CHAPTER FOUR

YOUNG ATHLETES AND SPORTS DRUGS

INTRODUCTION

4.1 For a number of important reasons the Committee has sought to examine closely the issue of performance drug use by young Australians. Foremost among these reasons is the evidence of significant risk of serious psychological and physical side-effects. Also, the Committee is concerned about the development in young persons of an attitude which accepts chemical assistance as a legitimate source of performance enhancement; this may influence their approach to sportsmanship for life.

4.2 This Chapter outlines some of the recognised health risks in adolescents from performance enhancing drugs. It describes the extent of such drug use in young athletes, and discusses the evidence received by the Committee concerning the attitude and motivation of adolescents and parents towards performance drug use.

PERFORMANCE DRUG USE BY ADOLESCENTS

4.3 A survey of drug use in Australian sport was carried out between 1979 and 1982 on behalf of the Australian Sports Medicine Federation. Some 4023 respondents indicated their ages on the survey questionnaire, with respondents ranging in age from 9 to 71 years. However, the modal age was 18 years. (Survey of Drug Use in Australian Sport, Australian Sports Medicine Federation, December 1982, p. 15) The study grouped drugs that respondents may have used directly in connection with their sporting activities into eight categories. However, not all categories contain substances banned by the IOC. For instance, there was the category 'vitamins and food supplements'.

4.4 The figures demonstrated a systematic decrease with age in the proportion of respondents taking some drugs. The report's authors concluded:

> It does not seem unreasonable on this evidence to presume that if an individual is going to use a lot of drugs in connection with sporting activity, this behaviour pattern is likely to be established early in the individual's competitive career, and is likely to persist for the length of this career, which may be for many years in some sports. (Survey of Drug Use in Australian Sport, Australian Sports Medicine Federation, December 1982, p. 59)

4.5 The Committee noted that adolescents are often exposed to performance drugs with the complicity of their parents. In an article by Wayne Smith in the Sunday Mail, for example, Mr Richard Caine of the Carrs Park Olympic Pool was quoted as saying:

> I believe there is a drug problem in age group swimming in this country. I have no concrete evidence and I will not be naming names, but I believe what I have been told is the truth. I have been contacted by a chemist who told me he had been approached by people associated with swimmers and on one occasion my assistant coach was asked by the parent of a swimmer for advice on what drugs the child should be given. (Evidence, p. 3087)

Mr Caine went on to explain that the first incident, involving a boy of only 14 years of age, took place 'three or four years ago'. The father of the boy had approached the pharmacist for stimulants. (Evidence, p. 3088)

4.6 During in camera evidence Mr Caine expressed his concern for the well-being of swimmers as young as 12 who compete internationally in age group teams:

> They go off for trips around the world ... There is also the prestige of having your child chosen to represent Australia. I am against that. I believe they are too young. They put the carrots in front of them at too young an age. It is only a few, but it makes

> people take the chance. (In Camera Evidence, p. 1162)

Mr Caine explained that even the provision of pain-killing injections to young athletes can have a deleterious long-term effect:

> The thing I have heard about or which has been common over the years is the amphetamine and, at a later date, the pain-killer. I think that is probably as bad or 10 times worse than the steroid ... they rely on it for the rest of their lives. (Evidence, p. 3082)

4.7 With regard to the taking of anabolic steroids by young athletes, the Committee received evidence from Dr Ken Donald, Deputy Director-General of Health and Medical Services, Queensland Department of Health:

> Yes, I have from time to time had physicians contact me and tell me that they had come across the use of anabolic steroids in quite young teenagers in certain circumstances. On one occasion, it was two youngsters around 13 who were in serious training. I was actually contacted by a physician who had himself been contacted by the children's grandparents who were surprised at the prescription that the children brought with them when they came to do a training camp ... They were 12 and 13. The grandmother actually contacted the physician and asked what they were. They were anabolic steroids ... They had apparently been prescribed by somebody previously ... that is what I was informed of by the physician. (Evidence, p. 1297)

4.8 Further, the Committee considered the case of a doctor's 15 year old son, who asked his father to inject him with a veterinary anabolic steroid that he had obtained from Archer's Gym in Brisbane (see Chapter Ten). (The Courier Mail, 23 February 1989)

4.9 Mr Bill Stellios also alleged that he was provided with steroids at an early age. He stated that when 18, going on 19, he was approached by the weightlifting coach, Mr Bruce Walsh, who offered him a bottle of tablets. Mr Stellios found with the

second bottle from Mr Walsh that the tablets were Dianabol, an anabolic steroid. (Evidence, pp. 3042-43) Mr Michael Brittain also alleged that he was provided with anabolic steroids at the age of 18. Mr Brittain suggested that his weightlifting coach, Mr Paul Coffa provided a bottle of anabolic steroids to him in 1980. (Evidence, p. 3150, 3151) Mr Brittain further claimed to have spoken with weightlifters who had been supplied with anabolic steroids by Paul Coffa when they were 16 and 17 years of age. (Evidence, pp. 3192, 3193)

4.10 The substance of the allegations about weightlifting is discussed in Chapter Seven of this Report. The point here is that suggestions that young sportspersons are exposed to performance drugs such as amphetamines and anabolic steroids are widely reported. The Interim Report noted that Dr Tony Millar gets 'them sent along at the age of 14 because, at that stage, the boy has great potential'. (Evidence, p. 222) And the Australian representative 19 year old discus thrower, Ms Vanessa French, claimed that 'drug taking was fairly universal among the up and coming under 20 age group from all countries'. (The Canberra Times, 8 February 1989)

THE ATTITUDE OF PARENTS

4.11 There is an argument that to become a champion, an athlete must begin training while very young. The danger time for exposure to sports drugs, then, is said to be in the early teens when adolescents begin to show particular promise in a chosen sport. At that time, parents and coaches can start making demands on athletes whose bodies are still growing quickly, and therefore are more susceptible to injury. For example, a typical training program for a young swimmer aiming at world class performances could involve as many as 1.5 million strokes in a single season and up to four or five hours in the pool every day.

4.12 A West Australian sports analyst, Geoffrey Watson, was reported in an article to have suggested that children's sport 'constituted the world's only socially accepted form of child

abuse'. (Michael Robotham, 'Legalised Child Abuse', Sports World Australia, Vol. 1 No. 1, July 1984, p. 28) The same article noted instances of a child being given 600 milligrams of Vitamin B12 by a parent the night before a 200-metre swimming race, and of a 14-year-old hockey player who was unable to walk properly for six months after receiving analgesic treatment for torn ligaments in a hamstring which enabled him to continue playing.

4.13 There is no easy answer to the 'pushy parent syndrome' or to the coach who is prepared to go to extreme lengths to create champions often for the purpose of self-gratification. In both cases, the evidence points strongly to a readiness to use drugs at early stages in an athlete's development, with likely adverse psychological and physical consequences. Nevertheless, an answer (albeit not easy) is the education of coaches and parents.

RISKS FROM PARTICULAR DRUG TYPES

4.14 The Committee indicated in its Interim Report, and has amplified at Chapter Three of this Report, the adverse health risks associated with performance drugs. This section discusses the risks that may apply to adolescents.

Anabolic Steroids

4.15 Professor Ronald Laura from Newcastle University is Chairman of the Health Education Committee of the Hunter Academy of Sport. Professor Laura claimed to have received approaches from boys as young as 15 years to get anabolic steroids to boost performances in weight training and rugby. He stated that he had discouraged them from using steroids and refused to assist them. (The Australian, 17 July 1989)

4.16 As was noted in Chapter Three of this Report, the side-effects of steroid use range from the mild to the severe. Acne is an established side-effect, and there have been indications of anabolic steroids causing virilisation in youths and women, including excessive hair growth. (Houssay, A.B.

'Effects of anabolic-androgenic steroids on the skin including hair and sebaceous glands', in Anabolic-Androgenic Steroids, C.D. Kochakan (Ed), pp. 155-90, referred to in American College of Sports Medicine Position Stand on The Use of Anabolic-Androgenic Steroids in Sports, 1984)

4.17 It is widely recognised that, one of the more significant dangers from anabolic steroids for adolescents is the premature closure of long bone growth plates (the epiphyses) resulting in an irreversible stunting of final achieved height. (Haupt, H.A. and Rovere, G.B., 'Anabolic steroids: A review of the literature', American Journal of Sports Medicine, Vol. 12 No. 6, 1094. pp 469-84) Dr Tony Millar who admits to prescribing anabolic steroids to athletes in therapeutic doses claimed in evidence to the Committee that he would not prescribe steroids to persons under 19 or 20 years of age, and even then he 'would have to be convinced their epiphyses were healed and closed, and that growth was finished'. (Evidence, p. 223) Dr Millar, nevertheless, was reported in May 1989 as admitting giving very small doses of steroids to boys as young as 15, to overcome psychological problems associated with lack of height and to keep them from the black market. (The Sydney Morning Herald, 27 May 1989)

4.18 It is a matter of regret that the stunting effect of anabolic steroids can be exploited in certain sports, for example, weightlifting. (Evidence p. 2691) This otherwise negative side-effect of anabolic steroids could be regarded as an advantage in the lower weight categories of weightlifting.

Growth Hormone

4.19 While there are stunting effects from steroids, growth hormone can be used to develop height:

> Somewhere these parents have read or heard that hGH can increase height and so they want their sons to have it. Price is sometimes no object. It's as if they're buying their boy an expensive pair of running shoes. (Todd, T., 'The use of human growth hormone poses a grave

dilemma for sport', Sports Illustrated, October 1984)

4.20 Human growth hormone (hGH), secreted by the pituitary gland, is the major hormone responsible for post-natal growth and is used in the treatment of growth hormone deficient children. Its use as a doping agent in sport has arisen principally because of its reported effects on anabolic processes in a variety of tissues including muscle. (S. Haynes, 'Growth Hormone', Australian Journal of Science and Medicine in Sport, March 1986 pp. 3-10) The illicit American publication, the Underground Steroid Handbook advised:

> This is the only drug that can remedy bad genetics as it will make anybody grow. A few side effects can occur, however. It may elongate your chin, feet and hands but this is arrested with cessation of the drug ... GH use is the biggest gamble that an athlete can take, as the side effects are irreversible. Even with all that, we love the stuff.

4.21 In its 1989 update of the List of Doping Clauses and Methods, the IOC included hGH for the first time. Its misuse was seen as unethical and dangerous (see Appendix 6).

4.22 The development of a synthetic form of hGH prompted the Australian Government in 1988 to make it more readily available under the National Health Act for therapeutic purposes. The treatment reportedly costs more than $10,000 per annum. (The Canberra Times, 30 August 1988) It is the Committee's understanding that hGH on the black market costs in the order of $900 for two millilitres. (Evidence, pp. 2690-1) The Committee considers that the cost of hGH tends to minimise its abuse for purely cosmetic or performance enhancing purposes in adolescents.

Endocrine Manipulation

4.23 Manipulation of the endocrine system has been suggested by some experts as being responsible for the diminutive proportions of certain Olympic class female gymnasts. Girls might have been given 'brake' drugs to retard their normal development

and a variety of substances could have this effect. (B. Goldman et al (1984) Death in the Locker Room, pp. 61-6)

4.24 Given the lack of evidence of 'brake' drugs, however, there is an alternative explanation for growth retardation. Strict attention to diet and attempts by elite gymnastic coaches to keep fat to less than 8 per cent of total body weight are features of female gymnastic training. It has been suggested that generally a girl's fat content has to reach about 17 per cent before menstruation will begin, and it is not surprising that gymnasts with half this amount experience prolonged adolescence. (Donohoe T. and Johnson N., Foul Play: Drug Abuse in Sports, (1986), pp. 73-4)

Diuretics

4.25 Health risks to young athletes from the use of other banned sporting drugs such as amphetamines, diuretics or tranquillisers, do not seem to have been the subject of research study. The Committee is of the view that any potential for damage to young, growing bodies is unacceptable and such drug use must be strongly opposed.

4.26 Professor Saxon White, a professor of human physiology at Newcastle University said two young persons, aged 12 and 14, had admitted (during visits to his laboratory) to taking performance enhancing drugs for their sports: BMX cycling and rugby league. He declined to state the exact drug types, but said that they were not anabolic steroids. The parents of these adolescents were said to be keen on them taking courses of liver tablets, which were thought to enhance natural ability. (Daily Telegraph, 20 April 1989)

4.27 The Committee heard evidence from the gold medal weightlifter Mr B. Stellios that he learnt to lose weight through the use of diuretics:

> That involved the use of diuretics to which I was introduced by Bruce Walsh, as a very young kid of 15. (Evidence, p. 3047)

Mr Stellios confirmed that he would take one diuretic tablet to make his weight category:

> One. That is all I needed to lose a kilo, which was what I needed to lose. (Evidence, p. 3048)

This continued for some time:

> I slowly got out of the habit of using diuretics and mastered the weight loss over a certain period of time. (Evidence, p. 3049)

4.28 Queensland State amateur boxing coach, Mr Barry Parnell, has reportedly claimed that he had at least four 15-17 year olds with Olympic prospects who would have to submit to testing if testing was required for Olympic hopefuls for the 1992 Games in Barcelona. He was reported in a newspaper article to have stated that the only drug used by his boxers was the fluid pill (that is, diuretics) to take off a kilogram or two before a fight to make weight categories. (The Sun, 21 February 1989) Mr Parnell, however, advised the Committee that his views were misconstrued in the press article. He claimed that none of the boxers coached by him used performance drugs. (Letter to Committee Secretary, received 16 March 1990)

4.29 Mr S. Zammataro, with experience in the sport of boxing for 25 years, told the Committee that he had seen and been told by various trainers that they had given diuretics to boys as young as 14 years. He claimed that while it has been a largely accepted fact that adult men will reduce their weight by artificial means, only in more recent years had he seen evidence of young boys, sometimes as young as 13 years, being given diuretics to enable them to lose the required weight for boxing contests. (Submission No. 71) It should be recorded that the Amateur Boxing Union of Australia declined an invitation from the Committee to prepare a submission because, the Union claimed, it had never had any of its members involved in drug use of any

kind. (Letter from Mr Arthur Tunstall, Secretary-General, the Amateur Boxing Union of Australia, to Committee Secretary, 26 July 1988) The Committee notes that this advice was signed by Mr Arthur Tunstall as Secretary-General of the Amateur Boxing Union of Australia; Mr Tunstall is also Secretary/Treasurer of the Australian Commonwealth Games Association. The implication in Mr Tunstall's letter is that boxing is not a risk sport for sports drugs, including diuretics. That view is not accepted by the Committee. Diuretics, amphetamines and anabolic steroids all have an application in boxing. The Chief Executive of the Australian Sports Drug Agency advised:

> I do not think a sport exists these days in which there is not the temptation for one drug or another to be used. (Evidence, p.2892)

RELEVANT SUBMISSIONS TO THE COMMITTEE

<u>The Australian Schools Sports Council</u>

4.30 The Australian Schools Sports Council (ASSC) is a confederation of State and Territory school sports councils which are linked to their respective Departments or Ministries of Education. ASSC informed the Committee that each individual council has adopted a Code of Behaviour that covers players, coaches, administrators, teachers, parents and the media.

4.31 The codes apply to all State or Territory teams involved in national championships or interstate exchanges. Specific reference to drugs is not included in all of the individual codes, although implicit reference is made through the standard of behaviour requirements.

4.32 ASSC has endorsed the anti-drugs policies of the Australian Sports Commission (ASC) and would enforce any ASC ban for the purposes of competition in ASSC events. ASSC's submission concludes:

> The ASSC is totally opposed to the use of drugs that assist early age competition or

> that artificially interfere with a person's growth and development. (Submission No. 20)

Australian Little Athletics Union

4.33 Australian Little Athletics Union has stated that there has been no evidence of drug use in Little Athletics. The Union claims average annual membership of some 90,000 children Australia-wide engaged in athletic activities in a positive healthy environment. Its goal is for children aged 5 to 15 years to develop 'both physically and physiologically'. (Submission No. 44)

4.34 The Union expressed concern that the Committee had received evidence of drug use in Little Athletics. Dr W. Webb, Principal Medical Officer of the Australian Rowing Council Inc. had informed the Committee in November 1988 that he was aware of 'people popping unknown pills around the athletics tracks' at Little Athletics. (Evidence p. 430) He also said that he had been told of parents who believed that asthma sprays such as Ventolin were beneficial to children without asthma because more oxygen could be taken in to enable the child to run faster. He stated that such sprays would not affect normal airways. (Evidence, p. 431) Ventolin is not a prohibited substance under the IOC guidelines.

4.35 Nevertheless, in a letter to The Age the President of Australian Little Athletics Union, John Guerra, advised:

> There is no evidence of this in Little Athletics although there is a percentage of children who are asthma sufferers and who use sprays during their participation in Little Athletics activities ...
>
> The medical adviser of the Asthma Federation of Victoria has indicated that they have been educating asthma suffers and their parents that sprays should be used at the time of need. Where the asthma occurs during exercise the recommended procedure is for the sufferer to use the spray before engaging in the exercise.

> Further, he advised that while asthma sprays provided relief to asthma suffers they provided no stimulation to a 'normally healthy person' nor does it enable them to improve physical performance. (The Age, 30 November 1988)

Australian Swimming Inc

4.36 Australian Swimming Inc (ASI) claimed that swimming has been free of problems related to its athletes becoming involved with performance enhancing drugs. ASI strongly supports random drug testing and ensures that its coaches and athletes are fully informed about the dangers of drug use.

4.37 Australian Swimming stated that, given:

> ... the fact the sport encompasses young athletes in their most impressionable years [ASI will] continue to take the strongest possible stand against drugs in sport. (Submission No. 19)

4.38 The Committee notes that elite school-age athletes, including those in swimming, are subject to the doping control regulations of the Australian Olympic Federation and the Australian Institute of Sport. Both of these regulations include out-of-competition testing of members (and potential members) of Australian Olympic teams.

The Department of Social and Preventive Medicine, University of Queensland

4.39 Evidence was presented to the Committee about the preliminary findings of a study being conducted by the Department of Social and Preventive Medicine at the University of Queensland into the use of performance enhancing drugs by high school students in south-east Queensland. Results based on a sub-sample of about 400 were analysed and presented to the Committee. (Submission No. 67)

4.40 The level of use of drugs by the sub-sample in the Queensland study was not indicated, although it was said not to be at the level indicated by similar studies conducted on the West Coast of the United States. (In the United States, one study revealed that about 7 per cent of students aged 16 to 18 years admitted to taking anabolic steroids. The study revealed that 27 per cent of those who used anabolic steroids did so to improve their looks on the beach.) (The Physician and Sports Medicine, Vol. 17, No. 2, February 1989) Importantly, a minority of students, but considerably more than reported personal use, indicated that they knew of people who used steroids, stimulants, anti-inflammatory drugs and pain-killers to improve their performance. About one quarter of the students said that they knew such people at 'other high schools'; about one fifth said at 'gymnasiums', and about one fifth at their 'own high school'. (Evidence, p. 2356)

4.41 At the time of presenting its submission to the Committee in September 1989, the authors advised that the sub-sample of 15-18 year olds in eleventh and twelfth grades seemed to contain a heavy representation of students with a particular commitment to sport. Four-fifths played at least one sport competitively and the majority intended to continue involvement in competitive sport when they left school. About one third of the sample played their main sport at the A grade level.

4.42 The Queensland study provides an indication of the knowledge and attitudes of Australian high school students towards the use of performance enhancing drugs. The study found that the majority believed that performance can be enhanced by use of drugs, vitamins and food supplements; considerably less were aware of the adverse side-effects and after-effects of drug use. (Evidence, p. 2354)

4.43 The students demonstrated some confusion about the morality of drug use. The overwhelming majority believed that drug testing should be mandatory for professional athletes, and in fact disapproved of drug use by specific sportsmen (such as

footballers) to increase muscle size. Nevertheless, they were uncertain whether drug taking was necessary to be competitive in modern sport. Sizeable minorities indicated that they would personally take drugs if they knew it would help them make a National or State team or if they knew they would not be found out. In fact, the more specific and personal the situation, the more likely that students would consider taking drugs.

4.44 Dr Mary Sheehan, one of the authors of the report, responded to an expression of concern by a Committee member at the apparent willingness of school children to cheat and suggested that:

> there is a very high level of support for mandatory drug tests, so that while you say that they do not mind cheating, they also want you out there making it impossible for them to cheat. They are asking somebody to put an umpire in so that cheating is not available as a possibility. (Evidence, p. 2377)

4.45 The Committee notes that the motivation for drug taking by school children comes from several directions. Policy must be directed at lessening these motivations if drug use is to be eradicated. A recent article in Sports Coach suggested that the reasons for adolescent use of other drugs are likely to apply to an athlete's use of performance drugs. These include personal factors such as personality characteristics; attitudes, beliefs, values, and the ability to deal with anxiety and self-doubt. Environmental factors are also relevant. These include peer pressure, cultural norms and values, and the attitude of parents to drug-taking. ('Drug Use in Sport', Sports Coach, October-December 1989, p. 39)

4.46 Of course, the desire to be a winner is often powerful and can be observed in children at an early age. The University of Queensland survey showed a sizeable minority of respondents were prepared to resort to drug use if they knew it would help them to make a National or State team. It is acknowledged by sports medicine experts that the athlete who is running, say,

fifth is the one who feels the need for drug assistance, not the athlete running first.

4.47 Peer group pressure is another significant force in junior sport. Dr W.F. Webb, Principal Medical Officer of the Australian Rowing Council, made the observation that in a rowing crew 'there is not much point, with anabolic steroids, in having one member of a crew using them and one not'. (Evidence, p. 420) He acknowledged that peer pressure on someone not inclined to use drugs in that situation is intense.

PREVENTION OF PERFORMANCE DRUG ABUSE

4.48 The Queensland University survey on the use of drugs in sport by high school students concluded by strongly supporting the Interim Report where it stated:

> Moreover, in the case of children it is not just that the drugs may be dangerous, but that the principle of taking a chemical substance to improve performance is itself undesirable. Encouraging children to take vitamins to help them run faster may be as undesirable as giving them something more potent. (Interim Report, p. 67)

<u>Junior Weight Categories</u>

4.49 One aspect of junior sport that the Committee believes can be addressed to remove the incentive for diuretic use concerns contests based on weight divisions, rather than age. Such sports as boxing, lightweight rowing, weightlifting, powerlifting, judo and wrestling are all liable to diuretic abuse.

4.50 The problem arises from the practice of weighing-in, often some hours before the contest. Competitors in non-drug tested junior events can use diuretics with little fear of discovery. It is recognised that the early weigh-in assists programming of the day's proceedings. However, a weigh-in both early in the day and, again, immediately prior to the contest

will negate the benefits of diuretic use. (It should be noted that the IOC List of Doping Classes and Methods specifically provides the IOC Medical Commission with the right to obtain urine samples from the competitor at the time of the weigh-in for sports involving weight classes, in order to detect diuretic use.) At the conclusion of this Chapter the Committee recommends the practice of double weighing competitors in junior weight categories of sport.

Drug Testing

4.51 The survey by the Queensland University Department of Social and Preventive Medicine found two elements that may be used to reduce the incidence of performance drug abuse among school students. The first centres on drug testing.

> It appears that there is a strong attitudinal support by students for mandatory drug tests. In the context of other findings we suggest that students believe that there are performance gains to be had from taking drugs; they would prefer not to take them, and would strongly support a system which enforced the rules and eliminated pressures to use drugs. (Evidence, p. 2357)

4.52 The submission of the Australian Ice Hockey Federation Inc. argued that a strong anti-drug policy backed up by random testing has been proven in deterring drug use by younger players. The Federation's Sports Medicine Director, Dr Peter Gwozdecky stated:

> In fact one of the best rationales for drug testing that I have heard was from some American kids at a school being tested. They found that the enforced random testing rules helped them to combat the strong peer pressures to experiment by giving them an even stronger reason on top of their own decision not to partake. The kids found this a comfortable out that they could relate to. (Evidence, p. 436)

4.53 The Committee's Interim Report made a number of recommendations which should, in time, discourage drug use in

junior sport. The comprehensive program of drug testing at the elite level will send a number of important messages to Australia's younger athletes. Importantly, it will show that athletes can succeed in sport without drug use. Positive tests, and the public odium attaching to being caught, will also make individuals more wary of drug use. The notion that drug use is rampant will be progressively lessened, and with it the perceived need to take drugs to compete on a 'level playing field'.

Drug Education

4.54 The second element to be utilised in reducing performance drug abuse by children is drug education. The submission of the Queensland University Department of Social and Preventive Medicine advised that:

> 1. Education, giving information about possible health-threatening side- and after-effects, is needed to offset the disproportionate stress that has been placed on the performance gains to be achieved from taking drugs.
>
> 2. Education is also needed to give students a more realistic view of the efficacy of other non-prescription substances.
>
> 3. In the high school setting such education should specifically target those involved in competitive sports; particularly, in those sports in which performance is seen to be enhanced by drugs viz., Athletics, Rowing and Weight Lifting. (Evidence, p. 2356)

4.55 The Committee endorses these judgements and notes that the Australian Sports Drug Agency has established a Curriculum Development Project for use in schools. The Committee has examined the Project outline and supports its objectives.

4.56 The Curriculum Development Project is based in part on a survey undertaken by the Australian Sports Drug Agency (ASDA). ASDA has advised:

ASDA has undertaken a survey in the last three months to assist with our education program. The data analysed in this study was gathered from 142 male athletes and 108 female athletes competing in under 14 and under 18 age categories. One hundred and thirty-five of the sample played at representative level and 115 played at club level. Information was gathered using a group interview technique which examined the following substances: amphetamines, anabolic steroids, cocaine, caffeine, tobacco, alcohol, marijuana, vitamins, analgesics, and sedatives and tranquillisers.

Young athletes had a basic and accurate understanding of substances used by sportspeople and the way in which they affect performance. However, the knowledge of the health consequences associated with the use of these substances was limited and consistently inaccurate. The information known by the young athletes interviewed generally related to the long-term consequences of use.

The athletes' lack of knowledge of the short-term and immediate consequences of drug use was particularly obvious. It was also observed that the athletes could list a variety of physical and psychological effects of drugs, but associated these effects with the wrong substance.

When discussing the danger a substance posed to the individual the athletes rated the substance according to its perceived addictiveness. Health consequences were a secondary consideration to the addictive nature of the drug. The athletes' understanding of the concept of addiction was based on media 'hype' rather than sound information, for example, cocaine was considered to be highly addictive, therefore very dangerous, while the 'addictiveness' of tobacco and steroids was rarely mentioned. This lack of knowledge was common to both the under 14 and under 18 age groups.

Young athletes are making decisions about their own drug use based on a limited and inaccurate knowledge base. Education programs need to equip athletes with the skills to make informed decisions based on factual information which is relevant to the target group. Emphasis on short-term health and immediate social consequences have been shown to 'be more relevant to young people.

> It appears that the audio visual media has a strong influence over an individual's knowledge and perceptions about drug use in sport. For this reason education programs should aim to develop skills to analyse and interpret media presentations.
>
> The study also identified myths about the use of some substances which were common to both age groups. For example, socially acceptable drugs are not dangerous and vitamins are necessary for good performances. Myths such as these influence an individual's beliefs about drug use. Therefore, those involved in educating athletes should determine the myths held by their target group and seek to clarify these. (Letter to Committee Secretary, 30 January 1990)

ULTIMATE GOALS

4.57 Drug testing and education are the two most potent weapons in the battle against performance drug abuse by adolescents. The support of parents is also crucial. And restrictions on the availability of performance drugs, as outlined in this Report, will limit the supply of those drugs, raise their black market price and put them out of the budget of most school students.

4.58 Ultimately, all of these factors will have achieved a satisfactory result if an attitudinal change can be established amongst young athletes across Australia. The kind of change being sought by the Committee is the acknowledgement by adolescents that performance drugs are both undesirable and unnecessary. They are undesirable because of the damage to health that can eventuate and because their use is unethical. And they are unnecessary because sporting success at the elite level can be achieved without them. It is the Committee's hope that the acknowledgement of that fact will be widespread among young Australians. Here drug testing and drug education are complimentary. The Committee concurs with the view put with considerable feeling by the swimming coach Mr Dick Caine:

> This is the sad part of the thing. You can have some kid who really is a great athlete

> doing it on his own but the other parents honestly believe that that person is taking dope and so then they start. This is why I believe there should be dope testing so that the parents can see these people are winning without dope. Some people get this thing mixed up. They want a drug test to catch them; they should drug test to show that this great champion does not need it and so all the young kids can say, 'Hey, Michelle Ford won that gold medal and did not need help'. (Evidence, p. 3090)

RECOMMENDATIONS

Recommendation Six

4.59 The Committee recommends that an ongoing program of sports drug education be developed for schools, sporting and community groups. It could be based on the Curriculum Development Project being pursued by the Australian Sports Drug Agency, and on the survey on teenage sports drug use conducted by that Agency.

Recommendation Seven

4.60 The Committee recommends that junior weight category sports adopt the practice of double weighing - if weighing occurs early on the day of competition, it should be conducted again immediately prior to the competition. This will reduce the incentive to use diuretics.