The UK National DNA Database (NDNAD) contains by far the largest proportion of the population of any DNA database in the world, containing records from more than 5.7 million people.\(^1\) Because DNA is collected routinely on arrest for a very wide range of offences (any recordable offence) one person is added to the database roughly every minute. Even a false accusation of a very minor crime — such as a child claiming that another child pulled their hair — can lead to an arrest.

More than a million people with records on the DNA database have no conviction or caution for any offence, yet under current rules their records are all retained to age 100.\(^2\) In May 2011, the Supreme Court ruled that the current police rules for retention of records in the NDNAD, the fingerprint database (IDENT1) and the Police National Computer are unlawful.\(^3\) The Court allowed parliament a “reasonable time” to adopt new provisions which ensure that the retention of data is proportionate to the need to tackle crime.

**People who will benefit from the provisions in the Bill**

There are many reported cases of individuals who will benefit from the provisions in the Bill, for example: a 12-year old-schoolboy arrested for allegedly stealing a pack of Pokemon cards\(^4\); a grandmother arrested for failing to return a football kicked into her garden\(^5\); a ten-year-old victim of bullying who had a false accusation made against her\(^6\); a 14-year-old girl arrested for allegedly pinging another girl's bra\(^7\); a 13-year-old who hit a police car with a snowball\(^8\); a computer technician wrongly accused of being a terrorist\(^9\); Janet Street-Porter\(^10\); comedian Mark Thomas\(^11\); and MPs Greg Hands, Damian Green and Andrew Bridgen.

People have a variety of concerns about retention of their records, including concerns about:
- the personal nature of their DNA;
- being treated like a criminal;
- the growth of a ‘Big Brother’ state and potential misuse of data by government (DNA profiles can be used to track individuals or groups of people or their families);
- potential loss of data or misuse of data (including by corrupt police officers, commercial providers or others who might infiltrate the system);
- the implications of having a ‘criminal’ record for the rest of their life (including implications for employment, visas or treatment by the police); and
- the possibility of being falsely accused of a crime, for example if their DNA was planted at a crime scene.

The likelihood of false matches, and potential miscarriages of justice, will increase significantly when the UK implements the EU’s Prüm Decisions, which require automatic searching sharing of DNA matches between all DNA databases in the EU. The Dutch forensic science service has already identified hundreds of false matches between the Dutch and German databases, and the number of false matches involving the much larger UK database is expected to be far higher.\(^12,13\) It remains unclear to what extent the European Arrest warrant will be used to arrest people purely on the basis of a DNA match.
There is also significant concern about the very high proportion of young black men with records on the database\textsuperscript{14,15} and the inclusion of large numbers of vulnerable persons, including children and the mentally ill.

It is clearly disproportionate for innocent people, or children accused of a single minor offence, to have their DNA and fingerprint records retained to age 100.

The previous government’s proposals to retain innocent people’s DNA database records and fingerprints for six years after arrest were strongly criticised by the majority of respondents to its 2009 consultation\textsuperscript{16}, and were based on misleading evidence\textsuperscript{17,18,19,20}. Had these provisions in the Crime and Security Act 2010 been brought into force, they would have been vulnerable to challenge in the courts.\textsuperscript{21,22,23,24}

**How the DNA database works**
The DNA database contains DNA profiles from crime scenes and from individuals, stored in computer records on a database.

The purpose of collecting a suspect’s DNA can be to compare their DNA profile with a crime scene DNA from a specific crime and/or to compare it with all past crime scene DNA profiles stored on the database. An individual’s record on the DNA database contains their name and is also linked by an Arrest Summons Number to their record on the Police National Computer (PNC), which contains further personal details and information about their arrest. A barcode, linked to the individual’s biological sample stored in the laboratory, is also included in the record.

In England and Wales, DNA is collected routinely at the police station from any individual arrested for any recordable offence, but DNA is obtained from only about 1\% of crime scenes. This may be because DNA evidence is not relevant to the type of offence being investigated, or because DNA cannot be recovered from the scene. This means that for most people arrested in England and Wales, the purpose of taking their DNA on arrest is to run a speculative search against all past stored crime scene DNA profiles. Only for a tiny minority of people is the DNA taken from them relevant to the offence that is under investigation. Because speculative searches are run routinely, matches with any past crime scene DNA profile can lead to an individual becoming a suspect for a past offence. The police are sent reports of matches and can then investigate them. Because many crime scene DNA profiles are not complete, match reports can list more than one individual. A list of potential suspects, rather than the name of a single individual, was sent to police in 27.6\% of the total match reports made between May 2001 and April 2006.\textsuperscript{25}

The Protection of Freedoms Bill only addresses the issue of retention of records: thus, it will not affect the process by which someone can be identified as a suspect for a past crime through a match on the DNA database. The Bill addresses whether innocent people, or children convicted of a single minor offence, can remain on the database as potential suspects for any future crime. People whose records are removed will not have committed any past offence for which DNA evidence is available, because their DNA profile will have been searched against all past stored crime scene DNA profiles on the database. People who have their records retained temporarily will continue to have their DNA profiles searched against all crime scene DNA profiles added to the database during the time their data is retained (up to 5 years).
DNA matches and solving crimes

DNA collected from a crime scene can come from innocent people, including the victim or other people who were at the scene at different times, not just from the perpetrator of the crime. DNA matches are therefore a poor measure of how many crimes have actually been solved. DNA matches include matches between known suspects and crime scene DNA (for which a DNA database is not needed); matches between individuals’ DNA profiles and stored crime scene DNA profiles (for which only a database of crime scene DNA profiles is needed); and ‘cold hit’ (unexpected) matches between stored individuals’ DNA profiles and newly added crime scene DNA profiles. Only the latter type of match requires a database of individuals’ DNA. This type of match usually involves a repeat offender. In fact, over the past ten years since the law was changed, retaining innocent people’s DNA profiles has not helped to solve more crimes. This is probably because these individuals are very unlikely to commit the type of crimes for which DNA evidence is relevant.

Cases, statistics and opposition to the Bill

Much of the opposition to the Bill appears to be based on a misunderstanding of the role that DNA plays in solving crimes. The Bill does not prevent a speculative search of an arrested person’s DNA profile against all stored crime scene profiles on the database. If there is a match, and if additional evidence suggests the individual is the perpetrator of the crime, the suspect can be prosecuted. The people who will be removed from the DNA database are only those who do not match any of the stored crime scene DNA profiles (or those for whom any match has an innocent explanation, including that they may have been the victim of one of these past crimes).

There has been much confusion caused by the failure to distinguish between the law on collecting DNA and the law on retaining DNA profiles on the database.

For example, in January 2011, the Sun cited twelve cases which it claimed meant the law should not be changed to remove innocent people from the DNA database. In every case except one the crime happened before the perpetrator (or a relative of theirs) was arrested (in some cases for an unrelated minor crime). Provided crime scene DNA is analysed promptly, keeping individuals’ DNA profiles on a database is not relevant to solving a past crime. The only exception on this list of twelve cases is the case of Kevan McDonald (arrested as a result of a match with his twin): but this crime occurred in Scotland and was therefore solved under the law which the Government plans to introduce!

In another example, former Home Secretary Jack Straw frequently cites the case of R v. B, in which a suspect for a rape had his conviction quashed because his DNA profile should have been removed from the database at the time the match was made. But in this case the burglary for which B was acquitted occurred after the rape and the match was only delayed because the DNA sample from the rape had not been analysed for over nine months. Much faster new procedures mean this problem does not arise today, because crime scene samples from a rape will be analysed immediately.

There has been particular confusion about the role of the DNA database in solving rapes. Most rapes are not solved using DNA (although it can be useful to confirm a man’s identity) because disputes about consent cannot be resolved using DNA. In addition, most rapists are known to their victims, and their DNA is matched after they have been identified, rather than through a ‘cold hit’ on a database. In 2008-09 only 168 out of 13,133 reported rapes involved DNA detections (crimes that were prosecuted in which there was a DNA match). Most of the matches will have been with a known suspect who was identified by other means; others
will have occurred when an individual’s DNA profile was added to the database. ‘Cold hits’ that relied on the retention of an individual’s DNA profile will have been only a small proportion of these matches and most of these will be with DNA profiles stored from repeat offenders. Not all detections will lead to convictions, often because of a dispute about consent.

Many cases involving DNA have been wrongly cited to oppose the removal of innocent people’s records from the database. For example, the John Worboys and Kirk Reid cases involved police failures to collect DNA from known suspects. Steve Wright (convicted of the Ipswich murders) had a prior conviction for theft and his DNA profile was already on the database, he was also a known suspect who had been stopped twice by the police before the crime scene DNA profile was obtained, since his car had been identified. Mark Dixie (murderer of Sally Ann Bowman) was caught when his DNA was taken following a fight in a bar, nine months after the murder. He also had previous convictions which took place before the DNA Database was established.

A DNA database of individuals is also not needed to exonerate innocent people, only the crime scene DNA needs to be retained. This is because a wrongly accused or convicted person can have their own DNA taken at any time.

An over reliance on DNA cause serious problems, as in the case of Delroy Grant (the Night Stalker) who was convicted in 2011 of a long string of frightening sexual attacks on elderly people whilst burgling their London homes. Operation Minstead, set up to track him down, focused on his DNA profile for many years: this had been obtained from several linked crime scenes but was not on the DNA database. Police undertook mass screenings of DNA from black men with motorbikes in South London, causing loss of trust in black communities: it subsequently turned out that Grant did not use a motorbike. They also used ancestral DNA techniques which wrongly predicted that the suspect came from the Windward Islands: he turned out to be from Jamaica. A police blunder in 1999 meant Grant was never interviewed in connection with a burglary thought to be linked to the attacks, despite his car number plate being spotted by a witness. Grant was wrongly eliminated from inquiries because the DNA from the crime scenes did not match another Delroy Grant, who did have a record on the DNA database. He was ultimately caught when police abandoned their focus on DNA and instead flooded the area with large numbers of undercover officers.

**Recommended improvements to the Bill**

GeneWatch UK welcomes the provisions to destroy DNA samples and to remove the DNA profiles of innocent people, and children convicted of a single minor offence, from the DNA database. However, a number of improvements to the Bill are needed.

**Deletion of PNC records**

When people are arrested, their details are entered on three databases: the DNA database, fingerprints database and the Police National Computer (PNC). PNC records used to be deleted 42 days after a person was acquitted or proceedings were dropped, but now all records are kept to age 100. This change was made as a matter of Association of Chief Police Officer (ACPO) policy in 2005: it was never debated by parliament.

Records of arrest are available to police officers in the street and are now being shared across police services as part of the Police National Database (PND). They may be used to refuse someone a job, as part of a criminal record check, or to refuse a visa. All travellers from the UK to the United States are now ineligible to use the Visa Waiver Scheme if they
have ever been arrested: they must apply to ACPO to release their PNC record to the US embassy as part of a lengthy and expensive visa applications process. This means that a false accusation (of any offence, from the age of ten) can lead to a lifelong problem with job applications and with freedom to travel.

The Supreme Court ruled in May 2011 that the current police procedure for retention of PNC records, DNA and fingerprints is unlawful and stated that PNC records raised no separate issues from those raised by the retention of DNA material and fingerprints. GeneWatch believes that retention of innocent people’s PNC records to age 100 is excessive. The Information Commissioner’s Office (ICO) agrees.\(^{39}\) To solve this problem, PNC records should be deleted at the same time as DNA database and fingerprint records.

*People convicted, cautioned, reprimanded or warned for minor offences*

The Bill treats cautions given to adults, and reprimands and warnings given to children and young people, as equivalent to a conviction. The system of reprimands and warnings was set up specifically to avoid children entering the criminal justice system unnecessarily, recognising extensive evidence that labeling children as criminal at a young age can be counter-productive.\(^{40}\) A reprimand or final warning is not a finding of guilt in law, and they can be administered without the consent of the child or their parent. A shorter (e.g. two-year) retention time should be considered for reprimands and warnings, and more than one reprimand, warning or conviction for a minor offence should not lead to indefinite retention.

Retention of DNA profiles, fingerprints and police records to age 100 is also excessive for adults cautioned or convicted for a single minor offence: time limits on retention should be set. Adults given cautions used to be removed from police databases after five years, and those convicted of minor offences after ten.

*National Security Determinations*

The Joint Committee on Human Rights has highlighted that the safeguards for national security determinations, which may be renewed indefinitely, need to be improved.\(^{41}\)

*Technical issues*

The Forensic Science Service (FSS) has claimed that data files containing batches of DNA profiles cannot be destroyed, because they might contain data that needs checking when a case comes to court. These data files contain DNA profiles from both innocent and guilty people, before they are loaded to the DNA Database, and are stored in the laboratories which analyse the DNA. In fact, a defendant always has a right to have a new sample taken if DNA evidence is disputed: this is important because any error could have involved a sample mix up, not just a problem with the analysis. The best option is therefore to delete the files at the same time as the relevant samples are destroyed and to take a new sample from the defendant if evidence is disputed when a case comes to court. Deleting innocent people’s PNC records, which contain personal data which can be linked back to the file, would be the only way to anonymise DNA profiles from innocent people contained in these files.
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