

DETECTION AND EDUCATION IN ANTI-DOPING POLICY: A REVIEW OF CURRENT ISSUES AND AN ASSESSMENT OF FUTURE PROSPECTS

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In the last ten years there have been dramatic changes in efforts to tackle the problem of doping in sport. In 1999 the World Anti-Doping Agency was established and five years later in 2004 the World Anti-Doping Code was approved with the aim of harmonizing anti-doping policy and practice across the globe. Since then the Code has been revised and UNESCO has drafted an Anti-Doping Convention which will legally commit governments to support WADA and implement the Code. These considerable achievements reflect not only the seriousness of the problem of doping in elite sport, but also the increasing importance of elite sport, especially Olympic sport, and elite sporting success to governments and to business. Elite sport has been important as a diplomatic resource in relation to specific issues such as apartheid in South Africa and the also the Cold War rivalry between the United States and the Soviet Union, but it has also become increasingly important for a wide range of governments in raising the profile of a country (through hosting major sports events or having successful athletes) and in developing and maintaining national pride. Businesses have also come to appreciate the value of elite sport — as a commodity to be sold and as a vehicle for the marketing of non-sport goods and services.

While there are some who argue either that doping is impossible to eliminate or that doping is no different from other forms of scientific advantage and that anti-doping efforts should be abandoned the balance of opinion among governments and international sports organizations is that doping is contrary to the ethos of sport, undermines its diplomatic value and reduces its profit potential for business. Consequently, anti-doping organizations and policy operates within a complex and highly political environment where expectations for success are high. The aim of this paper is to provide an assessment of the state of current anti-doping policy and to identify and review a number of the most significant issues that currently face policy-makers. The paper begins with a brief overview of the context from which WADA emerged in the late 1990s and an analysis of how perceptions of the problem of doping have altered. This is followed by an assessment of the current global policy regime or infrastructure for anti-doping policy. The paper then moves on to consider the following issues:

- The balance between detection and education in WADA's anti-doping strategy
- The protection of young athlete's rights in the anti-doping policy
- The monitoring of compliance with the World Anti-Doping Code

The paper concludes with the identification and discussion of the major challenges that

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face WADA and the global anti-doping effort over the coming years.

The Context of Anti-Doping Policy

The initial reaction of many federations to evidence of doping by athletes involved in their sports was to ignore the problem in the hope that it would disappear. Most federations in the late 1960s and 1970s considered incidents of doping as exceptions in their sport or as a set of largely unsubstantiated allegations that it was convenient to ignore. For both the Olympic movement and the major federations, there were strong incentives not to investigate the allegations of doping too closely, first, because of the likely cost and complexity of any action and second, because of the potential damage to the image of sport that might result.

Up until the mid-1980s, doping policy was being formulated within a number of largely self-contained forums based on a perception of the problem as one that could be confined to particular sports, competitions or countries. Such policy development as there was centred on detection rather than on the provision of education to athletes and their support staff. Thus the IOC sought to protect the integrity of the Olympic Games through the use of in-competition testing; the major federations also considered that in-competition testing would ensure the continued probity of their elite events; and governments established legal frameworks and instituted domestic testing regimes on the assumption that the practice of sport within their borders could be isolated from cross-border contamination. As a result there was only minimal contact between sports organisations, governments and international bodies such as the Council of Europe and UNESCO. However, by the mid to late 1980s, such a view of the nature of the problem was no longer sustainable owing, in very large part, to the rapid globalisation of sport. Not only did the 1980s witness the expansion in the number of world championships and grand prix events but, following the widespread abandonment of amateurism, athletes increasingly moved outside their home country to train. International competition circuits and athlete mobility meant that many athletes spent little time in their home country. This highlighted the importance of consistency of regulations between domestic federations and the importance of mutual recognition of jurisdiction across national boundaries. In addition, the weakness of an anti-doping regime based on in-competition testing was increasingly apparent in view of the growing use of anabolic steroids as training aids. However, the introduction of out-of-competition testing involved a level of transnational co-operation and an expenditure of resources that few federations or governments had anticipated.

The end of amateurism brought about one further significant change. As more athletes, particularly in track and field, saw sport not only as their primary source of income, but also as a source of substantial wealth, they were consequently much more willing to use the courts to protect their income if it were threatened by a ban for a doping offence. Well-documented cases involving elite athletes such as the German Katrin Krabbe and the Australian Martin Vinnicombe drew the attention of the domestic federations to the potential cost of defending their decisions in court and also made them aware of just how vulnerable many of their decisions were, due to the poor drafting of regulations and the failure to ensure compatibility of domestic regulations with those of the international federation and with the domestic federations in other countries.

*The Development of International Co-operation in Testing,
Detection and Punishment*

By the end of the 1980s it was clear that the attempts to tackle doping as a series of discrete problems were proving ineffective. If doping was to be successfully challenged, there was a need for a high level of co-operation between the international federations and the IOC and also between sports organisations and governments. The impetus for closer co-operation came from the recognition of the increasing complexity of the problem arising from the greater wealth and mobility of athletes, and also from an awareness that a successful anti-doping programme would be expensive and well beyond the resources of individual federations or the IOC. Co-operation at the political level was therefore a primary requirement.

During the 1970s and 1980s the federations had been highly suspicious of the motives of many governments in the area of doping and were generally sceptical of their commitment. Apart from the small number of governments who were prepared to commit resources to the problem, the majority was inactive and a very small, but highly significant number were subversive. As is often the case in policy development the catalyst for policy development was often embarrassment due to scandal. For example, in the late 1980s both Canada (the Ben Johnson case) and Australia (doping at the government funded Australian Institute of Sport) experienced serious doping scandals which prompted their governments to review their attitude and policy towards doping. The state enquiries in Canada and Australia prompted a radical change in attitude and led both countries to establish state-supported anti-doping agencies which are currently among the most respected.

However, it was not just the cathartic effect of scandal and public scrutiny that led to an improved climate of co-operation between governments and sports organisations. Of equal significance was the ending of the Cold War and the consequent removal of international sport as a surrogate for the ideological confrontation between communism and capitalism. The capitalist democracies could no longer implicitly rationalise their relative inaction on doping. Furthermore the countries of the former communist bloc were keen to rebuild democracy and its civil institutions, of which sports organisations were an important part, and also distance themselves from the tainted reputation of their previous leaders.

The action taken by sports organisations during the 1980s and early 1990s was, like that of governments, generally limited. Although the IOC remained a key organisation, its role was confined to little more than updating the list of banned substances and practices, advising the Council of Europe on the anti-doping Charter, and the overseeing of testing at its own events. The leading federations, with a small number of exceptions, such as those for swimming (FINA) and track and field events (IAAF), adopted a passive and reactive stance with regard to the issue.

By the mid-1990s policy towards doping was at a watershed and the prospects for further progress were mixed. Optimistically one could point to the vastly improved international political climate. Among the major Olympic nations there was only one, the People's Republic of China, where strong suspicions of state inaction towards doping still remained. Second, there were an increasing number of countries that had established anti-doping agencies which could command widespread respect. Third, more countries were involved in multilateral agreements, such as the International Anti-Doping Arrangement between a small group of countries,

including Australia, Canada, The Netherlands and Sweden, which enabled the diffusion of good practice in testing and education and also acted as a lobby within the wider global political and sports community. Fourth, the number of forums available for the exchange of information among sports organisations and between sports and governmental organisations had increased significantly. Finally, the first signs of an interest in educating athletes in the risks associated with doping were emerging.

A more pessimistic assessment of the state of anti-doping policy in the mid-1990s balanced the evidence of progress against the acknowledged limitations of the testing regime. Ben Johnson, for example, had been tested over 15 times while using steroids before he tested positive at Seoul. Second, the commitment of some domestic and international federations was being weakened by the increasing frequency of legal challenge. It was not just the fear of bankruptcy should a federation lose a case, as the cost of successfully defending decisions was equally crippling. The overall effect was to fuel the suspicion among governments that federations were being overly cautious in deciding when to determine that a doping positive constituted a doping infraction. Third, there was the growing evidence of the use of drugs that could not be detected with current testing methods. Erythropoietin (EPO) and human growth hormone (hGH) were two of the drugs that were causing greatest concern and the IOC and the federations were acutely aware of the cost of devising a valid and reliable test.

The 1998 Tour de France and the Establishment of WADA

As had been so often the case in anti-doping policy making, it was a crisis - in this case one that occurred during the 1998 Tour de France — that prompted a fresh round of policy activity. A number of factors combined to force a renewed effort to increase the momentum behind anti-doping policy:

- 1 the extent of doping discovered during the Tour and the number of riders and team officials implicated;
- 2 the global prestige of the Tour;
- 3 the claims by the international federation for cycling, the UCI, to be a leader in the anti-doping campaign; and
- 4 the strength and intensity of intervention by the French government.

The decision by the IOC to convene a conference on doping in February 1999 was a direct consequence of the events surrounding the Tour. The aims set for the conference were to 'discuss and adopt measures allowing the fight against doping to be intensified' and to consider the specific proposal that a new international [anti-doping] organization be established (IOC, 1998). While there was general support for an international agency, there was a broad insistence that it should be completely independent of the IOC. The World Anti-Doping Agency was established in November 1999 as an agency independent of the IOC with the following two primary objectives:

- to co-ordinate a comprehensive anti-doping program at international level, developing common, effective, minimum standards for doping control ... Among its duties, the new Agency is expected to commission unannounced out-of-competition controls in full

agreement with [the] public and private bodies concerned.

- to work with existing authorities to promote the harmonisation of anti-doping policies and procedures, identify a reference laboratory to advise the accredited testing laboratories, and co-ordinate the numerous educational efforts now underway. It also is expected to publish an annual list of prohibited substances. (IOC press release, 9 Sept. 1999)

In the nine years since its establishment WADA has made considerable progress in consolidating its position as the policy leader on anti-doping. A summary of its main achievements includes:

- obtaining the support of all major international sports federations
- obtaining the support of the governments of all leading 'sports' countries
- establishing a strong financial foundation
- producing the World Anti-Doping Code in 2003 and a revised Code in 2008

That WADA has clearly developed considerable momentum since its establishment is in part a tribute to the commitment of its staff and the leadership of Richard Pound. In addition there have been five changes of particular note that helped WADA establish itself so rapidly:

- the increasing interest of the European Union (EU)
- the active involvement of the United States
- the formation of the International Intergovernmental Consultative Group on Anti-Doping (IICGAD)
- the emergence of the Court of Arbitration for Sport, and
- the development by UNESCO of the International Convention against Doping in Sport.

Although EU interest in doping can be traced back to the early 1990s it was not until the late 1990s that the EU became more directly involved. In December 1998 the European Council expressed its concern 'at the extent and seriousness of doping in sport' and it encouraged the involvement of the Commission in working with international sports bodies to 'fight against this danger' (European Commission, 1999: 1). With its deepening interest in sport in general and doping in particular, it is not surprising that the EU was closely involved in negotiating the statutes that would define the remit and govern the operation of WADA. From the perspective of the IOC, the EU has a range of existing programmes that could support the work of WADA, particularly in relation to the funding of scientific research, furthering the harmonisation of laws among member states, and the funding and co-ordination of public health campaigns aimed at doping in sport. But while the IOC was doubtless aware of the value of harnessing EU resources to the anti-doping campaign, they were probably more acutely aware of the EU's interventionist and regulatory culture and the potential threat posed to the independence of sports organisations. Since the establishment of WADA the European Union has provided financial support for a number of initiatives including projects concerning athlete education and scientific research.

Of comparable significance to the increasing involvement of the European Union was the new-found enthusiasm for action on doping within the United States. In December 1999 the USOC called for the creation of an independent body to enhance the credibility and effectiveness of US efforts to tackle doping. The US Anti-Doping Agency (USADA) was duly

established in late 2000 with responsibility for sample collection, testing, adjudication, sanctions and research. By putting its own house in order in relation to Olympic sport at least, the United States has substantially enhanced its credibility in relation to global anti-doping policy and enabled one of the major world 'sports powers' to be more closely involved in the establishment of WADA. However, substantial problems remain with the big four commercial sports, baseball, ice hockey, football and basketball, where progress has been limited despite consistent pressure from WADA, USADA and the US Congress.

The third development in the context of global anti-doping policy was the formation of the International Intergovernmental Consultative Group on Anti-Doping (IICGAD). IICGAD was established because of the need for a collective voice for the public authorities in relation to the IOC proposal for a new global anti-doping agency and also because of the need for a constituency from which representatives of public authorities could be selected. The governments of Canada and Australia were instrumental in convening the International Summit on Drugs in Sport in November 1999 in Sydney, which led to the formation of IICGAD. This organisation was given a brief to co-ordinate worldwide government participation in WADA and to facilitate the process of harmonisation of policies, especially in areas of exclusive government jurisdiction or responsibility such as customs regulations and the labeling of medicines and supplements. For the first time there now existed a permanent global forum for governments to exchange views on doping issues and to co-ordinate their contribution to WADA.

Fourth, the emergence of the Court of Arbitration for Sport (CAS) as a respected and authoritative court of last appeal in doping cases has helped to give the work of national anti-doping organizations consistency, has inspired confidence among athletes and has given legitimacy to the work of WADA and the Code.

The final development of importance is the ratification of the UNESCO Convention against Doping in Sport which came into force in February 2007 and had been ratified by 41 countries by early 2007 making it the quickest UN Convention to be ratified. The Convention is a major step in harmonizing anti-doping measures across all countries and places an obligation on countries to align their domestic laws with the World Anti-Doping Code. It is expected that all those countries that signed the Copenhagen Declaration in support of the Code will eventually ratify the UNESCO Convention which together with the 570 international sports organizations that have adopted the Code would provide an extremely comprehensive and powerful foundation for a global anti-doping policy regime.

Current Issues

The Balance between Detection and Education in WADA's Anti-Doping Strategy

Table 1 shows how policy-makers' assumptions about the particular causes of non-compliance with anti-doping rules will influence the selection of policy instruments. In general, most countries assume that the major cause of non-compliance is the conscious decision not to comply — i.e. a deliberate decision to take drugs. Consequently, emphasis in policy design is on the development of policy instruments intended to constrain behaviour through the erection of barriers (e.g. the control of the supply of drugs), and to deter (e.g. through an extensive

TABLE 1. THE RELATIONSHIP BETWEEN THE CAUSES OF NON-COMPLIANCE AND THE SELECTION OF POLICY INSTRUMENTS

Cause of non-compliance	Policy instruments			
	Inducements			Constraints
Ignorance or incompetence	Rewards	Education/ information	Erection of barriers	Deterrents
Inability to comply (lack of free will)	Negligible effect	Substantial effect	Moderate effect	Moderate effect
Conscious decision not to comply	Negligible effect	Negligible effect	Negligible effect	Negligible effect
	Moderate effect	Negligible effect	Moderate effect	Moderate effect

regime of drug testing).

The publication of the World Anti-Doping Code in 2003 reinforced the focus on detecting violations of anti-doping regulations and the quasi-legal procedures that follow. The revised Code (WADA 2008 p. 50) states that:

“Each Anti-Doping Organisation should plan, implement and monitor information and education programs. The programs should provide Participants with updated and accurate information at least on the following issues:

- substances and methods on the prohibited list
- health consequences of doping
- Doping Control procedures
- Athlete’s rights and responsibilities”

The emphasis on education is weak and the implication is that information and education are similar, if not the same. The lead given by the Code has been partly followed in the UK where concern with detection and doping control management has been further strengthened by the prospect of hosting the 2012 Olympic Games. The pre-occupation with detection and doping control procedures was given a degree of urgency by the embarrassment caused by two high profile doping cases involving UK athletes. The first case involved the Manchester United footballer Rio Ferdinand who missed a doping control and was subsequently suspended for eight months. The Ferdinand case highlighted the particular challenge facing anti-doping organisations and national and international federations in obtaining full compliance with the Code from rich athletes and clubs. The second case concerned the track athlete, Dwain Chambers, who was suspended from competition for two years after testing positive for the designer drug, THG, linked to the BALCO laboratory in the United States and has since returned to athletics much to the embarrassment of his domestic federation and the government.

Given this context it is not surprising that the National Anti-Doping Policy (UK NADP), published in 2005, devotes the bulk of anti-doping resources to deterrence, apprehension and sanction of violators of anti-doping regulations rather than education. However, while less than 5% of total UK Sport expenditure on anti-doping work is allocated to education it has developed a number of innovative educational programmes that have received endorsement from WADA. UK Sport has long-established information systems designed to meet the needs of adult athletes. For example, in 2002 the organisation established the Drugs Information

TABLE 2. ACTIONS OF 28 UK OLYMPIC FEDERATIONS IN RELATION TO EDUCATION AND THE PROVISION OF INFORMATION

The Federation ...	Yes	No	Unclear/ no data
...distributes anti-doping information direct to athletes	20	6	2
...adapts anti-doping material for their sport	9	18	1
... interprets anti-doping material from other agencies (e. g. WADA) through seminars, presentations etc	18	7	3
... adapts anti-doping material for particular groups defined, for example, by age, disability and gender	7	19	2
... plans to review the effectiveness of its education/information provision procedures	8	15	5

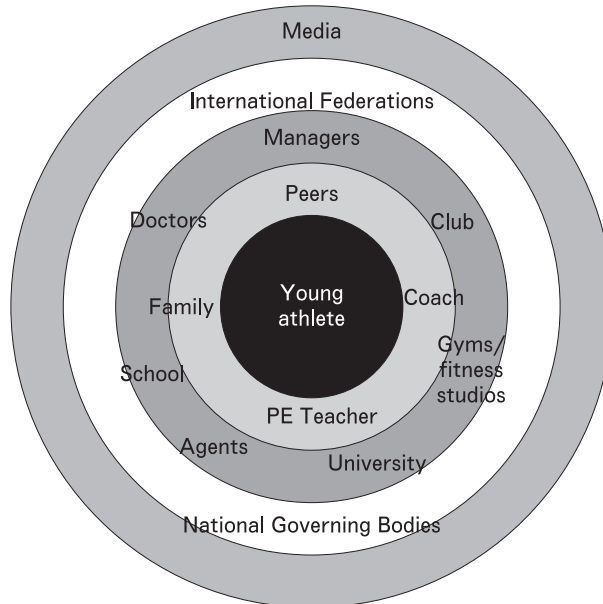
Database (DID) which received over 32,000 enquiries in its first year and over 60,000 in 2003-04. DID is supported by a wide range of on-line and printed fact sheets and guides. While the DID is a valuable innovation it is aimed primarily at an intelligent adult audience and is less suitable for younger athletes and those with poorer reading skills. In general, it is always easier (and cheaper) to provide information than to provide education, consequently the development of educational materials has lagged behind. However, two educational programmes, 'Start Clean', a web-based, game format educational tool aimed at young athletes launched in 2005, and '100% ME' are both welcome attempts to improve the quality and quantity of educational material.

However, it is important to acknowledge that the national anti-doping agency is only one part of the infrastructure responsible for controlling doping — domestic federations of sport also have an important role to play. Table 2 suggests that there is considerable variation between federations in the provision of information and education to athletes. Federations vary in what information is distributed, how it is distributed, and the extent to which it is interpreted and modified to meet the requirements of particular groups of athletes, especially the young.

The survey of UK Olympic Federations confirms the conclusions of a larger European-wide survey conducted in 2002 (PMP Consultancy 2001). The PMP European study found that a broad range of campaign tools and programmes was utilised with information booklets, seminars/workshops and an information service being the most common. The various tools and media tended to emphasise three messages: the risk of doping to health, the impact of doping in undermining the value of sport, and that doping is cheating. However, the overall conclusions of the study were that:

- Education strategies were under-exploited
- Education and information strategies are often simplistic
- Health messages alone are unlikely to be successful
- That awareness of ethical issues (i.e. what is 'fair') is strong among the young (8-12 year olds)
- Few education campaigns are specifically designed for young athletes
- Few education campaigns are aimed at specific stages of an athlete's career
- Education campaigns are most effective when they are long term and reinforced by the athlete's community (parents, peers, coaches etc)

FIG. 1. THE NETWORK OF RELATIONSHIPS OF A YOUNG ATHLETE



PMP Consultancy ©

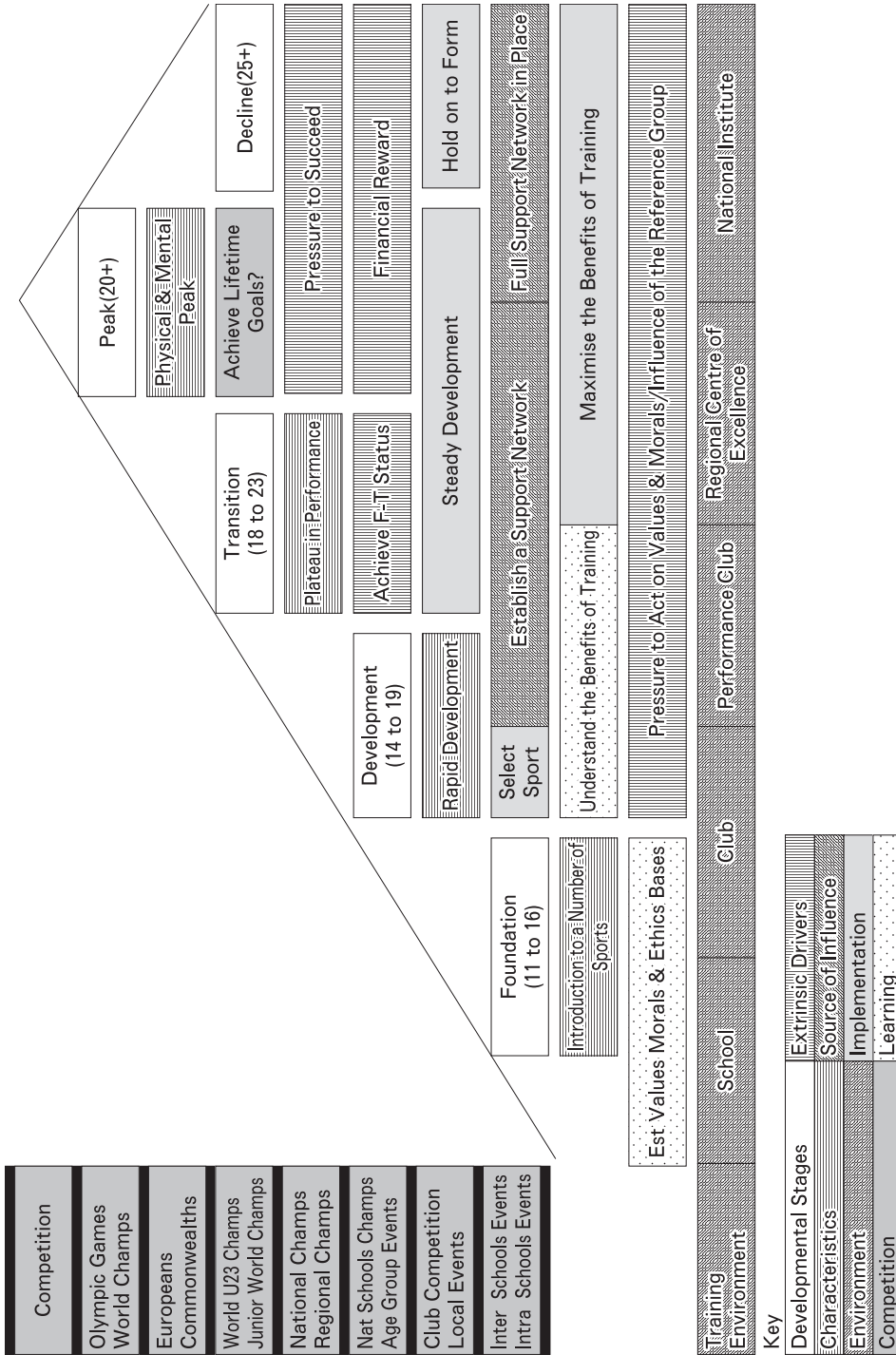
If education is to make a more significant contribution to reducing doping in elite sport we need to consider what type of education is likely to be effective. First of all it is important to clearly distinguish between the provision of information and the delivery of education. While the provision of information is generally a one-way process and is delivered in a standard format education is generally a two-way or collective process, involves teaching and learning (and variation in learning styles), is usually designed for the particular audience and is seen as a long term or continuous process and relationship with learner.

Second there is a clear obligation to take account of the different stages in an athlete's career because as the athlete's career change so does attitude, network and context. As Figure 1 makes clear athletes move through a number of distinct phases in their career and at each phase the context and pressures they face are different as is the network within which they are training and competing. The second figure (Figure 2), below, shows what the network might look like for a young athlete.

The evidence, built up over the last twenty-five years, from related policy areas, such as campaigns to reduce smoking and recreational drug and alcohol use, among the young suggests that successful policies tend to have the following characteristics:

1. education campaigns should be linked to a theory of behavioural change such as Becker's Health Belief Model (1974) or Prochaska and DiClemente's Stages Model (1992)
2. education should be clearly supportive not punitive with an emphasis on counselling rather than exclusion
3. education must be a community-wide endeavour. In other words the educational message needs to be consistently reinforced across a community and would therefore

FIG. 2. THE ANTI-DOPING PERFORMER PATHWAY



include local clubs, schools and the media

4. educational programmes that involve a combination of peer and parent-led methods add credibility to the process and increase the likelihood of success
5. an important part of any successful behavioural change education programme is providing the individual with the skills and confidence to resist pressure to engage in the prohibited behaviour
6. education programmes are more effective if supported by regular reinforcement or 'booster' sessions
7. the earlier that education begins the greater the likelihood of success
8. interactive learning is more effective than passive learning
9. all education programme should ensure that there is adequate funding for evaluation and, if necessary, subsequent fine-tuning

In conclusion, it is clear that there is a slow appreciation among policy-makers that education should feature more prominently in anti-doping efforts, but there is also a recognition that the design of effective programmes is, in many respects, more challenging than the design of programmes for doping control and deterrence. In summary, an education programme is more likely to be successful if it is sustained, tailored to individual sports, matches the athlete's age and career stage, involves the athlete's community/entourage and 'significant others', is monitored and evaluated, and is realistic about what can be achieved.

The Protection of Young Athlete's Rights in the Anti-Doping Policy

Many countries have designed long term athlete development strategies which often involve the identification of talented young athletes at an age below that of legal adulthood. However, despite the significant number of young athletes in elite development programmes the World Anti-Doping Code says remarkably little about how their interests should be protected and how they should be dealt with if they are accused of a doping violation. Since 1989 a key reference point for all activities involving children has been the United Nations Convention on the Rights of the Child. However, sports organizations, including WADA, have generally been slow to acknowledge their obligations to ensure that the rights of children who take part in elite level sport are adequately specified and then protected. Specifically in relation to doping control there are a number of articles in the UN Convention that are directly relevant to young athletes and provide a benchmark against which to evaluate the World Anti-Doping Code. Article 3 requires that the best interests of the child should always be the primary consideration while Article 5 states that the child should always be provided with appropriate direction and guidance. Other relevant Articles refer to the right of the child to have his/her opinions taken into account in all decisions affecting him/her (Article 12), to be protected from abuse and neglect (Article 19), to enjoy the right to health (Article 24), to be protected from illegal drugs (article 33), and the right to be protected from exploitation (Articles 32, 34 and 36). According to David 'Following the principle of the cascade the state has the primary responsibility to implement these rights, but also sports federations, especially in countries where they are public or subsidized institutions...' (1999: 38).

Consideration of the implications of the UN Convention for anti-doping efforts needs to be set within the context of a substantial number of doping cases involving elite athletes below the

age of eighteen. In 1996 the US swimmer Jessica Foschi tested positive for steroids at the age of 15, at various times throughout the 1990s a number of Chinese swimmers aged under 18 tested positive for prohibited drugs, at the 2000 Sydney Olympic Games the Romanian gymnast Andrea Raducan tested positive for pseudoephedrine at the age of 17, and in 1995 a South African athlete tested positive for steroids in the junior national championships at the age of 14. There is also extensive evidence of widespread use of drugs among non-elite athletes at the high school and higher education levels (Wichstrom & Pedersen 2001; Tanner 1995). More seriously there is evidence, most notably in the former German Democratic Republic, of the systematic abuse of young athletes by coaches and the marked failure of domestic national sports organisations to protect the interests of child athletes (Franke & Berendonke 1997; Ungerleider 2001).

As regards the protection of the rights of children there are few explicit references to the application of the Code to a minor who is defined as a person 'who has not reached his or her eighteenth birthday' (WADA 2002, Appendix 1: 4). Article 1 makes it clear that minors are covered by the Code in the same way as adult athletes and athlete's personnel. The only other explicit reference to minors is in the Article dealing with sanctions where it is noted that an 'athlete's age and competitive experience' can be used in mitigation in assessing the degree of fault. The Code is silent in a number of areas concerning the rights of child athletes where one might expect either the provision of guidance or reference to the existing rules and practices of particular international federations. One such area is in relation to the disclosure of names where minors are treated in the same way as adult athletes insofar as their names will be made public following the administrative review by the anti-doping authority where a violation of the Code is alleged. While it would not be feasible to keep confidential the names of violators of the Code there may be a case for delaying disclosure until the case has been proven thus bringing anti-doping hearings closer to conventional practice in the domestic courts in many countries where the names of child defendants are routinely kept confidential.

A second area concerns the responsibilities that are placed on minors. Article 5.1 (Roles and responsibilities of athletes) makes no distinction between adults and minors yet imposes substantial responsibilities including 'to be knowledgeable of and comply with all applicable anti-doping policies and rules...' and 'to be available for sample collection' which involves notifying the relevant anti-doping authority of their whereabouts. Given that in some sports, such as gymnastics and swimming, the age at which athletes enter elite development squads can be well below the age of eighteen it is quite proper to argue that a minor should not, and indeed cannot, assume the same obligation or bear the same degree of responsibility as an adult. If this argument is accepted then it prompts the question who, rather than the young athlete, should be expected to bear these responsibilities. Although the coach should bear some responsibility it is impossible to avoid the conclusion that the parents/guardians of a young athlete also share responsibility. However, the Code says nothing about the role of parents/guardians: they are not mentioned as part of the athlete's 'support personnel'. A third area of concern is the neglect of any discussion of the possible role of an advocate for young athletes. Although it might be assumed that their national governing body would fulfill this role it would provide greater reassurance that the rights of young athletes are being safeguarded if WADA, for example, were to identify a number of individuals or an organisation that could fulfill an advocacy function on behalf of the young athlete in doping cases and thus ensure that they were able to take full advantage of the safeguards of athlete's rights included in the Code.

The Monitoring of Compliance with the World Anti-Doping Code

At first glance the implementation of the World Anti-Doping Code has been remarkably successful — all major international federations have accepted it and it has been strongly endorsed by almost all governments. Yet acceptance is not the same as compliance. Compliance rests, conceptually, between implementation and impact, and may be defined as the day to day, routine, behaviour of an actor which conforms to the rules, whether prescriptions or proscriptions, of the Code. As Jacobson and Weiss point out 'Measuring compliance is more difficult than measuring implementation. It involves assessing the extent to which governments [or other policy actors] follow through on the steps they have taken to implement international accords' (1995: 123).

The most evident tools for achieving compliance with the Code are sanctions (periods of suspension for athletes and exclusion from participating or hosting major sports events for national federations and governments). In considering whether reliance on sanctions is the optimal instrument for ensuring compliance it is useful to examine the reasons for compliance and types of non-compliance, partly because compliance may have little to do with the design of the Code and equally non-compliance may be due to factors beyond the scope of sanctions. The most obvious explanation of compliance is perceived self-interest either because the Code will enshrine a beneficial balance of advantage or will protect existing gains from erosion. For example, the major sports powers might see the Code as reinforcing the current ranking or even opening a gap between themselves and weaker sporting countries because an effective anti-doping policy will eliminate one of the cheaper and more easily accessible sources of advantage in sport — by comparison to high quality coaching and training facilities and sports science services. Second, actors may also comply because the Code requires no change in their existing policy and practice: compliance is simply coincidental. Consequently, the lower the thresholds, for example in relation to the number of tests conducted, what drugs are tested for and the sanctions applied, the easier it is to achieve a high level of compliance. Similarly, just as it is easier for the Swiss to comply with the ban on whaling than it is for the Norwegians, compliance with the WADC is easy for those countries that are only marginally involved in Olympic sport. Third, compliance is also likely to be high and easily achieved when the behaviour being proscribed is that which few athletes have any incentive adopt at present, for

TABLE 3. CAUSES OF NON-COMPLIANCE

<p>Choice, due to:</p> <ul style="list-style-type: none"> ■ only agreed under pressure (diplomatic, moral, financial etc.) ■ free-rider strategy (benefit from the compliance of others, but avoid those costs themselves) ■ resources needed for compliance have been diverted elsewhere ■ benefits of compliance have low domestic political salience <p>Inability, due to:</p> <ul style="list-style-type: none"> ■ lack of necessary financial or scientific resources ■ lack of administrative capacity e.g. no regulatory infrastructure or subjects of regulation are remote e.g. Australian cyclists, African footballers <p>Inadvertence, due to:</p> <ul style="list-style-type: none"> ■ inadequate, but sincere, attempt at local implementation ■ incompetence i.e. poor application of policy tools

example, sprinters using beta-blockers, Formula 1 drivers using alcohol, or archers using amphetamine. Fourth, ambiguous language may make the authoritative identification of non-compliance difficult although international courts and tribunals, such as CAS, can help to avoid this problem by giving clarification through case law. Fifth, actors may comply because of uncertainty about the consequences of their non-compliance. For example, countries which aspire to host major sports events, such as the People's Republic of China, might comply, or indeed over-comply, because they fear that a perception of non-compliance will affect IOC or IF votes.

Just as compliance has multiple causes so too does non-compliance. As Table 3 indicates there are three primary causes of non-compliance — choice, inability, and inadvertence — and within each category there is a further sub-set of causes. The test of a sophisticated and successful policy regime is that it has a repertoire of instruments tailored to the range of outcomes of possible non-compliance in a particular policy area.

Organisations generally rely on a limited and often crude range of instruments to achieve compliance the most common of which are rewards and sanctions. Rewards which are most effective when tackling causes of non-compliance arising from either inability or inadvertence include educational efforts and financial transfers where one actor will pay for the compliance of another. Given the difficulties that many countries have had in raising the funding to meet their own implementation costs in relation to doping control it is unlikely that they will cover the costs of other countries except indirectly by agreeing to test foreign athletes that are training or competing in their country. If sanctions, the most common tool of implementation in current anti-doping policy, are to be effective they must be credible and potent. Targeted sanctions, such as periods of suspension for athletes or for their national federation, work best when they are reinforced by social condemnation. Significantly, both inducements and sanctions tend to be reactive tools, dealing with breaches of an agreement after they have occurred. The third approach to enhancing compliance attempts to be proactive by placing an emphasis on the design of the compliance system. It thus seeks to move away from explanations of compliance that rely solely on the calculation of interests or the exercise of power and to treat Code design as an independent variable in compliance.

As a result 'non-compliance is best addressed through a problem solving strategy of capacity building, rule interpretation, and transparency, rather than through coercive enforcement' (Tallberg 2002: 613). Within this perspective a central focus is on the capacity — administrative, economic, legal and political — of governments to ensure the compliance of public and private actors. A legal system which protects the autonomy of commercial and voluntary sports clubs, the absence of a sufficiently robust administrative infrastructure for sport and a simple lack of money to undertake doping control would all be examples of capacity deficiencies. Moreover, the management approach gives greater weight to inadvertence as a source of non-compliance due, possibly, to imprecision in the language used in the agreement or poor choice of policy instruments.

Chayes and Chayes argue that if the assumption is that non-compliance is primarily due to inadvertence or lack of capacity 'then coercive enforcement is as misguided as it is costly' (1995: 22). The energy of the supporters of an agreement would be better directed towards ensuring that the compliance system provides for the necessary capacity building, rule interpretation mechanisms and transparency rather than investing in elaborate sanctions infrastructures. Maximum transparency is essential to an effective compliance system.

There is little in the Code concerning the details of the compliance information system. However it is clear that it will rely heavily on self-reporting by governments and as such it allows too much scope for subjective interpretation. Every two years each national anti-doping organisation will complete a questionnaire which will be used to determine whether the country is still in compliance with the Code. However, not only is it questionable whether all countries can be trusted, the questionnaire is often ambiguous. For example, one question asks:

“Do you apply the currently enforced WADA prohibited list?”

“Yes, without any changes”

“Yes, without any *substantive* changes”

“Yes, but with a *few significant* changes”

“No”

“Do not know”

The difference between a ‘substantive change’ and ‘a few significant changes’ is unclear. Consequently, accurately interpreting these answers will be extremely difficult. It might be the case that self-reporting needs to be complemented by a process of selective inspection by WADA officers.

Prospects for the Future

Identifying the ingredients of an effective policy response to a problem as complex and multifaceted as doping is difficult, but there appear to be five factors that are necessary for progress:

- a global organisational infrastructure;
- adequate financial resources;
- scientific research capacity;
- political support; and
- public support.

It is generally accepted that the various resources of the IOC (e.g. global leadership and a network of accredited laboratories), the international federations (IFs) (links with domestic federations and thus with athletes), and governments (legal, financial and administrative capacity) needed to be combined if a successful global response to doping was to be achieved. There is no doubt that the establishment of WADA, the role of the Court of Arbitration for Sport and the involvement of UNESCO have marked major steps in the development of an effective global anti-doping regime. Suspicion of WADA by many international federations and within the IOC has steadily declined. The major organizational challenge is now at the national level where only about thirty countries have a national anti-doping organization, some of which are seriously under-resourced.

The second problem facing WADA is securing a sufficient resource base. The scale of the funding problem is easily illustrated. According to Dr Don Catlin, one of the most respected authorities on doping in sport, ‘the [Los Angeles] labs’ ability to respond to [doping] is restricted by funding because doping has never been a serious priority for sport’ (*Salt Lake Tribune*, 20 Oct. 1999). He added that although the USOC had paid US\$500,000 for a high-resolution mass spectrometer, his laboratory did not have the funds to employ staff with the

necessary qualifications to make the machine fully operational. John Hoberman went further and talked of a strategy of 'calculated underinvestment' by the IOC and the major federations. WADA's budget for 2006 was just under US\$24m 15% of which was spent on out-of-competition tests and 60% on scientific research. The sum is substantial, particularly when added to the amounts already being spent by the IFs and by state anti-doping agencies, but the challenge is to maintain the financial commitment of partner organisations once the initial enthusiasm for the work of WADA has passed, and to meet the ever-increasing costs of scientific research.

The third problem is closely related to financial resources and concerns the capacity to meet the scientific challenges that lie ahead as a result of the continuing experimentation by athletes with new drugs. Although scientists have recently successfully developed a dual urine/blood test to detect rEPO new drugs continue to be developed and used by athletes thus requiring anti-doping organisations to review and update constantly their analytic procedures. According to Don Catlin 'you have to test for a couple of thousand steroids to stay ahead of the game' (AP interview 25.1.07 <http://www.msnbc.msn.com/id/16818387/>). The discovery of THG was a stark warning to the anti-doping authorities of the relative ease with which steroids can be designed to be undetectable by the current range of testing procedures. Each new generation of drugs tends to require more sophisticated and consequently more expensive laboratories, research teams and clinical trials. A particular concern is the prospect of genetic engineering being adopted by athletes as a new way to enhance their performance.

The fourth problem concerns the maintenance of political support for anti-doping efforts. It is only just over ten years ago that the main impediments to tackling doping in sport were a series of subversive governments, most notably East Germany and the Soviet Union, and a further group of apathetic governments which included Canada, Australia and the USA. Although much has changed, there remains an intense scepticism among many sports organisations regarding the depth of commitment of governments. However, there are a number of positive developments which augur well for the future. Most notable is the number of examples of co-operation on anti-doping issues between governmental and sports organisations. At the scientific level, the GH2000 project aimed at developing a test to identify the presence of growth hormones relies on joint funding of £1.8m by the IOC and the European Union. The European Union was also involved in the joint production of *The Clean Sport Guide* along with the Council of Europe (Council of Europe, 1998).

Finally, perhaps the greatest threat to the anti-doping campaign is the loss of public commitment to an anti-doping policy. The foundation of existing policy is the sustained disapproval of doping by the majority of those involved in sport and the continuing vocal public support for current anti-doping efforts. Possibly the greatest danger at the present time is that the debate on the future direction of policy becomes too esoteric for the public, too much the province of experts, and too dissociated from the sports that the mass of the public play and events that the public enjoy watching.

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