

DNA Issues Affecting Resolution of Violent Crimes Against Women

DNA analysis of crime scene samples including sexual assault investigation kits (SAIKS) is a critical tool in:

- a) detecting crime;
- b) identifying an offender;
- c) charging an offender;
- d) convicting an offender; and
- e) consideration of sentencing (if repeated offences are detected).

A 2004 report prepared by the Australian Institute of Criminology¹ found:

'Slightly more than one-third of alleged offenders were processed for two or more separate sexual offences during the reference period. Twenty-seven per cent were processed for between two and five offences and just over one per cent for 19 or more offences. The 629 alleged offenders were processed for a total of 1,603 sexual offences.'

Identifying and convicting sexual assault offenders using DNA analysis can therefore assist in preventing recidivist offenders from committing more acts of violence or sexual assaults against women.

The Queensland Health Forensic and Scientific Services DNA Analysis Unit (QHFSS) is responsible for testing all crime scene samples and SAIKS for Queensland. DNA profiling issues involving QHFSS were discovered in a review by The Australian² of Shandee Blackburn's 2013 homicide. Specifically, no DNA profiles were obtained from crime scene samples that would be expected to generate a result, a number of critical crime scene samples were not fully tested, mixed DNA profiles were being incorrectly interpreted and reported to police, and there was no record of key suspects' DNA being compared to crime scene samples. QHFSS data represented in 2020 study³ found that 52% of samples from a sexual assault category were failing to provide a DNA profile, when the failure rate should be 0%.

¹ Denise Lievore, Recidivism of Sexual Assault Offenders: Rates, Risk Factors, and Treatment Efficacy. Australian Institute of Criminology, p67, 2004. <https://www.aic.gov.au/sites/default/files/2020-05/recidivism-of-sexual-offenders-rates-risk%2520factors-and%2520treatment-efficacy.pdf>

² 'Shandee's Story' podcast, by Hedley Thomas. The Australian.

³ Matt N. Krosch (2021) Variation in forensic DNA profiling success among sampled items and collection methods: a Queensland perspective, Australian Journal of Forensic Sciences, 53:6, 612-625, DOI: 10.1080/00450618.2020.1759687

It is likely these issues, spanning many years, have led to offenders evading justice, and being given the opportunity to reoffend. There is also a genuine risk the reporting rates for sexual assaults in Queensland will decrease as a result of the QHFSS DNA issues.

The following is recommended to provide better justice outcomes for women who are victims of crime, and reduce opportunities for recidivist offenders:

1. An independent public inquiry is needed to fully uncover the DNA issues within QHFSS.
2. The accurate and reliable delivery of forensic DNA analysis services in Queensland needs to be restored.
3. A review is needed to identify criminal cases that may have been impacted by the QHFSS DNA issues.*
4. Retesting of samples identified in recommendation 3 should be conducted. This may result in newly identified offenders, and/or a criminal prosecutions.
5. Identify cases where new DNA evidence (from retesting) may have impacted on sexual assault matters previously tried.
6. Legislative reform is needed to enable retrial of acquitted sexual assault suspects where fresh and compelling DNA evidence is found (from retesting arising from the QHFSS DNA issues).
7. The justice system needs greater access to independent forensic experts to review evidence and provide advice.
8. A revised quality assurance framework is needed which complements the National Association of Testing Authorities (NATA) accreditation (ISO/IEC 17025) of forensic laboratories, to ensure the delivery of high quality, accurate and reliable forensic DNA services in Queensland.

*Crimes that may have been impacted by the QHFSS DNA issues can be readily identified by the Queensland Police Service 'Forensic Register' using the following search queries:

- a) Identify samples QPS Scientific Officers recorded as **presumptively positive for blood**, with the corresponding recorded QHFSS DNA profiling result of 'No DNA detected...', 'Complex mixed profile unsuitable for interpretation or comparison', or 'Incorrect result-this result was incorrectly reported'.
- b) Identify samples QPS Scientific Officers recorded as **presumptively positive for semen**, with the corresponding recorded QHFSS DNA profiling result of 'No DNA

detected...’, ‘Complex mixed profile unsuitable for interpretation or comparison’, or ‘Incorrect result-this result was incorrectly reported’.

- c) Identify samples QHFSS recorded as **confirmed positive for semen (by microscopy)**, with the corresponding recorded QHFSS DNA profiling result of ‘No DNA detected...’, ‘Complex mixed profile unsuitable for interpretation or comparison’, or ‘Incorrect result-this result was incorrectly reported’.
- d) Identify samples QPS recorded as **obvious biological stains**, with the corresponding recorded QHFSS DNA profiling result of ‘No DNA detected...’, ‘Complex mixed profile unsuitable for interpretation or comparison’, or ‘Incorrect result-this result was incorrectly reported’.

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