

**A Note for the 10<sup>th</sup> Bills Committee meeting on the  
Dangerous Drugs, ICAC and Police Force (Amendment) Bill 1999  
to be held on 28.4.2000**

---

**The Administration's Response to the Outstanding Issues  
raised at the Previous Bills Committee meetings (II)**

**Introduction**

This paper sets out the Administration's response to some outstanding issues raised by Members at the previous Bills Committee meetings held. The issues covered by this paper include the following –

- (a) information on the intimate sample of dental impression.
- (b) the use of the voluntary system for taking non-intimate samples;
- (c) the probability of persons having previous conviction for lesser crimes to commit serious offence; and

**Additional Information on Dental Impression**

2. At the 4<sup>th</sup> Bills Committee, Members requested for additional information on the extent of uniqueness of a dental impression, and enquired about who is responsible for conducting forensic odontology analysis in Hong Kong.

3. Most of the forensic odontology works in Hong Kong are conducted by the Forensic Odontology Group (FOG), which is registered as a society under the Societies Ordinance. The group composes of dental practitioners who have special interest and training in dental forensic investigations. Forensic investigations are conducted upon the referral of the Hong Kong Police Force or

forensic pathologists of the Department of Health. A letter from the FOG, which describes the work of the FOG and provides information on the usefulness of dentitions in forensic investigation, is at Annex A for Member's reference.

### **The Use of the Voluntary System for the Taking of Samples**

4 While the proposed section 54AA of the Dangerous Drugs Ordinance, section 10E of the ICAC Ordinance, and sections 59A and 59C of the Police Force Ordinance provide for the taking of samples from persons suspected of involvement in serious arrestable offences, the proposed section 59F of the Police Force Ordinance provides for the giving of non-intimate samples voluntarily. Such persons concerned are not suspected of involvement in serious arrestable offences. Any samples to be taken from suspects would have to be taken under one of the sections mentioned above, not section 59F.

5 Overseas experience in implementing the voluntary system for the taking of samples show that people volunteering samples for DNA analysis and authorising their DNA information to be kept in the database can be broadly categorised into the following –

- (a) A reformed criminal who wishes to reduce the number of enquiries made to him for suspected involvement in criminal activities may wish to have his DNA information stored in the database. Whenever there are suspicions of his involvement in further offences, the reformed criminal could be excluded from suspicion when a database search yields a negative finding. This would save them the unnecessary embarrassment of being questioned by the police, and to a certain extent, help the reformed criminal to reintegrate into the community.
- (b) A convict serving a sentence for a crime which he had not committed. In an earlier paper presented to the Bills Committee, we have mentioned

a case in 1993 where a man sentenced to 18 years of imprisonment for a charge of rape and robbery committed in 1991 requested a re-examination of relevant exhibits using the then DNA profiling technique. The man was then found to be innocent, appealed and his conviction quashed. With the voluntary system, a convicted offender can volunteer to give a non-intimate sample and have his DNA information stored until such time as his innocence is proved and/or the withdrawal of his authorisation. In the United States, a project called the Innocence Project has been launched to help clear the wrongly accused. By June 1999, 61 convictions in the United States and 5 others in Canada have been overturned.

- (c) A law-abiding citizen who wants to assist the police in an investigation into a particular serious crime. When a serious crime has occurred in the neighborhood, the citizens may assist the police by volunteering their samples for comparative analysis when DNA evidence is significant. This is not for establishing innocence but to save time and to assist in directing the investigation in the right direction for early detection and solving of crime. There is no question of "forcing" anyone to "volunteer" his sample. That said, we consider that this is more applicable to a rather secluded area where the population is stable but is unlikely to be applicable in Hong Kong which is a place with high mobility.
- (d) A laboratory officer involved in DNA analysis, law enforcement officer and other authorised personnel who may have attended the scene of crime. In the unlikely event that there is cross contamination and confusing or unclear DNA traces have been found, a record of their DNA information on the database will be useful for elimination purposes.

6 We would like to make it very clear that under no circumstances will a

person be forced or pressured to giving a non-intimate sample. In any event, if a person did not sign an authorisation for the taking of a sample of his own volition, he can at any time by notice in writing withdraw his authorisation under section 59F(5).

7 Without the provision permitting the voluntary taking of samples and the storage of the DNA information so obtained in the database, we will not have the statutory grounds to handle scenarios mentioned in paragraph 5, which provides examples of the circumstances in which samples and DNA information given voluntarily are used overseas. Our current proposal to include an explicit clause regarding voluntary samples will also provide a better safeguard on the use, the storage as well as the destruction of the samples and information derived therefrom. We therefore maintain the view that it is necessary to have the proposed section 59F of the Police Force Ordinance in the Bill.

### **The probability of persons having previous conviction of lesser crimes to commit serious crimes**

8 At the 2<sup>nd</sup> Bills Committee meeting, Members sought information relating to the likelihood of an offender having committed "lesser" offences to commit serious offences in future. Members were concerned that the threshold of permanent storage of DNA information in the DNA database, i.e. conviction of a "serious arrestable offence", which is defined to mean an offence for which a person may be sentenced to imprisonment of five years or more, might be too low.

9 The storing of the DNA information in a database has proved to be a successful tool for crime investigation in the United Kingdom and the United States. The DNA information stored provides key evidence leading to the early identification, arrest and prosecution of repeat violent and sex offenders as well as a rapid means for exoneration of the innocent. Apart from crime investigation,

overseas experience shows that the DNA database would also help reduce courtroom time, contribute to long-term savings for the Police and, more importantly, the criminal justice system as a whole.

10 To establish a DNA database which will be effective, we consider that it is important to include in the database those information which will be useful in facilitating the investigation of serious crime. The definition of "serious arrestable offence" in our Bill, which will affect the information to be stored in the DNA database, is proposed having regard to the studies which showed that a substantial proportion of offenders of the more serious crimes have previous records of conviction of lesser crimes. This argument was supported by the following information from overseas.

- (a) It is known that "cold-hits", i.e. where a computer discovers the identity of a killer or rapist by matching DNA from blood, semen, etc. left at a crime scene with a DNA profile in a database, is very often extremely useful in detecting crimes. A Dr Paul Ferrara of Virginia's Division of Forensic Science of the U.S., whose DNA database was reportedly the most comprehensive database among the different States, was quoted to have said that more than half of his cold hits from the crime scenes of rapes and murders came from felons who had previously been convicted only of breaking and entering or burglary. [Source: New York Times, 19 February 1998].
- (b) A research conducted by the UK Police Research Group presented at a meeting for the Association of Chief Police Officers in September 1994 found that about 90% of rape offenders had previous convictions for offence of lesser gravity, burglary, violence, theft and vandalism.
- (c) The Offenders and Corrections Unit of the Home Office Research in UK has developed the Offender Group Reconviction Scale (OGRS). The

OGRS predicts, from a limited number of criminal history and demographic factors, the probability that an offender will be reconvicted within two years of release from prison or from the start of a community penalty, for any type of offence. A history of burglary is found to be a factor in the prediction of reconviction for both general, sex and violent reconvictions.

11 Local experience in Hong Kong also tends to confirm the argument that those convicted of lesser crimes are likely to be convicted for more serious crimes in the future. The infamous "Tuen Mun rapist" back in 1990s is a classic case. The perpetrator had a "progressive" conviction record. He committed wounding in 1986, two counts of theft from vehicle in 1990, and ten counts of homicide, rape and robbery in 1994. The perpetrator concerned had eventually turned into a serial rapist. In another case, a culprit who committed five counts of rape and four counts of robbery in 1996 had been convicted of criminal damage in 1986 and committed one count of rape and two counts of robbery in 1994. Statistics also show that about two-thirds (21,850) of the total number of persons arrested (32,400) by the Police from 1994 to 1999 of sexual and violence crimes have previous convictions.

12 We agree that the permanent storage of DNA information in the DNA database should not be applicable to trivial offences. It would, however, much weaken the crime investigative power of the law enforcement agencies, and particularly the identification of repeat offenders, if the storage of DNA information is only applicable to the most serious offences because those convicted of the most serious offences would most likely be sentenced to imprisonment for a rather long period of time. The full potential of the use of the DNA database in crime investigation work would not be realized as it would be impossible for those imprisoned to commit further crime. The significant proportion of offenders of the more serious crimes having previous records of convictions of crimes of less gravity also indicate that our proposed threshold of permanent storage of DNA

information being conviction of a "serious arrestable offence" is appropriate. The knowledge that a DNA database exists will deter many criminals from committing further crimes and thus help reduce the number of repeat offenders. We think that the threshold of "serious arrestable offence" strikes a reasonable balance.

### **Advice Sought**

13 Members are invited to note the content of this paper.

**Security Bureau**  
**18 April 2000**

[A2\_045.doc]

齒科法醫組的信頭

6 April, 2000  
By fax: 2810 7702

Miss Angela LEE  
For Secretary for Security  
Government Secretariat

Dear Miss Lee,

Re: Information for Forensic Odontology

All forensic odontology works in Hong Kong are largely conducted by our group, Forensic Odontology Group (FOG). FOG was registered as a society under the Societies Ordinance on 14 Oct, 1997 (Ref: CP/LIC/SO/19/20137). It consists of dental practitioners who have special interest and training in dental forensic investigations. Our works include teaching various parties forensic odontology and carries out forensic investigation upon referral from the Hong Kong Police Force or forensic pathologists for the Department of Health.

In most cases, the investigations that we perform include taking dental impression, intra-oral and extra-oral visual examination, dental photography, dental radiography and impression of bitemarks. The degree of accuracy of our investigation depends on the quality of the records. With good quality records, the accuracy of dental forensic investigations is generally accepted to be very high due to the uniqueness of individual dentition and is well accepted in court of law in all developed countries.

Individual tooth is a small organ in the body but it carries large amount of information as its size and shape, status of health and internal structures. With 32 teeth in a normal person, the combination of status, position and alignment is astronomical. Even in genetically identical twins, their dentitions are different. Most people in Hong Kong would have seen a dentist for dental treatment. The records which dentists keep are very valuable information for forensic investigation. Over the years, a large number of unidentified bodies were identified by dental means. When we are referred a case, we carry out all our investigation and analysis. In the final report, we summarize our conclusion in one of the six categories which I have appended for your easy reference.

I hope the above information is useful to you. Should there is a need for extra information, please do not hesitate to call. I am more than willing to help. Thank you.

Yours sincerely,

Dr Thomas Li  
Coordinator  
Forensic Odontology Group

Encl: Categories

Definition of the Categories Used to Indicate  
the Degree of Certainty Placed on the Results  
of the Identification Procedures

- Category 1. Positive Identification: Unequivocal identification based on a precise correlation between one or several unique features which are recorded in the antemortem data and which match exactly the postmortem findings.
- Category 2. Definitive Exclusion: Unequivocal exclusion based on one or several unique features of the postmortem findings which when compared with the antemortem data establishes a biological impossibility.
- Category 3. Highly Probable Identification: This category is reserved for an agreement between antemortem and postmortem photographs by superimposition or other dental data, but where the number of exactly similar points are too few, or where there are no unique features which would otherwise make a positive identification possible.
- Category 4. Consistent With but Equivocal: A “best fit” match. This category is equivocal, however, because although the superimposition technique results in a ‘match’ there are no reliable unique features, measurable landmarks, recorded data, or reported information that permits either a definite identification or a definite exclusion being established.
- Category 5. Inconsistent With: An obvious mismatch between the proportions of the face, using photographic superimposition, that cannot be explained by facial changes which might have occurred between the times the antemortem and postmortem photographs were taken.
- Category 6. Impossible to Identify: Because of too little antemortem data. Unable to correlate with any of the antemortem photographs. In order to investigate this more antemortem data is required and an additional investigation would be necessary involving the re-taking of skull photographs over a wide range of angular positions.