

### III. School Drug Testing: Evidence and Experience

#### 6. School drug testing: local and overseas practices

##### *Overview*

6.1 It was noted by the Task Force on Youth Drug Abuse that one of the major issues of concern having regard to the rising trend of psychotropic substance abuse, particularly among the youth, was that many psychotropic substance abusers were “hidden” or not motivated to seek help. There was also widespread misconception among the youth that psychotropic substances were less harmful than “traditional” narcotics such as heroin. As a result, early intervention and treatment were not possible. Furthermore, the Task Force on Youth Drug Abuse noted that youth drug abuse was not confined to certain groups of young people. Given that adolescence was a period of experimentation and search for identity, young people were more likely than adults to experiment with various things, including drugs. Besides, young people were particularly vulnerable to peer influence as well as other risk factors such as the urge to prove oneself and to rebel against rules, exposing them to greater risks of taking drugs.<sup>32</sup>

6.2 On the other hand, researchers noted that those young people who had already developed strong pro-drug attitudes might not care if their drug use was revealed through drug testing. Hence, drug testing was considered more effective in relation to those young people who had not yet started to use drugs, or who had used drugs on only a small number of occasions.<sup>33</sup>

##### *Practices in Hong Kong schools*

6.3 In Hong Kong, some international schools have on their initiatives put in place various drug testing schemes. For instance, parents may be asked to sign a consent form at the beginning of a school year for this purpose. Students may then be randomly, or with reasonable cause, selected to undergo a drug test. Those with

---

<sup>32</sup> *Report of the Task Force on Youth Drug Abuse* (November 2008), Chapter 2.

<sup>33</sup> McKeganey, Niel (2005), *Random drug testing of school children, a shot in the arm or a shot in the food for drug prevention*.

a positive result will be requested to attend follow-up counselling or treatment.<sup>34</sup>

6.4 At the Hong Kong International School (HKIS), for example, as annual enrolment requirement, students and their parents have to agree to abide by the School's substance abuse policy. As part of the policy, there are preventive education programs on substance abuse for students at all age levels. A screening and detection procedure is in place, with drug testing using hair samples conducted on a random basis. When the School has reasonable cause to believe that drug abuse has occurred, it could intervene by requesting a drug test on the students concerned. A retest may be conducted if there is dispute over a positive test results. For students tested positive, they will have to undergo an intervention program, lasting for up to 12 months, which includes regular drug testing, on-going counselling supervised by the School and loss of certain privileges like participation in school sponsored overseas travel and free periods. In certain cases, the students may be requested to leave school to receive professional treatment upon completion of which, the students may apply for re-admission to the School.

35

6.5 For English School Foundation (ESF) schools, drug testing is also a condition for admission. Selection of students for drug testing is on suspicion, through referrals by tutors and teachers. In an ESF school visited, the collection of urine sample was undertaken by the nursing staff of the school and the drug testing is conducted by an external laboratory. During discussion with the vice principal of an ESF school, it was noted that while drug testing was conducted as a preventive and early identification measure, the school placed much emphasis on anti-drug education, as part of their social and personal education programme, to strengthen students' resolve to stay away from drugs. For those found positive in the drug testing, support and counselling services will be provided by the school to the students concerned. The students concerned will be allowed to continue schooling in the school and will be subject to re-test to ensure that they quit drugs. It was pointed out to the Project Team that the school considered parental involvement in the entire process important in helping students quit or stay away from drugs.

6.6 In a Direct Subsidy Scheme (DSS) school visited, drug testing is

---

<sup>34</sup> *Report of the Task Force on Youth Drug Abuse* (November 2008), p.86.

<sup>35</sup> Hong Kong International School (2007), "Hong Kong International School, Policy 3060: drug abuse".

conducted on a voluntary basis, with consent given by both students and their parents. Urine samples are collected by a drug testing team from a university unit during the morning assembly. Student prefects are responsible for randomly selecting the student numbers of those students participating in drug testing. After the student numbers have been selected and announced during the morning assembly, those students bearing the student numbers will go to a secured room to provide their urine specimens in private. During each visit of the drug testing team, about 10 students will be selected randomly for drug testing. The students will not be informed in advance of the date when the drug testing team visits the school. The test results are available in several weeks' time.

6.7 For this DSS school, parents and not the principals will be informed of the drug testing results by the university unit. Parents will also be informed of channels of seeking help, if required. The school principal and other school staff will only know the aggregate statistics on the test results. The principal was confident that parents would be able to handle situations when their children were tested positive and the school was always willing to offer help and assistance if required. During the period from April to August 2010, more than 160 students were randomly selected for drug testing. The principal reckoned that the whole drug testing programme was carried out smoothly, with support from parents. There was no strong resistance from students. He believed that drug testing would continue in the coming school year.

6.8 The principal of the school stressed that the main objectives of drug testing were educational and preventive, targeting in particular the "recreational" or occasional drug abusers. It would also help parents identify at an early stage drug abuse behavior of their children. He did not expect drug testing, which was voluntary in nature, could identify the habitual drug abusers. He believed that though testing for drug abuse was not his school's core business his school should respond decisively and take early precautionary action in view of the alarming trends of drug abuse among youth and the increasing availability of drugs. The principal was convinced that if early identification and timely intervention were the objectives of drug testing, it had to be compulsory. He believed that in the long run DSS schools which had autonomy in student admission should, following similar practices of those of international and ESF schools, introduce drug testing as a condition for admission. In view of the heated discussions on drug testing when it was first introduced to local schools in Tai Po this year, his school had opted for voluntary drug testing in order to avoid having to devote too much effort

by the school management in dealing with opponents of drug testing and the media.

6.9 In another DSS school visited, the principal indicated that the school had earmarked funding for conducting drug testing. The student union of the school had consulted a handful of students and their initial stand was that they had no objection if their school introduced drug testing. According to the principal, initial feedback indicated that parents were supportive. The initial plan was to have the test conducted by an external agency. Hair samples would be collected by staff of a university unit and the test results would be available in about one week's time. The principal of the school also stressed that the purposes of drug testing was educational and preventive and it was not meant to detect habitual drug abusers. In addition to drug testing, the principal believed that meaningful engagement of the students in a variety of educational and recreational activities of interest to them would help students stay away from drugs. At the time the present report was prepared, the school had not yet embarked on the drug testing scheme.

### *Observations*

6.10 To summarize from the above, it may be noted that apart from the 23 secondary schools in Tai Po, a number of international schools such as the HKIS and ESF schools have long put in place compulsory drug testing based on random selection or suspicion, in addition to their educational and preventive anti-drug programs. For the two DSS schools visited in the course of the research they have also started or planned to introduce voluntary drug testing based on consent. The salient features of drug testing in these schools are summarized below:

- a) In a DSS school visited, students participating in drug testing on a voluntary basis are selected randomly by the student prefects. Issues related to privacy of information on participation in the scheme and whether having been sampled for drug testing, similar to all other information related to students' participation in school activities, seem not a concern for the school and students. Steps have been taken, nevertheless, by the school to ensure that test results are kept strictly confidential, and are only available to parents;
- b) For drug testing in the DSS school, the main purposes of drug

testing are educational and preventive, targeting mainly the “recreational” or occasional drug abusers. It is not meant to detect drug abuse of the habitual users;

- c) However, for drug testing that is compulsory in HKIS and ESF schools, based on random selection and on suspicion, early identification and treatment is possible and drug testing has a strong deterrent effect. Nevertheless, the Project Team has not been able to collect any evidence demonstrating the effectiveness of drug testing in these schools;
- d) Different methods of drug testing, using urine or hair samples, are used and the tests are conducted by an external agency. False positives or negatives, which are more likely with the use of Point of Collection Test (POCT), are minimized with the use of more sophisticated testing techniques in the laboratories of the external agencies concerned;
- e) Apart from drug testing, the schools have a variety of educational and preventive activities aimed at strengthening students’ resolve to stay away from drugs; and
- f) Parental involvement is a key component of the drug testing schemes. In the DSS school visited, parents and not the principal are informed of the test results. Parents are expected to play an active role in the “rehabilitation” of students found to have abused drugs. The Project Team nevertheless is of the view that the situations of other schools may be different especially those where students’ parental support is relatively weak, and in such cases parents may require more proactive support from schools or other agencies.

### ***Schools in United States***

#### *Drug testing in schools*

6.11 In the United States (US), according to a 2004-05 study, more than one third of students studying in the 12<sup>th</sup> grade had used drugs. In 2007, 80% of high school students and 44% of middle school students had personally witnessed

illegal use, possession and dealing of drugs on school grounds.<sup>36</sup> In 2008, it was estimated that 9.3% of children aged 12 – 17 had used drugs in the past month. The percentage was lower for those aged 12 – 13, at 3.3%, rising to 8.6% for those aged 14 – 15 and 15.2% for those aged 16 – 17.<sup>37</sup> Over a period of 12 months, the annual prevalence rate in 2008 was 14% for 8<sup>th</sup> grade students, 27% for 10<sup>th</sup> grade students and 37% for 12<sup>th</sup> grade students.<sup>38</sup>

6.12 In view of the high prevalence of drug abuse, drug testing is widely available in the school setting and is considered to be a key tool to address the youth drug abuse problem. While the decision to have drug test rests with individual schools, federal, state and local funding are available to support drug testing.<sup>39</sup>

6.13 Researchers also noted that US schools had adopted a number of school-based drug prevention strategies such as those aimed at improving students' connectedness to schools, establishing norms for appropriate behaviour, zero-tolerance policies or drug-free zones, conducting locker search or introducing various security measures. However, if students perceived that their drug abuse behaviour would not be detected, these measures might not be effective. Thus, for reasons related to primary prevention or early identification, a number of schools had introduced drug testing. It was estimated that between 1998 and 2001, 23% of public schools in the US conducted “for cause” or “suspicion-less random” drug testing.<sup>40</sup>

6.14 In a review of drug testing practices in 9 schools distributed in different parts of the US, researchers found that most schools drug tested students studying in Grades 9 – 12. All 9 schools drug tested student athletes; 4 of them tested students participating in extra-curricular activities as well and 3 included students who drove. Apart from suspicion-less, random drug testing, most of the 9 schools

---

36 Edwards, C E and the Student Drug-Testing Coalition (2008), *Student drug testing programs: an overview and resource guide*.

37 US Department of Health and Human Services (2009), *Results from the 2008 National Survey on Drug use and Health: national findings*.

38 US Department of Health and Human Services (2009), *Monitoring the future: National Survey results on Drug use, volume 1, Secondary School Students*.

39 *Report of the Task Force on Youth Drug Abuse* (November 2008), p.83.

40 Ringwalt, Chris, et al (2009), “Responses to positive results from suspicion-less random drug tests in US public school districts”, in *Journal of School Health*, 79(4): 177 – 183.

also conducted drug testing on suspicion. Most schools used urine testing while one used saliva as well, while another used hair testing method. All 9 schools conducted drug testing as part of their comprehensive program against drugs, alcohol and tobacco and most offered services like drug prevention curriculum (8 out of 9), student counselling (7), parent or family counselling (6) and referral to drug abuse treatment outside school (5). While practices varied as regards consequences of a positive test result, only one school imposed suspension from school as penalty for drug abuse.<sup>41</sup>

6.15 In 2003, the proportion of public schools adopting drug tests was estimated to be about 13%, according to the 2003 *Monitoring the Future* study. The basis for the bulk of the testing was “cause or suspicion”.<sup>42</sup> A survey conducted in 2005 showed that 14% of 1,337 districts with high schools conducted random drug testing in 2004-05. Among these districts, 93% randomly tested student athletes, 65% randomly tested other students participating in extra-curricular activities and 28% randomly tested all students.<sup>43</sup>

6.16 Based on information gathered on program implementation, the Student Drug Testing Coalition estimated that by May 2008, at least 16.5% of US public school districts had student random drug-testing programs. Researchers also noted that different states adopted different approaches to school drug testing. In Kentucky, for example, where the state government supported random drug testing, in 2008 50% of school districts had student drug testing programmes. In Iowa where the state statute did not allow random testing, no school district was known to have adopted drug testing programme.<sup>44</sup>

---

41 DuPont, Robert L, Campbell, Teresa G and Shea, Corinne L (2002), “Preliminary study: elements of a successful school-based drug testing program”, paper prepared for the Institute for Behavior and Health, Inc., cited in DuPont, Robert L (2003), “Prevention, not punishment”, in *American School Board Journal*, 190(1): 25 – 26.

42 National School Board Associations (2005), *Student Drug Testing*.

43 Ringwalt, Chris, et al (2008), “Random Drug Testing in US public school districts”, in *American Journal of Public Health*, 98: 826 – 828.

44 Edwards, C E (2008), “How many public school districts currently test students for illicit drugs on a random basis”, a paper prepared for the Student Drug-testing Coalition.

### *Legal basis for drug testing*

6.17 In June 2002, the U.S. Supreme Court, in the case of *Earls v. Tecumseh School District*, broadened the authority of public schools to test students for illegal drugs, which previously had been allowed only for student athletes, as ruled by the Court in 1995, in the case of *Vernonia School District v. Acton*. Voting 5 to 4, the Court ruled to allow random drug tests for all middle and high school students participating in competitive extra-curricular activities.<sup>45</sup>

6.18 In particular, the US Supreme Court considered that a student relinquished certain rights to privacy when she/he was entrusted to a school for supervision. The relinquishment of these rights, the Court stated, was critical because the state was responsible for “maintaining discipline, health, and safety”. The Court also noted that collection of urine sample depended on the manner in which the production of urine sample was monitored and was of view that the collection amounted to negligible intrusion. Thus, the Court concluded the consequent invasion of students’ privacy was not significant.<sup>46</sup>

6.19 Following Court’s decision, President George Bush signed into US law the “No Child Left Behind Act” authorizing the use of federal funds for school-based drug testing. Any drug-testing program conducted with funds awarded by the US Department of Education are limited to a) students who participate in the school's athletic program, b) students who are engaged in competitive, extra-curricular, school-sponsored activities, and c) a voluntary drug-testing program for students who, along with their parent or guardian, have provided written consent to participate in a random drug-testing program.<sup>47</sup> In the fiscal years of 2005 and 2006, the Office of Safe and Drug Free Schools allocated some US\$8.8 million in grants to over 350 schools for their drug testing programs.<sup>48</sup>

---

45 US Office of National Drug Control Policy (2002), *What you need to know about drug testing in schools?*

46 Yacoubian, George S. Jr. (2002), “To pee or not to pee: school drug testing in an era of oral fluid analysis”.

47 US Department of Education website (<http://www.ed.gov/programs/drugtesting/index.html>).

48 Einesman, Floralynn and Taras, Howard (2007), “Drug testing of students: a legal and public health perspective”, in *Journal of contemporary health law and policy*, 23: 231 – 271.



6.20 After the Supreme Court decision in 2002, some schools expanded the coverage of suspicion-less random drug testing to cover students who drove to schools or even to all students enrolled in schools. It was noted that while the Supreme Court's rule was silent as to whether school drug test could apply to all students, it might be argued that any student participating in physical education class should be subject to drug testing, similar to student athletes. In many states in the US, physical education was mandatory for all students.<sup>49</sup>

6.21 Nevertheless, drug testing has been challenged under state constitutional provisions in a number of states. For example, the New Jersey Supreme Court and the Indiana Supreme Court found that the school drug testing program did not violate the state constitution. The Pennsylvania Supreme Court on the other hand considered the program did violate the state constitution.<sup>50</sup> In Washington State, the Supreme Court ruled that while student athlete drug testing did not violate the Fourth Amendment<sup>51</sup> of the US Constitution, it did violate Article 1, Section 7<sup>52</sup> of the Washington State Constitution. The Court considered that conducting urine drug test without a proper cause had to be authorized by the authority of law under the Washington State Constitution.<sup>53</sup> In Indiana, the Court of Appeals ruled in 2000 that school drug testing violated the Indiana Constitution, but in 2002 the Indiana Supreme Court reversed the appellate court's decision.<sup>54</sup>

6.22 In other words, while some state courts have upheld drug testing in light of the Supreme Court's position, others have found that, in the absence of a

---

49 Donaldson, John F (2006), "Life, liberty, and the pursuit of urinalysis: the constitutionality of random suspicionless drug testing in public schools", in *Valparaiso University Law Review*, 41: 815 – 858.

50 Einesman, Floralynn and Taras, Howard (2007), "Drug testing of students: a legal and public health perspective", in *Journal of contemporary health law and policy*, 23: 231 – 271.

51 The Fourth Amendment of the US Constitution guarantees that "The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized"

52 "No person shall be disturbed in his private affairs, or his home invaded, without the authority of law".

53 Ivan, Emese and Jutte, Lisa (2009), "(Un)Reasonable search in high school athletes" in *Journal of Physical Education, Recreation and Dance*, 80(2): 8 – 9.

54 McKinney, Joseph R (2003), "The effectiveness of random drug testing programs: a statewide follow-up study", paper prepared for the Student Drug-Testing Coalition.

compelling need for drug testing, their state's constitution provided greater protection than the Fourth Amendment from unreasonable search and seizure. In addition, some states have adopted legislation either limiting or promoting drug testing. In short, while the courts have upheld the constitutionality of *limited* drug testing of students involved in particular activities, blanket drug testing of *all* students as part of a much broader program would have a significant legal hurdle to jump.<sup>55</sup>

### *Argument for and against school drug testing*

6.23 For supporters of school drug testing, some of them reported favorable results from their personal experiences with drug testing. However, formal studies published to date have not as yet shown drug testing to be an effective deterrent. A number of research studies showed that there were identified risks associated with implementation.<sup>56</sup> On the other hand, some supporters of drug testing in the US pointed out there were evidences indicating that testing resulted in improved discipline, students reporting that they felt safer and a decline in the incidence of drug use. They argued that the benefit was not just the identification of drug use, but the preventive effect of testing in deterring students from using drugs.<sup>57</sup>

6.24 In the course of the study, the Project Team visited a public high school in New Jersey that had conducted suspicion-less, random drug testing based on consent for students participating in sports activities as well as compulsory drug testing based on suspicion. The school staff responsible remarked that suspicion-less random drug testing based on consent was only effective in deterring recreational drug abusers or those who had not abused drugs. They pointed out that after the introduction of random drug testing, there had not been a decrease in students' participation in sports. Compulsory drug testing based on suspicion, on the other hand, was more effective in identifying habitual drug abusers. They also emphasized that drug testing had not undermined mutual trust between the school and students, as the scheme was meant to help and not punish students. They also stressed that drug testing based on consent alone was not effective and had to be supplemented by compulsory drug testing based on

---

55 National School Board Associations (2005), *Student Drug Testing*.

56 Levy, Sharon (February 2009), "Drug testing of adolescents in schools"  
([http://sapr.org/knowledgeassets/knowledge\\_detail.cfm?KAID=16](http://sapr.org/knowledgeassets/knowledge_detail.cfm?KAID=16))

57 National School Board Associations (2005), *Student Drug Testing*.

suspicion and a host of education and preventive programmes to help students develop healthy lifestyle.

6.25 On the other hand, studies conducted by other researchers indicated that school- or home-based drug testing did not appear to reduce substance use and carried risks as well as benefits, undermining parent-child and school-child relationship and creating distrust. Furthermore, few schools had sufficient staff with proper training to implement the costly drug testing procedure. It was also fairly easy for most drug-involved-youth to defeat the drug test. Based on the above considerations, the American Academy of Pediatrics recommended that, in a press release issued in 2007, school- and home-based drug testing programs for adolescents should not be implemented until their safety and efficacy had been scientifically established. Parents who were concerned that their child might be using drugs or alcohol were encouraged to consult a health professional rather than rely on school-based screening or home drug-testing products.<sup>58 59</sup>

6.26 For those opposed to school drug testing, they also pointed out that most US high schools did not offer any effective drug education and did not have proper guidance and treatment for those who had abused drugs. Instead, schools relied on deterrent punishment such as exclusion from extracurricular activities, transfer to another school, suspension and expulsion, on the belief that harsh punishments would have a deterrent effect. Researchers were of the view that these punitive measures were ineffective, and would foster resent and oppositional behavior from the students.<sup>60</sup>

6.27 In another study, researchers pointed out that while none of the schools examined by them referred students tested positive repeatedly to law enforcement agencies, schools' follow-up action varied considerably. Some schools suspended the students for varying periods of time from participating in extra-curricular activities. Most schools informed parents and required students to attend some form of counselling and follow-up testing.<sup>61</sup>

---

58 <http://www.childrenshospital.org/newsroom/Site1339/mainpageS1339P1sublevel290.html>

59 Committee on Substance Abuse and Council on School Health (2007), "Testing for drugs in children and adolescents: addendum- testing in schools and at home", in *Pediatrics*, 119(3): 627 – 630.

60 Skager, Rodney (2007), *Beyond zero tolerance: a reality based approach to drug education and school discipline*, a publication of the Drug Policy Alliance.

61 McKeganey, Niel (2005), *Random drug testing of school children, a shot in the arm or a shot in the food for drug prevention*.

6.28 In the course of the study, the Project Team interviewed an opponent of school drug testing in the US. He pointed that different schools had different practices in dealing with students tested to have abused drugs, even for schools in the same school district. Some had punitive measures such as suspension from schools whilst others provided counselling and treatment and allowed the students to remain in schools. He was of the view that drug testing would risk alienating the students and driving them away from seeking help. He suggested that schools should make every effort to engage the students in a frank and open manner, persuading students to stay away from drugs and teach those who had abused drugs the means to reduce the harmful effects of drugs.

6.29 The Project Team also visited a public high school in a school district in Florida where school drug testing was not supported by the district administration. The school staff explained that her school did not conduct drug test partly because her school could not afford the legal fees if the school was sued for conducting drug test. Furthermore, her school did not have the necessary staff resources to provide counselling and support services to students tested positive. Nevertheless, her school had introduced various measures to help students stay away from drugs. On the education and preventive front, her school made every effort to promote positive lifestyle, build trust with students and to create a safe and healthy school environment for the students. Students were asked to make a pledge to stay away from drugs and alcohol. The school had high expectation on its students and she believed that students would respond positively and would behave well to meet school's expectation. There was a mentorship programme for students, with support from a university unit. Nevertheless, she admitted it took much time and effort to change the school culture and might not have immediate impact on students' behaviour. Thus, her school had also put in place a number of precautionary measures including asking a police van to station at the entrance of the school and having sniffer dogs to search students' lockers, classrooms and parking lots.

6.30 Another visit was made to a private high school in Florida. The school had put in place drug testing arrangement before students were admitted to school and during the students' attendance in the school. If students were tested positive, counselling and supporting services would be provided to them. If the students had to undergo treatment outside school, the students were welcome to return to the school on satisfactory completion of treatment. However, if the students were

found to have brought drugs into the school campus, the students would be expelled from schools. In addition, there were anti-drug education programmes and the school made every effort to engage students, encouraging them to develop a healthy lifestyle. The school was a very small community and the relationship between school staff and students was very good. Parents were also very cooperative. The school staff knew the students and their parents well, and could quickly identify any unruly and delinquent behaviour of students, including drug taking.

### *Observations*

6.31 What may be observed from the above is that different strategies are adopted by different schools in helping their students to stay away from drugs. For schools with drug testing based on consents, they may supplement this with compulsory drug testing on suspicion. For schools with no drug testing, they may resort to other deterrent measures such as the use of sniffer dogs. In most cases, schools have put in place education and preventive measures to help students develop a healthy lifestyle, strengthening their resolve to stay away from drugs. It appears the consensus view is that schools should make efforts to engage their students and to cultivate a healthy, safe and caring school environment. Whether school drug testing is effective or not depends on a host of school factors. If schools adopt punitive actions against students tested positive, drug testing will have a damaging effect on student behaviour and trust in schools. On the other hand, if the intention of drug testing is to help students, it will not affect relationship between the school and students.

### *Schools in the United Kingdom*

6.32 In the United Kingdom (UK), a survey conducted in early 2000's showed that 8% of 11 year olds and 38% of 15 year olds had used drugs in the previous year. Another survey showed that nearly one third of children aged 10 – 12 had been exposed to drugs, almost 10% had been offered drugs, 5% had used drugs and 2% had done so in the previous month.<sup>62</sup>

---

62 McKeganey, Niel (2005), *Random drug testing of school children, a shot in the arm or a shot in the food for drug prevention.*

6.33 Cannabis was also the most common drug used by pupils, with use increasing sharply with age. In 2002, about 31% of 15 year olds reported using cannabis. Cannabis was reclassified from a Class B to a Class C drug with effect from 29 January 2004. While Cannabis remained an illegal drug with penalties for supply and possession, a consequence of this reclassification for adults was that the use of the retained power of arrest by members of the community other than law enforcement agents might not be used in all circumstances of cannabis possession.<sup>63</sup> Researchers noted that cannabis was the drug most widely used by students, which was seen to be posing a serious threat to the health and wellbeing of youth in the US, but less so in the UK.<sup>64</sup>

6.34 In 2004, the UK Department for Education and Skills issued *Drugs: Guidance for Schools*. It was noted that some schools had adopted strategies such as urine-testing or requesting police handlers or private companies with sniffer dogs to enter the school in order to detect illegal drug possession or use. Head teachers are entitled to use such strategies and they are best placed to make decisions on whether such approaches are appropriate. This guidance covers, amongst other things, drug testing and the use of sniffer dogs within schools, stressing that this is a matter for the determination of local school heads. It states that where schools are considering testing pupils, attention should be given as to whether this is consistent with the pastoral responsibility of the school to create a supportive environment, may lead to labelling certain pupils, will result in appropriate support being offered to pupils and is a feasible and effective use of school resources. The guidance stresses further that drug testing policies should have been developed in consultation with parents, pupils, staff, school governors and the whole community.<sup>65</sup> The Project Team is of the view that this is a school-based approach to drug testing, similar to practices say in Singapore where the decision to conduct drug testing is up to the decision of individual schools.<sup>66</sup>

6.35 In the UK, random drug testing was quite widespread among independent boarding schools. A survey by the Headmasters' and Headmistresses' Conference in 1999 showed that nearly three-quarters of boarding schools were using some drug tests, with most carried out by contracted laboratories. Drug testing was

---

63 Department for Education and Skills (2004), *Drugs: guidance for schools*.

64 McKeganey, Niel (2005), *Random drug testing of school children, a shot in the arm or a shot in the food for drug prevention*.

65 Department for Education and Skills (2004), *Drugs: guidance for schools*.

66 *Report of the Task Force on Youth Drug Abuse* (November 2008), p.84.

generally used to monitor pupils who were previously found to be using drugs, but some schools used drug testing as a final proof prior to expulsion. In 2004, no state schools reported to have conducted drug testing.<sup>67</sup> It was noted by researchers that despite supportive comments by senior politicians on school drug testing, there was no central government funding allocated to schools to conduct drug tests. This contrasted with that in the US where substantial federal funding was allocated to drug testing programs in schools.<sup>68</sup>

6.36 In January 2005, Abbey School in Kent was the first state school to report the use of (suspicion-less) random drug testing.<sup>69</sup> In Abbey School the drug testing program was rolled out after consultations with parents, students, staff and the school governing body. For participation in the program, consents from parents were required and in 2005 about 85% of parents agreed to allow their child to participate in the program. About 20 students participating in the program were randomly selected each week for drug testing using the saliva testing method, the results of which were available in about 3 days' time. If the sampled students refused to undertake the test, the parents would be informed and school would arrange consultation meetings with the parents in the presence of the students to agree on any follow up actions, if required. For students tested positive, their parents would be informed and a counselling meeting would be conducted by the school head with the parents concerned, in the presence of the students, to discuss follow up intervention and counselling services for the students. No other school personnel would be informed of the test results.<sup>70</sup> Apart from Abbey School, another school, National School in Hucknall also began drug testing in 2005 and 2006.<sup>71</sup> Drug testing was conducted in Abbey School, with funding from *News of the World*, for two academic years from 2004/05 and 2005/06. A report published in 2007 indicated that there was no other state school conducting drug testing.<sup>72</sup>

---

67 Parliamentary Office of Science and Technology (2004), "Drug test", postnote number 228, September 2004.

68 Joseph Rowntree Foundation (February 2005), "Random drug-testing of school children".

69 Gerada, Clare and Gilvarry, Eilish (2005), "Editorial: random drug testing in schools", in *British Journal of General Practice*, July 2005: 499 – 501.

70 Student Drug-testing Coalition (2004), "Overview of the random drugs testing program at Abbey School, Faversham, Kent, England".

71 Drug Education Forum (October 2006), "Random drug testing in English schools".

72 Reuter, Peter and Stevens, Alex (2007), *An analysis of UK drug policy*, a monograph prepared for the UK Drug Policy Commission.

6.37 Some researchers noted that random drug testing could not identify all those students who might benefit from early identification and supportive intervention, and suggested that a supportive environment with links to young people's health services might be more appropriate. Though they believed ethical, practical and economic costs of drug testing did not outweigh the benefits of drug testing, they stressed the need to conduct research to establish the effectiveness of drug testing, in order to justify a widespread drug testing program.<sup>73</sup>

### *Observations*

6.38 Research on drug testing in the UK is not as abundantly available as in the US. Most private independent schools had drug testing. For some private independent schools adopting drug testing, while parental and/or student consent of testing is required, such consent is a condition of enrolment and/or re-admission after suspension. For public schools, according to the guideline issued by the Department of Education and Skills, they can introduce drug testing after consulting parents and related stakeholders and conducted in manner with adequate safeguards against labelling effect on students and sufficient support services, following a school-based approach.

### *Australia*

6.39 The National Centre for Education and Training on Addiction (NCETA) was commissioned by the Australian National Council on Drugs (ANCD) to conduct in 2007 a comprehensive review of relevant issues related to drug detection and screening in the school setting. A number of issues related to prevalence of drug uses, prevention and school drug education, drug testing in various contexts, the efficacy of screening and detection tests, cost and ethical and legal matters were examined. The research was conducted through inviting submissions, literature review, online survey and analysis of existing datasets.

6.40 The review report noted that there was a strong case against drug detection and screening strategies in the school setting and some of the key

---

73 Gerada, Clare and Gilvarry, Eilish (2005), "Editorial: random drug testing in schools", in *British Journal of General Practice*, July 2005: 499 – 501.



findings of the review were as follows:<sup>74</sup>

- a) Most drug tests were insufficiently reliable for testing in a school setting, with the levels of accuracy well below 90% specificity, 90% sensitivity and 95% accuracy. ;
- b) The cost of drug testing was very large, though information on costs was very limited;
- c) There were concerns on a wide range of moral and legal issues. Falsely accusing a child of drug use might have a range of negative legal, social and psychological consequences. The legal system in Australia was different from that of USA which applied a less stringent standard of privacy and reasonableness. It was improbable in Australia to conduct drug test of a child without consent of the child or parents. In addition, the duty of care of an Australian school did not normally extend beyond activities outside school hours;
- d) Prevalence of drug use by school children was declining and the level of regular use was very low. Cannabis was most commonly used by (less than 4%) school-aged children regularly and regular use of other drugs was much below 1%;
- e) Highest prevalence of drug use occurred among high risk and vulnerable groups of children and punitive and inquisitorial methods of deterrence were ill-advised. For instance, indigenous school students used drugs at a significantly greater level than non-indigenous school students. Students who spoke a language other than English at home were significantly more likely to have used inhalants, cocaine and ecstasy, and significantly less likely to have used cannabis and tranquillizers. After controlling for age, gender and school type, disposal income was positively correlated with drug use;
- f) Evidence indicated that drug testing was an ineffective deterrence mechanism, though such evidence was limited and poor in quality. There was also no study to evaluate the safety and adverse impact of drug testing;
- g) Majority of submissions from professionals and survey

---

74 Australian National Council on Drugs (2008), *Drug testing in schools: evidence, impact and alternatives*.

respondents were opposed to drug testing in schools. The disadvantages of drug tests mentioned in the submissions included potential stigmatization, discrimination and alienation of students who were subjected to screening and detection, creation of distrust between students and teachers, and/or parents and their children, and disengagement of young people from schools; and

- h) There was an effective array of school-based preventive interventions available to schools, focusing on building positive relations and developing pupils' sense of connectedness with the school. In addition, there was an effective mechanism to target and intervene with high risk students or their families, including curriculum-based interventions conducted in the classroom, whole-school interventions aimed at enhancing students' connectedness to schools, interventions targeted at high risk students and programs designed to increase the effective functioning of families.

6.41 The Australian Drug Foundation (ADF) does not believe that drug testing is the answer to managing drugs in schools and urges caution for those schools considering adopting drug testing. According to ADF, there are too many unresolved legal, ethical and technical issues surrounding drug testing in schools to be able to say what role school drug testing programs could fulfill. The ADF wishes to see a properly conducted evaluation of a school drug testing program. There is no evidence as yet that suggests drug testing has provided better outcomes than methods currently employed by schools to respond to drug use. It should be noted that the most commonly used drug by students in Australia was cannabis. If students are attending school while affected by cannabis, it should be evident from their physical appearance or demeanor.

### ***Duty of care of schools***

6.42 The Project Team noted that experiences overseas, including the US and Australia, were often quoted as justifications in support of or against school drug testing. Hence, it may be useful to review differences between Hong Kong and other countries that may strengthen or undermine justifications for or against school drug testing. One such aspect is the differences on the extent of duty of care of schools. In the case of Australia, schools are expected to take all reasonable

measures to prevent physical injury to the pupils and such duty is non-delegable. The scope of the school duty is normally restricted to the effect that reasonable care does not extend beyond the boundaries of schools. In the US, on the other hand, the duty and scope of a school are more broadly defined. As a result, random student drug testing is considered reasonable, and teachers are regarded as at the forefront of the war against drugs, on the understanding that schools have a special responsibility of care and direction for the children.<sup>75</sup>

6.43 In the course of the study, the Project Team has sought the views of school principals and teachers who generally share similar views as those of US schools. They believe schools in Hong Kong have the duty of care much broader than that of Australia. Schools are responsible for the healthy development of students and their activities inside and outside schools, besides learning and teaching. Through home-school cooperation, schools have responsibility helping parents in providing care and education to their children. Parents also have high expectation of schools in the care and education of their children.

6.44 Indeed, the aim of education is "to enable every person to attain all-round development in the domains of ethics, intellect, physique, social skills and aesthetics according to his/her attributes", as stated in the education reform document published by the Education Commission in 2000.<sup>76</sup> Furthermore, the role of teachers, apart from teaching and learning, is to provide pastoral care for students, with a commitment to fostering the whole-person development of students, as recommended by the Advisory Committee on Teacher Education and Qualifications.<sup>77</sup>

6.45 Thus, from the perspectives of principals and teachers interviewed in the study, schools should not just be concerned with learning and teaching, but also the development of intrapersonal and interpersonal skills of their students, as part of their whole-person development. Schools have to take prompt and decisive measures to tackle unruly and delinquent behaviour of their students including

---

75 Australian National Council on Drugs (2008), *Drug testing in schools: evidence, impact and alternatives*.

76 Education Commission (2000), *Learning for life, learning through life: Reform proposals for the education system in Hong Kong*.

77 Advisory Committee on Teacher Education and Qualifications (2003), *Towards a learning profession – the Teacher Competencies Framework and the Continuing Professional Development of teachers*.

drug abuse.

### *Observations*

6.46 School drug testing has been practised by schools overseas, including US and UK schools reviewed above. Their experience serves as useful references in evaluating the Scheme. In doing so, the Project Team believes that differences between Hong Kong and other countries should be duly noted. The rationale for supporting or opposing school drug testing in other countries may not be applicable to Hong Kong. Furthermore, the fact that drug testing is not successful or effective in some schools should not preclude the possibility that it is effective in other schools. As discussed above, much depends on how drug testing is implemented by schools concerned and received by the local parent-student population. In short, while taking into account issues and concerns over school drug testing raised in other countries, the Project Team will focus on local context and gather evidence in support of or refuting such issues and concerns.

## **7. Evidence on the impact of school drug testing: research conducted overseas**

### *Research evidence supporting school drug testing*

7.1 The Office of National Drug Control Policy in the US asserted that random drug testing in schools was effective in reducing drug use and deterring drug use among adolescents. Drug testing was responsible for a significant reduction in cannabis use among the 8<sup>th</sup> grade students from 18.5% to 11.8%.<sup>78</sup> In a survey of principals of 65 high schools with random drug testing program in Indiana, the majority of respondents reported that there was a reduction in drug use among students and that school drug testing had not adversely affected student participation in athletic and extra-curricular activities.<sup>79</sup> The Research Team notes that the study was based on views of principals and such information is relatively low in the hierarchy of evidence discussed above.

---

78 Gerada, Clare and Gilvarry, Eilish (2005), "Random drug testing in schools", in *British Journal of General Practice*.

79 McKinney, Joseph R (2005), "Effectiveness of student random drug-testing programs", paper prepared for the Student Drug-Testing Coalition.

7.2 Surveys conducted in 1997, 1999 and 2002 on students studying in Hunterdon Central Regional High School showed that there was an overall decrease in drug use among students in 1997 – 2000 when the drug testing program was implemented by the school on student athletes. In 2000 – 2002 when the drug testing program was suspended pending court decision,<sup>80</sup> there was an increase in drug use among students.<sup>81</sup> The Hunterdon study, which was widely quoted as evidence that student drug testing was effective, was criticized by some researchers for the lack of control data, precise information on representatives of the sample and validity of the survey instrument and statistical tests of significance.<sup>82 83</sup>

7.3 A similar study was conducted on 83 secondary schools in Indiana. 12 schools did not have drug testing program before 2000 and 71 had schools drug testing before 2000. These 71 schools had suspended drug testing in 2000 when the Appellate Court ruled that drug testing violated the Indiana Constitution. Most of these schools reported an increase in drug use among students in 2000 – 01 when drug testing was suspended, compared with 1999 when there was drug testing.<sup>84</sup> The Project Team is of the view that this study has similar weaknesses as those of the Hunterdon study discussed above.

7.4 In another study (the McKinney report) on two schools, researchers found that the school having a drug testing programme had lower levels of expulsion due to drugs, alcohol and weapons, higher scores in state examinations and significantly lower use of marijuana, confirming the effectiveness of drug testing, compared with another school that did not have the testing programme.<sup>85</sup> The

---

80 The drug testing program was suspended in 2000 – 2002 when a court case was brought against the school's drug testing program in August 2000. The drug testing program was resumed in December 2002 when the appellate court ruled in favour of the school in July 2002, the decision of which was upheld by the New Jersey Supreme Court in July 2003.

81 Student Drug Testing Coalition (2008), "Hunterdon Central Regional High School: Impact of student random drug testing program on drug use by students".

82 Australian National Council on Drugs (2008), *Drug testing in schools: evidence, impact and alternatives*.

83 McKeganey, Niel (2005), *Random drug testing of school children, a shot in the arm or a shot in the food for drug prevention*.

84 McKinney, Joseph R (2002), "The effectiveness and legality of random drug testing policies", paper prepared for the Student Drug-Testing Coalition.

85 McKeganey, Niel (2005), *Random drug testing of school children, a shot in the arm or a shot in the*

Project Team considers that the sample size of the study is very small and hence the study findings lack external validity.

7.5 In a review of data from the New Jersey Department of Education and school districts in 2006 – 07, researchers found that for the 26 schools with random student drug testing, the daily attendance rates, graduation rates and student scores at the High School Proficiency Assessment and SAT were higher, and the suspension and dropout rates lower than those for the 26 schools without random student drug testing. Based on the findings, researchers were of the view that drug testing did not have a negative impact on students.<sup>86</sup> Though attempts had been made by researchers to compare schools with similar background, the Project Team is of the view the research data are not sufficient to establish the casual relationship between drug testing and other school variables such as suspension and dropout rates which may be affected by other school factors such as learning and teaching effectiveness.

7.6 Furthermore, in a study conducted on 2 rural high schools in North Florida, researchers examined the knowledge, attitudes and perception of students towards an impending random drug testing program covering students participating in extra-curricular activities or issued with school parking permits, and found that the majority of students considered that drug testing would be effective in reducing drug use, though some students expressed concern over fairness and accuracy of drug testing.<sup>87 88</sup>

7.7 Acknowledging the limitations of current empirical studies on the effectiveness of drug testing programs the findings of which were inconclusive and/or conflicting and the fact that to conduct long-term scientifically valid studies was likely to be complicated and expensive, researchers resorted to the use of qualitative “evidence” based on views expressed by those who had experience in school drug testing. School administrators, teachers and coaches in 24 schools or

---

*food for drug prevention.*

86 Edwards, C E (2008), “Student drug-testing programs: do these programs negatively impact students?” a paper prepared for the Student Drug-testing Coalition.

87 McKinney, Joseph R (2003), “The effectiveness of random drug testing programs: a statewide follow-up study”, paper prepared for the Student Drug-Testing Coalition.

88 Evans, Garret D., et al (2006), “Implementation of an aggressive random drug-testing program in a rural school district: student attitudes regarding program fairness and effectiveness”, in *Journal of School Health*, 76(9): 452 – 458.

school districts that had implemented student drug testing programs were of the view that the programs had provided students with an excuse to say no to drugs and resulted in lower drug usage.<sup>89</sup>

7.8 A study recently published by the US Department of Education showed that students participating in mandatory random drug testing reported less substance use than students in schools without drug testing. The study was conducted in 2007-08 on more than 4,700 students in 36 high schools in southern USA, with half of the schools randomly assigned to the treatment group with drug testing and another half assigned to the control group without drug testing. Nevertheless, researchers noted that the study was conducted over a one-year period and did not confirm longer-term effects of drug testing.<sup>90</sup>

#### *Research findings not supporting school drug testing*

7.9 A study often quoted by researchers is the “Michigan” study which was conducted between 1998 and 2002 using a cross-sectional and a one-year follow-up study design. The study was based on a national sample of about 30,000 8<sup>th</sup> grade students, 23,000 10<sup>th</sup> grade students and 23,000 12<sup>th</sup> grade students from more than 700 middle and high schools. Researchers examined the relationship between self-reported 12-month use of drugs and school drug policies and found that drug testing of any kind, drug testing on suspicion and drug testing for student athletes was not a significant predictor of drug use. The researchers nevertheless noted that due to the cross-sectional design adopted in the study, it was difficult to draw definitive casual interpretations on the impact of drug use.<sup>91</sup> It was noted by other researchers that school drug testing was implemented by different schools using different approaches. Some schools tested students on suspicion with the intention of imposing legal consequences. Some schools conducted “suspicion-less random” tests in order to deter students from abusing drugs and as a means to help students tested positive by referring them to follow-up services.<sup>92</sup>

---

89 Edwards, C E (2008), “Student random drug-testing prevention programs: do these programs work?” a paper prepared for the Student Drug-testing Coalition.

90 James-Burdumy, Susanne, Brian Goesling, John Deke, and Eric Einspruch (2010), *The effectiveness of mandatory-random student drug testing*, US Department of Education.

91 Yamaguchi, Ryoko, Johnston, Llyod D and O’Malley, Patrick M (2003), “Relationship between student illicit drug use and school drug-testing policies”, in *Journal of School Health*, 73(4): 159 – 164.

92 Barrington, Kyle (2008), “Voluntary, randomized student drug-testing: impact in a rural, low-income

They pointed out that tests conducted based on reasonable suspicion were different from tests based on random selection. Furthermore, the study might even have included schools that had drug testing policies but had taken only one single test, or even schools that had never conducted any test.<sup>93</sup> In short, as pointed out by researchers interviewed by the Project Team in the US, without separately analyzing the impact of drug testing of different schools adopting different drug testing strategies, the “Michigan” study had a serious flaw in its research design.

7.10 In a study on school athletes (the Student Athlete Testing Using Random Notification (SATURN) research), preliminary findings based on two high schools indicated that for the school having mandatory drug testing before participation in sports activities, past 30-day use of illicit drugs had decreased for athletes in the experimental school, past 30-day use of illicit drugs increased for athletes in the control school. However, athletes in the experimental school had a larger reduction in positive attitudes towards school, as compared with those in the control school, suggesting that drug testing might have adverse impact on school-student relationship. In this programme, those athletes found to have abused drugs were required to receive counselling and if required therapeutic treatment, but the athletes concerned were allowed to remain in the school and the sports team, and recordings of the positive test results would not be shown in their academic records. Nevertheless, the researchers noted that the selection of control and experimental schools was not random.<sup>94</sup> Some researchers pointed out that while the SATURN longitudinal design allowed for casual interpretation supporting the effectiveness of school drug testing, generalization of the results was limited by the small sample in the pilot study and the lack of random assignment to the treatment group.<sup>95</sup>

---

community”, in *Journal of Drug & Alcohol Education*, p. 47 – 66.

93 Student Drug-testing Coalition, “Commentary: University of Michigan 2003 study on student drug testing”.

94 Goldberg, Linn, et al (2003), “Drug testing athletes to prevent substance abuse: background and pilot study results of the SATURN Study’ in *Journal of Adolescent Health*, 32: 16 – 25.

95 Evans, Garret D., et al (2006), “Implementation of an aggressive random drug-testing program in a rural school district: student attitudes regarding program fairness and effectiveness”, in *Journal of School Health*, 76(9): 452 – 458.



### *Research producing conflicting results*

7.11 In 2007, researchers published findings of the first 2-year study based on prospective randomized control trial on the SATURN research involving 5 intervention school and 6 control schools. The research results showed that, based on student athletes' self-reports there was no statistically significant difference in the change in the past-month use of drugs over time. For past-year use of drugs, the difference was statistically significant for only the first (time 2) and last (time 5) follow up periods. Similar to findings of the pilot study, the research showed that student athletes in the experimental school reported less positive attitudes towards school after introduction of the drug testing. Researchers nevertheless admitted that the high dropout rate of schools from the study might have affected the validity of the research findings.<sup>96</sup>

7.12 In another study involving two rural, low-income school districts in south-central Texas, researchers examined the change in drug abuse rates of students, based on their self-reports, before and after the implementation of suspicion-less, random drug testing of students participating in school-sponsored extra-curricular activities in the intervention school district in 2005-06. The result findings showed that there was no statistically difference in the decline in drug abuse rates between the intervention school district and the comparison school district. However, school staff interviewed in the study believed that school drug testing was effective, because it gave students an excuse to resist peer pressure to abuse drugs and helped identify students in need of assistance. Furthermore, with drug testing, students' awareness of drug abuse was raised. They were more willing to inform school authority about drug abuse behaviour of other students and had more confidence in their schools being a safe place free from drugs. The school staff added that drug testing had helped increase school bonding and connectedness and stressed that drug testing was only part of their drug prevention activities. They believed that drug testing implemented as part and parcel of a comprehensive drug prevention program of schools would be much more effective.<sup>97</sup>

---

96 Goldberg, Linn, et al (2007), "Outcomes of a Prospective Trial of Student-Athlete Drug Testing: The Student Athlete Testing Using Random Notification (SATURN) Study", in *Journal of Adolescent Health*, 41:421 – 429.

97 Barrington, Kyle (2008), "Voluntary, randomized student drug-testing: impact in a rural, low-income community", in *Journal of Drug & Alcohol Education*, p. 47 – 66.

### *The state of school drug testing research*

7.13 Researchers observed that while there was a large volume of literature about school drug testing programs, the overwhelming majority of articles comprised anecdotal evidence and journalistic comment. Only a few studies examined specifically the effectiveness of drug testing programs for school students and none had been conducted rigorously in a controlled, unbiased manner.<sup>98 99</sup> It was also noted by researchers that much of the evidence was related to the US where student drug testing was initially targeted on athletes, which was later extended to cover students participating in extra-curricular activities and other students in general.<sup>100</sup> In short, researchers noted that there was limited research-based evidence and the findings of any such studies were inconclusive.<sup>101</sup>

7.14 Researchers believed that there were a number of potential adverse effects of school drug testing. These included a breakdown in parent/child or school/student relationship, increased in school exclusions and trancies, reduced participation in healthy extra-curricular activities, diversion to other substances not tested or less detectable, unwarranted invasion of privacy, distressing, embarrassing and humiliating students, breaching of confidentiality and false sense of drug-free environment, lack of appropriate treatment and interventions after testing positive, school time and resources used on drug testing, ambiguous role for schools as monitors of student drug use and penalties for drug use. However, few studies had been conducted to evaluate the adverse impact of school drug testing and confirm that such concerns were valid.<sup>102</sup>

7.15 Indeed, as noted by Professor Shek, few studies were conducted to

---

98 Cheung, W H, et al (2009) "Position statement of the Hong Kong College of Psychiatrists on school-based drug tests in Hong Kong: a review of its effectiveness and our recommendations", in *Hong Kong Journal of Psychiatry*, 19: 133 – 136.

99 Australian National Council on Drugs (2008), *Drug testing in schools: evidence, impact and alternatives*.

100 McKeganey, Niel (2005), *Random drug testing of school children, a shot in the arm or a shot in the food for drug prevention*.

101 Levy, Sharon (2009), "Policy brief on: drug testing of adolescents in schools", Substance Abuse Policy Research Program.

102 Australian National Council on Drugs (2008), *Drug testing in schools: evidence, impact and alternatives*.

examine the effectiveness of school drug testing and no study was conducted with particular reference to the Chinese culture. Besides most of the empirical studies were cross-sectional in nature and the quality of many studies was generally not high. While there were studies that were in support of school drug testing, there were others that did not.<sup>103</sup>

### *Observations*

7.16 While the above review is useful from a methodological point of view, with experience gained from research conducted overseas providing useful insights on how the present research should be designed and conducted and highlighting difficulties in conducting a rigorous research with say random allocation to experimental and control groups and a longitudinal design, the Project Team is of the view that findings of research conducted overseas are inconclusive and should not be relied upon to argue for or against school drug testing in Hong Kong.

---

103 Shek, Daniel T L (2010), "School drug testing: a critical review of literature", in *The Scientific World Journal*, 10: 356 – 365.