



# Delivering forensic services

Report 21: 2018–19

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Our ref: PRJ01028

27 June 2019

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The Honourable C Pitt MP  
Speaker of the Legislative Assembly  
Parliament House  
BRISBANE QLD 4000

Dear Speaker

**Report to parliament**

This report is prepared under Part 3 Division 3 of the *Auditor-General Act 2009*, and is titled *Delivering forensic services* (Report 21: 2018–19).

In accordance with s.67 of the Act, would you please arrange for the report to be tabled in the Legislative Assembly.

Yours sincerely

A handwritten signature in black ink, appearing to read "Daniele Bird". The signature is fluid and cursive, with a large initial "D" and "B".

Daniele Bird  
Acting Auditor-General

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# Audit objective and scope

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In this audit, we assessed whether agencies deliver forensic services efficiently and effectively in order to investigate crime and prosecute offenders. We examined whether agencies:

- collect and handle forensic material in accordance with relevant standards
- perform quality analysis of forensic material and report results in a timely manner
- plan, monitor, and report effectively on performance across the whole process.

The agencies included in the scope of this audit are:

- Department of Justice and Attorney-General
- Queensland Health, including the Department of Health and the hospital and health services
- Queensland Police Service.

Appendix B contains further details about the audit scope and our methods.

## Reference to comments

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In accordance with s.64 of the *Auditor-General Act 2009*, we provided a copy of this report to relevant agencies. In reaching our conclusions, we considered their views and represented them to the extent we deemed relevant and warranted. Any formal responses from the agencies are at Appendix A.



# Glossary

Term	Definitions
Clandestine drug laboratories	A clandestine drug laboratory is a place where illegal drugs are manufactured.
Deoxyribonucleic acid (DNA)	Deoxyribonucleic acid is a molecule carrying the genetic instructions used in the growth, development, functioning, and reproduction of all known living organisms.
Forensic medical examination	As defined by the <i>Queensland Government Interagency Guidelines for Responding to People who have Experienced Sexual Assault</i> , a forensic medical examination consists of obtaining a history as to the nature of an assault in order to guide a subsequent physical examination. It also includes the interpretation of injuries and the collection of forensic evidence as it relates to the assault.
Forensic physician	The Clinical Forensic Medicine Unit within the Department of Health employs forensic physicians to provide expert clinical and medico-legal opinions in court and advice in investigations of healthcare-related deaths.
Forensic pathologist	According to the Royal College of Pathologists of Australasia, a forensic pathologist is a medical specialist with autopsy expertise who performs coronial autopsies and related tasks, forming opinions about causes and circumstances of death.
Government medical officer	A government medical officer is a general practitioner appointed to undertake forensic medical examinations for victims of sexual assault.
Latent fingerprint	Latent fingerprints are finger and palm print impressions recovered from a crime scene that are not visible to the naked eye. In contrast, an offender may touch an object with blood on their fingers and leave a visible print, referred to as a patent fingerprint.
Major crime	Major crimes include offences against the person, such as murder, assault, sexual offences, robbery, kidnapping, and extortion.
National Association of Testing Authorities	The National Association of Testing Authorities is the accreditation body for Australia that ensures facilities comply with relevant Australian and international standards.
Trace DNA	Trace DNA refers to minute biological cells collected from a crime scene. They are invisible to the eye (such as skin cells left on an object). The likelihood of yielding a DNA profile from trace DNA is low compared to other forms of DNA.
Volume crime	Volume crimes include offences against property, such as unlawful entry, arson, theft, property damage, unlawful use of a motor vehicle, fraud, and handling stolen goods.



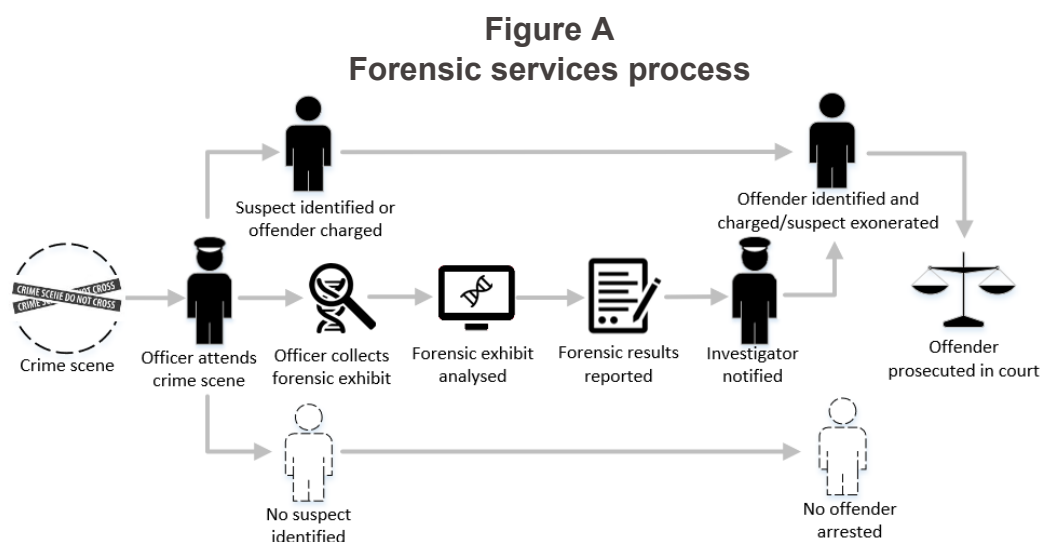
# Introduction

Police, prosecutors, and the courts rely on forensic services to aid them in identifying, exonerating, prosecuting, and convicting people suspected of committing crimes.

Forensic services involve analysing many different types of physical evidence such as drugs, fingerprints, and blood. Forensic services also include forensic medical examinations. Developments in technology, more advanced training, and the increasing range of forensic tests available have allowed for more frequent use of forensics to support investigations.

In Queensland, the Queensland Police Service and Queensland Health deliver forensic services for criminal investigations and prosecutions. In many cases, the results of forensic analysis are used by the courts. The Department of Justice and Attorney-General administers the courts and is the conduit between them and the agencies that provide forensic services.

The forensic services process involves collecting, storing, and analysing forensic material or exhibits, and the reporting of forensic evidence in support of criminal investigations and prosecutions. Figure A provides a basic overview of the forensic services process from the crime scene to the courts.



Notes: As depicted above, a suspect can be identified and charged or exonerated at any point along the process. Decisions to charge or exonerate a suspect are not only as a result of forensic evidence but are also based on other non-forensic evidence depending on the circumstances of the individual case.

Source: Queensland Audit Office.

To effectively deliver forensic services, the evidentiary and scientific integrity of the forensic material must be maintained (often referred to as the chain of custody) throughout this process. Services must be efficiently coordinated, and accurate and reliable information must be exchanged in a timely manner within and between entities across the process.

Delivering inefficient and ineffective forensic services can increase the risk of negative consequences for individuals and the justice system. These risks could include:

- wrongful convictions
- offenders avoiding apprehension or conviction
- delays for victims, suspects and the courts
- unnecessary costs.



# Summary of audit findings

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## Delivering forensic services

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We audited four types of forensic services: fingerprints, deoxyribonucleic acid (DNA), forensic medical examinations and illicit drugs. Three of these services accounted for approximately 92 per cent of all forensic services provided by Queensland public sector agencies between 2013–14 and 2017–18. We included forensic medical examinations because the Queensland Police Service raised concerns about longstanding difficulties for sexual assault victims accessing these examinations.

### Fingerprints

The Queensland Police Service's fingerprint service provides timely identification of fingerprints and detection of offenders. Since 2013–14, the Fingerprint Bureau (a unit within the Queensland Police Service) has continued to develop and refine its technology for collecting, examining, and verifying fingerprints. These developments have enabled it to quickly identify fingerprints located at crime scenes and provide timely results to officers for criminal investigations.

Since 2013–14, the Fingerprint Bureau has reduced the median time taken to review and verify a fingerprint (once it has received a request) from 19 hours and six minutes in 2013–14 to seven hours and 48 minutes in 2017–18.

Once the Fingerprint Bureau reviews fingerprints collected from a crime scene, it uploads them into a national database to identify a match. If multiple fingerprints match the offender, it only reports the results of one verified fingerprint to the relevant police investigator through crime managers. (Crime managers are responsible for allocating tasks to police officers within their region). If the additional fingerprint identifications were shared, with the appropriate caveats (that they are not to be relied on for court purposes), they could provide valuable intelligence to investigators.

The Fingerprint Bureau manually reports fingerprint identifications to a crime manager to disseminate results to the relevant investigator. The investigator is not informed at the same time, which can lead to unnecessary delays that can impact on a criminal investigation. Having the Fingerprint Bureau notify the relevant investigator when it notifies the crime manager would address this issue.

### Deoxyribonucleic acid (DNA)

The Queensland Police Service and Queensland Health work together to deliver forensic DNA services, and their collaboration has delivered some improvements. For example, in July 2008, they implemented a new process to standardise the collection of DNA evidence. In 2010, the Queensland Police Service and Queensland Health won the Prime Minister's silver award for excellence as a result of the process.

Forensic DNA services are provided in a more coordinated way than other services, such as those associated with illicit drugs. This is largely because the Queensland Police Service has a commissioned officer (an officer of inspector level or above) and a dedicated unit responsible for managing DNA. The unit gives police investigators and forensic scientists a central liaison point where they can discuss case information, including the status and priority of DNA evidence.



The Queensland Police Service's DNA management unit also monitors the demand for DNA analysis and turnaround times. As such, it is well positioned to develop strategies to improve timeliness, such as capping the number of trace DNA exhibits sent for analysis. (Trace DNA refers to minute biological cells that are invisible to the eye.)

Although this decision has helped reduce the increase in demand, it has not reduced the number of DNA exhibits requiring analysis. The number of DNA exhibits that were 120 days or older increased by 344 per cent in five years, from 289 in 2013–14 to 1 284 in 2017–18. In 2017–18, a manufacturing issue with a product used in the DNA analysis process contributed to the increase in the number of DNA samples awaiting analysis. The manufacturer has since rectified the issue and Queensland Health reports that no incorrect results were generated during this period.

Queensland Health's Forensic and Scientific Services is struggling to keep pace with the increase in demand for DNA analysis. Since 2013–14, the number of DNA exhibits analysed has increased by 21 per cent, but the number of full-time equivalent staff in the forensic DNA team has decreased from 65 to 61 in 2017–18. Its budget for forensic DNA has also decreased—by approximately \$1 million—over the five-year period. A lack of planning and modelling has limited its ability to effectively prepare for the increase in demand.

## Forensic medical examinations

Queensland Health is improving how it provides forensic medical examinations for victims of crime, particularly victims of sexual assault. In January 2019, the Minister for Health endorsed reforms to forensic medical examinations that included \$1.3 million for additional resources and training. Queensland Health is working to implement these reforms.

Reforms are necessary because some victims of sexual assault, particularly in regional areas, have not received timely and adequate services from Queensland Health when requiring a forensic medical examination. Some victims have been refused the examination or endured lengthy delays. In some circumstances, these delays may have contributed to the victim withdrawing their complaint.

We are aware of 17 cases between 2013–14 and 2017–18 where victims, including children, had issues in obtaining timely and appropriate medical examination services. We cannot determine how widespread these issues are because there is no complete record. It is safe to say that existing practices fall short of the agreed approaches, procedures and principles documented in the *Queensland Government Interagency Guidelines for Responding to People who have Experienced Sexual Assault*.

These issues are not new to Queensland. In 2009, a private firm reviewed Queensland Health's response to adult victims of sexual assault and found that police experienced challenges at times in locating clinicians to perform forensic medical examinations. It is not clear what Queensland Health did to address the issues raised in the review. The Queensland Police Service raised similar issues with Queensland Health in May 2018.

Various factors can contribute to hospital staff refusing to conduct examinations, including a lack of trained clinicians, competing priorities within emergency departments, an absence of clearly defined service standards and inconsistent integration of agencies' support services.

Currently, limited options for obtaining a forensic medical examination are available to victims of sexual assault. Victims may report the assault to police, in which case, police will arrange a forensic medical examination to be performed. In other cases, victims may attend at a hospital or medical facility, but not wish to report the assault to police.



Queensland Health requires a victim to report a sexual assault to police before it will perform a forensic medical examination. It provides the victim with information about their choice of not reporting the assault, including that this may limit the ability of police to investigate the assault if the victim later decides to make a report. This results in a victim needing to make a significant decision at a very difficult time. Queensland Health is revising its delivery of forensic medical examinations across the state as part of its planned reforms. The specifics of the reforms of forensic medical examinations are yet to be finalised. However, there is no plan to have an option for a forensic medical examination without the victim, a clinician or support worker reporting the assault to police. This option is available in some other Australian states.

## Illicit drugs

The Queensland Police Service and Queensland Health do not coordinate, manage, and prioritise the delivery of illicit drug services across both agencies the way they do with DNA services. This lack of coordination and management has resulted in inefficient and costly practices in the transportation, analysis, and destruction of illicit drugs.

Between 2013–14 and 2017–18, the median time it took to collect, transport, analyse, and report results for illicit drugs was 142.8 days (4.7 months), but the average was approximately six months. Delays of this nature can result in cases being adjourned or, in extreme circumstances, charges being dropped.

The Queensland Police Service's transportation of illicit drugs to Queensland Health's Forensic and Scientific Services for analysis is uncoordinated and results in unnecessary delays and costs. In some instances, police investigators from the same station have transported illicit drugs to Forensic and Scientific Services separately on the same day.

Between 2013–14 and 2017–18, the median time it took Forensic and Scientific Services to analyse drug exhibits and issue a certificate (stating the type, quantity, and purity of the drugs) was 91.6 days. Once received at Forensic and Scientific Services, drugs have sat idle for approximately 64.2 days (median) before they were allocated to a forensic chemist for analysis. Once allocated, it took forensic chemists 21 days (median) to analyse the drugs and report results.

The number of illicit drugs analysed per forensic chemist increased from 649.7 in 2013–14 to 668.9 in 2017–18. Queensland Health believes its number of chemists is sufficient to meet current demand, but not to address the existing backlog of analysis or to meet any notable future increase in demand.

The existing practices whereby all drug exhibits are returned to the original Queensland Police Service property facility for destruction is time consuming and costly. It is difficult to quantify the cost, because the Queensland Police Service does not capture this information, but it is likely to be high. The unnecessary handling of illicit drugs also poses security risks. Minimising the handling and transportation of high-risk exhibits, such as illicit drugs, is critical to the security of exhibits and the safety of police officers.

## Managing forensic services

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### Strategic and operational planning

The delivery of most forensic services requires input from staff and forensic experts across multiple agencies. As such, cross-agency planning and coordination is vital to the successful delivery of those services.

Efforts have been made to coordinate some areas of forensic services (such as DNA), but overall, there is a lack of systemic cross-agency strategic and operational planning. This is partly because there is no committee or forum for the agencies to collectively plan for current and future demand, share innovations, and discuss key issues.



In 2005, the *Ministerial Taskforce on the Role and Function of Forensic and Scientific Services*, identified inadequate communication between agencies as an issue. This continues to be a barrier to the effective and efficient delivery of forensic services.

The lack of cross-agency planning and coordination, coupled with increasing demand, has contributed to delays in finalising forensic analysis. Since 2013–14, the number and age of forensic exhibits requiring analysis has continued to increase. One of the reasons for the growing delay in delivering forensic services is resourcing relative to demand. Between 2013–14 and 2017–18, the number of exhibits submitted to the agencies for analysis per forensic scientist or expert per year has increased from 182 to 214.

## Systems supporting forensic services

The Forensic Register is the primary information technology system supporting the delivery of forensic services in Queensland. It enables both the Queensland Police Service and Queensland Health to record all forensic information in a central system and share it instantaneously for DNA and illicit drugs. The benefits of the Forensic Register are widely recognised, and four other jurisdictions have begun using it over the past five years.

The Forensic Register enables timely sharing of forensic information, but improvements need to be made in terms of the prompt sharing of case information about investigations requiring forensic services.

The Department of Justice and Attorney-General's Queensland Wide Interlinked Courts database electronically transfers court results to the Queensland Police Reporting Information Management Exchange database. However, there is no mechanism in the Queensland Police Reporting Information Management Exchange database to automatically share these results with the Queensland Police Service's Forensic Services Group and Queensland Health's Forensic and Scientific Services. In the absence of this information being transferred electronically, police rely on the lead investigator for individual cases to communicate this information. As a result, information relating to police investigations or court cases is not always communicated to the Forensic Services Group and Forensic and Scientific Services in a timely manner. In some instances, this has resulted in forensic analysis commencing unnecessarily after a court case had already been finalised.

Better interface of these systems, supported by notifications that alert agencies to changes to the status of a criminal investigation, could improve timeliness and information flow.

## Monitoring quality and performance

The Forensic Services Group and Forensic and Scientific Services have maintained their accreditation under the National Association of Testing Authorities. Both agencies have thoroughly documented processes, procedures, and internal controls for the delivery of their forensic services. Despite this, some aspects of their quality assurance practices need to be improved.

### Queensland Police Service's controls

#### Quality assurance

The Queensland Police Service's annual quality audit of its forensic services has enabled it to identify corrective actions and opportunities for improvement. It reports that all the 683 correction actions identified since 2013–14 have been implemented, except one.

One aspect of its quality assurance practices that can still be improved is its audit of property facilities. Its *Operational Procedures Manual* stipulates that a commissioned officer must audit a property facility every 12 months, but it does not require findings from the audit to be documented or reported.



Only one of the eight property facilities we visited could provide evidence that it had completed the annual property audit each year. As such, the Queensland Police Service has limited assurance that all crime scene exhibits, including forensic exhibits, are stored securely and accounted for.

#### Monitoring performance

The Forensic Services Group uses the Forensic Register to measure performance at facility and individual officer levels. It uses a range of performance metrics to measure effectiveness, efficiency, and workload. Forensic managers can use these reports to measure performance, but there is no requirement for them to report performance to senior management. The Queensland Police Service could strengthen its performance monitoring by mandating the requirement to report to senior management on the performance of facilities, police districts, and regions.

### Queensland Health's Forensic and Scientific Services' controls

#### Quality assurance

Queensland Health's Forensic and Scientific Services also audits its forensic services. Since 2013–14, it has identified 246 corrective actions, and only four of these remain outstanding at the time of our audit.

#### Monitoring performance

Forensic and Scientific Services does not adequately measure the effectiveness and efficiency of its forensic services. It has no measures to assess its effectiveness and has only recently developed an efficiency measure to assess turnaround times, which it does not report on. As such, it is ill-informed on the performance of its services and constrained in effectively managing and improving its services.



# Audit conclusions

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The Queensland Police Service and Queensland Health are providing forensic services that are mostly effective in supporting the investigation of crime and prosecution of offenders. Both agencies have maintained their accreditation under the National Association of Testing Authorities, which ensures they comply with relevant international and Australian standards that govern quality.

They have made some significant system advances and process improvements. The development of the Forensic Register and automation and advances in fingerprint services are examples of better practice in Queensland that other jurisdictions are leveraging. In addition, the efficiency gains made as a result of introducing a coordinating DNA services function demonstrate the benefits of effective cross-agency collaboration.

Nevertheless, aspects of forensic service delivery are inefficient and at times ineffective, most notably the management of illicit drugs and delivery of forensic medical examinations.

Delays in the analysis of illicit drugs is a persistent issue. In 2017, the Queensland Law Society raised with government its concerns about delays of up to 12 months in obtaining drug certificates. Our analysis indicates this is an area where resourcing for these services is insufficient for addressing the existing backlog of analysis or meeting any notable future increase in demand.

The Queensland Police Service does not effectively coordinate how it collects, transports, prioritises and destroys illicit drugs. This contributes to inefficient practices that result in delays and a growing backlog for illicit drug analysis. These delays can negatively impact the efficient running of courts and the timely administration of justice. They have also resulted in unnecessary handling and storage of drugs, which results in additional costs and potentially greater health and safety risks.

Forensic medical examinations is another area where cross-agency collaboration has not been working effectively. These issues have been known since 2009 (when Queensland Health's response to adult victims of sexual assault was reviewed). Despite the Queensland Government having collaborated in 2014 on a Response to sexual assault—*Queensland Government Interagency Guidelines for Responding to People who have Experienced Sexual Assault*, some victims are still not being well supported. Some victims are experiencing long waits, unnecessary travel between or past hospitals, and the refusal of medical staff to conduct forensic medical examinations. This is not consistent with the standard of service the government and community expect.

Queensland Health and the Queensland Police Service have recently demonstrated a commitment to improve forensic medical examination services by collaborating on reforms. They should be finalised and progressed as a priority.

Better cross-agency planning, communication, coordination, and resourcing between Queensland Health and the Queensland Police Service, with input from the Department of Justice and Attorney-General, is needed to ensure all forensic services are delivered as effectively and efficiently as possible.



# Recommendations

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## Queensland Police Service and Queensland Health

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We recommend that the Queensland Police Service and Queensland Health:

1. implement a governance structure to effectively coordinate and provide accountability for managing forensic services across agencies

The terms of reference should include:

- identifying current and future demand and the required resources for forensic services
  - establishing processes to capture the extent and impact of delays from forensic services, including the impact on courts
  - implementing a performance framework to measure and report on the effectiveness and efficiency of forensic services. This should include ensuring each agency has appropriate performance targets
  - ongoing consultation with the Department of Justice and Attorney-General about the delivery of forensic services and impact on the justice system. (Chapters 2 and 3)
2. implement a process to coordinate and manage collecting, transporting, prioritising, and destroying illicit drugs. The revised process should reduce the risks to security, occupational health and safety, and the cost of unnecessary handling (Chapter 2).

## Queensland Police Service

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We recommend that the Queensland Police Service:

3. improves its quality assurance processes and practices to ensure all police property facilities conduct an annual audit of all property and exhibits. These audits should be standardised and documented, with findings reported to senior management (Chapter 3).

## Department of Health

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We recommend that the Department of Health, in collaboration with the Queensland Police Service and all hospital and health services:

4. continues to develop and deliver reforms to forensic medical examinations to improve services to victims, including:
  - implementing service agreements to deliver forensic medical examinations
  - developing strategies to recruit and retain appropriately trained physicians and nurses for forensic medical examinations across the state
  - implementing a range of reporting pathways and supporting processes for all victims requiring forensic medical examinations
  - improving clinician's awareness of reporting options for victims of sexual assault
  - improving the availability of, and access to, paediatric services for child victims of sexual assault
  - establishing local interagency support services which better integrate clinicians, police and non-government services (Chapter 2).

## Queensland Police Service, Queensland Health and Department of Justice and Attorney-General

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We recommend that the Queensland Police Service, Queensland Health and the Department of Justice and Attorney-General:

5. improve the prioritisation and timely sharing of case information between agencies. This should include establishing systems and processes (and where possible automation) to ensure there is real-time notification of changes in priority or status to avoid unnecessary analysis (Chapter 3).



# 1. Context

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Forensic services branches across various government agencies provide expert analysis and advice on civil emergencies, criminal investigations, and coroners' inquiries. For criminal investigations, these services are increasingly important in detecting crime and convicting criminals.

Between 2013–14 and 2017–18, the Queensland Police Service undertook 169 105 investigations that required forensic services. The number of its investigations requiring forensic services increased by 11 per cent from 32 127 (in 2013–14) to 35 779 (in 2017–18).

## What are the types of forensic services?

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There are 14 different types of forensic services. (They are listed in Appendix C.) In this report, we assess the provision of services related to fingerprints, deoxyribonucleic acid (DNA), and analysis of illicit drugs, which accounted for 92 per cent of all forensic services provided by Queensland public sector agencies between 2013–14 and 2017–18. We also assess the provision of forensic medical examinations, which has been problematic for some time.

### Fingerprints

People have distinct fingerprints, due to the unique ridges on their fingers and hands. No two people have the same ridge variations. For these reasons, fingerprinting has long been established as an essential tool for investigating crime. It is often a crucial piece of evidence eliminating a person as a suspect or linking them to a crime.

Over the past 20 years, rapid advancements in technology have enabled fingerprint identification techniques to move on from ink pads and paper to electronic recognition. Today, photos of fingerprints found at crime scenes are loaded into a database that automatically compares and identifies any matches.

Fingerprint examination accounted for 57.5 per cent of the forensic services delivered in Queensland between 2013–14 and 2017–18.

### DNA

Offenders may leave DNA at a crime scene in various forms, such as bodily fluids (for example, blood and sweat), skin cells, or hair follicles. But they can also leave minute biological cells invisible to the eye, referred to as trace or touch DNA. The likelihood of yielding a profile from trace DNA is low compared to other forms of DNA.

Where necessary, DNA samples collected from a crime scene or from a person are sent to forensic scientists to examine and generate a DNA profile. If a DNA profile is generated, it is searched against the National Criminal Investigation DNA Database to identify if it matches any known offenders, suspects, or other crime scene profiles in the database.

DNA is circumstantial evidence and requires additional evidence or inference to connect an offender to a crime. As such, the Queensland Police Service states in its *Operational Procedures Manual* that DNA evidence should not be relied on in isolation during an investigation. The ease with which DNA can be transferred and the potential for contamination means other corroborative evidence is needed.

DNA analysis accounted for 23.5 per cent of the forensic services delivered in Queensland between 2013–14 and 2017–18.



## Forensic medical examinations

Forensic medical examinations may occur for a range of different offences, such as assaults, child abuse, and sexual assault. For relevant investigations, and where a victim gives consent, a Queensland Health doctor or forensic nurse may perform a forensic medical examination.

A forensic medical examination has several purposes. Firstly, it provides initial treatment for injuries and the opportunity to develop a plan for ongoing medical care. Secondly, it enables a doctor or forensic nurse to document injuries and collect forensic samples (such as swabs) for potential use as evidence in a criminal investigation and prosecution. It is important that forensic medical examinations are timely in order to preserve forensic evidence and to maintain a continuous chain of custody.

In other circumstances, a forensic medical examination may be needed to determine whether a person is in a fit medical state to be interviewed by police. Forensic medical examinations can also be performed on alleged offenders if a Forensic Procedural Order is issued. These orders are made by a court authorising a qualified person to conduct a forensic procedure on an alleged offender (such as taking a DNA sample).

### Forensic medical examinations for sexual assaults

Forensic medical examinations for sexual assaults usually require a doctor or nurse to use a sexual assault investigation kit to obtain evidence. The kit includes a checklist to aid the doctor or forensic nurse in completing the examination. A victim of sexual assault may report the assault to police or present directly to a hospital.

Between 2013–14 and 2017–18, Queensland Health doctors and forensic nurses used 1 672 sexual assault investigation kits.

## Illicit drug analysis

Police may seize substances from a crime scene or from a suspect, which they believe to be illicit drugs. Illicit or dangerous drugs may include traditional drugs such as crystal methamphetamine (that is, ICE), cannabis, heroin, cocaine, or new, synthetic drugs such as synthetic cannabinoids.

The lead investigator must decide if the seized drugs require testing under the *Drugs Misuse Act 1986*. For example, if an offender pleads guilty to possession of a dangerous drug but the amount is below the amount specified in the *Drugs Misuse Regulation 1987*, it does not require testing. If the drugs require testing, forensic chemists analyse the drugs to determine the type, quantity, and purity of the drugs and produce a certificate to record the results.

Forensic chemists also assist the Queensland Police Service with collecting evidence from chemically hazardous crime scenes, dismantling suspected clandestine drug laboratories (which are used to manufacture illicit drugs), and providing evidence about the illegal production of dangerous drugs.

Illicit drug analysis accounted for 10.9 per cent of the forensic services delivered in Queensland between 2013–14 and 2017–18.

## Other types of forensic analysis

A range of other forensic services can be used in a criminal investigation, such as ballistics (examination and reconstruction of crime scenes involving firearms), document examination (provided by the Queensland Police Service), and pathology and forensic toxicology (provided by Queensland Health). Although these forensic services may not be as common as the four we have covered in this audit, they can be equally important when investigating and solving a crime.





## Who delivers forensic services?

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The three key government agencies responsible for delivering forensic services and coordinating with the courts are the Queensland Police Service, Queensland Health, and the Department of Justice and Attorney-General.

When an incident is reported to police, responding officers are required to ensure the scene is safe; preserve potential evidence; and where necessary, assist the public. A police investigator leads criminal investigations and may be required to coordinate:

- collecting and documenting evidence
- interviewing of witnesses and suspects
- engaging forensic experts to analyse evidence.

Depending on the type of forensic analysis required, the exhibit(s) will either be sent to the Queensland Police Service's Forensic Services Group or to Queensland Health's Forensic and Scientific Services for analysis. All exhibits received by the Forensic Services Group and Forensic and Scientific Services are recorded on the Forensic Register (an information technology system that both agencies can access).

### Queensland Police Service

Queensland Police Service officers are almost always involved in collecting forensic material from crime scenes, and the material's subsequent transportation and storage. For some types of forensic material, such as fingerprints, Queensland Police Service staff also undertake forensic analysis of the material. For others, such as drug analysis, the Queensland Police Service relies on external services.

Additionally, police prosecutors are responsible for presenting the evidence to courts for some cases, while in other cases, prosecutors from the Office of the Director of Public Prosecutions perform the role.

Forensic exhibits collected from a crime scene are recorded in the Queensland Police Reporting Information Management Exchange database. If a forensic exhibit requires analysis, the lead investigator or the scenes of crime officer will provide a submission of articles for forensic examination form to the relevant forensic facility. Forensic exhibits are packaged in a sealed container or bag to prevent contamination and degradation and are given a unique barcode.

### Forensic Services Group

The Queensland Police Service primarily provides forensic services through its Forensic Services Group, which sits in the Operations Support Command. The Forensic Services Group provides a range of specialised forensic services to assist police officers in criminal investigations, including:

- DNA management
- fingerprint analysis
- photographic and electronic recordings
- forensic scene examination
- scientific services (such as ballistics and document examination).

The Forensic Services Group is made up of more than 500 staff working from 37 facilities across the state, including its main facility, which is located at police headquarters.



It delivers forensic services across five police regions covering the state. Each region is led by a forensic manager and supported by various staff, including:

- forensic coordinators—responsible for managing forensic resources within their area, including finances, human resources, performance, and quality management
- scenes of crime officers—responsible for examining crime scenes and collecting and recording evidence
- fingerprint experts—responsible for undertaking fingerprint analysis and providing advice to investigators. The Fingerprint Bureau is responsible for fingerprint identification and detection and has 77 fingerprint experts located across the state
- forensic scientists—responsible for conducting scientific examinations and providing expert advice and testimony in support of investigations and prosecutions.

In addition to recording the forensic evidence they collect in the Queensland Police Reporting Information Management Exchange database, police also (as mentioned earlier) record it in the Forensic Register database.

The Queensland Police Service developed the Forensic Register in 2003 as a central point of reference about cases needing forensic analysis. Both the Queensland Police Service and Queensland Health record forensic information in the Forensic Register, enabling them to share information about a forensic case in a timely manner, including examination and scientific information, digital images, analysis, and results.

## Queensland Health

### The Department of Health

The Department of Health is responsible for delivering forensic and scientific services and for providing policy and guidelines on forensics services to hospital and health services across the Queensland health system. Its Forensic and Scientific Services deliver most of the forensic services provided by Queensland Health.

### Forensic and Scientific Services

It provides a range of forensic services, including:

- forensic DNA and biology
- forensic chemistry testing
- forensic toxicology
- clinical advisory services
- forensic pathology and mortuary services.

It employs over 150 staff, including pathologists, scientists, laboratory technicians, and administrative staff.

The Clinical Forensic Medical Unit within Forensic and Scientific Services provides a range of services, including examining and treating victims of sexual assault. It has eight full-time equivalent forensic physicians and three forensic nurse examiners based in Brisbane, and two forensic nurse examiners in Townsville. It also engages government medical officers and casual forensic nurses in other areas across the state. In 2018, Forensic and Scientific Services transferred three (2.1 full-time equivalent) forensic physicians positions to the Gold Coast Hospital and Health Service.



## Hospital and health services

The hospital and health services play an important role in providing forensic services, such as forensic pathology and forensic medical examinations. Their role is more crucial in regional areas where dedicated specialist forensic services are limited or unavailable.

## How is forensic evidence used?

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Police investigators are required to investigate crimes and identify the offenders. This includes collecting evidence, interviewing witnesses and writing reports of their findings. Investigators must decide whether there is sufficient admissible evidence to charge a suspect and whether it is in the public's interest to do so. Admissible evidence can include any document, testimony, or relevant evidence, such as fingerprints or DNA, that can be used in a court hearing.

The investigator is required to submit a brief of evidence before the court hearing. It will include a summary of the police's version of why a defendant has been charged and what happened.

Prosecutors are responsible for examining the evidence gathered by investigators and presenting it to the magistrate or judge (depending on the seriousness of the crime). Police prosecutors prosecute offenders who have been charged in the Magistrates Court. More serious charges are prosecuted by the Office of the Director of Public Prosecutions in the District and Supreme Courts.

## Department of Justice and Attorney-General

The Department of Justice and Attorney-General's Queensland Courts Service is responsible for administering the operations of the courts and ensuring the complete, accurate, and timely capture and recording of court information. It records and stores data required for the functioning of the courts in its Queensland Wide Interlinked Courts database. This includes court outcomes for investigations, including those that required forensic services.

## Legislation, standards, and reviews

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### Legislation and accreditation

For the courts to accept and rely on forensic evidence, the Queensland Police Service's Forensic Services Group and Queensland Health's Forensic and Scientific Services are required to deliver forensic services in accordance with an array of relevant legislation and standards.

The *Police Powers and Responsibilities Act 2000*, and the *Evidence Act 1977*, are the main legislation governing the general provision of forensic services in Queensland. Other legislation governing forensic services is specific to certain crimes, for example, the *Drugs Misuse Act 1986*, the *Criminal Code Act 1899* and the *Criminal Law (Sexual Offences) Act 1978*.

Both the Queensland Police Service's Forensic Services Group and Queensland Health's Forensic and Scientific Services are accredited by the National Association of Testing Authorities and must comply with Australian and international standards. (The National Association of Testing Authorities is the Australian accreditation and standards body.)

### Reviews

Since 2005, several reviews have been undertaken that have either focused solely on individual agencies that deliver forensic services or have examined the broader criminal justice system. Over this period, there hasn't been a review that has focused holistically on the delivery of forensic services in Queensland.



## Ministerial taskforce

In March 2005, the Queensland Government ordered a review of the role and function of Queensland Health's Forensic and Scientific Services to assess the demand for, and provision of, its forensic services.

The report was finalised in October 2005 and made 65 recommendations. It found that Forensic and Scientific Services needed to improve its governance. It also found that it had no organisational alignment with Queensland Health, whose mission is to promote a 'healthier Queensland', and recommended that it be established as an independent entity.

This was consistent with the findings we reported in *Delivering coronial services* (Report 6: 2018–19). We recommended that the Department of Justice and Attorney-General, in collaboration with the Department of Health and other relevant government agencies, evaluates the merits of establishing an independent statutory body with its own funding and resources to deliver effective medical services for Queensland's justice and coronial systems.

## Moynihan review

In July 2008, Justice Martin Moynihan was commissioned by the Queensland Attorney-General to review the civil and criminal justice system in Queensland. The final report, completed in December 2008, highlighted that some forensic testing can add considerable delays to the finalisation of a criminal matter.

## Queensland Police Service internal reviews

In February 2015, the Queensland Police Service reviewed the performance of its Forensic Services Group to improve service delivery. The internal review made a variety of findings, including the need to increase staffing levels in some regions and reduce the number of forensic images being printed.

In August 2018, the Queensland Police Service began another review of its Forensic Services Group to again focus on improving its service delivery. It is ongoing.

## Queensland Health reforms

In January 2019, Queensland Health began reforming its process for delivering forensic medical examinations for adult sexual assault victims. The reforms include \$1.3 million to resource hospital and health services and deliver forensic medical examination training to nurses statewide. Queensland Health is also drafting a Health Service Directive requiring hospital and health services to deliver forensic medical examinations.



## 2. Delivering forensic services

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### Introduction

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The effective and efficient delivery of forensic services is critical to ensuring that the right outcomes are achieved in criminal investigations and that justice is administered in a timely, reliable, and cost-effective manner.

While a range of forensic services is available to support criminal investigations and prosecutions, fingerprints (57.5 per cent), deoxyribonucleic acid (DNA) analysis (23.5 per cent) and illicit drug analysis (10.9 per cent) account for the majority (91.9 per cent) of forensic services. We focused on these, and we also included forensic medical examinations, because there have been longstanding issues associated with delivering them.

We examined whether the Queensland Police Service and Queensland Health (which includes the Department of Health and the hospital and health services):

- collect and handle forensic exhibits in accordance with relevant standards
- perform quality analysis
- report results in a timely manner.

### Fingerprints

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The Queensland Police Service is responsible for the provision of fingerprint services in Queensland. Its Fingerprint Bureau provides timely and effective identification of fingerprints and detection of offenders. Over the past five years, it has continued to develop and refine its technology for collecting, examining, and successfully verifying fingerprints.

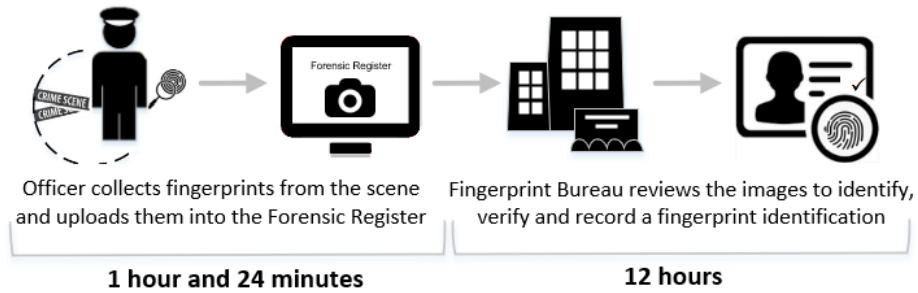
#### Collecting and reviewing

Scenes of crime police officers collect fingerprints from crime scenes and upload them directly into the Forensic Register (the primary information technology system supporting the delivery of forensic services in Queensland). The Fingerprint Bureau reviews the fingerprints to establish a person's identity, verify the identification, and report the result.

Between 2013–14 and 2017–18, the median time taken by police officers to collect a fingerprint from the crime scene to the time the Fingerprint Bureau recorded a verified identification in the Forensic Register was 14 hours and 18 minutes.

Figure 2A shows the median time (hours) for a police officer to collect a fingerprint and upload it into the Forensic Register and the median time for the Fingerprint Bureau to review a fingerprint and record a verified identification in the Forensic Register between 2013–14 and 2017–18.

**Figure 2A**  
**Median hours to collect, review, and record a fingerprint identification in the Forensic Register between 2013–14 and 2017–18**



Note: In most cases, scenes of crime officers and fingerprint experts collect fingerprints from crime scenes. The Fingerprint Bureau records the results of the fingerprint identification in the Forensic Register. We have used the median, rather than the average, because there are some outliers that are influencing the time taken to collect, transport, analyse and report forensic results.

Source: Queensland Audit Office.

Since 2013–14, the Fingerprint Bureau has reduced the median time taken to review and verify a fingerprint (once it has received a request) from 19 hours and six minutes in 2013–14 to seven hours and 48 minutes in 2017–18.

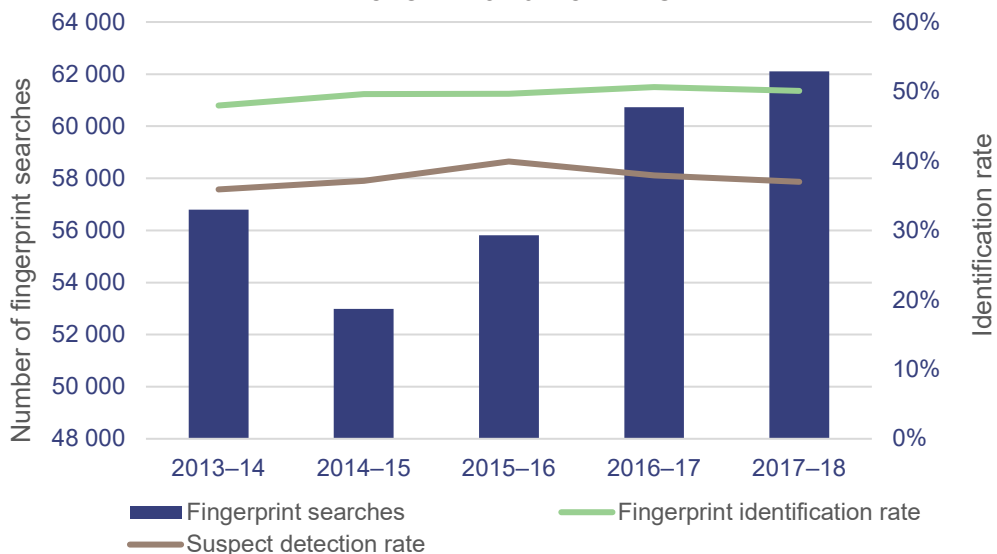
It prioritises cases based on the seriousness of the offence. For example, between 2013–14 and 2017–18, the median time it took for sexual assault offences was two hours and six minutes, compared to 18 hours and six minutes for break and enter offences.

### Identifying and detecting

Since 2013–14, the Fingerprint Bureau has improved its rate for successfully identifying fingerprints from searches. It has also improved its rate for successfully detecting offenders from those fingerprint identifications. The number of fingerprint searches has increased by nine per cent over the same five-year period.

Figure 2B displays the Fingerprint Bureau’s success rate with fingerprint identifications and suspect detections between 2013–14 and 2017–18.

**Figure 2B**  
**Rate of fingerprint identifications and suspect detections between 2013–14 and 2017–18**



Source: Queensland Audit Office.



Between 2013–14 and 2017–18, 49.6 per cent (143 140) of the 288 435 fingerprint searches conducted resulted in the identification of fingerprints. Of those fingerprint identifications, 37.6 per cent (53 791) resulted in the detection of an offender.

## Reporting results

The Fingerprint Bureau records verified fingerprint identifications in the Forensic Register and manually emails results to the relevant crime manager, but not the police investigator. It doesn't notify the investigator because it has no way of readily identifying which investigator is managing the case. Although there's a field in the Queensland Police Reporting Information Management Exchange database, it is not kept up to date.

Crime managers are responsible for disseminating the results to the relevant investigator within their region. But they only work five days a week, which means they may not notify an investigator until several days later. In some cases, this can unnecessarily delay investigations. The Fingerprint Bureau could forward the results to the relevant investigator at the same time as it notifies the crime manager and forensic coordinator (forensic coordinators manage forensic resources within their area).

The Fingerprint Bureau has intentionally capped the number of identified fingerprints its experts verify to ensure it continues to provide timely results. It only provides the crime manager and forensic coordinator with notification of one verified fingerprint identification, regardless of whether it identifies multiple fingerprints that match the offender. It provides officers with a vague notification that there may be other fingerprint identifications and advises the officer to contact the bureau if they require more information.

The additional fingerprint identifications, although unverified, can provide valuable intelligence to inform investigator decisions. These identifications could be provided to investigators accompanied by appropriate caveats that they are not to be relied on for court purposes.

## Deoxyribonucleic acid (DNA)

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DNA can be relevant to a broad range of investigations—from break and enters to homicides.

The Queensland Police Service has a commissioned officer (an officer of the rank of inspector or above) and a dedicated unit responsible for the management of DNA services. Its responsibilities include prioritising analysis, disseminating results, and destroying DNA results when they are no longer necessary.

The DNA management unit provides a point of contact for police investigators to discuss the status of DNA evidence sent for analysis. It also helps ensure that the correct type and amount of DNA is sent to Queensland Health's Forensic and Scientific Services for analysis and that the most urgent cases are prioritised.

## Collecting DNA exhibits

In July 2008, the Queensland Police Service, in collaboration with Queensland Health, implemented a new process called sub-sampling. The new process enabled police officers to collect DNA from crime scene exhibits using appropriate personal protective equipment and to send it in a sterile tube to Forensic and Scientific Services for analysis.

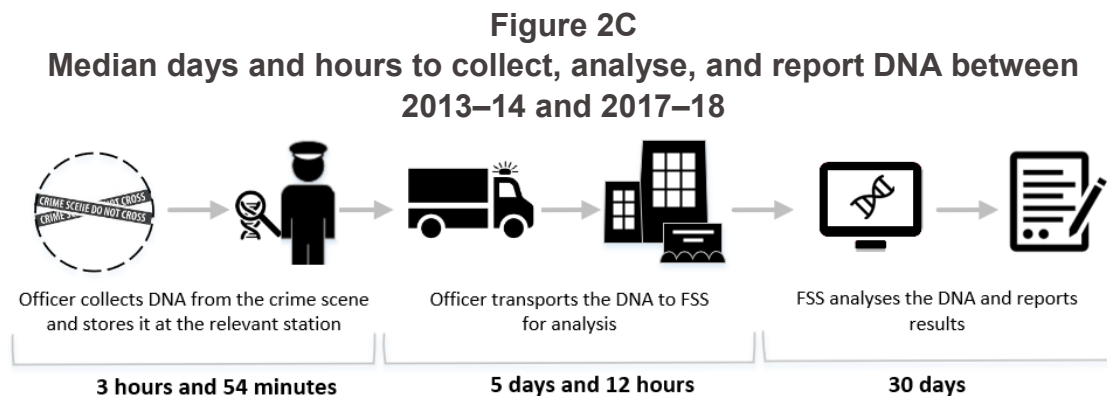
Prior to July 2008, police collected physical items containing the DNA, such as caps, T-shirts and baseball bats, and transported them to Forensic and Scientific Services for testing. This made it difficult for scientists to begin their analysis in a timely manner and created storage implications for Forensic and Scientific Services.

The Queensland Police Service and Queensland Health won the Prime Minister's silver award for excellence for public service administration for the DNA sub-sampling process.



## Time taken to collect, analyse, and report DNA

Figure 2C shows the median time taken by police to collect and transport DNA exhibits and the median time taken by Forensic and Scientific Services to analyse DNA exhibits and report results to police between 2013–14 and 2017–18.



Note: FSS—Forensic and Scientific Services. We have used the median, rather than the average, because there are some outliers that are influencing the time taken to collect, transport, analyse and report forensic results.

Source: Queensland Audit Office, using data from the Forensic Register.

Over the past five years, the median time to collect, transport, analyse, and report DNA results has fluctuated from 35.1 days in 2013–14 to 51.3 days in 2016–17 and 49 days in 2017–18. The average is higher, which highlights that some cases take much longer.

### Analysing DNA

In December 2012, Forensic and Scientific Services changed its DNA profiling technology as part of an initiative to standardise DNA profiling practices across Australian states and territories. This has also enabled it to analyse more complex DNA evidence. Being able to analyse more complex DNA can aid in investigations, but the added complexity may also increase the length of time taken to interpret a DNA profile.

The median time to analyse DNA and report results for major crime (such as murder, armed robbery, and sexual assault) was 34.2 days between 2013–14 and 2017–18, compared to 29 days for volume crime (such as theft and burglary).

The Queensland Police Service set the priority for DNA analysis it requires from Forensic and Scientific Services. It prioritises DNA analysis for major crimes over DNA for volume crimes. The analysis of DNA for major crimes is often more complex, with higher quantities of trace DNA and more complex mixtures to interpret. (Trace DNA refers to minute biological cells that are invisible to the eye and tend to be more difficult to obtain a DNA profile from.) This explains why the median analysis time is longer.

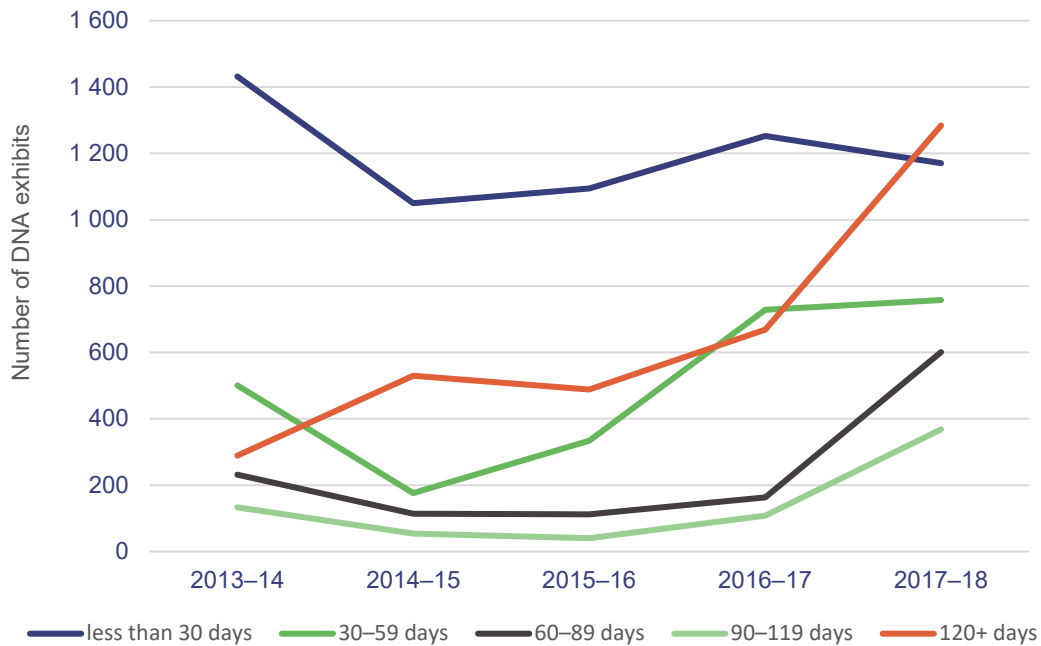
### Keeping pace with demand

Forensic and Scientific Services is struggling to keep pace with the increase in demand for DNA analysis. Since 2013–14, the number of DNA exhibits collected by police and sent to Forensic and Scientific Services for analysis has increased by 21 per cent from 20 742 to 25 086. Over this period, Forensic and Scientific Services has increased the number of DNA exhibits that it analyses, but the number of DNA exhibits awaiting analysis has also increased.

Figure 2D displays the age and number of DNA exhibits requiring analysis between 2013–14 and 2017–18, as at 30 June 2018. This is calculated based on the date Forensic and Scientific Services received the DNA exhibit, to the date it completed the analysis and reported the results in the Forensic Register.



**Figure 2D**  
**Age and number of DNA exhibits requiring analysis between 2013–14 and 2017–18, as at June 30**



Notes: In 2017–18 approximately 5 000 DNA samples were affected by a manufacturing issue with a product used in the analysis process. This contributed to the increase in the number of DNA samples requiring analysis in 2017–18. The manufacturer has since rectified the issue. Queensland Health reports that no incorrect results were generated during this period.

Source: Queensland Audit Office, using data from the Forensic Register.

Since 2013–14, the number of those DNA exhibits requiring analysis that are older than 30 days has increased. Over this period, DNA exhibits that were 120 days or older had the greatest increase. They increased by 344 per cent from 289 in 2013–14 to 1 284 in 2017–18.

### Capping trace DNA exhibits sent for analysis

In August 2018, to manage the increasing demand, the Queensland Police Service capped the number of trace DNA exhibits that can be sent to Forensic and Scientific Services for analysis. Trace DNA exhibits represented 60.5 per cent (65 575) of all DNA exhibits sent to Forensic and Scientific Services for analysis over the previous five-year period.

The Queensland Police Service based this decision on research published by the National Institute of Forensic Science, which highlighted that trace DNA is less likely to yield a DNA profile. The results from our data analysis are consistent with this. Since 2013–14, only 12 per cent (7 880) of trace DNA exhibits have yielded a profile in Queensland.

The decision by the Queensland Police Service to triage the number of trace DNA exhibits sent to Forensic and Scientific Services for analysis has been helpful in reducing some of the workload but does not address the increasing number of DNA exhibits requiring analysis.

Staffing at Forensic and Scientific Services is inadequate to meet the existing demand. Despite the growth in DNA-related work, there has been a decline in the number of full-time equivalent staff in the DNA team—from 65.1 in 2013–14 to 61.4 in 2017–18.

In addition, the budget for Forensic and Scientific Services to deliver forensic DNA services has decreased by approximately \$1 million over the same five-year period. A lack of planning and modelling has limited its ability to effectively manage the increase in demand.



## Forensic medical examinations

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A forensic medical examination can be a confronting and an intrusive process. Effective and timely examination is crucial in minimising the trauma being experienced by the victim and maximising opportunities for evidence collection. Key forensic evidence, including biological samples, can be lost if not collected early.

### Forensic medical examinations for sexual assaults

Under current arrangements a victim of sexual assault may either:

- report an assault to police, in which case, police will arrange a forensic medical examination to be performed
- present to a public hospital or medical centre where they will be provided the option of reporting the assault to police, which will enable the victim to have a forensic medical examination.

In 2009, a private firm reviewed Queensland Health's response to adult victims of sexual assault. It found that practices varied across the state and that police, at times, experienced considerable challenges in locating a clinician to undertake a forensic medical examination.

In 2014, recognising the need to improve coordination and cooperation in responding to victims of sexual assault, the Queensland Government issued the *Queensland Government Interagency Guidelines for Responding to People who have Experienced Sexual Assault* (the guidelines). The Queensland Police Service, Department of Justice and Attorney-General, Queensland Health, and the former Department of Communities, Child Safety and Disability Services developed and endorsed these guidelines.

The guidelines outline key principles and best practice for responding to victims of sexual assault. They clearly state that Queensland Health is responsible for providing forensic medical examinations through public hospitals and its Clinical Forensic Medicine Unit.

Even though the departments endorsed these guidelines, some victims of sexual assault have not received seamless, timely, and compassionate forensic medical examinations, particularly in regional Queensland. Police continue to experience difficulty in locating a clinician for a forensic medical examination. We are aware of 17 cases of this over the last five years, but as all cases are not necessarily recorded, we cannot determine how widespread this issue is.

The types of challenges include:

- victims experiencing lengthy delays waiting at hospitals for examinations to occur, or being transferred to another hospital several hours away
- some hospitals refusing to perform forensic medical examinations
- victims being refused a forensic medical examination unless they report the sexual assault to police
- victims waiting several hours for the forensic medical examination in hospitals' general admissions areas in the clothes in which they were assaulted.

For some victims, the delays may have contributed to them withdrawing their sexual assault complaint.



## Trained doctors and forensic nurses

For the 17 cases we reviewed, the main reason cited by hospital staff for refusing to conduct forensic medical examinations was the absence of trained clinicians.

Any clinician can conduct forensic medical examinations, which are not considered to be complex procedures. It takes less than two hours to complete the relevant training and a clinician can be guided over the phone on how to perform the examination. But many clinicians refuse to do it because they don't see it as their core business, don't want to testify in court, and have little guidance on what is required.

As at 31 January 2019, there were 66 clinicians trained to perform forensic medical examinations across the state. The Clinical Forensic Medicine Unit employs 38 of these—a combination of forensic physicians and forensic nurses. The remaining 28 are government medical officers. They are general practitioners appointed by the Director-General of the Department of Health to perform forensic medical examinations.

Figure 2E shows the number, type, and location of clinicians trained to perform forensic medical examinations as at 31 January 2019.

**Figure 2E**  
**The number, type, and location of clinicians trained to perform forensic medical examinations, as at 31 January 2019**

Region	Number and type of clinicians
<b>Northern region</b> Torres and Cape, Cairns and Hinterland, North West, and Townsville	<ul style="list-style-type: none"> <li>• Six government medical officers</li> <li>• One forensic physician</li> <li>• Nine forensic nurses</li> </ul>
<b>Central region</b> Mackay, Central West, South West, and Central Queensland	<ul style="list-style-type: none"> <li>• Nine government medical officers</li> <li>• 11 forensic nurses</li> </ul>
<b>South East Queensland region</b> Darling Downs, West Moreton, Wide Bay, Sunshine Coast, Metro North, Metro South, and Gold Coast	<ul style="list-style-type: none"> <li>• Nine government medical officers</li> <li>• 12 forensic physicians</li> <li>• Nine forensic nurses</li> </ul>

Source: Queensland Audit Office, using figures supplied by the Clinical Forensic Medicine Unit.

The existing number and coverage of trained clinicians means that many hospitals across the state have insufficient staff to provide timely forensic medical examinations when required.

The Clinical Forensic Medical Unit considers forensic nurses to be a more stable population for delivering forensic medical examinations in the future. However, nurses require more extensive training than doctors. This is partly because courts more readily recognise doctors as experts when providing evidence in court. At this stage, Tasmania and Western Australia offer forensic nursing qualifications and New South Wales offers online training supplemented with face-to-face training.

## Forensic medical examinations for victims who haven't made police reports

The Department of Health and the hospital and health services have no clear and consistent policy or processes to enable victims to undergo a forensic medical examination if they have not officially reported the sexual assault to police. In these circumstances, victims are told they must report their assault to police or are refused a forensic medical examination. This can have the effect of:

- asking the victim to make this significant decision when ill-prepared to do so
- adding to the victim's distress
- diminishing a victim's sense of informed choice and personal control.

The Queensland Police Service has developed alternative reporting options that enable victims to report details of their sexual assault while remaining anonymous. It implemented these alternative reporting options in October 2014. As yet, there is little awareness of these alternative reporting options across Queensland Health and no protocols or processes have been developed between police and Queensland Health to put them to effect. Victims who choose this option are unable to have a forensic medical examination.

## Reforms to forensic medical examinations for victims of sexual assault

The Department of Health has recently started to act on these issues. In May 2018, the Queensland Police Service raised concerns with Queensland Health about the services provided to victims of sexual assault, including the delays and instances where hospitals refused to conduct examinations.

In December 2018, Queensland Health wrote to the Queensland Police Service, recognising the challenges surrounding the delivery of sexual assault services in Queensland, including the devolution of responsibility between the Department of Health and hospital and health services. It advised the Queensland Police Service to discuss specific concerns with individual hospital and health services.

In January 2019, the Minister for Health endorsed reforms to the forensic medical examination process for adult sexual assault victims. The reforms include \$1.3 million to resource hospital and health services and deliver forensic medical examination training to nurses statewide. Queensland Health is also in the process of drafting a Health Service Directive requiring hospital and health services to deliver forensic medical examinations.

The existing reforms are focused on the provision of forensic medical examinations to adult sexual assault victims. Given four of the 17 cases we examined as part of this audit were related to children, the department needs to consider the implications of its reforms on forensic medical examinations for child sexual assault victims as well.

To better recognise the need for victims of sexual assault to have access to a forensic medical examination, Queensland Health intends to progressively implement policy and structural changes during the second half of 2019.



It is now working with the Queensland Police Service to vary the pathways for victims, so their choices are better respected, and to ensure victims are told about alternatives for each reporting pathway. Under the proposed reporting pathways being considered, victims of sexual assault may either:

- report the assault to police, which will allow for a forensic medical examination to be undertaken. If the victim requests, police will defer most of their inquiries to allow the victim time to consider their decision. Police involvement will ensure victims are informed about their choices and understand the impact a delay can have on successful investigation of an assault, and ensures the maintenance of the continuous chain of custody of evidence collected from the examination
- choose not to report the assault to police, in which case the victim will receive medical treatment if needed but will not be provided with a forensic medical examination. These victims will be advised that this choice may limit the ability of police to subsequently investigate the sexual assault (due to the absence of forensic evidence) should they later decide to report the offence.

The existing Queensland Police Service alternative reporting option will remain available to victims, so that they can choose to make an anonymous online report to police. In these circumstances, as the victim has chosen to remain anonymous, the option of a forensic medical examination will not be available.

Queensland does not plan to have an option where evidence is collected through a forensic medical examination and stored, in case a victim decides to report the assault to police at a later stage. This option is available in some Australian states.

## Illicit drugs

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Both the Queensland Police Service and Queensland Health's Forensic and Scientific Services play an important role in the analysis of illicit drugs. The Queensland Police Service is primarily responsible for collecting, transporting, and destroying illicit drugs.

Its *Operational Procedures Manual* details the requirements for officers managing illicit drugs, including procedures for handling, storage, transportation, and destruction. Section 4.2.5 of the manual categorises illicit drugs as high-risk property and section 4.5.2 provides specific procedures for the forensic examination of drugs.

The forensic chemistry team in Forensic and Scientific Services is responsible for analysing illicit drugs and issuing drug certificates (stating the type, quantity, and purity of the drugs).

Since July 2013, the number of illicit drugs collected from crime scenes and sent to Forensic and Scientific Services for analysis has increased by more than seven per cent, from 14 747 to 15 860 in June 2018. Although this increase isn't high, the development of new synthetic drugs has increased the time taken to analyse and report results. The emergence and prevalence of new or different drugs requires agencies to be agile and capable of readily adapting, and adds scientific, technological, and resourcing pressures.



## Timeliness of forensics for illicit drugs

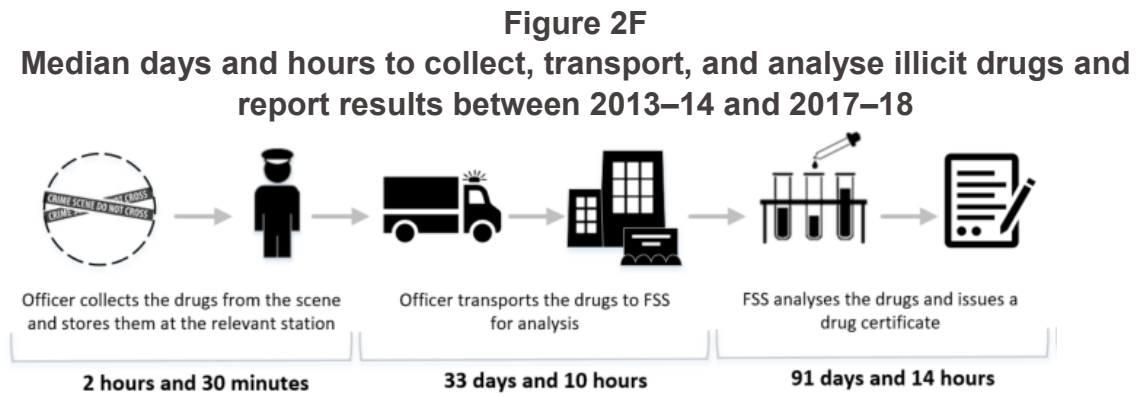
### Coordinating and managing illicit drug services

The Queensland Police Service and Queensland Health do not have a system for consistently and efficiently managing, prioritising, and delivering illicit drug services.

At an individual level, agencies are also not coordinating their delivery of illicit drug services as well as they could be. For example, the Queensland Police Service does not effectively coordinate how it collects, transports, analyses, and destroys illicit drugs across its police stations and units. This:

- results in inefficient, unnecessary, and costly handling of drugs
- exposes officers and the community to unnecessary risks
- causes delays in transporting and analysing illicit drugs and reporting results.

Figure 2F shows the median time it takes from when a police officer collects illicit drugs from a crime scene to the time Forensic and Scientific Services issues a drug certificate.



Notes: FSS—Forensic and Scientific Services. We have used the median, rather than the average, because there are some outliers that are influencing the time taken to collect, transport, analyse and report forensic results.

Source: Queensland Audit Office, using data from the Forensic Register.

Between 2013–14 and 2017–18, the median time it took to collect, transport, analyse, and report results for illicit drugs was 142.8 days. However, the average was much higher, at 179.3 days, indicating that some cases are taking much longer.

These delays can result in court cases being adjourned or, in extreme circumstances, charges being dropped.

### Storing and transporting illicit drugs

Because illicit drugs are high-risk property, it is important that police minimise handling and transport, and that they handle, store, and transport them appropriately. Managing drugs in a timely manner not only reduces the potential for court delays but also reduces the amount of time Queensland Police Service and Queensland Health staff need to be in possession of these high-risk exhibits.

The Queensland Police Service’s transportation of illicit drugs to Forensic and Scientific Services for analysis is uncoordinated and inefficient.



Across the state, the time taken by police to transport illicit drugs varied significantly. For example, it took officers from Calamvale 11 days (median) to transport illicit drugs to Forensic and Scientific Services between 2013–14 and 2017–18. In contrast, it took officers from Sherwood 33.8 days (median) to transport illicit drugs over this period. Both stations are less than 10 kms from the Forensic and Scientific Services facility.

Similarly, on the Sunshine Coast it took officers from Coolumb 54 days (median) to transport illicit drugs to Forensic and Scientific Services between 2013–14 and 2017–18 but only 24.3 days (median) for officers from Caloundra.

To avoid unnecessary analysis, some investigators only send drugs for analysis after a defendant has entered a not-guilty plea. The Queensland Police Service's *Operational Procedures Manual* does not provide enough guidance to inform police investigators when they should or should not send illicit drugs to Forensic and Scientific Services for analysis. Nor does it highlight the importance of transporting illicit drugs in a timely manner. The manual states that the 'investigating officer is to, as soon as practicable, ensure property (including illicit drugs) is examined'. But it provides no additional explanation about transporting illicit drugs in a timely manner.

### Prioritising illicit drugs for analysis

There is no officer with responsibility for prioritising drug exhibits that require analysis. Responsibility falls to the Forensic and Scientific Services scientists to determine the priority. This is unlike DNA analysis, where the Queensland Police Service has an officer responsible for managing, prioritising, and coordinating DNA exhibits across the state. Staff at Forensic and Scientific Services informed us that at times, they felt pressure from investigators to prioritise their drug exhibits.

Decisions on priority should be made by the Queensland Police Service and should be based on set criteria, such as the seriousness of the offence and the court date. Its police investigators are responsible for leading a criminal investigation and determining the priority of forensic analysis.

Forensic and Scientific Services has established some informal criteria to assess priority, but they haven't formally communicated these to the Queensland Police Service. For example, testing a synthetic drug for an investigation that has a court date is considered high priority. Testing drugs for a case where the offender has failed to appear, or the charges are pending, is considered low priority.

It is difficult for the forensic chemistry team within Forensic and Scientific Services to effectively plan and forecast its workload because it has no awareness of the number of illicit drugs being seized until the drugs arrive at the facility.

### Analysing illicit drugs and issuing drug certificates

In 2017, the Queensland Law Society wrote to the Queensland Attorney-General about delays of up to 12 months in obtaining drug certificates. The Queensland Law Society noted that delays could result in accused people being unnecessarily held on remand for long periods before being committed to trial. Magistrates, prosecutors, and lawyers we interviewed advised us that this is still a major cause of delay for many court proceedings, particularly in the Magistrates Court.

Forensic and Scientific Services has introduced robotic platforms and updated analytical instruments over this period to support increased throughput. Queensland Health advise this has been offset by an increase in the complexity of illicit drugs being presented to the laboratories for analysis.





Between 2013–14 and 2017–18, the median time it took Forensic and Scientific Services to analyse drug exhibits and issue a drug certificate was three months from the time the request was received. The median time taken to analyse illicit drugs has increased slightly from 82 days in 2013–14 to 85.8 days in 2017–18, but there are many instances when it has taken much longer.

For example, it took Forensic and Scientific Services more than a year to analyse illicit drugs and issue certificates for 1 148 cases between 2013–14 and 2017–18. It took more than two years to finalise the analysis on 155 of these cases.

The delays by Forensic and Scientific Services to issue drug certificates cannot be blamed on time-consuming analysis. Over the five-year period, it took forensic chemists 21 days (median) to analyse illicit drugs and issue a drug certificate. However, in the same time period, the median time it took Forensic and Scientific Services to allocate illicit drugs to a forensic chemist for analysis was approximately two months.

The number of illicit drugs analysed per forensic chemist increased from 649.7 in 2013–14 to 668.9 in 2017–18. Queensland Health believes its number of chemists is sufficient to meet current demand, but not to address the existing backlog of analysis or to meet any notable future increase in demand.

A case may also remain unallocated if an investigator is not ready to press charges or if there is no court date for the hearing.

## Destroying drug exhibits

Currently, all drug exhibits sent to and analysed by Forensic and Scientific Services are returned to the original Queensland Police Service property facility to be destroyed. Staff from Forensic and Scientific Services notify the relevant Queensland Police Service property officer that the drug exhibits have been analysed and are ready for collection. Property officers across the state then arrange for an officer to collect the exhibits and return them to the property office.

In 2012, Forensic and Scientific Services proposed that it destroy all drug exhibits it had analysed to eliminate the need for any further transportation. As part of the proposal, it requested that Queensland Police Service pay them to destroy the exhibits. Queensland Police Service declined the proposal because of the cost.

The current process of returning exhibits to Queensland Police Service is time consuming. It took police officers an average of 136 days to destroy 102 192 illicit drugs after court cases were finalised between 2013–14 and 2017–18. (We isolated this analysis to offenders who pleaded guilty, because in some cases a charge may be appealed by the offender and require police to hold the evidence.)

It is difficult to quantify the cost of transporting drug exhibits to the original property facility for destruction because the Queensland Police Service does not capture this information. It is likely to be high based on staff hours and vehicle costs.

The amount of travel to, and from, some rural areas is significant. In Toowoomba, illicit drugs are transported by vehicle to Forensic and Scientific Services for analysis. Once the drugs are analysed, an officer will travel by vehicle to collect the exhibit and transport them back to the Toowoomba property facility. Once the criminal investigation is finalised, the investigator will then transport the illicit drugs back to Brisbane to be destroyed.

The current process of the Queensland Police Service destroying drug exhibits is further complicated by the fact that not all drug exhibits are returned by Forensic and Scientific Services in the same condition. Sometimes, Forensic and Scientific Services is required to crush the drugs for analysis. This makes it difficult for inspectors and senior sergeants responsible for signing off on the destruction of drug exhibits to gain assurance that the correct drug has been returned.





There are also health risks for staff involved in the destruction process. We heard from several Queensland Police Service property officers that it is becoming increasingly hard to find an appropriate facility to destroy the drugs. In regional areas like Innisfail, Rockhampton, and Gladstone, officers are required to travel to remote police stations with an incendiary or burner to destroy the drugs.

It would be more efficient for the Queensland Police Service and Queensland Health to implement a process to destroy the drugs centrally. It would also reduce the risk to Queensland Police Service officers, who are currently transporting high-risk items unnecessarily. This unnecessary handling poses security and safety risks.



## 3. Managing forensic services

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### Introduction

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In Queensland, multiple agencies are involved in the delivery of forensic services. There are many different types of forensic services, and most require input from more than one agency. As such, it is necessary to have a coordinated and well-planned approach between agencies.

We assessed whether the Queensland Police Service and Queensland Health—including the Department of Health and the hospital and health services—manage forensic services effectively and efficiently by having:

- effective strategic management (interagency leadership, planning, communication, and decision-making)
- integrated systems
- regular monitoring and reporting on quality, efficiency, and outcomes.

The Department of Justice and Attorney-General does not provide forensic services but is responsible for the efficient administration of the courts. Timely and accurate exchange of information between the courts and forensic service providers is essential for the efficient functioning of the courts. We therefore also assessed the timeliness and accuracy of information exchanged between the Queensland Police Service, Queensland Health and the Department of Justice and Attorney-General (the agencies).

### Strategic and operational planning

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The agencies work cooperatively to deliver some forensic services, but strategic management and planning is limited and ad hoc. In part, this is because there are no formal structures to promote or facilitate strategic management and improve efficiency and outcomes. This void has meant that unnecessary delays and inefficient practices impede the delivery of forensic services in Queensland.

### Interagency leadership

The absence of structures to facilitate strategic management means the agencies manage and plan the delivery of their individual forensic services largely without considering the collective needs across the entirety of the process. This means that their planning and decision-making tends to be largely operational, narrowly focused, and constrained by individual agency priorities and limitations. It also inhibits their ability to assess the impact of individual decisions on other agencies and stakeholders (such as victims, suspects, and the courts).

### Past structures

In 2005, the Queensland Government formed the now disbanded Queensland Health Scientific Services Council (the Council). It was made up of representatives from the agencies, the Department of the Premier and Cabinet, and Queensland Treasury. The Council's role was to:

- provide advice and guidance to Queensland Health Scientific Services (now Forensic and Scientific Services)
- ensure interagency issues were addressed
- oversee implementation of Cabinet actions.



The Council was responsible for overseeing the implementation of recommendations from the 2005 *Ministerial Taskforce on the Role and Function of Forensic and Scientific Services*. The Council did not maintain records, so it is unclear how many of the 65 recommendations handed down by the ministerial taskforce were implemented.

Since the Council last met (in September 2007), there has been no committee or forum for the agencies to collectively plan for current and future demand, share innovations, and discuss important issues about the whole process.

This has meant that some historical issues remain unaddressed. For example, the ministerial taskforce identified a lack of communication between the Queensland Police Service and Queensland Health’s Forensic and Scientific Services. It highlighted that a better triage system was required to prioritise more important cases and communicate changes in the status of a case. This remains a problem and is discussed further in this chapter.

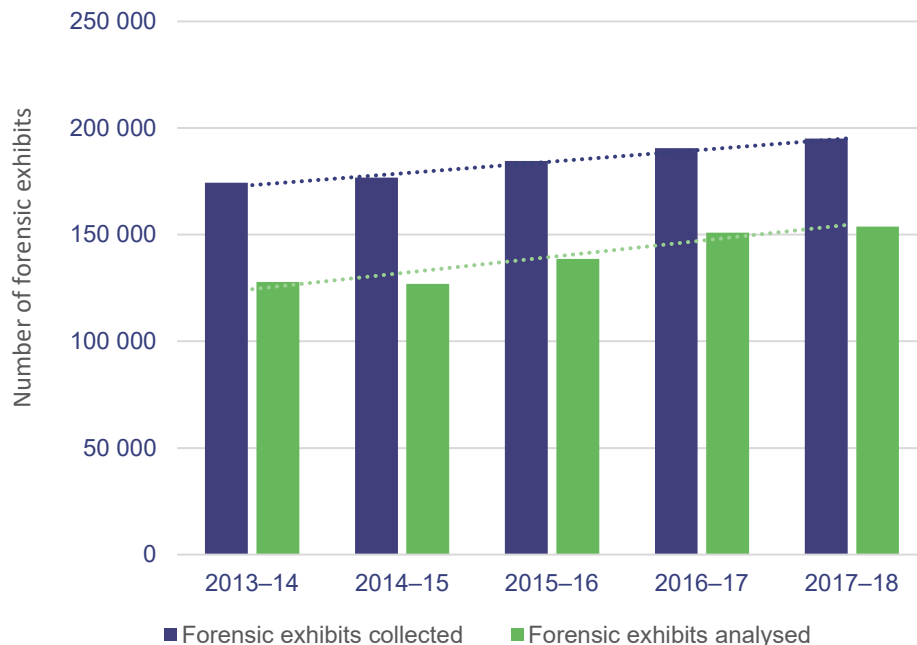
### Planning for current and future demand

The growth in Queensland’s population, coupled with advances in science and technology, means the demand for forensic services has increased and is likely to continue doing so.

Since 2013–14, the number of forensic exhibits collected and analysed by the Queensland Police Service’s Forensic Services Group and Queensland Health’s Forensic and Scientific Services has increased by 20 per cent.

Figure 3A displays the number of forensic exhibits collected and analysed between 2013–14 and 2017–18, as at 30 June 2018.

**Figure 3A**  
**Total number of forensic exhibits collected and analysed between 2013–14 and 2017–18, as at 30 June 2018**



Source: Queensland Audit Office, using data in the Forensic Register.



## Cross-agency planning

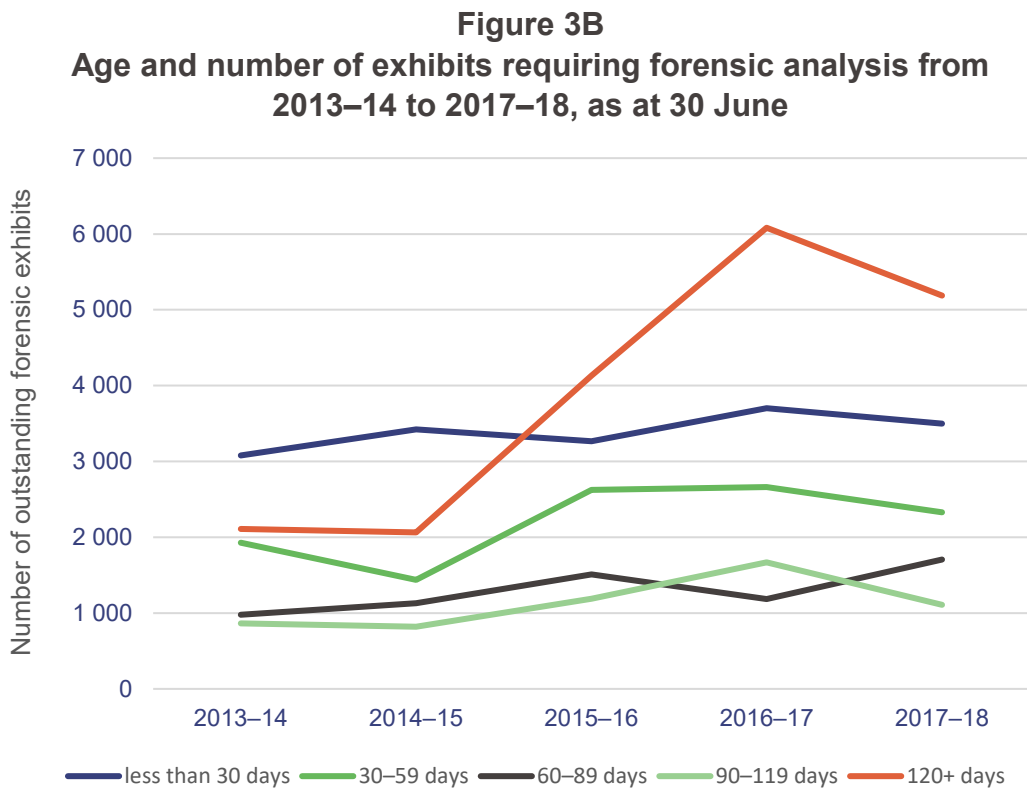
Managing the increasing demand for forensic services is necessary in order to maintain quality and timely services. Many forensic services require the collective input and effort of multiple agencies. Further complicating this is the fact that many investigations and court cases rely on more than one type of forensic service.

For example, a single crime investigation may require fingerprint, deoxyribonucleic acid (DNA), ballistics, and pathology services. To effectively and efficiently meet these challenges, agencies need to coordinate their planning, resourcing, processes, information technology systems, and priorities. At present, systemic, coordinated cross-agency planning does not occur. The cross-agency planning that does occur tends to be issue-specific, reactive, and informal.

In 2001, the Queensland Police Service and Queensland Health developed a memorandum of understanding to outline agency responsibilities for forensic services. The agencies have not updated or reviewed this memorandum of understanding since 2005. This is in part because they cannot come to agreement on service delivery expectations. For example, the agencies cannot agree on turnaround times for analysing volume crime exhibits. (Volume crimes include offences against property, such as unlawful entry, arson, theft, property damage, unlawful use of a motor vehicle, fraud, and handling stolen goods.)

## Exhibits requiring forensic analysis

The lack of planning, coordination, and resourcing, coupled with an increasing demand, has contributed to delays in finalising forensic analysis. Figure 3B displays the age of all forensic exhibits (including fingerprints, DNA, and illicit drugs) requiring analysis between 2013–14 to 2017–18, as at 30 June.



Notes: This graph displays forensic exhibits that require analysis by the Queensland Police Service’s Forensic Services Group and by Queensland Health’s Forensic and Scientific Services.

Source: Queensland Audit Office, using data in the Forensic Register.



Since 2013–14, the number and age of forensic exhibits requiring analysis has continued to increase. The number of those that were 120 days or older has increased by more than 146 per cent from 2 109 in 2013–14 to 5 188 in 2017–18.

Of the 5 188 exhibits that were 120 days or older in 2017–18, 23 per cent (1 184) required analysis by the Queensland Police Service's Forensic Services Group and 77 per cent (4 004) required analysis by Queensland Health's Forensic and Scientific Services. This split has remained consistent over the five-year period.

One of the reasons for the growing delay in delivering forensic services is resourcing relative to demand. Between 2013–14 and 2017–18, the number of exhibits submitted to the agencies for analysis per forensic scientist or expert has increased from 182 to 214.

For Forensic and Scientific Services, the number of exhibits analysed per forensic scientist has increased by 16 per cent, from 250 in 2013–14 to 291 in 2017–18. Similarly, the number of exhibits analysed per forensic scientist or expert at the Queensland Police Service's Forensic Services Group has increased by 18 per cent, from 163 to 192.

Over the same five-year period, there have not been any significant technology developments that would have increased the speed with which exhibits could be analysed per forensic scientist or expert. Important developments such as the Forensic Register, digital cameras, and new DNA profiling technology were introduced before 2013–14.

## Forensic and Scientific Services—planning and resourcing

Queensland Health's Forensic and Scientific Services has struggled to keep pace with demand for its services. Since 2013–14, its budget has remained relatively stable around \$14 million, despite an increase in demand for its services. Over this five-year period, the number of forensic exhibits its scientists analysed increased by 17 per cent, from 38 913 in 2013–14 to 45 630 in 2017–18, but its number of full-time equivalent staff only increased by one, from 156 to 157. Its vacancy rates have not been high over this period.

In forensic streams (such as DNA), the number of exhibits analysed has increased by 21 per cent, but the number of full-time equivalent staff has decreased from 65 in 2013–14 to 61 in 2017–18. There are not enough staff at Forensic and Scientific Services to meet the existing demand.

In August 2018, Forensic and Scientific Services approved its first strategic plan. The four-year plan outlines: its services; its customers; its strengths, weaknesses, opportunities and threats; and where it wants to position itself in the future.

Its strategic plan could be improved if it was supported by an assessment or modelling of its capacity to meet current and future demand. The plan could also be strengthened by making a link to the broader service delivery needs across the whole forensic services process.

Prior to August 2018, Forensic and Scientific Services relied, for planning purposes, on its operational plan, which did not adequately capture its current and future strategic priorities.

## Forensic Services Group—planning and resourcing

The Queensland Police Service's *Operations Support Command Policing Plan 2017–20* sets out the priorities, strategies, challenges, and opportunities for its Forensic Services Group. It doesn't identify weaknesses or threats, which limits its ability to identify those internal factors that require improvement. The plan could also be improved by the inclusion of more defined outcome-based performance metrics.

In 2015, the Forensic Services Group reviewed its capacity to deliver forensic services, in order to identify opportunities for improvement. This included an assessment of its workload across the various forensic streams. The assessment was internally focused, so the group didn't work with Queensland Health's Forensic and Scientific Services to consider planning and capacity more broadly across the whole forensic services process.



The review led to raft of changes, including redefining roles and responsibilities, recruiting additional staff, moving resources to areas of greater need, and changing roster practices. Some of the improvements included creating a single reception point for all forensic exhibits requiring analysis and deciding to no longer print photos of forensic exhibits.

The number of full-time equivalent staff at the Forensic Services Group has increased from 545 in 2013–14 to 563 in 2017–18. This includes forensic specialists and administrative staff across all its forensic services (including ballistics, DNA management, fingerprints, and others). The number of full-time equivalent scenes of crime officers increased from 284 to 295 between 2013–14 and 2017–18.

The number of full-time equivalent staff in the Fingerprint Bureau decreased from 78 in 2013–14 to 75 in 2017–18. Based on demand and turnaround time, the Forensic Services Group's current resourcing for fingerprints is adequate to meet demand.

The Forensic Services Group fills a coordination and monitoring role for DNA analysis, has a limited role in services associated with illicit drugs, and performs no role in forensic medical examinations. The number of full-time equivalent staff in the DNA management unit decreased from 28 in 2013–14 to 25 in 2017–18.

## Managing the cost of forensic services

The agencies do not capture, monitor, or report on government expenditure on forensic services across the end-to-end process.

Each agency captures their expenditure for analysing forensic exhibits and reporting results, but no one identifies the full expenditure across the whole forensic services process.

Based on the limited financial data we could obtain from the agencies, we calculated the total government expenditure on forensic services to be approximately \$352 million between 2013–14 and 2017–18.

Total expenditure increased from approximately \$67 million in 2013–14 to \$74 million in 2017–18. Given that the financial data does not capture some major agency expenditure (such as for collecting, transporting, and destroying forensic exhibits), it is likely that the actual expenditure is higher than this.

Since 2013–14, expenditure in Queensland Health's Forensic and Scientific Services has increased by five per cent from \$13 212 974 to \$13 854 292. Sixty-seven per cent of its expenses are driven by forensic DNA services, and 33 per cent by forensic chemistry. It does not capture accurate costing data and therefore, cannot undertake cost modelling to determine the cost of its forensic services or identify opportunities for streamlining its services.

Between 2013–14 and 2017–18, expenditure in the Queensland Police Service's Forensic Services Group increased by 11 per cent from \$54 297 339 to \$60 450 973. Its expenses increased consistently over this period. Fifty per cent of its total expenses are for forensic services delivered in the regions.

## Systems supporting forensic services

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### Forensic Register

The Forensic Register (the primary information technology system supporting the delivery of forensic services in Queensland) has enabled the Queensland Police Service and Queensland Health to record all forensic information in a central area and share it instantaneously for DNA and illicit drugs. The breadth of information captured and the ease with which information can be uploaded, shared, and reported has resulted in efficiencies across Queensland's whole forensic services process.



The Forensic Register also has security controls in place to restrict user access, and it captures a detailed audit log of all forensic information accessed and changed by staff. The Queensland Police Service monitors user access for high-profile cases, but there is no systematic audit or review of user access.

The benefits of the Forensic Register are widely recognised by stakeholders in Queensland and nationally. Over the past five years, the Australian Federal Police and three other jurisdictions have begun using it.

All information technology systems need constant refinement and maintenance. In 2018, the primary developer of the Forensic Register resigned from the Queensland Police Service, which was a risk the agency did not anticipate. Since the resignation, the number of updates to the Forensic Register has been limited. The Queensland Police Service established a temporary contract with the developer to continue maintaining the register. It is now considering outsourcing the support and development of the register and went to market in January 2019.

## System interfaces

### Interfaces and forensic analysis

Both the Queensland Police Service and Queensland Health use the Forensic Register to record and share forensic information for DNA and illicit drugs. Information about police investigations is recorded in the Queensland Police Reporting Information Management Exchange database, and information about court cases is recorded in the Department of Justice and Attorney-General's Queensland Wide Interlinked Courts database.

The Queensland Wide Interlinked Courts database electronically transfers court results, which are automatically recorded in the Queensland Police Reporting Information Management Exchange database. However, there is no mechanism in the Queensland Police Reporting Information Management Exchange database to automatically share these results with the Forensic Services Group and Forensic and Scientific Services. In the absence of this information being transferred electronically, police rely on the lead investigator for individual cases to communicate this information. This means that critical information pertaining to a police investigation or a court case may not be communicated to agencies delivering forensic services in a timely manner. For example, if an offender pleads guilty but the investigator or the court staff don't notify the relevant forensic facility quickly, unnecessary forensic analysis can occur.

Currently, staff from the Queensland Police Service and Queensland Health manually check the Queensland Wide Interlinked Courts database to determine the status of a case. These manual processes are time consuming and labour intensive. Better interface of systems, supported by appropriate notifications of a change to the status of a case, would improve this information flow.

We checked how many times forensic analyses appeared to have started unnecessarily, such as after an offender pleaded guilty, or where cases were withdrawn, struck out, or dismissed. To be conservative, we only considered cases finalised in the Magistrate Court with a single offender. (Court cases with a single offender represent 37 per cent of the 87 866 cases in the Magistrates Court over the five-year period.)

Of the 32 630 cases that matched this criteria between 2013–14 and 2017–18, we found 852 (or three per cent) where the analysis started after the court case had been finalised. If our conservative figures were extrapolated over the total population of cases, the number with unnecessary analysis could be as high as 2 636.

Of the 852 cases, 652 related to forensic analysis for DNA and illicit drugs. This is an unnecessary expense to the state and also impacts other criminal investigations that are awaiting forensic analysis.





We were advised by court staff, police, magistrates, and prosecutors that court cases are often adjourned due to delays in forensic services. In order to validate this and determine its extent, we attempted to identify in the Queensland Wide Interlinked Courts database the reason for adjournments (specifically where delayed delivery of forensic services was the main or contributing reason for the adjournment) but were unable to. This is because there can be multiple reasons for adjourning, dismissing or withdrawing a court case. The reasons can be complex and may require a level of interpretation by court administrative staff, who may not necessarily be in the court at the time the reasons are given. It can therefore be difficult for court staff to accurately and consistently capture this information in the Queensland Wide Interlinked Courts database.

## Monitoring quality and performance

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The Queensland Police Service's Forensic Services Group and Queensland Health's Forensic and Scientific Services have maintained their accreditation under the National Association of Testing Authorities. This has ensured both agencies continue to comply with relevant international and Australian standards.

Both agencies have thoroughly documented processes, procedures, and internal controls for the delivery of their forensic services. However, we found some aspects of their quality assurance processes that need to be improved.

### Queensland Police Service's controls

#### Quality assurance

The Queensland Police Service undertakes an annual audit of its forensic services, which involves the inspection of facilities, exhibits, and case files. Outcomes from these audits are recorded in the Forensic Register and reported to management.

Since 2013–14, it has identified 683 corrective actions or opportunities for improvement in the delivery of its forensic services. It reports that all these actions have been implemented except one, which was reported in 2017–18.

The number of recorded actions or improvements has remained relatively steady over the five-year period. The most common issues identified have related to exhibit management practices, that is, not checking an exhibit into a property facility in a timely manner or incorrectly attaching exhibits to police occurrence reports. Other issues included insufficient notes on case files and failure to complete equipment calibration tests in a timely manner.

We found the Queensland Police Service's quality assurance practices for its property facilities to be inconsistent and inadequate.

Police use dedicated property facilities across the state to store crime scene exhibits such as drugs, guns, and money. Some of this requires forensic analysis. In accordance with its *Operational Procedures Manual*, a commissioned officer (an officer at inspector rank or above) is required to audit every property facility under Queensland Police Service control at least every 12 months. However, the manual does not require the commissioned officer or delegate to report findings from the audit.

Only one of the eight property facilities we visited could provide evidence that it had completed the annual property audit each year. Some property facilities had completed the annual audit and reported findings to management, but these practices were inconsistent and varied across the state. One property facility had no records of the facility being audited over the past five years.

The Queensland Police Service has limited assurance that all crime scene exhibits, including forensic exhibits, are stored securely and accounted for.





## Monitoring performance

The Queensland Police Service's Forensic Services Group has developed an effective reporting function within the Forensic Register to measure performance. It can measure workload and performance at facility and individual officer levels. It can generate performance reports that include a range of performance metrics to measure effectiveness, efficiency, and workload.

For example, it can measure the average time taken to send DNA samples to Forensic and Scientific Services for analysis and the percentage of fingerprint identifications that result in the identification of an offender. Forensic coordinators and managers use these reports to measure performance. But it is not mandatory to report these results to senior management. The Queensland Police Service could strengthen its performance monitoring by reporting performance to senior management, not only of facilities but also of police districts and regions. This would enable senior managers to analyse performance across police divisions to identify performance trends.

## Forensic and Scientific Services' controls

### Quality assurance

Queensland Health's Forensic and Scientific Services also audits its forensic services. Findings from its audits are recorded in its Quality Information System and are discussed at monthly quality assurance meetings. Forensic and Scientific Services identified 246 corrective actions or opportunities for improvement in the delivery of its forensic services between 2013–14 and 2017–18. Only four of these remain outstanding, and these were reported in 2017–18.

### Monitoring performance

Forensic and Scientific Services does not adequately measure the effectiveness and efficiency of its forensic services. It has no measures to assess its effectiveness. It has recently developed an efficiency measure (turnaround time—the elapsed time from when it receives a request for analysis to when it reports the results of that analysis) but does not report on it.

Because it does not adequately measure its performance, it is ill-informed on the performance of its services and constrained in terms of managing and improving its services.



# Appendices

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# A. Full responses from agencies

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As mandated in Section 64 of the *Auditor-General Act 2009*, the Queensland Audit Office gave a copy of this report with a request for comments to Queensland Health, Queensland Police Service, and Department of Justice and Attorney-General.

The head of these agencies are responsible for the accuracy, fairness and balance of their comments.

This appendix contains their detailed responses to our audit recommendations.



## Comments received from Director-General, Queensland Health



Queensland Health

Enquiries to: Mr Michel Lok  
General Manager  
Strategy, Community and  
Scientific Support  
Telephone: 3096 2181  
File Ref: C-ECTF-19/6346

Mr Brendan Worrall  
Auditor-General  
Queensland Audit Office  
PO Box 15396  
CITY EAST QLD 4002

Email: [gao@gao.qld.gov.au](mailto:gao@gao.qld.gov.au)

Dear Mr Worrall

Thank you for your letter dated 27 May 2019 regarding the proposed report to Parliament on the performance audit of forensic services.

The Department of Health (the Department) acknowledges the report's conclusion in that forensic services are mostly effective in supporting the investigation of crime and prosecution of offenders and that both organisations maintained National Association of Testing Authorities accreditation of their laboratories to meet international and Australian quality standards. The Department concurs that improvements can be made to improve the efficiency of forensic services delivery.

Attachment 1 provides the Department's comments on the proposed report. It also indicates if the Department agrees with each of the recommendations.

The Department is working closely with the Queensland Police Service to establish a robust governance structure for forensic services through a Memorandum of Understanding. The Memorandum of Understanding will establish performance standards for analytical testing services and strengthen collaboration and communication between the two agencies.

The Department is also well advanced in designing and implementing sexual assault reforms that will better support victims of sexual crime and improve access to forensic examinations across the State. A Health Service Directive to give effect to the reforms has been released for consultation with a planned commencement date of 1 July 2019.

Should you require any further information, the Department of Health's contact is Mr Michel Lok, General Manager Strategy, Community and Scientific Support, on telephone 3096 2181.

Yours sincerely

A handwritten signature in blue ink that reads "M Walsh".

Michael Walsh  
Director-General  
14 / 06 / 2019

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## Responses to recommendations

### Queensland Health

#### *Delivering Forensic Services*

Recommendation	Agree/ Disagree	Timeframe for implementation (Quarter and year)	Additional comments
<b>We recommend that the Queensland Police Service and Queensland Health:</b>			
1. implement a governance structure to effectively coordinate and provide accountability for managing forensic services across agencies. The terms of reference should include: <ul style="list-style-type: none"> <li>• identifying current and future demand and the required resources for forensic services</li> <li>• establishing processes to capture the extent and impact of delays from forensic services, including the impact on courts</li> <li>• implementing a performance framework to measure and report on the effectiveness and efficiency of forensic services. This should include ensuring each agency has appropriate performance targets</li> <li>• ongoing consultation with the Department of Justice and Attorney-General about the delivery of forensic services and impact on the justice system. (Chapters 2 and 3)</li> </ul>	Agree	Dec 2019	A Memorandum of Understanding between the Department of Health and the Queensland Police Service is under development to establish a governance structure to oversight the effective and efficient delivery of analytical services and promote collaboration and cooperation between agencies.
<b>We recommend that the Queensland Police Service and Queensland Health:</b>			
2. implement a process to coordinate and manage collecting, transporting, prioritising, and destroying illicit drugs. The revised process should reduce the risks to security, occupational health and safety and the cost of unnecessary handling. (Chapter 2)	Agree	Dec 2020	Queensland Health will work with Queensland Police Service to review processes for the collection, transport, prioritising and destruction of illicit drugs and implement improvements identified.

Recommendation	Agree/ Disagree	Timeframe for implementation (Quarter and year)	Additional comments
<b>We recommend that the Department of Health, in collaboration with the Queensland Police Service and all hospital and health services:</b>			
<p>4. continue to develop and deliver reforms to forensic medical examinations to improve services to victims, including:</p> <ul style="list-style-type: none"> <li>• implementing service agreements to deliver forensic medical examinations</li> <li>• developing strategies to recruit and retain appropriately trained physicians and nurses for forensic medical examinations across the state</li> <li>• implementing a range of reporting pathways and supporting processes for all victims requiring forensic medical examinations</li> <li>• improving clinician's awareness of reporting options for victims of sexual assault</li> <li>• improving the availability of, and access to, paediatric services for child victims of sexual assault</li> <li>• establishing local inter-agency support services that better integrate clinicians, police and non-government services (Chapter 2)</li> </ul>	Agree	Dec 2019	<p>Queensland Health will continue to contribute to the finalisation of the Response to sexual assault - <i>Queensland Government Interagency Guidelines for Responding to People who have Experienced Sexual Assault</i> and will develop a communication strategy to support Hospital and Health Services (HHSs) implement the guidelines at a local level.</p> <p>Queensland Health has commenced consultation with HHSs on a Health Service Directive to establish mandatory sexual assault service standards.</p> <p>Funding and service accountabilities to support implementation of the reforms have been included in HHS Service Agreements for 2019-20.</p> <p>A nursing education program is in development to expand the number of clinicians able to conduct assault examinations.</p> <p>Queensland Health is working in collaboration with Queensland Police and HHSs to ensure patients disclosing sexual assault are supported in deciding to have a forensic examination or whether to defer police investigations if they choose.</p>
<b>We recommend that the Queensland Police Service, Queensland Health and the Department of Justice and Attorney-General:</b>			
<p>5. improve the prioritisation and timely sharing of case information between agencies. This should include establishing systems and processes (and where possible automation) to ensure there is real-time notification of changes in priority or status to avoid unnecessary analysis. (Chapter 3)</p>	Agree	Dec 2020	<p>Queensland Health will work collaboratively with the Queensland Police Service and the Department of Justice and Attorney-General to identify options to improve information sharing of case information.</p>

## Comments received from Commissioner, Queensland Police Service



### QUEENSLAND POLICE SERVICE

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Our Ref:

00019/1729274

Your Ref:

14 June 2019

Mr Brendan Worrall  
Auditor-General  
Queensland Audit Office  
PO Box 15396  
CITY EAST QLD 4002

Dear Mr Worrall

*Brendan*

Thank you for your correspondence dated 27 May 2019 regarding the proposed report to parliament in respect of the audit of Forensic Services in Queensland.

I can confirm that the Queensland Police Service accepts the findings of the Queensland Audit Office.

Per my previous correspondence, and our discussion on 12 June, I am able to advise that many of the issues identified in the course of the audit are already being addressed by the appropriate areas of the Service. Further detail regarding the action which the Queensland Police Service is, and will be, taking is provided in the attached response document.

I appreciate this opportunity for the Service to respond to the findings of the Queensland Audit Office and thank you for your organisation's ongoing assistance in guiding improved service delivery by the QPS.

Yours sincerely

*Ian Stewart*  
IAN STEWART  
COMMISSIONER

QUEENSLAND POLICE SERVICE

## Responses to recommendations



### **Queensland Police Service**

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#### *Delivering Forensic Services*

Response to recommendations provided by Superintendent, Forensic Services, Qld Police Service on 13 June 2019.





Recommendation	Agree/ Disagree	Timeframe for implementation (Quarter and year)	Additional comments
<p><b>We recommend that the Queensland Police Service and Queensland Health:</b></p> <p>1. implement a governance structure to effectively coordinate and provide accountability for managing forensic services across agencies. The terms of reference should include:</p> <ul style="list-style-type: none"> <li>• identifying current and future demand and the required resources for forensic services</li> <li>• establishing processes to capture the extent and impact of delays from forensic services, including the impact on courts</li> <li>• implementing a performance framework to measure and report on the effectiveness and efficiency of forensic services. This should include ensuring each agency has appropriate performance targets</li> <li>• ongoing consultation with the Department of Justice and Attorney-General about the delivery of forensic services and impact on the justice system. (Chapter 2 and 3)</li> </ul>	Agree	December 2019	<p>The QPS and Queensland Health Forensic and Scientific Services have a long history of collaboration, coordination and strategic planning in respect of the management and delivery of forensic services in Queensland.</p> <p>The recommendation is accepted by the QPS and development of an MOU between QPS and Queensland Health that will address all aspects of the recommendation, is underway.</p>
<p><b>We recommend that the Queensland Police Service and Queensland Health:</b></p> <p>2. implement a process to coordinate and manage collecting, transporting, prioritising, and destroying illicit drugs. The revised process should reduce the risks to security, occupational health and safety and the cost of unnecessary handling. (Chapter 2)</p>	Agree	December 2020	<p>A review will be conducted to address the efficiency and effectiveness of all aspects of illicit drug management across agencies.</p>

Recommendation	Agree/ Disagree	Timeframe for implementation (Quarter and year)	Additional comments
<p><b>We recommend that the Queensland Police Service:</b></p> <p>3. improves its quality assurance processes and practices to ensure all police property facilities conduct an annual audit of all property and exhibits. These audits should be standardised and documented, with findings reported to senior management. (Chapter 3)</p>	<p>Agree</p>	<p>Third Quarter 2020</p>	<p>The QPS Forensic Services Group has short-term exhibit storage facilities only which must comply with strict evidence handling requirements to maintain NATA accreditation. Compliance audits have provided third-party assurance that evidence with QPS forensic facilities is stored securely and accounted for and these facilities are not those at issue in the audit report.</p> <p>Retention or disposal practices for exhibits following testing have no impact on forensic results</p> <p>The QPS is currently addressing this recommendation by working in partnership with PSBA Internal Audit to conduct a review of property points within the scope of the recommendation, and all associated audit procedures, policies and guidance. Audit of these property points is a high priority on QPS and PSBA 2019/20 audit plans and has been elevated to top priority on the schedule formally commencing in July 2019.</p> <p>Additionally, there will be a review of the current QPS policies and management tools available to QPS managers to better define responsibilities and processes in respect of audit processes for these property points.</p>



Recommendation	Agree/ Disagree	Timeframe for implementation (Quarter and year)	Additional comments
<p><b>We recommend that the Department of Health, in collaboration with the Queensland Police Service and all hospital and health services:</b></p> <p>4. continue to deliver the planned reforms to forensic medical examinations, including:</p> <ul style="list-style-type: none"> <li>• implementing service agreements to deliver forensic medical examinations</li> <li>• developing strategies to recruit and retain appropriately trained physicians and nurses for forensic medical examinations across the state</li> <li>• implementing a range of reporting pathways and supporting processes for victims requiring forensic medical examinations</li> <li>• improving clinician’s awareness of reporting options for victims of sexual assault</li> <li>• improving the availability of, and access to, paediatric services for child victims of sexual assault</li> <li>• establishing local inter-agency support services which better integrate clinicians, police and non-government services (Chapter 2)</li> </ul>	Agree	December 2019	<p>Queensland Health and the QPS are currently negotiating alternative reporting options for victims of sexual assaults. While some other jurisdictions can undertake forensic medical examinations without the initial involvement of police, this is not proposed in Queensland. Various reporting options will, however, be available to a victim of sexual assault like those in other jurisdictions. Complainants will have the ability to undergo forensic medical examinations knowing they have choices available to them in respect of how they wish an investigation to proceed.</p> <p>The QPS will ensure the wishes of the victim are respected as outlined in the Queensland Government Interagency Guidelines for responding to people who have experienced sexual assault (2014) and <i>Victims of Crime Assistance Act 2009</i>.</p>
<p><b>We recommend that the Queensland Police Service, Queensland Health and the Department of Justice and Attorney-General:</b></p> <p>5. improve the prioritisation and timely sharing of case information between agencies. This should include establishing systems and processes (and where possible automation) to ensure there is real-time notification of changes in priority or status to avoid unnecessary analysis. (Chapter 3)</p>	Agree	December 2020	<p>Meetings with Queensland Health and the Department of Justice and Attorney-General have already occurred to address this recommendation and a review will occur to identify solutions.</p> <p>The focus of this review will be upon the management and sharing of information in respect of DNA and illicit drugs.</p>

## Comments received from Director-General, Department of Justice and Attorney-General



Department of Justice and Attorney-General  
Office of the Director-General

In reply please quote: 521301/6, 4822433

Your reference: 9173P

4 JUN 2019

Mr Brendan Worrall  
Auditor-General  
Queensland Audit Office  
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Dear Mr Worrall

Thank you for your letter dated 27 May 2019 enclosing a copy of the Queensland Audit Office (QAO) proposed report, *Delivering Forensic Services*.

I welcome the findings of this report, which highlight the importance of agencies collaborating effectively to deliver forensic services across Queensland.

The Department of Justice and Attorney-General (DJAG) has a strong commitment to ensuring that court and prosecution services are delivered within appropriate timeframes for our clients. As identified within your report, opportunities exist to improve processes for the prioritisation of forensic testing to reduce unnecessary delays with court proceedings.

We look forward to progressing this body of work collaboratively with our partner agencies, Queensland Health and the Queensland Police Service. This includes considering process and system improvements to more effectively support the prioritisation and timely sharing of case information across agencies.

As requested, please find **enclosed** the completed table indicating our commitment to deliver this recommendation.

Should you require further information regarding this matter, please contact Ms Susan Beattie, Project Director, Justice Services, on [redacted] or at [redacted]

Yours sincerely

David Mackie  
Director-General

Enc.

cc Mr Darren Brown  
Director  
Queensland Audit Office  
PO Box 15396  
CITY EAST QLD 4002



## Response to recommendation



### Department of Justice and Attorney-General

#### *Delivering Forensic Services*

Recommendation	Agree/ Disagree	Timeframe for implementation (Quarter and year)	Additional comments
<p><b>We recommend that the Queensland Police Service, Queensland Health and the Department of Justice and Attorney-General:</b></p> <p>5. improve the prioritisation and timely sharing of case information between agencies. This should include establishing systems and processes (and where possible automation) to ensure there is real-time notification of changes in priority or status to avoid unnecessary analysis. (Chapter 3)</p>	Agree	Q4, 2020 (December, 2020)	The Department of Justice and Attorney-General (DJAG) is committed to working in partnership with QPS and QH to undertake a review of current processes, and explore opportunities for system enhancements.



## B. Performance engagement

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This audit has been performed in accordance with the Standard on Assurance Engagements ASAE 3500 *Performance Engagements*, issued by the Auditing and Assurance Standards Board. This standard establishes mandatory requirements, and provides explanatory guidance, for undertaking and reporting on performance engagements.

The conclusions in our report provide reasonable assurance that the objectives of our audit have been achieved. Our objectives and criteria are set out below.

### Audit context

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In February 2018, the Auditor-General commenced a performance audit on forensic services, in accordance with Section 37A of the *Auditor-General Act 2009*. As a result of the inquiries and consultation we undertook during the planning phase for the audit, the Auditor-General decided to split the audit program into two separate audits:

- Coronial services—to assess whether agencies are effective and efficient in supporting the coroner in investigating and helping to prevent deaths.
- Forensic services—to assess whether public sector entities provide forensic services effectively and efficiently.

On 3 April 2018, the Auditor-General wrote to the Police Commissioner and the directors-general of the Department of Health and the Department of Justice and Attorney-General advising them of his decision.

The coronial services audit was tabled in parliament in October 2018.

This report contains the results of the second audit on forensic services.

### Audit objective

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The objective of the audit was to assess whether agencies deliver forensic services efficiently and effectively in order to investigate crime and prosecute offenders.

To assess this objective, we used three criteria. We assessed whether entities:

- collect and handle forensic material in accordance with relevant standards
- perform quality analysis of forensic material and report results in a timely manner
- plan, monitor, and report effectively on performance across the end-to-end process.

### Entities subject to this audit

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We selected the three agencies that are responsible for delivering forensic services:

- Department of Justice and Attorney-General
- Queensland Health
- Queensland Police Service.



## Audit approach

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We conducted this audit in accordance with the *Auditor-General of Queensland Auditing Standards*, which incorporate the *Australian Auditing and Assurance Standards*.

### Field interviews

We conducted interviews with key people, staff, and stakeholders from across the criminal justice system. This included, but was not limited to:

- interviews with staff from the Queensland Police Service, Queensland Health, and the Department of Justice and Attorney-General, including
  - Queensland Police Service's Superintendent of Forensic Services Group, Detective Superintendent of Child Abuse and Sexual Crime Group, inspectors, investigators, prosecutors, forensic managers, forensic coordinators, scenes of crime officers, fingerprint experts, scientists, quality manager, senior sergeants, sergeants, and property officers
  - Forensic and Scientific Services' Executive Director, managing scientists, scientists, chief chemist, quality manager, clinicians in hospital and health services, and the director of the Clinical Forensic Medical Unit
  - Department of Justice and Attorney-General's Director of Reform and Support Services; Manager of Courts Performance and Reporting Unit; and Deputy Director, Public Prosecutions
- consultation with
  - National Association of Testing Authorities
  - Crime and Corruption Commission
  - Queensland Law Society
  - Legal Aid Queensland
  - judicial officers.

### Document review

We obtained and reviewed relevant documents and files from the agencies involved in the audit. We reviewed relevant legislation, organisational reviews, project reports, performance reports, internal guidelines, policies, case files, and correspondence.

### Data analysis

We obtained data for the period between 2013–14 and 2017–18 from all three agencies, specifically from:

- Department of Health's Forensic and Scientific Services Auslab database
- Department of Justice and Attorney-General's Queensland Wide Interlinked Courts database
- Queensland Police Service's Queensland Police Reporting Information Management Exchange database and Forensic Register.

Some of the analysis we performed included analysing the time taken to collect, transport, analyse, report, and destroy forensic exhibits; and identifying the number and age of forensic exhibits requiring analysis that are outstanding (that is, have not been dealt with).





## C. Types of forensic services

This table captures the different types of forensic services provided by the Queensland Police Service and Queensland Health, including those discussed in this report (forensic medical examinations, fingerprints, DNA, and the analysis of illicit drugs).

Agency	Forensic service	Description
<b>Queensland Police Service</b> Forensic Services Group	Analytical	Analyse and compare glass, paint, and polymer; analyse fire debris for ignitable liquid residues; and analyse gun shot and capsicum residue.
	Ballistics	Examine and reconstruct crime scenes with firearms; and compare and identify firearms and toolmarks.
	Document examination	Examine and compare handwriting, signatures, and graffiti to identify the author.
	Fingerprints	Examine and compare fingerprints to identify a person's identity.
	Major crime scene	Examine and compare major crime scenes, examine fire and explosives, compare marks (shoe soles and tyres), and analyse blood stains.
	Photographic and electronic recording	Reformat and enhance retrieved data for investigation or court purposes, such as data from closed circuit television (CCTV) or security surveillance systems.
	Scenes of crime	Manage crime scenes, collect forensic evidence, and conduct and report on forensic examinations.
	Vehicle inspection	Examine vehicles to identify alterations, defects, failures, or causes of accidents.
<b>Queensland Health</b> Forensic and Scientific Services and hospital and health services	Forensic medical	Examine and interpret medical evidence, classify injuries, and identify the cause and outcome.
	Forensic pathology	Examine and dissect a body after death to determine the cause and circumstances of death.
	Forensic toxicology	Examine and detect drug, alcohol, poisons, and other substances in a deceased person.
	Forensic histology	Examine microscopic tissue to identify changes in the deceased's tissue resulting from natural disease, trauma, or lifestyle habits.
	Forensic chemistry	Examine and test illicit drugs to identify the type, quantity, and purity.
	Forensic DNA and biology	Examine and test biological evidence from a crime scene to identify a DNA profile.

Source: Queensland Audit Office.



## Audit and report cost

This audit and report cost \$373 000 to produce.

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