies, social-skills training, the promotion of pro-social behaviors, pre (and post) school enrichment programs during all phases of childhood and adolescence, as well as incentives for completing secondary education for high-risk adolescents.(World Report on Violence and Health 2003) Academic enrichment programs, vocational training for high risk youth, as well as pregnancy prevention and pre- postnatal care programs are all promising approaches requiring more research.(World Report on Violence and Health 2003)

- Policies for the prevention of sexual violence should support life-skills and education programs that take a gender approach. These intervention have proven to be effective, particularly when adopting specific approaches towards males and females (World Report on Violence and Health 2003). Such programs can take a developmental approach, working with children as of birth, and their parents. Psychological care and support services, including telephone hotlines, should be available to victims while programs should be developed for perpetrators.

- Policies for preventing occupational injuries in adolescent workers should among generic prevention measures stress occupational safety training targeting this vulnerable age group because of the large societal costs and productivity losses it is associated with..

- Policies to prevent drowning should ensure adolescents have acquired basic swimming and water safety skills, preferably earlier in childhood. This includes awareness raising on the increased risk of alcohol consumption around large bodies of water (WHO fact sheet on drowning).

Family level

- Policies for the prevention of violence, abuse and neglect should support home visitations and parenting skills training of parents of infants and children of up to 5 years of age have proven effective. Special considerations should be given to adolescents parents. Therapeutic approaches to deal with the consequences of abuse involving families are also effective. (World Report on Violence and Health 2003)

School based

- Policies should ensure the school environment to be an important venue for educational activities regarding sexual violence and adolescents. Interventions raising knowledge and awareness on the identification of risk factors and the development of skills for the prevention of dating violence, particularly in single-sex groups and adapted to the developmental stage of the adolescents seem effective. (Sexual Relationship Violence in Adolescents)

- School policies should include disciplinary measures in cases of teacher-pupil and pupil-pupil sexual harassment in schools.

- Policies towards preventions of interpersonal violence should consider mentoring programs for adolescents which have worked well. Peer-mediation and peer-counseling approaches have proven ineffective. (World Report on Violence and Health 2003)

Health services

- Health services can also play a role in improving occupational safety through risk assessment and awareness raising among young workers.

- Health services have an important role to play providing curative emergency and rehabilitative care after injuries have occurred. Health worked should be trained to use these opportunities for secondary prevention. Health services can also play a role in improving occupational safety through risk assessment and awareness raising among young workers.

- Policies to develop standards for the medico-legal environment for sexual violence cases can improve the response of health services. Health workers need to be trained for recognition and treatment of sexual violence; in some settings referral centers providing comprehensive care are also feasible policy options.

Societal level

- Road traffic safety depends to a large extent on the organization of infrastructure, and traffic safety measures and their enforcement. An example of the latter is seat-belt use in the front and rear seats, or the use of additional airbags, which help reduce the amount of serious sustained injuries.(WHO Road traffic Injuries Prevention 2004)

- Policies for the introduction and enforcement of laws on the use of crash helmets will particularly affect young people. While most safety measures would apply to both young people and adults, they tend to have their largest impact on the morbidity and mortality of young people (WHO Road traffic Injuries Prevention 2004).

- Policies to subsidize the use of public transport for school students can reduce traffic related injury rates. In the Netherlands, a policy to provide free public transport passes of students has led to reduced car use in this population, both as drivers and passengers, and subsequently has led to a reduction in traffic related injury rates.(WHO Road traffic Injuries Prevention)

- The early years of active and unsupervised participation in road traffic are very dangerous, particularly as drivers of motor vehicles. Policies that define or raise the age for legal riding are an instrument to reduce the participation of young drivers. In Malaysia, legislation to increase the legal riding age from 16 to 18 was found to bring the largest 'benefit to cost' for the reduction of accidents(WHO Road traffic and Injuries Prevention).

- Policies for graduated driver licensing systems have proven effective in the reduction of injury and deaths. There are various forms of such graduated licensing systems that link the experience or age of the driver with restrictions on the power to weigh capabilities of motored vehicles, to the maximum speed limit and/or specific limits for blood alcohol concentration (WHO Road Traffic Injuries Prevention).

- Alcohol is a major contributor to road-traffic and other injuries and violent behavior.(WHO Road traffic and Injuries Prevention). Laws defining higher minimal drinking age, policies that restrict opening hours and density of alcohol serving establishments, as well as strict and enforced laws on drunk driving (blood alcohol concentration) are effective to reduce both road traffic injuries and violent behavior in young people(WHO Road traffic and Injuries Prevention).

- In societies with relatively easy access to small arms there are increased levels of violence in which small arms are used. Little is known about the effectiveness of laws to prevent -in particular- young people's access to weapons. In 1977, licensing laws restricting gun ownership to police security guards (and current owners) in Washington DC, USA were effective in reducing gun related violence. In Colombia, (intermittent) bans on gun-carrying during certain periods were tried out, resulting in reduced homicide rates. Though both approaches affected the general population, little is known on their specific effect on youth violence (World Report on Violence and Health 2003).

- Community or problem-oriented policing approaches for violence prevention need further research but have shown promise in various venues. A reduction of alcohol availability in the

community has proven to diminish violence in general, though this approach needs more research and development. Comprehensive programs offering developmentally appropriate extracurricular activities in high-risk communities that have been sustained over time have shown promising results in reducing anti-social behavior. However, approaches to reduce gang violence as well as weapon buy-back programs have been overall ineffective. (World Report on Violence and Health 2003)

- Community based prevention campaigns that aim at changing social norms through mass media programs have proven effective in influencing attitudes towards violence. Collective initiatives by men against domestic, sexual, and physical violence towards women is a very important element in the combat against violence and abuse, and has already been taken up by many men's groups in the Caribbean, Asia, Africa, Australia and parts of North America and Europe (World Report on Violence and Health 2003).

- For the prevention of sexual violence, a review and adaptation of the policy and legal environment regarding sexual violence should be undertaken, in order to remove existing barriers to reporting and handling cases of sexual violence, in line with relevant international treaties (CRC and its Optional Protocol on the Sale of Children, Child Prostitution and Child Pornography (2000)

- In countries where and armed conflict and sexual trafficking practices exist, policies should address their increased or inherent risk of sexual violence. Policies should reinforce the implementation of the Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed.

- Standards and policies related to the working environment should reflect the special needs and situation of adolescents. This includes the enforcement of the legal minimal age for workers. All extreme forms of child labor should be abolished according to international treaties, conventions and national laws. (ILO Convention No. 182). Policies that define working conditions should denote the specific needs of young workers, such as the maximum carrying load and maximum working hours for young labourers. There is a particular need to prohibit the engagement of young workers in hazardous work. Because of the increased vulnerability of young and inexperienced workers, as well as the large societal costs related to occupational injuries at early ages, occupational safety training for this age group should be promoted. Since protective equipment is not designed for young workers, they may be less effective with this population. It is important to control the hazards at the source.

Recommended further reading

1. World Report on Violence and Health, WHO 2003. (http://whqlibdoc.who.int/hq/2002/9241545615.pdf)
2. WHO Road traffic and Injuries Prevention year, 2004 (http://www.who.int/world-health-day/2004/infomaterials/world_report/en/)
3. Sexual Relationship Violence in Adolescents, WHO (RHRWHR) 2004 (draft)

4. WHO Information series on school health document, Nr. 3 Violence prevention 1998 (WHO/SCHOOL/ 98.3) (http://www.who.int/school_youth_health/media/en/93.pdf)
5. ILO International Programme on the Elimination of Child Labour (IPEC) (http://www.ilo.org/public/english/standards/ipec/)
6. Guidelines for medico-legal care for victims of sexual violence, WHO, 2004

5. Facts for Policy Makers
on Alcohol, Tobacco and other Drugs

Why are Alcohol, Tobacco and other drugs[2] important?

An estimated 4.9 million deaths per year are attributed to tobacco use, a total expected to double in two decades. Most of these smokers started in their adolescence. Every day between 82,000 and 99,000 young people world wide take to nicotine, some of them as young as seven (World Bank, 1999) In European countries between 5% and 58% of 15 year olds were daily smokers (HBSC, 2004) Tobacco use in other regions reported through the Global Youth Tobacco Survey show that, although adolescents' (aged 13 to 15) use of cigarettes and other tobacco products varied dramatically by site, young girls are smoking almost as much as young boys and that girls and boys are using non-cigarette tobacco products such as spit tobacco, bidis, and water pipes at similar rates. (WHO/CDC 2005).One out of two young people who start and continue smoking throughout their lives will ultimately be killed by a tobacco-related illness. The burden from alcohol is about equivalent to that from tobacco—tobacco kills more people later in life, while alcohol has a high direct impact through motor vehicle crashes, and violence and injury often associated with alcohol use. In European countries between 18% and 58% of 15 year old males report drinking alcohol every week Rates for girls are slightly lower (HBSC, 2004). World wide, consumption of alcoholic drinks by adolescents is increasing. Less reliable data is available on the use of other substances, because of their illicit nature. It is estimated that between 3.3% and 4.1% of the global population consume illicit substances (*WHO Management of Substance Dependence)* In European countries between 1% and 26% of 15 year olds (more often males) report regular or heavy cannabis use. (HBSC, 2004) *A larger* majority group use illicit drugs only in a limited, experimental way. Only a small minority of experimental users of illicit substances develop dependence and experiment dependence problems (*Prevention of Psychoactive Substance Use, WHO 2002).*

General

In this section policy interventions related to tobacco, alcohol and illicit drug use are presented together by level of intervention. More often than not these substances are dealt with separately both in policy and programming. While that allows for detail and specificity, substance taking behaviors share common determinants and programming approaches are often similar, aiming at influencing the behavior of -often- the same adolescents. State of the art reviews of tobacco show that effective tobacco control interventions do not only focus on changing the behaviour of individual tobacco consumers, they take a broader and more comprehensive approach targeting the environment and promotion social norm change. A comprehensive mix of measures is required to effectively prevent and control the use of tobacco in young people. This is reflected in the Framework Convention on Tobacco Control (FCTC, 2003) and holds true equally for the prevention of the use of other substances.

[2] Other drugs include various types of illicit substances that have psychoactive properties: cannabis, barbiturates, amphetamines, mescaline, MDMA, ketamine, cocaine, heroin, various inhalants (i.e: volatile solvents, glue, petrol, aerosols) as well as pharmaceutical preparations such as cough mixtures and sedatives.

Individual level

- Young people need to be informed about the effects of using alcohol, tobacco and other drugs. For varying reasons, many young people will experiment or begin to indulge in alcohol, tobacco or other drugs. It is important that policies are put into place, ensuring that young people have accurate information about the effects, risks and harm reduction strategies related to the use of such substances, as well as appropriate life skills to deal with and prevent substance use.

Family level

- The family plays an the important function providing a safe environment and guidance to adolescents. Parents are important role models for children through their norms and values and behaviours related to substances. Parental tobacco use, for instance, is associated with adolescent tobacco use. Policies to prevent smoking or promote smoking cessation in parents can influence smoking rates and behaviours in adolescents. Policies should support family based interventions which have shown effective in prevention of illicit drug use in adolescents.

Schools based approaches

- Policies to support school based education curricula on substance use have a limited but demonstrable effect on future substance use in students. Research findings on the most effective ways of designing and implementing should be used to enhance cost effectiveness. Evidence indicates that generic prevention programmes are most useful with children and adolescents that are not exposed to drug use. Policies should address risk factors such as aggressive behavior, poor social skills in pre-school ages, and academic difficulties and early school dropout during childhood and early adolescence. "Focused" programmes that address specific or single *substances* such as tobacco or illicit drugs are more effective in older populations of adolescents that are exposed to these substances. (Prevention of Psychoactive Substance Use, WHO 2002)

Health services

- Treatment for dependence of tobacco, alcohol and illicit drug should be available. Treatment programmes for illicit drug dependence (such as heroin substitution programmes) have been shown to be cost effective and reduce illicit substance use as well as criminality (Prevention of Psychoactive Substance Use). In order to be effective, health and social welfare programmes should be targeted to and made accessible for the special populations they intend to reach.
- Policies to reduce adverse health and social consequences of drug dependence, such as needle exchange programmes or other harm reduction programmes can be effective in reducing the spread of STI and HIV, and prevent Hepatitis and HIV transmitting linked to injecting drug use are effective in prevention of HIV.(Prevention of Psychoactive Substance Use)

Societal level

- Policies regulating the availability of and accessibility to tobacco and alcohol have shown to affect the use of these substances by adolescents or delay the age at which substance use behaviours starts. Explicit policies on smoking and sales of tobacco products in places where young people meet, such as the school and other public spaces are effective (WHO Information Series on School Health 5). This includes the elimination of vending machines and the prohibition of sales of sweets, snacks and toys in the form of tobacco products.(WHO FCTC)

- Pricing policies of tobacco and alcohol products have proven to be especially effective in reducing use of these substances in adolescent population. While they have less effect on occasional drinking patterns, pricing measures are associated with reduction in heavy drinking, a strong risk factor for road traffic accidents (Alcohol: No Ordinary Commodity).

- Setting a minimum legal age of purchasing and consuming alcohol and tobacco products (combined with enforcement) has been shown to be an effective measure. In the USA raising the legal drinking age to 21 was associated with 11-16 % reduction in motor vehicle accidents. In Denmark, raising the legal purchase age for alcohol to 15 years reduced under 15 drinking by 36% and resulted in a 17% decline in alcohol use among student over 15.

- Reduced or zero blood alcohol levels for young drivers, particularly combined with regular enforcement has been shown to be effective in reducing the proportion of drunk drivers in road traffic accidents (Alcohol: No Ordinary Commodity). These measures coupled with server liability and training of bar staff and managers can be effective in regulating alcohol use in young people above the legal drinking and driving age.

- The media is effective in influencing the use of substances. Well targeted and sustained media campaigns for the prevention of tobacco use, particularly in combination with other interventions such as restrictions in marketing have had effect on tobacco use rates. Less evidence is available on the effectiveness of mass-media campaigns and the use of alcohol and illicit substances.

- Restrictions or prohibitions of marketing and sponsorships for tobacco and alcohol products have been shown to be effective measures to curb the use of these substances. General prohibition of advertisement targeting adolescents is an integral part of the Framework Convention for Tobacco Control.

- Self regulation of marketing of tobacco and alcohol products by producers and advertisers is ineffective Experiences with self regulation by industries involved in the production and marketing of tobacco and alcohol as well as voluntary prevention campaigns carried out by these companies has been shown to be ineffective. (WHO 2002) Government should therefore take the lead in setting the policy and regulation environment for the use of substances. (Prevention of Psychoactive Substance Use)

- Legal environment for illicit drug use While there is some evidence that the overall availability of illegal substances is linked to higher use by young people, no strong evidence exist that regulation aimed at limiting the availability of illicit drugs decreases the use of these substances in adolescents (Prevention of Psychoactive Substance Use) Decriminalizing the personal use of cannabis has shown not to lead to higher consumption, nor to lowering the consumption of more dangerous substances.(Prevention of Psychoactive Substance Use)

Recommended reading materials

1. Tobacco framework Convention http://www.who.int/tobacco/en/

2. Alcohol, no ordinary commodity, WHO, Oxford University press, 2003
3. What in the world works, international consultation on tobacco and youth, Singapore, WHO, 1999
4. Prevention of psychoactive substance use, WHO 2002
5. Best practices for comprehensive tobacco control Programs, CDC, Atlanta 1999
6. WHO Information Series on School Health 5 : Tobacco Use Prevention: An important entry point for the Development of Health-Promoting Schools. WHO 1998 http://www.who.int/school_youth_health/media/en/89.pdf
7. WHO International Treaty for Tobacco Control 2003 http://www.who.int/features/2003/08/en/
8. WHO Management of Substance Dependence http://www.who.int/substance_abuse/facts/psychoactives/en/

6. Facts for Policy Makers on Mental Health

Why is mental health important?

" .. adolescent mental health is the capacity to achieve and maintain optimal psychological functioning and well being. It is directly related to the degree of age appropriate bio-psycho-social development achieved within the available resources." (WHO Mental Health Policy and Service Guidance Package)

An estimated 20% of the world's children and adolescents today do not have good mental health. Of those affected with mental health conditions, a mere 10-22% are recognized by primary health care, demonstrating the lack of appropriate services for mental health care, in particular for adolescents (Mental Health Policy and Service Guidance Package). Mental health problems have only recently been recognized as a major public health concern that has large socio-economic costs. Depression is the leading cause of Disability Adjusted Life Years (DALYs) lost during adolescence. Each year nearly 90.000 adolescents commit suicide while at least 40 times as many suffer suicide attempts. Attention deficit and behavioral disorders as well as eating disorders affect sizable proportions of the adolescent population. In Western countries an estimated 7% of children and adolescents suffer from attention deficit disorders (ADHD). Often marked sex differences exist in the prevalence of mental disorders. Boys are more often diagnosed with behavioral and attention deficit disorders, suffer drug use related problems and in most countries commit more suicide. Many forms of substance use are related to or find their origin in a lack of mental well being. Finally, many mental health disorders first manifest during childhood and adolescence (WHR 2001). Due to the chronic nature of most mental diseases, many are carried on into adulthood.

General

Mental health policies should closely refer to and promote human rights, such as non-discrimination and equality (see section X *Policies on Human Rights*), discrimination and stigma being particularly important for adolescent with mental disorders. Policy makers should strike a balance between disease prevention, health promotion, treatment, and rehabilitation.

Prevention and treatment of mental health conditions, particularly at an early age ensure a greater level of mentally and physically healthy, functional adults. Mental health interventions require considerable investments, buy recent scientific evidence indicates that mental health interventions are cost effective (Keating and Hertzman, 1999). A family-based social work intervention for children and adolescents who have deliberately poisoned themselves (Byford et al., 1999), and a diversion programme for children with conduct disorder (Greenwood et al., 1996), have been shown to be cost-effective. (Mental Health Policy and Service Guidance Package).

Individual level

- In designing child and adolescent mental health policy and interventions it is important to ensure that specific developmental stages and cognitive development of adolescents are

taken into account It is also important to recognize cultural differences when considering developmental stages.

- Policy should support adolescents to receive information and life skills training to support mental well being. This information should aim at reducing stigma and discrimination vis-à-vis mental health issues and those suffering from it. This should also include strengthening help seeking behavior for mental health issues.

- Adolescents can play an important role in supporting the well being of other adolescents. As peer counselors adolescents can help to identify, address or refer mental health problems including bullying to help other adolescents or younger children.

Family level

- *Strengthening families.* Family connectedness is one of the protective factor associated with reduced mental health problems such as depression. (Broadening Horizons) Policies should support family also as a provider of mental health care, teaching them about illness, importance of medication compliance, how to recognize signs of mental disorder and relapse, and swift resolution of crisis (WHR 2001).

- For a variety of mental health problems of adolescents *family therapy* is recommended as part of the treatment intervention.

- Mental health problems of any family member tend to affect whole families. Suicide or depression in one family member, may affect other members over long time spans. Special attention should be provided to maternal depression, which may affect mental health of their children and adolescents. Policies to strengthen monitoring and integrated support for families affected by mental health problems can prove an effective prevention strategy.

School

- Policies should ensure schools are health promoting structures that provide a positive psychosocial environment, that promote tolerance and thereby help adolescents to develop and maintain sound mental health (WHR 2001). Supportive teachers can play an important protective role in the lives of adolescents. Policies should encourage school curricula to contain skills building and information provision of adolescents.
- Schools should be encouraged to establish school policies on counseling services provided though adults and peers. Teachers and selected adolescents should be trained in counseling techniques and the recognition of early warning signs of mental health problems.
- Discrimination, interpersonal and sexual violence as well as bullying at school are important and preventable causes of mental health problems. Schools should establish policies to prevent and address these forms of violence among adolescents and teachers.
- Schools need to establish policies to be prepared to deal adequately with suicide among school pupils. This includes establishing adequate links with existing psycho-social and mental health support services.

Health Services

- To improve adolescent mental health through health services (and other sectors) policy makers should strike a balance between disease prevention, health promotion, treatment, and rehabilitation. (Mental Health Policy and Service Guidance Package)

- In order to encourage specific financing and policy development, mental health services to deal with adolescents, possibly in conjunction with younger children, should be viewed as a dedicated service. . These mental health services should cover all levels of the health care system, start at the community level. (Mental Health Policy and Service Guidance Package)

- *Develop human resources.* Policies regarding the training of health providers on adolescent mental health should be put into place. Trained health workers should range from dedicated (adolescent) psychiatrists, neurologists and general physicians to primary health care workers non-medical community and, allied mental health professionals psychologists and social workers. (WHR 2001)

- Early detected of mental conditions currently takes place in less than 20% of the cases. Policies should improve the capacity of health service provides at different levels for early detection of mental health conditions through capacity building and development of appropriate norms and guidelines and procedures for screening, treatment and referral. (Mental Health Policy and Service Guidance Package)

- Policy should establish clear guidelines for mental health care of adolescents that define:
    - any age limitations, including on compulsory psychiatric examination, voluntary or compulsory hospitalization, use of restraint measure, the recording of such measures as well appeal mechanisms. This should include issues related to consent on behalf of adolescents who are not competent to give consent.
    - Standards on the use of antidepressants should ensure that adolescents and younger children are not put on routine prescription of these drugs because of the enhanced risk suicide attempts and lack of evidence on possible effects on brain development.
    - For the clinical management of ADHD, policies should support the use of medication or psycho social interventions such as behavior modification and contingency management which have shown effective. Not effective are cognitive behavioral treatment nor do combined therapies offer more effect than medication.

- *Link with other sectors.* Psychosocial solutions are often required in mental health disorders. Links need to thus be made between mental health services and community agencies such as education, labour, welfare, law, and NGO's. Thus links need to be established between mental health services and various community agencies at the local level so that appropriate housing, income support, disability benefits, employment, and other social service supports are mobilized on behalf of patients and in order that prevention and rehabilitation strategies can be more effectively implemented

<u>Societal level</u>

- To eliminate discrimination and stigma, strategies to dispel misguided societal norms and preconceptions should be supported. This can include campaigns on information about mental well being and disorders through mass media using positive messages and images.

- Alcohol and drug policies. Alcohol use and drug abuse are central behaviours in adolescents with mental health problems. Alcohol and drugs are both causal and consequential in several mental health conditions, including depression and anxiety. Linkages should therefore be made with policies for substance use

- Policies should ensure the media establishes and implements guidelines for responsible coverage of suicide in the media.

Recommended reading material:

1. WHO World Health Report 2001: Mental Health; New Understanding, New Hope http://www.who.int/whr2001/2001/main/en/index.htm
2. Caring for Children and Adolescents with Mental Disorders; Setting WHO Directions 2003
3. WHO Mental Health Policy and Service Guidance Package; Child and Adolescent Mental Health policies and plans 2005

7. Facts for Policy Makers on Nutrition

Why is nutrition important?

In some parts of the world, malnutrition continues to undermine the capacity of adolescents to develop to their full potential. Adolescence is the time of the secondary growth spurt, providing an important window of opportunity for "catch-up" growth. Micronutrient deficiencies, particularly of iron continue to affect both boys and – even more severely – adolescent girls, especially in the case of pregnancy where the next generations' health is affected. Nutritional status is closely linked to both diet and physical activity. Due to an increasing imbalance between food intake and expenditure overweight and obesity is a growing problems that has reached pandemic levels affecting up to 25% of young people in some countries. Obesity and overweight can lead to illness in the long run and are associated with increased costs in health care(WHO Global Strategy on Diet, Physical Activity and Health).

Individual level

- Adolescents should receive information and be taught how to adopt and maintain healthy eating habits.
- Special protection policies should be put into place to ensure optimal nutritional status for pregnant adolescents.

School-based

- Policies should support the use of the school environment as a vehicle for improving nutritional status and nutritional habits of adolescents.
- Where malnutrition is prevalent, school meals are an effective way of improving nutritional status, and influence educational efficiency.
- School curricula at all levels should contain a minimum content of educational materials on nutrition, healthy diet and physical activity
- In areas where helminth infections are endemic policies should ensure regular de-worming of adolescents which is a cost-effective way of ensuring optimal nutritional status.
- School policies regarding nutrition and eating in and near schools should always reflect and promote healthy eating and nutritional habits. Policies should be in place to prevent that schools are used and exploited as marketing venues for energy rich nutrient poor food and beverages to adolescents.
- Policies for urban planning should consider the placement of schools relative to food and other linked vending establishments in the proximity of schools.

Health services

- Health providers should be trained to minimize missed opportunities to check and counsel adolescents on nutritional status, healthy diet and physical activity, in particular to incorporate weight monitoring and providing advise to malnourished or overweight and obese adolescents.

- Micronutrients, in particular iron and folic acid supplementation should be provided to all pregnant adolescent women, to married adolescents, and to those with reproductive intentions.

Family level

- Policies to raise awareness in families about the key importance of healthy nutrition during adolescence and the risks of under or overweight.
- Protection of vulnerable adolescents such as those living on the street, whose malnourished state elicits drug use, and pregnant adolescents.

Societal level

- Regular surveillance of the nutritional status of adolescents that can detect trends in under-nutrition, overweight and micronutrient deficiencies should be put in place to support national policy formulation and monitoring.
- Policies regarding nutrition and diet should be linked to policies on physical activity or the prevention of obesity and future ill health including osteoporoses.
- Policies should be implemented to prevent the increased consumption during adolescence of foods high in fat, sugar and salt, and in support of increased consumption of fruit and vegetables
- Policies should address micronutrients supplementation to prevent iron deficiencies in the overall population, a problem which is particularly relevant for adolescents and their children.
- Policies should be developed that regulate sugar, unsaturated fats and cholesterol contents of food products, including of so called fast foods, to prevent overweight and obesity, type II diabetes and cardiovascular diseases as these will have particular influence on children and adolescents.
- Policies should restrict the marketing of unhealthy foods to young people as closely linked to substances such as alcohol and tobacco

Recommended reading material

1. WHO Technical report series on Diet Nutrition and chronic diseases, 2003
2. Physical Activity and Health; A Report of the Surgeon General , 1999
3. WHO Global strategy for Diet, Physical activity, and Health http://www.who.int/dietphysicalactivity/publications/facts/obesity/en/
4. WHO information series on school health document 4, Healthy Nutrition: An Essential Element of a Health- Promoting School , WHO, 1998. (http://www.who.int/school_youth_health/media/en/428.pdf)
5. WHO information series on school health document 1 Strengthening interventions to reduce helminthes infections WHO/SCHOOL /96.1. (http://www.who.int/school_youth_health/media/en/95.pdf)
6. Should adolescents be specifically targeted for nutrition in developing countries? to address which problems, and how? Paper for WHO, Delisle et al . 1997

8. Facts for Policy Makers on Physical activity and Recreation

Why are policies for physical activity and recreation important?

Physical inactivity is a risk factor for a variety of conditions such as cardiovascular disease, type 2 diabetes, some cancers, and is associated with osteoporosis and obesity. Globally, physical activity is among the 10 leading risk factors for the disease burden in all ages. Together with poor eating habits, physical inactivity is a causing factor in overweight and obesity. Levels of obesity among adolescents are growing in both developed and developing countries. It is estimated that up to 2.5% of the national health expenditure is attributable to physical inactivity (Stephenson et al. 2000). Regular physical activity, on the other hand, is positively associated with increased physical fitness, decreased risk for the chronic diseases above, with an enhanced immune system and with improved mental health status (Saxena et al. 2005). Physical activity levels, may be related to other health behaviors such as tobacco and alcohol use (Schumann et al., 2001) With increasing age, during adolescence, levels of physical activity start to decline, particularly among girls. Globally, levels of physical activity are thought to be declining while time spent in sedentary behavior such as sitting for long periods is increasing.
Play and recreation, are vital components of physical activity and are important for the development of children and adolescents alike. Physical activity builds self-esteem, positive self-perceptions of competence and body-image as well as vital social skills and values such as teamwork, fairplay and tolerance. Organized sport can therefore provide opportunities to learn important pro-social skills while it provides a safe and supportive environment.

General

The epidemiological evidence on decreasing physical activity and increases in sedentary lifestyles is growing and the association with negative health outcomes such as obesity and chronic disease are well defined. However, the evidence for effective interventions to increase (and/or sustain) levels of physical activity among adolescents is not abundant, particularly from developing countries. Based on current evidence one can conclude that a comprehensive approach, involving a combination of coordinated interventions is needed to increase levels of physical activity. Rigorous effectiveness evaluation is needed of approaches that look promising to promote physical activity at the level of the adolescent population.

In accordance with Article 31 of the CRC, every adolescent should enjoy the basic right to play, regardless of gender, ability or ethnicity. National policy should reflect this basic right and facilitate access of adolescents to recreational activities, including sports which not only support adequate physical activity levels, but also are opportunities to learn pro-social behaviors, and provide safe and supportive environment for young people.

Individual level

- Policy should encourage adolescents to maintain healthy levels of physical activity. Appropriate activity for adolescents includes at least 30 to 60 minutes of cumulative moderate physical activity every day. Ideally, young people should engage in some vigorous physical activities 3 times a week. (adapted from the US Surgeon General,1996 and CDC Dietary Guidelines for Americans, 2005) These levels of activity can be reached through a broad range of appropriate and enjoyable physical activities and body movements in young people's daily lives, such as walking or cycling to school or work, climbing stairs, dancing, as well as a variety of leisure and recreational sports.

School based approaches

- Policies should promote physical education and recreational activities at school. Health promoting school approaches have been introduced in many countries and have proven a effective strategy for raising awareness on health related issues, including physical activity.
- Evidence from a review on studies evaluating physical activity intervention programmes indicates that those employing a multidimensional model of school health intervention prove to be most effective. Multidimensional approaches do not only focus on curriculum-based interventions but include policy-based strategies, environmental changes, community and parental participation, additional school-food programmes etc. in order to provide opportunities to increase physical activity in structured and unstructured ways. They can change students' sedentary lifestyles conveying knowledge and skills, and influencing values and attitudes.
-

Health services

- Counseling by primary level health care providers has shown to be effective in changing levels of physical activity (Guidelines for care to adolescents, USA) Policies should ensure that assessment of physical activity level and counseling on appropriate levels of physical activity are included in national standards of care and training of health care providers.
- Policies should ensure that prevention and care of injuries related to involvement in physical activity are addressed, for example though stimulation of use of safe or protective gear. When adolescents access health services for sports related injuries, this opportunity should be used to do a full assessment of the adolescent's health status and behaviors.
- More scientific evidence is needed to establish the cost effectiveness of sports related pre-participation medical examination. Current data have not confirmed these examinations are effective, and data does not exclude that there might be other benefits that have not been captured Medical examination of adolescents with known risk factors such as suffering from chronic diseases or malformations is more likely to be (cost-)effective. (6)

Societal level

- Policies should support monitoring physical activity levels among young people as part of regular national monitoring of physical activity levels in all age groups.
- Sports and recreation programmes are powerful vehicles to promote healthy lifestyle as part of adolescents' development, and as a way to reach adolescents and communicate positive health messages to them (YouthNet Brief No. 4 on Football). Policies should create a supportive environment that stimulates physical activity. Community based programmes such as "Agita São Paulo" in Brazil may indicate how to support people to become more active. Policies to stimulate governmental and non governmental organizations to organize physical activity and

recreational activities should be put in place emphasis on intersectoral policy - i.e. media campaigns combined with interventions aimed at creating supportive environments.

- Policies to promote physical activity and recreational activity should take into account the special needs of those adolescents who might have limited access to recreational facilities: adolescents who are out of school; adolescent girls who may have differential needs due to cultural reasons; disabled young people; young people living in the street or are in refugee situations.
- Policies that focus on enhancing the health and development of vulnerable adolescents should include access to recreation and sports of groups such as orphans, refugees or those living and working in the streets. Sports programmes help to provide a safe environment. In post-conflict environments, sports programmes can be crucial in the rehabilitation process, particularly for adolescents, offering young people a sense of normalcy, restoring some form of order and structure to their lives, and helps to rebuild trust in others.
- Policies should foster partnership with sports and recreation sectors to become active agent for health. The natural interest of sports sector to be a positive agent for the health and development of adolescents. Policies to engage the sports sector in health promotion should therefore be and other sectors e.g. transport and urban/environmental planning

Recommended reading materials

1. WHO Global Strategy for physical activity, diet and Nutrition, adopted by WHA 57, 2004.
2. WHO information series on school health Promoting physical activity among children in and through schools, 2006 (http://www.who.int/school_youth_health/)
3. Physical Activity and Health Report of the Surgeon General 1996
4. Getting Australia Active, Bauman et all, National Public Health Partnership, Melbourne Australia, March 2002. (http://www.nphp.gov.au/workprog/sigpah/index.htm)

References

5. Saxena et al. Mental Health benefits of physical activity. Journal of Mental Health, 2005 00 (0):1-7
6. Pre-participation physical examination for athletics: a systematic review of current recommendations" by Peter J Carek and Arch Mainous III , BMJ USA 2002;2:66
7. Schumann et al. The association between nicotine dependence and other health behaviours. European Journal of Public Health 2001; 11, 450-452.
8. Stephenson J, Bauman A, Armstrong T, et al. (2000). The costs of illness attributable to physical inactivity. Canberra: Commonwealth Department of Health and Aged Care