Keeping the right people on the DNA database?

Helen Wallace questions claims that the DNA database has had a significant impact on solving serious crimes.

The National DNA Database (NDNAD) was set up in 1995 but has become increasingly controversial as a result of two changes to the law. The first, in 2001, allowed the indefinite retention of DNA samples, computerised DNA profiles, and fingerprints following acquittal or a decision to take no further action. The second, in 2003, allowed routine collection of DNA and fingerprints from anyone arrested and held at a police station, for any recordable offence (Williams et al., 2004). The combined effect of these decisions – which apply in England, Wales, and Northern Ireland, but not Scotland - has been a massive expansion in the size of the Database. A new DNA profile is added roughly every minute.

These legislative changes were made with little parliamentary scrutiny or public debate. However, the DNA Database is now high on the political agenda, partly as a result of an increasing level of public and political concern about the 'surveillance state', and partly because of a landmark ruling by the European Court of Human Rights, which found that the indefinite retention of DNA and fingerprints from innocent people contravenes Article 8 of the Convention – the right to privacy (ECtHR, 2008).

Rights, trust, fairness, and discrimination

The National DNA Database is estimated to contain the records of more than 4.5 million individuals, 986,185 of whom who have no record of conviction, caution, formal warning, or reprimand on the Police National Computer.

Records on the DNA Database contain the individual's name and ethnic appearance as well as their DNA profile (a string of numbers based on part of the DNA sequence). They are linked to records on the Police National Computer (PNC) and to the individual's DNA sample, which is stored by the commercial laboratory which analysed it. In England, Wales, and Northern Ireland, all records are now retained indefinitely (nominally, until age 100). Access to the DNA database is restricted, but speculative searches are conducted every night to generate DNA match reports which are sent to the police. The PNC can be accessed directly by the police and a wide range of agencies. PNC records used to be 'weeded' after a certain length of time but are now 'stepped down' rather than deleted, so that the police can identify whose DNA profile has been taken.

Because DNA profiles can be used to track individuals and their relatives, retention of these records is a form of 'biosurveillance' of the people on the database, who are treated as a 'risky' population who might commit a future crime. Concerns about the retention of records include:

- the potential threat to 'genetic privacy' if information is revealed about health or family relationships, not just identity;
- the creation of a permanent 'list of suspects', linked to fingerprints and DNA, that could be misused by governments or anyone who can infiltrate the system;
- the exacerbation of discrimination in the criminal justice system and potential loss of trust in policing;

 the use of the computer database and DNA samples for genetic research without consent

 including controversial attempts to predict ethnic appearance using DNA; the potential for errors and miscarriages of justice. (Thompson, 2008)

In addition, concerns have been raised about the impacts on the wellbeing of children and the mentally ill of taking samples unnecessarily. DNA evidence is relevant to less than 1 per cent of recorded crimes, so for most people their DNA is not used to investigate the offence for which they have been arrested.

Home Office figures released in 2006 suggest that about four out of ten black men, and three out of four young black men (aged between 15 and 34), have records on the DNA database. Recent estimates show that about 300 children (aged 10 to 17) a day are being added, and that nearly one in four black children in this age group have had their DNA profiles collected and retained over the last five years. About a million people have had their DNA taken when they were under-18, reflecting police targets which have led to increasing numbers of arrests of children.

The Home Office proposals

The Home Office consulted on its plans to implement the ECtHR judgment via regulations. The consultation document included welcome proposals to destroy all DNA samples within six months of the computerised DNA profiles being obtained from them. It also proposed retaining the DNA profiles and fingerprints of unconvicted persons for 6 or 12 years following arrest, depending on the nature of the offence for which they were arrested. Children arrested for a single minor offence (whether convicted or not) would have their records deleted at age 18 at the latest, but otherwise would be treated as if they were adults. In response:

• Statisticians and criminologists described the research on which the proposed retention times are based as 'a travesty of both

statistical science and logical thinking'; 'incomprehensible'; and 'fallacious'; and noted that DNA detections have not increased as a result of expanding the Database;

- Legal experts questioned the government's interpretation of the judgment and Michael Beloff, QC provided an opinion to the Equality and Human Rights Commission that the proposals, if implemented, would contravene Article 8 of the Convention;
- NGOs representing the children's sector, and the UK Children's Commissioners, questioned whether the proposals are consistent with the government's obligations to protect the rights of children;
- Organisations representing black and ethnic minority groups, and the House of Commons Home Affairs Committee, attacked the government's continued failure to assess or justify the disproportionate impact of its proposals on ethnic minority groups.

An amendment to the Policing and Crime Bill intended to give the Home Secretary the power to make the new regulations on retention of DNA has been tabled. This approach bypasses parliamentary scrutiny and avoids enshrining minimum safeguards in primary legislation. The Bill will be discussed further in the House of Lords in October.

Both the Conservatives and Liberal Democrats support implementing primary legislation similar to Scotland's. Scottish law requires the deletion of most people's DNA profiles on acquittal or if charges are not pursued. Individuals who have been prosecuted for relevant violent or sexual offences can have their records retained for three years after acquittal, and for further periods of two years (with a right of appeal), if approved by a Sheriff. Scotland also continues to weed old records of convictions.

An effective way to tackle crime?

Keeping DNA profiles of convicted criminals has been shown to be

effective in detecting increasing numbers of volume crimes such as burglaries and thefts, as has collecting more DNA from volume crime scenes. But keeping DNA profiles from unconvicted people on the Database has not helped to solve more crimes. The number of crimes detected using DNA is driven by the number of crime scene DNA profiles loaded on to it, not by the number of individual profiles stored (Home Office, 2006; Nuffield Council on Bioethics, 2007). Over the past five years for which data is available, the Database has more than doubled in size, but the proportion of recorded crimes detected using DNA has remained roughly constant at about 0.36 per cent. These are largely volume crimes.

The database rarely plays a role in solving rapes and murders. Although DNA evidence is often important at trial, rapists and murderers are usually known to their victims and first identified by other means. In addition, many rape prosecutions fail because of disputes about consent, which DNA cannot resolve. Highprofile cases such as the Ipswich and Sally-Ann Bowman cases have been cited by ministers to justify their policy: however, neither was solved by retaining innocent people's DNA. Nor are innocent people exonerated by having their profiles on a database: their own DNA is always with them.

The government frequently refers to DNA *matches* with the stored DNA profiles of unconvicted persons, but matches are not the same as prosecutions or convictions – many matches occur with victims or passers-by or are false matches (GeneWatch UK, 2008). The number of false matches that occur simply by chance is expected to increase significantly when the routine sharing of DNA profile matches across the EU begins in about two years time.

The focus on collecting DNA from millions more individuals has been driven by commercial interests and the government's enthusiasm for the use of biometrics for identification purposes, not by an assessment of the best priorities to tackle crime. Because DNA is collected from less than 1 per cent of crime scenes and only about half all matches lead to DNA detections, the proportion of crimes detected using DNA would be unlikely to rise to more than 0.5 per cent even if the DNA profiles of the entire population and all visitors to Britain were added to the database. A small improvement in crime scene DNA collection or in the conversion of DNA detections into successful prosecutions would pay much greater dividends, but would make considerably less money for the companies involved.

More fundamentally, issues such as tackling violence against women require much greater emphasis on prevention and early intervention, rather than on DNA.

Dr Helen Wallace is Director of GeneWatch UK.

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