aspects such as under-age drinking

- provide free needles or arrange needle exchange programmes for young people addicted to intravenous drugs (to prevent HIV transmission)
- foster positive role models, such as sport and entertainment stars, to speak out against substance misuse

(b) *Providing information*

- institute vigorous multi-media campaigns to educate young people about substance use, taking care to include young people in the planning and implementation of such efforts
- require warning labels on alcohol products referring to aspects such as drinking and driving and drinking in pregnancy
- use counter-advertising to challenge some of the myths propagated by advertisers and others, for example that certain products increase stamina, energy or potency
- include a focus on drinking and driving in education programmes
- educate parents, teachers and other adults close to young people of the importance of not explicitly or implicitly condoning cigarette smoking, illicit drug use and inappropriate alcohol use
- prioritise young people at particular risk in education programmes, such as:
  - pregnant adolescents and youth
  - sex workers
  - homeless adolescents and youth
  - children of people who have
  - substance-related problems
- support the work done by religious organisations, NGOs and CBOs in educating young people about substance abuse

(c) *Building skills*

- ensure that the social skills that are particularly relevant for substance use are included in existing life skills programmes, such as:
  - assertiveness
  - withstanding peer pressure
  - delaying, or developing more constructive forms of, gratification
  - reducing vulnerability to advertisments

(d) *Counselling*

- improve the substance-related component in the training of people who are already counselling young people in this regard, such as:
  - educators
  - religious leaders
  - health workers
  - hotline counsellors
- improve availability of substance-related counselling services at key sites (e.g. schools, health facilities, prisons, streets)
- increase the availability of telephone hotlines in all official languages
- support selfhelp groups and families of young people with substance use problems

(e) *Access to health services*

- improve training of health personnel (especially nursing staff) in the detection, diagnosis and management of patients suffering from substance abuse, both in their professional training and their

continuing professional develoment

- ensure that the management of young people with substance-related problems is integrated into primary health care services
- improve the consultation and liaison support in the field of substance abuse and dependence available to health workers at primary level
- improve the capacity of the health services to offer detoxification and out-patient treatment services
- increase the number of day and in-patient programmes for young people with substance-related problems
- ensure that health services with the above characteristics are available in key sites such as prisons and health services at tertiary educational institutions
- improve the detection rate for alcohol and other drug abuse at antenatal clinics, and provide the appropriate services to reduce the incidence of foetal alcohol syndrome

6.3.4 Examples of indicators

- percentage of young people who have ever used selected substances
- percentage of young people who are regular users of selected substances
- percentage of young people who use selected substances in a week, month and year
- age of commencement of use of selected substances
- attitudes and knowledge pertaining to use of selected substances

6.4 Violence

6.4.1 Situational analysis

Violence is an important cause of morbidity and mortality among the youth. Assault is the leading cause of death among coloured and black adolescents aged 15 - 19 years, accounting for 47% and 44% respectively of deaths in this age group. Among Asians and whites the proportions were 6% and 14% respectively.[86] Mortality data underestimate the full extent of the problem. Less than 1% of adolescents who present at health facilities for the treatment of assault die from their injuries.[87,88] Among Cape Peninsula high-school students, 13% and 10% had been injured by another person at home and school respectively.[89] In another Cape Town study conducted among 60 children in a children's home and a part of Khayelitsha, Cape Town, characterised by high levels of community violence, 95% had witnessed violence and 56% had been victims of violence themselves.[90]

Gender violence, including various kinds of domestic violence, rapes and other forms of sexual assault and sexual molestation, are recognised as a major problem in South Africa. In a study conducted in Khayelitsha, Cape Town, the majority of adolescents reported that coercive and violent intercourse is a consistent feature of their sexual lives.[91] All but two of the 24 informants reported having been beaten by their partners on multiple occasions.[91] In another study, it was found that the first sexual encounter was generally coercive and occurred with a male partner that was about 5 years older.[92] The participants reported threats, violent practices including forcing legs apart, tearing off clothes, punching with fists and locking the door.[92] Another study found that forced sex occurred among nearly a third of urban black youth.[93] Ncayiyana and Haar (1989), reported that a quarter of pregnant rural Transkei girls in their study experienced their first coitus under duress. Again, there is a dearth of data regarding other (non-Black) young people.

People who are known to be HIV- positive are at risk of assault. Such was the case of a woman

who was ruthlessly murdered by neighbours in KwaZulu Natal, soon after revealing her HIV-positivity.

The causes of violence an be conceptualised in three domains: the victim, the agent and the environment.[94,95] *Victim*-related factors include:

- age;
- gender;
- physical strength;
- low self esteem;
- peer pressure;
- poor communication skills;
- substance abuse; and
- lack of information.

However, the existence of these victim-related factors does not imply that victims are necessarily the cause of their exposure to violence.

Agent-related factors include ease of access to weapons such as knives and firearms.

Environment-related factors include:

- political intolerance;
- unresolved political issues such as provincial border disputes;
- gender and racial discrimination;
- insufficient gun control regulations and enforcement;
- media, e.g. access to violent films and television programmes;
- insufficient opportunities for adolescents and youth to participate in decision making;
- inadequate educational systems resulting in a lack of academic fulfillment, high drop-out rates and a failure to re-integrate dropouts into the educational system; and
- adverse social circumstances, e.g. the disintegration of the family, unemployment, and migrant labour.

6.4.2 Impact

Violence and violent crimes have immediate impact on the physical and psychological well being of the youth. Physical effects can include permanent disability. Short-term effects can include sleep disturbance, inattention, poor concentration, social withdrawal, physical complaints such as headaches and stomach aches, and behavioural problems.[96] More serious reactions persist as post-traumatic stress disorder, which reflects intense fear, horror and helplessness associated with the violent trauma.[97] Typical symptoms are: recurring flashbacks of the event, in which the trauma is re-experienced (e.g. in bad dreams), deliberate efforts to avoid thoughts and feelings about the trauma, and persistent hyperarousal (manifest, for example, by jumpiness and disturbed sleep). Continuing symptoms of this nature interfere with the development of the adolescent or young person.

6.4.3 Strategies

(a) *Creating a safe and supportive environment*

- design low cost housing to maximise defensible space and mutual visibility
- maximise use of electronic monitoring devices in public and private spaces
- encourage the media to be responsible in their programming, for example limiting the extent to which adolescents and youth are exposed to violence in television programmes and issuing warnings about suitable ages for television programmes and whether parental guidance is necessary
- improve access to telephones for reporting incidents
- ensure strict application of existing firearm limitation legislation and work

towards increasing the restrictiveness of legislation

- restrict ammunition sales
- encourage safe weapon storage at home
- eliminate illegal gun markets
- improve and enforce gun control regulations;
- prohibit the sale of toy guns;
- increase police presence and effective ness on the streets
- stricter sentencing of perpetrators of violence against women, adolescents and children
- restrict availability of dangerous knives institute post-release rehabilitation programmes for perpetrators of violent crimes
- prevent presence of weapons at public places
- increase use of metal detectors and body searches at public events or particularly vulnerable places to which the public have access (such as police stations)
- outlaw all corporal punishment
- reduce alcohol and drug abuse (see above)
- provide shelter for abused adolescents and youth

(b) Providing information

- institute vigourous multi-media education campaigns that convey the importance of:
  - resolving conflicts in non-violent ways;
  - walking away from situations that are potentially violent;
  - safe storage of weapons and other objects that could be used as weapons;
  - the negative consequences of violence both for the victim and perpetrator (to reduce the social desirability or "culture" of violence)
- provide information about how to protect oneself in a violent situation
- educate parents about non-violent disciplinary techniques to reduce their dependence on corporal punishment and other forms of violence
- provide the public with information derived from analyses of violent crimes regarding factors such as places and times where crimes were committed
- disseminate information about successful crime prevention efforts

(c) Building skills

- develop programmes to enhance skills that are relevant for violence prevention, such as:
  - resolving conflict in non-violent ways;
  - how to leave potentially violent situations; and
  - how to make one's needs known in a way that is assertive yet non-violent
  - how to protect one's physical integrity and life in a violent situation
  - jobs skills training
  - how to use alcohol responsibly and reduce or cease intake of other mind-altering substances
- ensuring that the above social skills that are incorporated in existing life skills programmes

(d) Counselling

- train members of the SA Police Services, the health services, NGOs and other people that come into contact with victims

of violence in their work to respond to victims in an empathic and constructive manner

- provide bereavement therapy for survivors

(*e*) *Access to health services*

- give particular attention to parents who are at risk of abusing their infants, for example by ensuring more frequent clinic visits or home visits both before the birth and after
- train health care professionals in the identification, management and referral of victims, both from the physical and psychological points of view
- have 24-hour youth-friendly emergency services that have access to psychological services for adolescents and youth that are victims and perpetrators of abuse and violence

6.4.4 Examples of indicators

- percentages of health care professionals who are trained in the identification, management and referral of victims
- mortality rates for homicide
- number and nature of programmes to enhance skills that are relevant for violence prevention
- numbers and percentages of young people involved in gangs
- numbers and percentages of young people receiving treatment for injuries
- numbers of young people seeking shelter following violence
- prevalence rates for violence in boyfriend/girlfriend relationships

6.5 Unintentional injuries

6.5.1 Situational analysis

Unintentional injury is one of the leading causes of mortality and morbidity among youth in both developed and developing countries.[98] Socio-economic changes taking place in South Africa, and rapid urbanisation, increasingly expose the youth to hazards such as road accidents.[20] Road accidents were the most common external cause of death among South African adolescents aged 10 to 14 years in 1984-1986. It was also the most common external cause of death among white and Asian adolescents aged 15 to 19 years, and the second most common cause for the remainder. (Although these studies were conducted some time ago, more recent data are not available)

Of course, as for violent deaths, mortality data are "only a tip of the iceberg" so far as the consequences of unintentional injuries are concerned. Among high-school students in the Cape Peninsula, for example, 9% had been involved in an accident while travelling in a motor vehicle during the previous twelve months, and 7% had been injured as pedestrians by a motor vehicle, motorcycle or a bicycle.[98]

Risk behaviour can be implicated in these accidents. Only 63% had worn a safety belt on the last occasion they had travelled in the front seat of a motor vehicle. Of those who had driven a vehicle during the previous year, 8% had done so under the influence of alcohol or cannabis, while 63% had done so without a licence.[98] Although data are not available for other sites and age groups, there is no reason to suspect that the same overall trends would prevail. In particular, it would be difficult to underestimate the effect of alcohol and other substance use on

the incidence of road-traffic "accidents".

There are several other types of unintentional injury for which data are lacking, such as burns in the home and unintentional poisonings.

6.5.2 Impact

The physical and psychological impact of unintentional injuries are similar to those of injuries caused by violence.

6.5.3 Intervention strategies

Clearly, the intervention strategies vary according to the cause of the unintentional injury. By way of example, the strategies that are appropriate for road-related injuries are provided below. Clearly, similar sets of strategies would need to be developed for the other causes of unintentional injuries.

(a) *Creating a safe and supportive environment*

- improve street lighting
- where possible, build sidewalks
- build bridges or subways at places where large numbers of people cross busy roads
- compel motor vehicle manufacturers to install air bags in all new cars
- enforce existing legislation regarding aspects such as seat belt use, driving under the influence of alcohol, reckless driving, and helmet use
- introduce legislation requiring wearing a helmet when riding a bicycle
- promote the use of reflector strips on clothing and shoes
- promote a "culture" of care and consideration on the roads

(b) *Providing information*

- provide multimedia education campaigns, involving a wide variety of organisations (e.g. NGO's, schools), to convey the dangers of unsafe road-related behaviour
- educate policy makers in all relevant sectors about steps that can be taken to reduce the incidence of unintentional injuries

(c) *Providing skills*

- where appropriate, offer training in driving skills to young people
- assist adolescents and youth to acquire skills in first aid
- where appropriate, provide psychological interventions for survivors of unintentional injuries

(d) *Counselling*

- improve the ability of health service providers to offer counselling to victims of unintentional injury

(e) *Access to health services*

- improve the emergency management of injured people, both within the health system and NGO's

6.5.4 Examples of indicators (for road-related injuries only)

- percentage of vehi cles with air bags installed
- percentage of young peo- ple using a helmet when driving a motorbike and bicycle
- percentage of young peple with a knowl edge of basic first aid
- percentages of young people driving while under the inluence of alcohol
- percentages of young people using seat belts
- nature and extent of campaigns to convey the dangers of unsafe road-related behaviour
- proportion of streets with street lighting and sidewalks
- proportional mortality and mortality rates for road-related injuries

6.6 Birth defects and inherited disorders

6.6.1 Situational analysis

There are limited data available in the prevalence of birth defects and inherited conditions amongst the youth and adolescents in South Africa. It is estimated that 1/40 people are born with birth defect and 1/10 people are affected by genetic conditions at some stage of their lives. Some genetic conditions are visible at birth whilst others manifest themselves later in life. Conditions which have a major impact on the lives of teenagers include neural tube defects, albinism, Down Syndrome, muscular dystrophy, haemophilia and cystic fibrosis.

6.6.2 Impact

Myths that certain genetic conditions do not exist within the Black population has contributed to their under-diagnosis. The reason perhaps that these conditions are thought not exist within the black population is because many of these children are vulnerable and die at an early age from childhood illnesses such as diarrhoea and upper respiratory tract infections. Others may be kept out of the public eye when they reach adolescence.

The impact of having someone with a genetic condition in the family is mainly on the provision of care for this young person.

Often the caregivers are mothers and this means that they are unable to get full time employment to support their families. In the rural areas, this contributes greatly to the continued cycle of poverty.

The lack of genetic counselling services often means that the mother may have a second child with a similar condition. It is therefore essential that young people as future parents, are aware of the health services that they should seek out. A condition such as albinism, although not life threatening, impacts on the teenager's ability to socialise with his/her peers. The mental handicap associated with Down Syndrome may also affect the young person's ability to interact socially. The limited mobility resulting form neural tube defects and muscular dystrophy as well as the quality of lives of these affected individuals greatly impacts on their social lives as young people and as potential employees.

Haemophilia and cystic fibrosis may limit the young person's involvement in physical activities.

6.6.3 Intervention strategies

(a) *Creating a safe and supportive environment*

- increase access to medical treatment for birth defects and inherited conditions
- promote the reduction of discrimination in access to schools, the workplace, medical insurance and in social activities
- provide safe places to live and sheltered employment where appropriate

(b) *Providing Information*

- create awareness on specific birth defects and inherited conditions common
- educate that anyone can be a carrier of a genetic condition
- educate on the primary prevention of conditions like neural tube defects and foetal alcohol syndrome - this may involve caution against consequences of binge drinking and unprotected sex, information on the risk of having a child with albinism and the encouraging folate supplementation three months prior to and after conception
- educate young people on the available services in the health sector

(c) *Building skills*

- involve young people in creating awareness on genetic conditions

(d) *Counselling*

- support parents of children with genetic disorders to ensure that they treat their children appropriately
- arrange support groups where appropriate both for the parents of adolescents and youth with birth defects and inherited disorders and for the adolescents and youth themselves

(e) *Provision of health services*

- make prospective parents aware of available tests and genetic counselling
- provide pre-test counselling - "what the test may mean"
- provide post test counselling - "what the results mean"
- ensure that health providers are aware of the psychological impact of providing results of genetic tests on those who test both positive and negative
- ensure that health workers respect the individual's right not to have genetic tests
- work towards the inclusion of genetic services in a primary health care service and not as a vertical programme

6.7 Nutrition

6.7.1 Situational analysis and impact

Malnutrition contributes more than any other factor to disease and injury world-wide.[99] Low iron intakes contributes to iron deficiency anaemia, which is the most prevalent important nutritional problem in developing countries. Malnutrition and anaemia contribute to many of the diseases found in pregnancy and delivery and play a part in many maternal deaths.[99] Iron deficiency anaemia is also one of the causes of

morbidity, especially for pregnant and lactating women.[100]

Among pregnant adolescents in KwaZulu-Natal, anaemia was found to be related to low birth weight babies and pre-term delivery.[101]
There is a significant body of research on the nutritional status of South African children. An anthropometric survey conducted (1994) on 97,790 primary school entrants selected from 3,300 schools across the country showed that 13% of the pupils were stunted, 9% were underweight and 3% were wasted.[102] Also, it has been estimated that 20% of primary school children are stunted and suffer from chronic malnutrtion.

Whilst there is literature on the nutrition status of children in South Africa, much less research has been done on youth. From the little information available, it appears that folate and iron deficiencies are common amongst adolescents across all ethnic groups.[100] Although sufficient in energy, carbohydrate, fat and protein intakes, pregnant adolescents in KwaZulu/Natal were found to be below recommendations in 14 nutrients.[101]

Children who are malnourished and have various macro-nutrient deficiencies do not usually have normal growth, and this may have implications for their growth even well into their youth. Research shows that pregnant and poor teenagers, who are malnourished as children, tend to have malnourished babies and often the cycle of malnutrition continues. Where a teenage mother has to return to school, her baby may be undernourished, as s/he is left with an often overburdened grandmother.[18]

While inadequate energy intake is the major macronutritional problem in sub-Saharan Africa, there is also the prevalence of excess energy intake or, obesity.[104] This is partly attributable to a proclivity towards high fat "fast foods". The decline of infectious and communicable diseases and increased life expectancy can be expected to increase the prevalence of non-communicable diseases in the near future. South Africa exhibits both problems of inadequate dietary intake, and obesity and associated diseases of lifestyle such as high blood pressure, cardiovascular diseases and diabetes mellitus.
At present there are no specific nutrition intervention strategies targeted for youth and adolescents. However, the broad goal of the Integrated Nutrition Programme (INP) is optimal nutrition for all South Africans.

The emphasis is on building long term capacity of communities to be self-sufficient in terms of their food and nutrition needs, and at the same time on protecting and improving the nutritional status of the most vulnerable groups of the population (children and pregnant and lactating women).

6.7.2 Intervention strategies

(a) Providing a safe and supportive environment

- streamline and monitor Integrated Nutrition Programme activities to focus on adolescents and youth
- provide adequate nutrition for young people in institutions such as prisons, places of safety, hostels, and care institutions.
- fortify staple foods where appropriate
- implement school feeding in primary schools serving children from poor households
- provide food supplementation to:
  - malnourished children;
  - at-risk pregnant and lactating women; and
  - those suffering from chronic diseases of lifestyle or communicable diseases

(b) Providing information

- ensure that nutrition education comprises an aspect of the curriculum in secondary schools, with a particular emphasis on aspects of importance for adolescents such as:
  - skin problems relating to diet;
  - body weight;
  - muscle development;
  - nutrition during pregnancy;
  - breast feeding and other infant feeding practices;
  - the value of traditional foods; and
  - healthy eating habits.

(c) Providing skills

- build capacity of the youth and adolescents to make informed decisions regarding their nutritional well-being through properly targeted nutrition intervention strategies
- encourage adolescents and youth to develop food gardens

(d) Counselling

- develop appropriate nutrition counselling/education programmes targeted at adolescents and youth suffering from nutrition-related diseases

(e) Health services

- develop nutrition surveillance directed at adolescents and youth and adolescents to increase the available information on the nutritional needs of these age groups
- provide primary and secondary nutrition interventions at health facilities, especially for those that are underweight and have micro-nutrient deficiencies
- ensure that growth monitoring takes place, especially for adolescents and youth that have a chronic disease or are underweight or have micro-nutrient deficiencies

6.7.4 Examples of indicators

- food consumption patterns
- growth and pubertal development patterns of young people
- mean levels of cholesterol and triglycerides in serum
- nutritional status of young people using the body-mass index
- percentage of institutions of various kinds that provide an adequate diet
- percentage of schools in poor areas with school feeding schemes
- percentage of young people who experience hunger
- percentage of young people who go to school without having had breakfast
- prevalence of iron deficiency anaemia the extent to which staple foods are fortified

6.8 Oral health

6.8.1 Situational analysis

The oral health of South Africans is poor. About 90% of the population are affected by oral disease, in particular dental caries and periodontal disease.

(National Oral Health Survey, South Africa 1988/1989) A survey of farm workers in the Boland, Western Cape, found that only 3% of six year

olds were caries free, and only 15% of 18 year-olds still had all their teeth.[105]

The current oral health problems are likely to worsen as a result of rapid urbanisation and lifestyle changes, which usually result in increased sugar consumption hence increase in dental caries (Department of Health, 1997).[106]

Oral health status is affected by factors such as:

- lack of fluoridated water and running water;
- a lack of information and awareness of the importance of good oral hygiene;
- inaccessible and unaffordable oral health services - of all the health facilities available in the public sector, only 15% have oral health facilities;[107]
- uneven distribution of oral health services between the public and the private sectors, with the 10% of oral health professionals that are employed in the public sector having to attend to the oral health needs of more than 80% of the total population;
- a failure to fully integrate oral health programs into existing primary health care services and a low priority at primary health care level;
- an inadequate coverage of oral health services in schools, especially in rural areas where these services are not available at all;
- demands for tooth extractions and modification for cosmetic purposes, due to lack of oral health knowledge by the majority of the population.

6.8.2 Intervention strategies

(a) Providing a safe and supportive environment

- fluoridation of the drinking water supplies to an optimum concentration (0,7mgf/l)(in collaboration with the Department of Water Affairs and Forestry)
- promote community (especially adolescent and youth) involvement during national and local public campaigns, especially on national health days and national oral health week.

(b) Providing information

Aim to increase knowledge about factors such as:

- the use of fluorides;
- the importance of good oral hygiene practices from an early age
- the necessity of maintaining healthy eating practices, including a reduction in sugar intake
- where necessary, alternative sources of N fluoride administration, such as tablets and mouth rinses
- include oral health education in the education curriculum
- the necessity of regular visits to oral health professionals

(c) Providing skills

- imparting tooth brushing skills at pre-school and primary school level through organised tooth brushing programmes

d) Counselling

- train oral health professionals to use opportunities present when providing curative services to counsel adolescents and youth about aspects such as oral

hygiene and cosmetic practices

- educate youth and adolescents to counsel their peers on oral health use of all health workers to promote oral health

(e) *Health services*

- integrate oral health services into all levels of the health care delivery system
- increase the number and accessibility of public oral health facilities and personnel
- formulate strategies to make optimum use of the available human resources

6.8.3 Examples of indicators

- percentage of attendances for oral services
- percentage of caries-free children at the age of 6 years
- percentages brushing their teeth daily
- percentage of PHC facilities where the basic primary oral health care package is available
- the ratio of the number of teeth filled to the number extracted

The WHO also includes media/entertainment and political/legislative systems as settings where interventions can be provided. They are not included here since they are not places, as for the other settings discussed here. Also, the key issues for these two settings have been presented in Section 4 above.

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