

Meeting	Authority Meeting
Date	20 May 2020
Location	Video-conference
Title of Paper	Forensic Services Performance Report Quarter 4 & Benefits Realisation
Presented By	Tom Nelson, Director of Forensic Services
Recommendation to Members	For Discussion
Appendix Attached	Business Performance Report Q4 Business Benefits Report

PURPOSE

To present Forensic Services Performance Report, Q4 2019/20 and the FS Business Benefits for the 2018-20 Forensic 2026 Strategy for SPA Board consideration.

This paper is presented in line with;

- The Scottish Police Authority Scheme of Delegation

This paper is for discussion.

1. BACKGROUND

- 1.1 The Forensic Services Business Performance Report for Q4 2019/20 and Business Benefits report is presented.
- 1.2 This reports captures activity conducted across SPA Forensic Services. This evidence will also support the content of the Authority's quarterly Strategic Police Plan Delivery Review and the Annual Review of Policing 2019/20.
- 1.4 The report demonstrates SPA Forensic Services delivery and benefit delivery over the last year through the following components:
 - Progress updates on Forensic Service commitments laid out in the annual business plan
 - Qualitative performance data
 - Evidence of service initiatives and improvements
 - Benefits achieved across the last 2 years of strategic delivery

2 FINANCIAL IMPLICATIONS

- 2.1 The financial implications are noted in the report.

3 PERSONNEL IMPLICATIONS

- 3.1 There are no direct personnel implications associated with this paper.

4 LEGAL IMPLICATIONS

- 4.1 There are no direct legal implications associated with this paper.

5 REPUTATIONAL IMPLICATIONS

- 5.1 There are no direct reputational implications associated with this paper.

6 SOCIAL IMPLICATIONS

- 6.1 There are no direct social implications associated with this paper.

7 COMMUNITY IMPACT

7.1 There are no direct community impact implications associated with this paper.

8 EQUALITIES IMPLICATIONS

8.1 There are no direct equality implications associated with this paper.

9 ENVIRONMENT IMPLICATIONS

9.1 There are no direct environmental implications associated with this paper.

Recommendations

Members are asked to note the content of the Q4, 2019/20 Performance Report and Business Benefit Report.

Scottish Police Authority

Forensic Services

Performance Report

Quarter 4 2019/20

*For presentation to
SPA Board*

20 May 2020

Performance

- Forensic Services have performed well over the last year and taken a significant step forward in achieving the objectives set out in the organisational strategy. Casework aging has fallen, and over many business areas output is higher with workloads reducing. Considerable effort has been put into the reduction of active workload by staff although demand, particularly in drugs work, continues to be high.
- The recent impact of the Coronavirus outbreak has seen demand reduce. Changing demand levels and ensuring appropriate staffing levels are maintained will be continually monitored over the coming weeks and months.
- There continues to be significant input to major crime cases and demand for this input. All areas of the organisation contributing to this requirement.

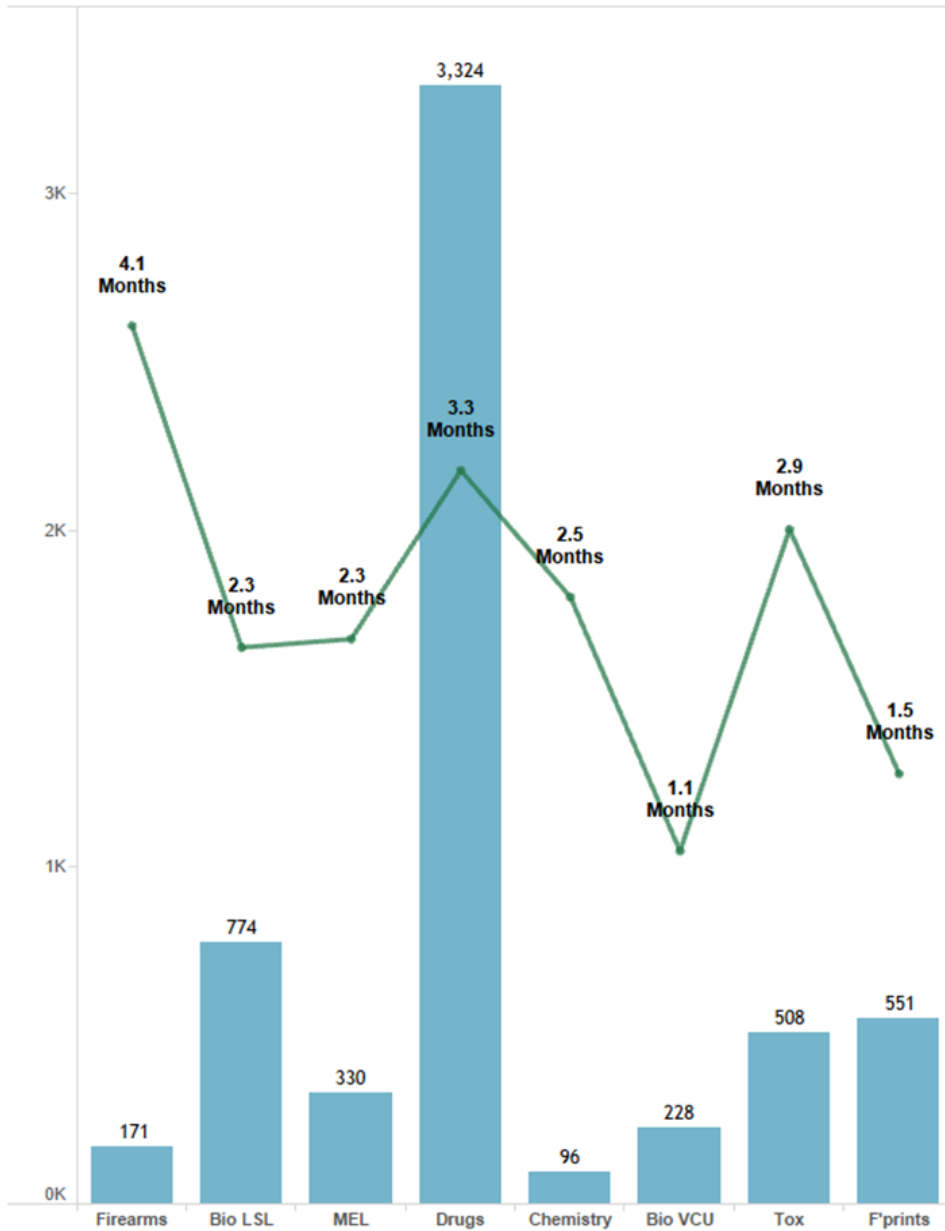
Engagement

- Forensic Services have been working with Police Scotland in taking forward the response to the Coronavirus outbreak. The forensic examination of crime scenes and evidence is continuing as agreed with Police Scotland and COPFS. Staff are working using additional personal protective equipment (PPE) when this is needed.
- As with other organisations Forensic Services are carefully managing stocks of PPE and are supported by Police Scotland to ensure stock replenishment can continue to support operational delivery.
- During the last quarter there was extensive engagement with staff to update them on the work which has been progressed in relation to the new operating model. This has developed a clear understanding on the current status of the project and how it will progress over the coming months.

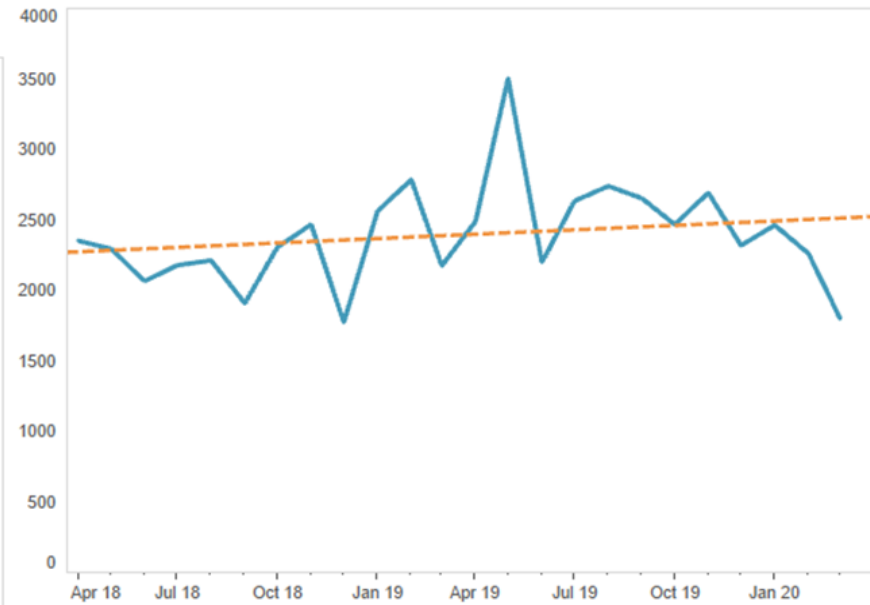
Business Update

- Operational improvement projects are ongoing and delivering value supporting the wider change agenda. Some projects have been impacted by the Coronavirus outbreak and delivery dates adjusted accordingly.
- Workload reduction projects have had a positive impact in reducing casework, this has not necessary resulted in reduced caseload in all areas due to demand, however output has increased.
- Capital expenditure for the year has been completed with all funds spent in the year.
- Coronavirus outbreak planning has been extensive across the business to ensure operational delivery is maintained and staff are safe. The initial planning work has been completed and new service delivery plans are now in place and working well.

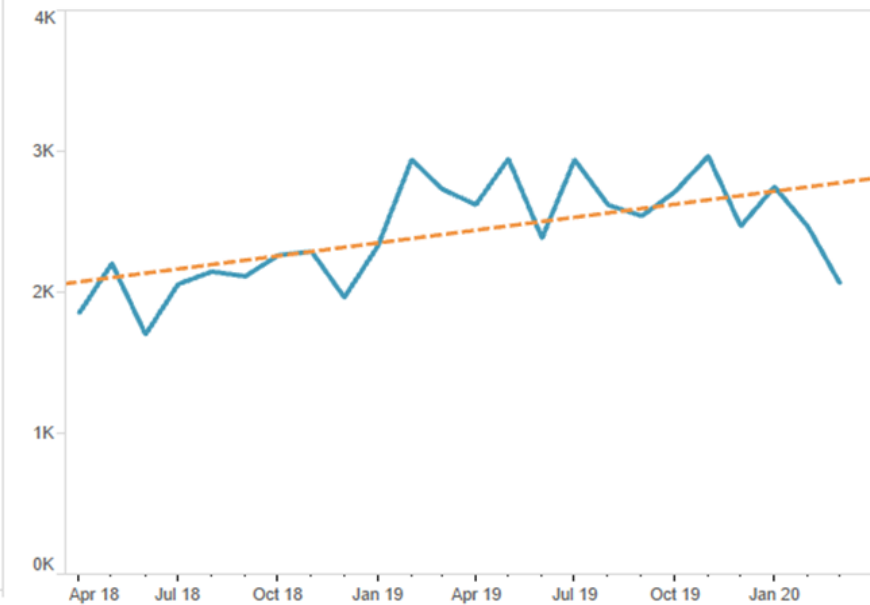
Forensic Services - Laboratory Casework Open Cases - end Q4 19-20 with average age



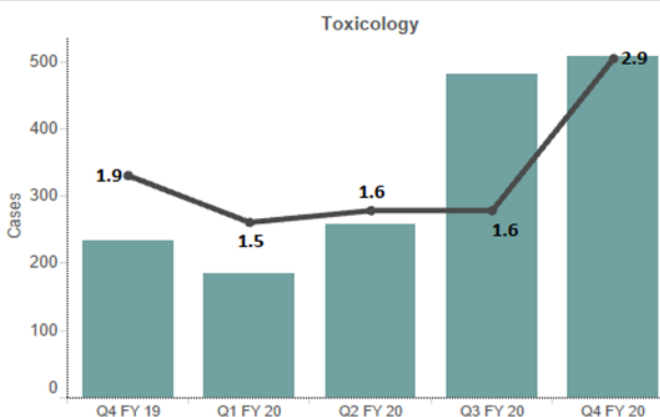
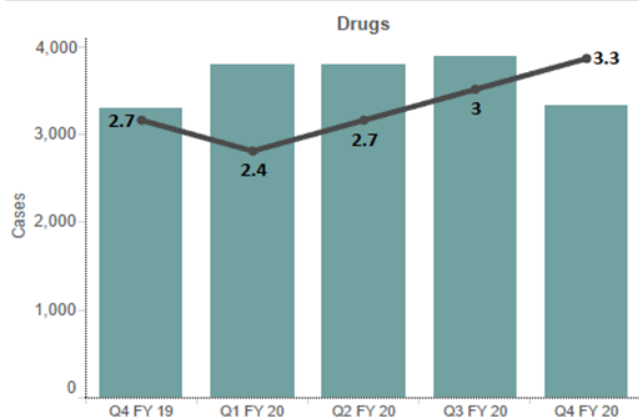
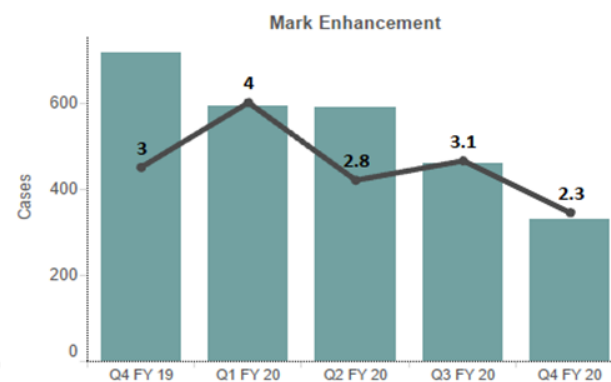
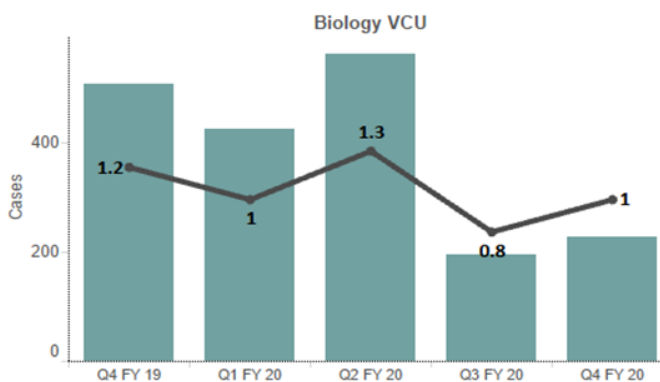
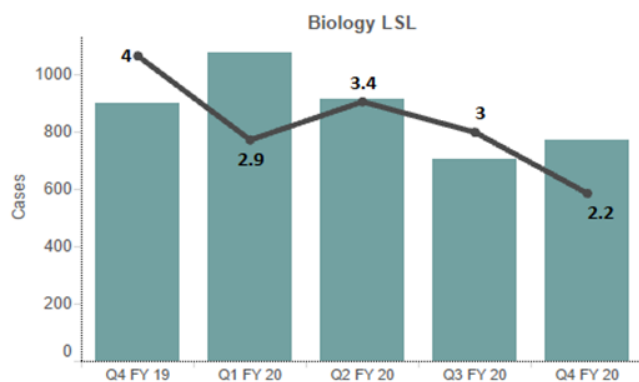
Casework Demand previous 2 years



Casework Output previous 2 years

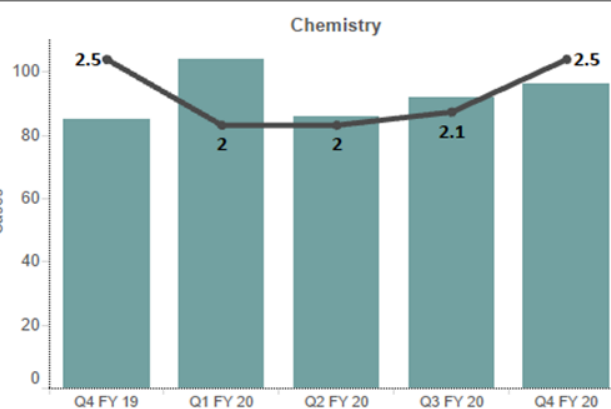
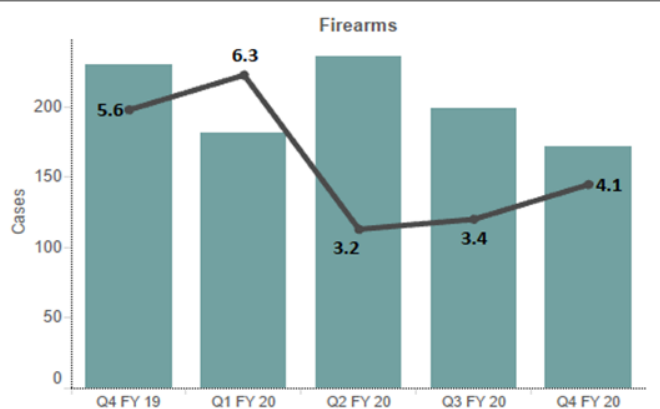
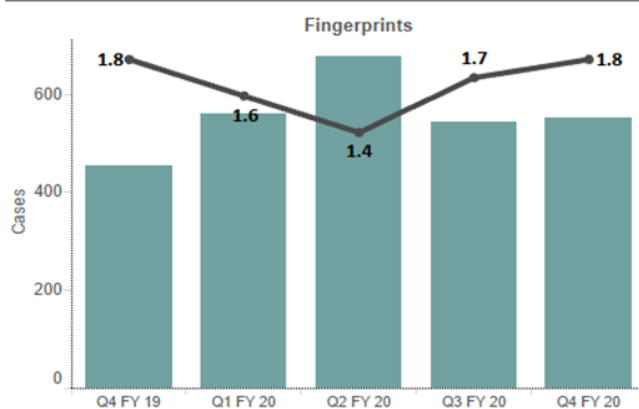


Forensic Services - Laboratory Caseload



Case numbers are shown for each area with the average month age. The trend of workload reduction and positive ageing is evident across most areas. Where demands are higher this position varies:

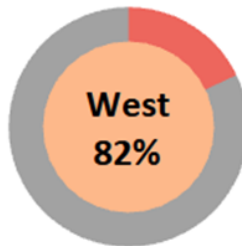
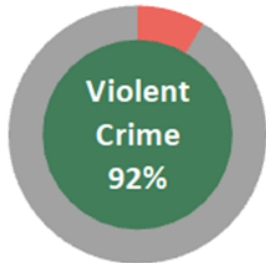
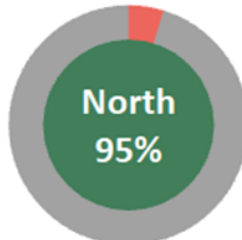
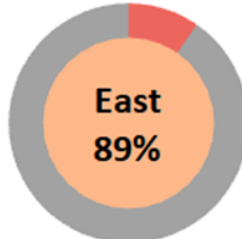
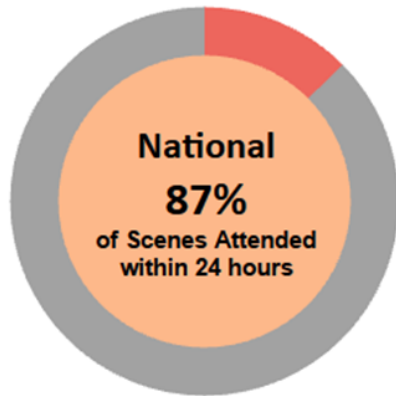
- Drugs, continuing high demand makes reducing workload and ageing challenging
- Toxicology has seen an increase in Drug Driving cases in the last 2 quarters.



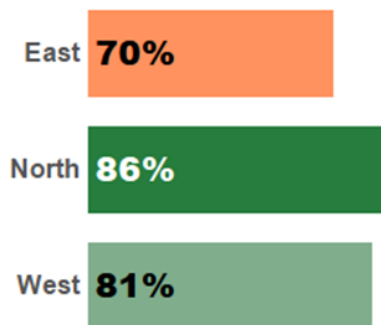
Forensic Services - Scene Examination Unit

Quarterly Performance Q4 19-20

Timeliness Scenes attended within 24hrs of request
National target 90% within 24 hours



Evidence Recovery Rates
Non-Photographic scenes resulting in an item recovery

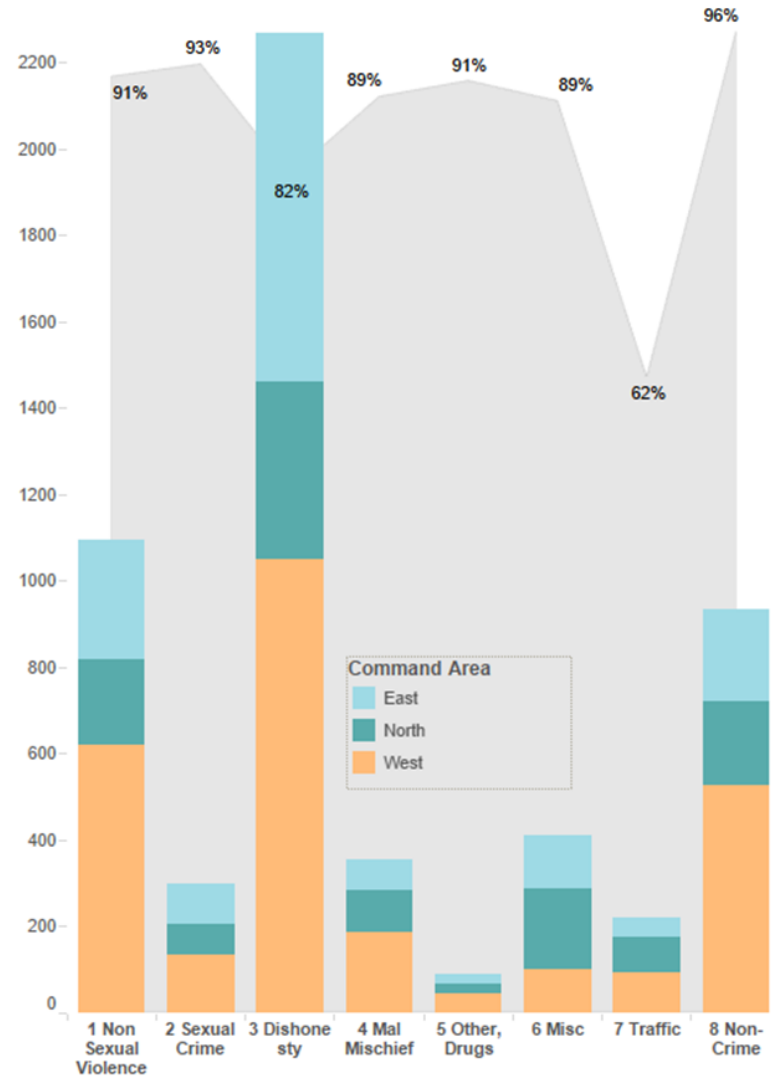


5,528 Scenes Attended Last Quarter

24,116 Scenes Attended for the 19-20 Year

27,594 Scenes Attended for the 18-19 Year

Crime Group Number of Scenes Attended / % within 24hrs of request



Quality Quarter 4 2019/2020

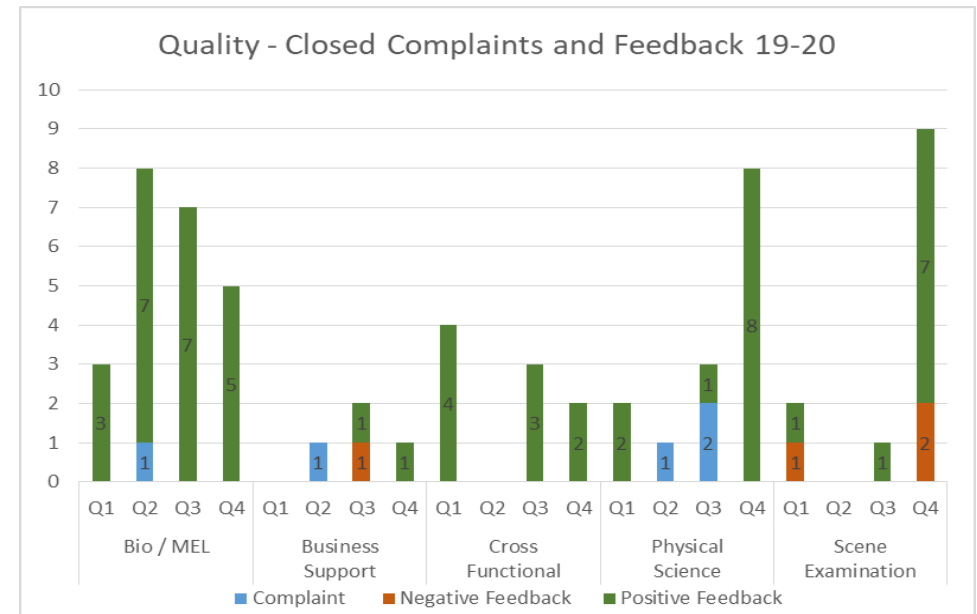
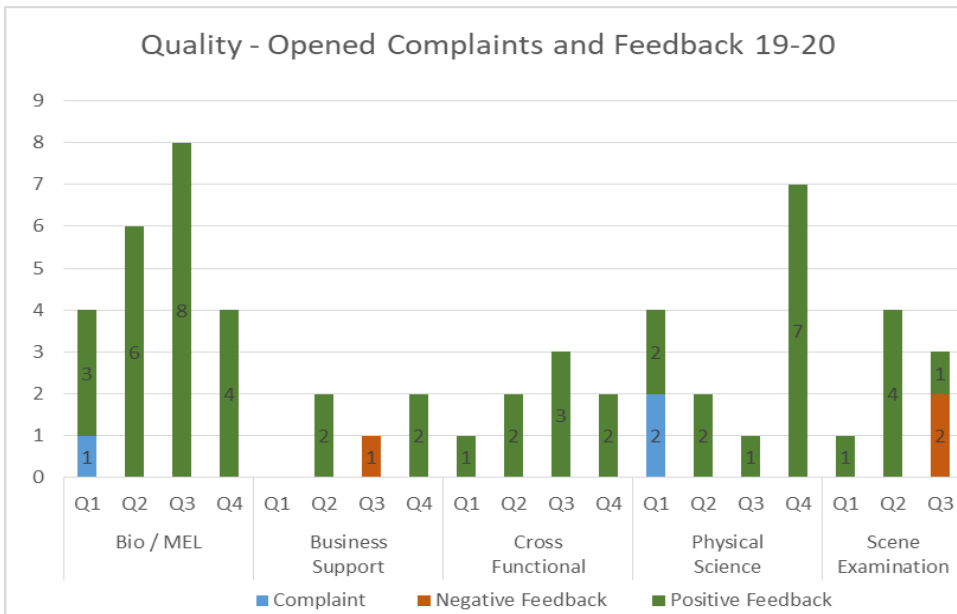
Current Standard

- Reaccreditation of the ISO 17025 was received on 31 March 2020 marking the start of the 22nd year of being an accredited body.
- This re-accreditation was granted following UKAS's review of evidence submitted to substantiate the closure of findings raised during the 2019 UKAS assessment programme.
- Forensic Services have also now transitioned from the 2005 to the revised 2017 ISO 17025 Standard. This is key to continued accreditation compliance.

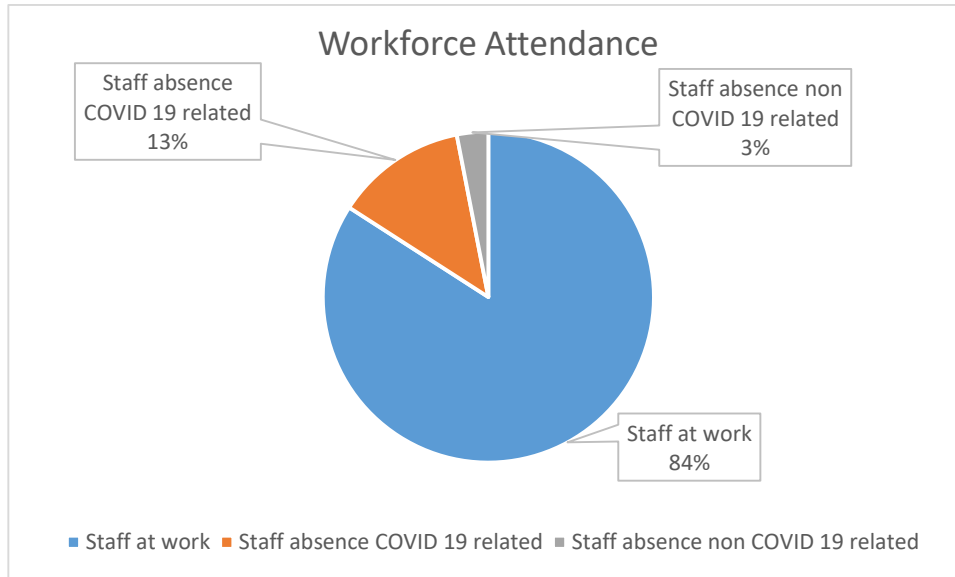


Extension to Scope

- Extensions to scope have also now been received for 5 further areas of service, being enhancements of:
 - 3 areas in Biology
 - 1 in Drugs
 - 1 in Toxicology
- The planned Extension to Scope for accreditation to ISO 17020 in Scene Examination was due to commence this month however this now on hold. This is due to the rescheduling of UKAS inspection visits as a consequence of the Coronavirus outbreak.

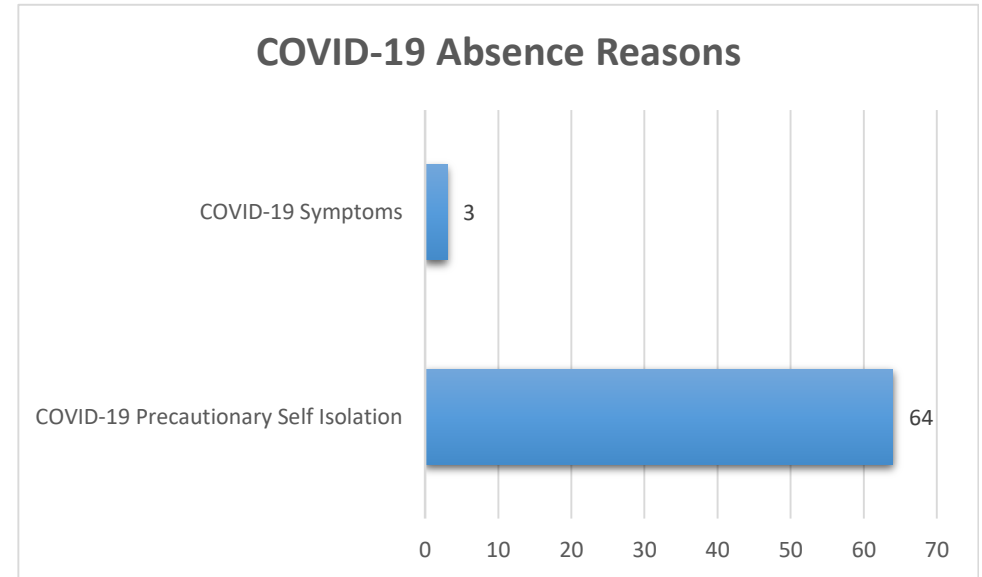
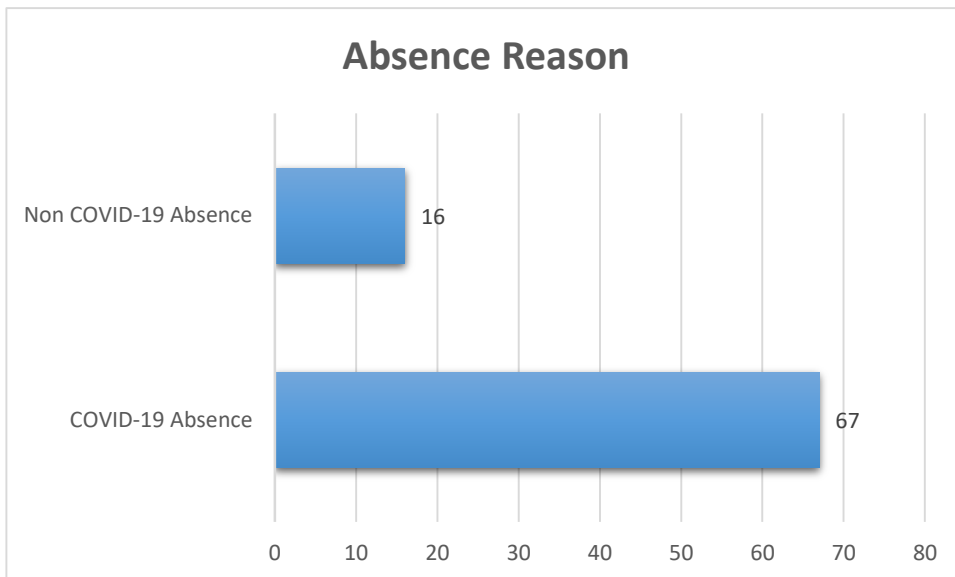


People Report at 31 March 2020

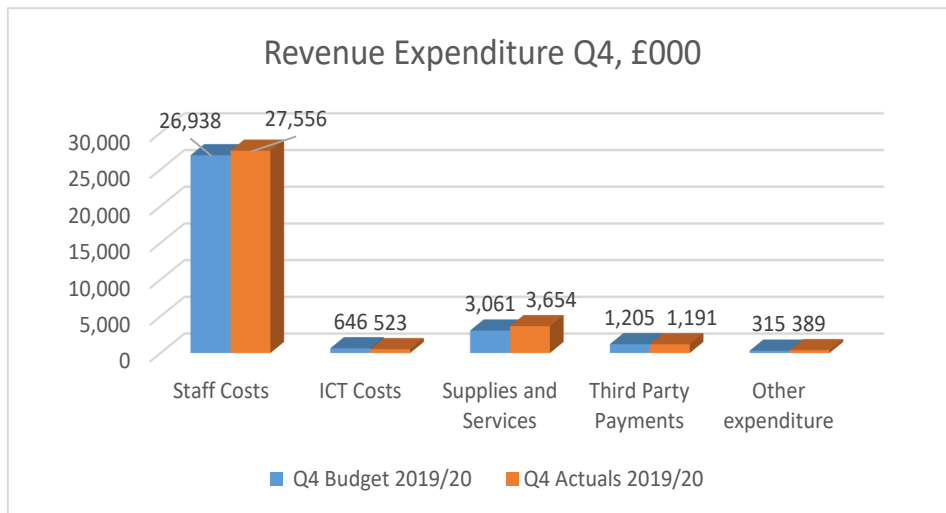


Staff absence figures across the organisation are being monitored daily to ensure operational delivery is maintained for Police Scotland and COPFS.

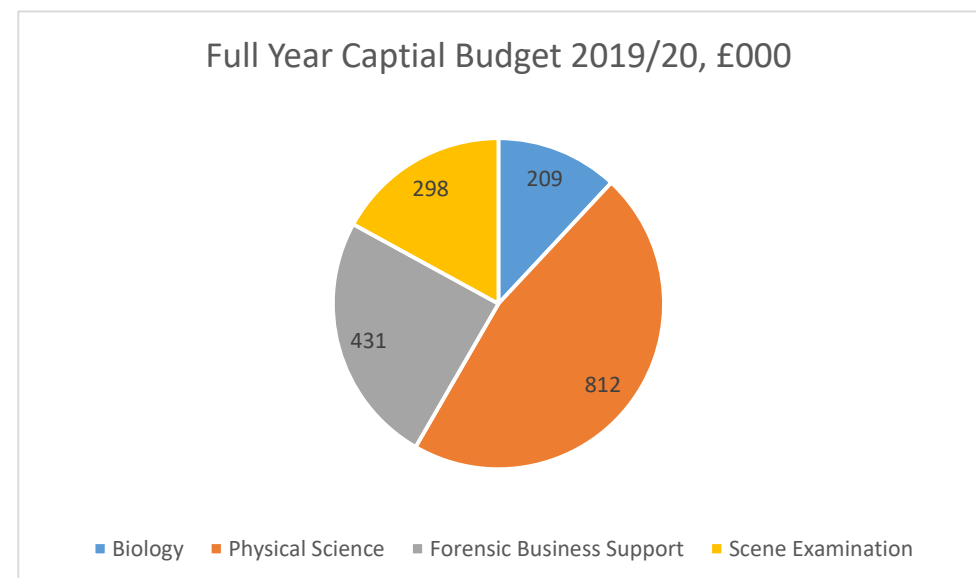
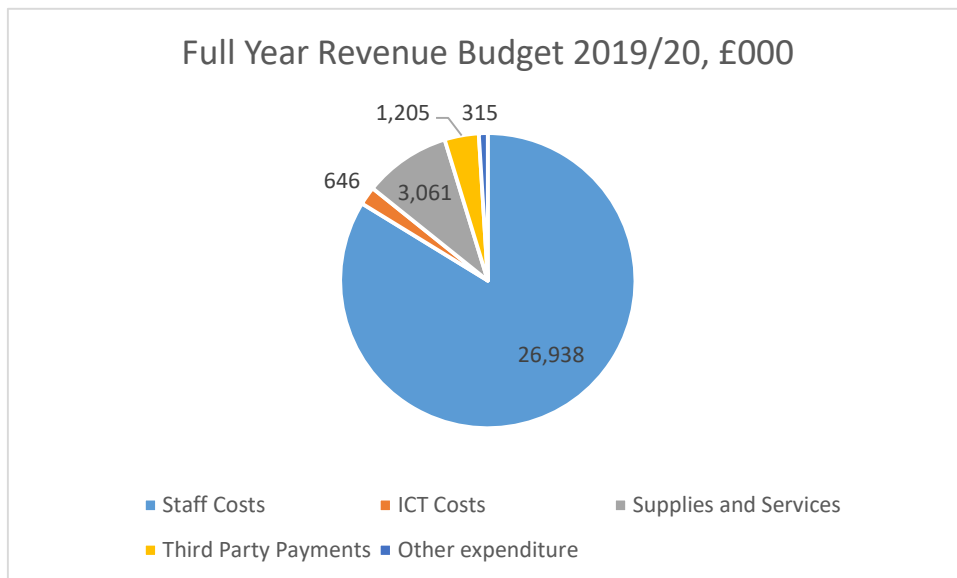
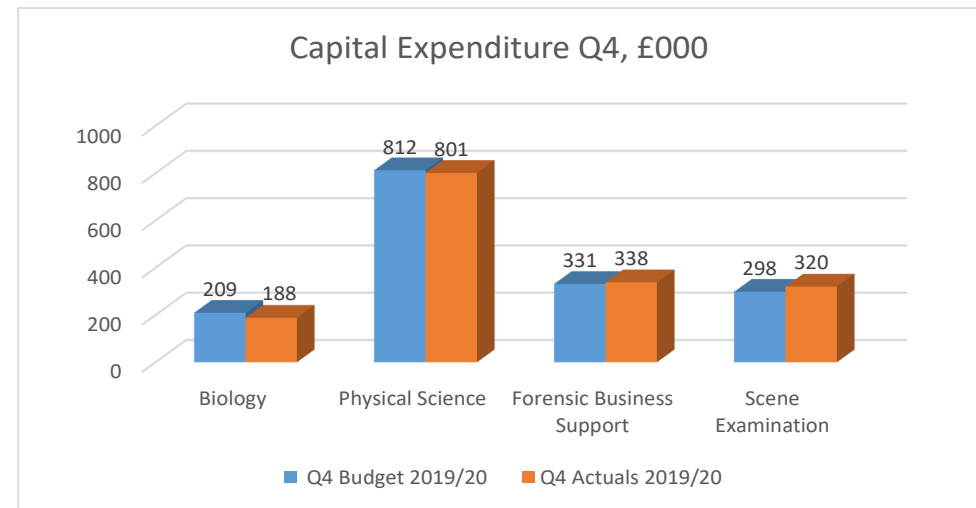
- Operational managers review and discuss staffing daily to both organise staffing levels to maintain delivery levels and ensure staff feel supported.
- Staff impacted by COVID 19 are returning to work. It is expected Key Worker testing will reduce periods of absence.



Financial Performance Q4 Revenue



Financial Performance Q4 Capital



Forensic Services Cold Case Review Team

The Cold Case

- The Forensic Services Cold Case Review Team supports the review of around 20 cases at any one time. The team of scientists work closely with the Police Scotland Homicide Governance Review Team.
- Forensic scientists carry out a thorough review of cases where there is no suspect identified despite extensive Police enquiries when a crime took place. The Forensic Case Reviews look at all available evidence and what forensic work can be done.
- Cold cases tend to present a number of challenges for the forensic scientists to overcome given the age of cases. Working with Police Scotland cases are assessed, looking at the forensic work performed previously and comparing this to what could be done today. Consideration is given to the current processes used for DNA identification and what benefits these could bring.

The Findings

- The advent of more sensitive DNA technology and sophisticated evaluation techniques can enable forensic scientists to find DNA profiles and identify suspects. New technology now allows such evidence to be discovered which previously could not be done.
- Police Scotland can then use this information to progress investigations into cases of murder for example.
- The work of the forensic scientists and their skill in such cases can provide sufficient evidence to enable suspects to be charged and then stand trial for potential crimes committed. In some cases this can be many years after the crime took place.
- The value of forensic science in being able to bring the potential perpetrators of crime to justice is unquestionable.
- The benefits of the latest DNA technology and the expertise of forensic scientists can enable the breakthrough in cases which previously were unsolved.

Meeting	Authority Meeting
Date	06 May 2020
Location	Video-conference
Title of Paper	FS2026 Phase 1 Benefits Realisation Report
Presented By	Tom Nelson, Director of Forensic Services
Recommendation to Members	For discussion
Appendix Attached	No

PURPOSE

To update members on progress on:

- Delivery of the benefits of Phase 1 of the Forensic 2026 strategy

1. BACKGROUND

- 1.1. The Forensic Services 2026 Strategy (FS2026) was approved by the SPA Board in May 2018. The approval of the Strategy has given the authority to start the Programme work in addition to providing alignment and direction for the business as usual plans which include the continuous improvement activity.
- 1.2. Delivery of FS2026 is set out in three clearly defined phases;
- Phase 1, 2018-20: Increasing Capacity, Improving Utilisation and Demonstrating Value
 - Phase 2, 2020-23: Transitioning to an Enhanced Operating Model and Enabling Infrastructure
 - Phase 3, 2023-26: Investment and Innovation, introducing new forensic science technique
- 1.3. This paper sets out the work which has been undertaken in Phase 1 of the strategy and the progress that has been achieved with respect to benefits realisation.
- 1.4. It should be noted that full quantification of benefits has not been possible due to the limited resource that has been provided for the Programme Management Office throughout this period.

2. FURTHER DETAIL ON THE REPORT TOPIC

- 2.1. The diagram below represents the high level benefits for Phase 1;



2.2 The activity within Phase 1 of delivery of the FS2026 strategy is prioritised to specifically focus on;

- Increasing Capacity
- Improving Utilisation
- Demonstrating Value

2.3 Increasing Capacity and Improving Utilisation

2.3.1 Prior to the formal approval of the FS2026 strategy in May 2018 a series of business cases were presented to the Forensic Services Committee (and SPA Board) for investment in critical areas of Forensic Services where significant backlogs of work had developed due to historic imbalance between capacity and demand for services.

2.3.2 The investment provided included an increase in Full Time Equivalents (FTE) into these critical areas, most notably Biology. In addition due to the critical position within Biology £3M was made available to support the outsourcing of casework for the duration of phase 1.

	FTE	£k
Biology – Backlog Reduction	16 x FS 1 x TM 1 x OM	£736k
Drugs - COE	2 x FS	£69k
Drugs – Backlog Reduction	3 x FE 1 x LFS	£153k
Firearms – Backlog Reduction	1 x FS	£40k
Quality	1 x QL 1 x QM	£92k
MEL – Backlog Reduction	2 x MERO 1 x TM	£179k
Toxicology – Drugs Driving	1 x FS	£40k
Biology Outsourcing		£3,000k
TOTAL Phase 1 Investment		£4,309k

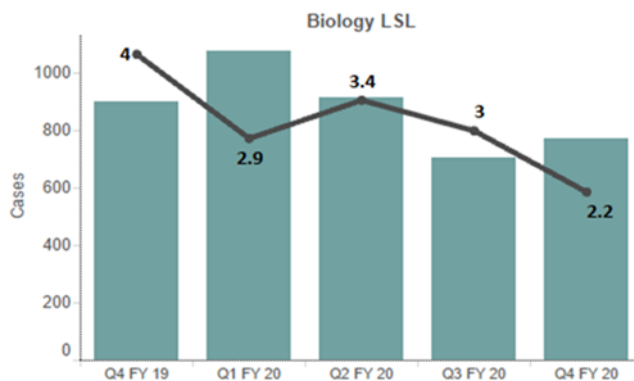
2.3.3 The addition of the capacity set out to achieve a targeted reduction in the number and age of cases within the caseload in each area;

	Target Dec'19	Av Age Target
Biology – Backlog Reduction	945 (Mar'20)	3 months
Drugs – Backlog Reduction	1,449	1 month
Firearms – Backlog Reduction	62	1 month
MEL – Backlog Reduction	552	1 month
Toxicology – Drugs Driving	176	2 months

2.3.4 In addition to the reduction in caseloads additional capacity was required to develop a Drugs Driving Service, Drugs Centre of Excellence and to build up associated Quality Management capacity within Forensic Services to extend the SCOPE of accreditation within these areas.

2.3.5 Within Biology a detailed plan was developed that underpinned the business case, this included the recruitment and training of additional scientific staff alongside outsourcing of casework to create the capacity required to undertake the training.

2.3.6 From the end of year data the number of cases within the Biology Local Satellite Laboratories (LSL) has reduced to less than 800 which is significantly better than the target of 945 cases. In addition the average of cases has dropped to 2.2 months, an improvement of almost 50% on the same period 12 months ago. This improvement is despite an 8% increase in demand for services throughout this period.



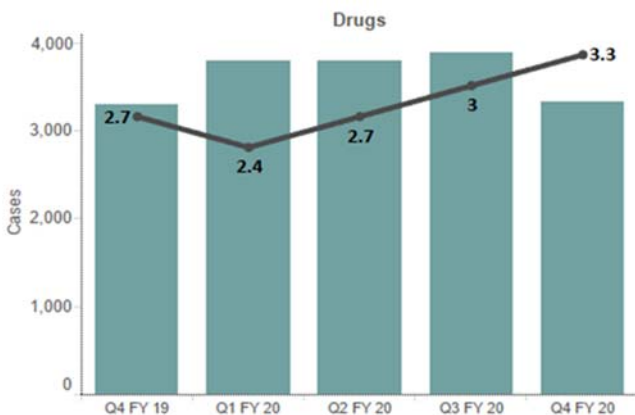
2.3.7 In regard to the progress made within the Biology LSL caseload it should be noted that this has been heavily impacted by the outsourcing activity which will not be continued into phase 2. Whilst the capacity has improved to meet the demand as set out in 2018, this demand has continued to increase since then at approximately 8% per year. At the start of 2020/21 with some internal efficiency improvements the capacity and demand are in balance, however if

the demand for services continues to increase uncontrollably the caseload within the Biology LSL will once again start to increase.

2.3.8 Within Drugs there have been a number of challenges during phase 1 that have had a significant impact on the ability of this area to deliver against the targeted improvements. This has included significant technical challenges with the instrumentation, in particular the Time of Flight (TOF) instruments that were purchased which would have had the most significant impact on the improved timeliness of delivery particularly in straightforward drugs identification cases.

2.3.9 In addition the demand for drugs examinations has consistently increased year on year to a total 33% increase when compared to demand three years ago, this demand is well over and above the capacity that was introduced in this area through both the Centre of Excellence (COE) and backlog reduction combined.

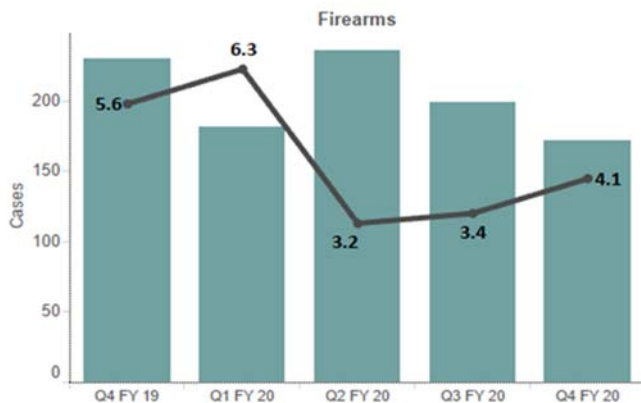
2.3.10 From the end of year data there are just over 3000 cases within the drugs area with an average age of 3.3 months. In comparison with the same period last year this is a similar position both in terms of numbers and age of cases, so whilst it is not possible to fully quantify the benefits that have been made within this area it is clear that many have been realised in order that the caseload has not increased in line with the demand.



2.3.11 The backlog recovery work within the drugs area will remain ongoing into phase 2 and it is clear the further benefits will be achieved within the 2020/21 period which will see significant reductions in caseload and reduce the age of cases in line with the delivery of the real time drugs intelligence project.

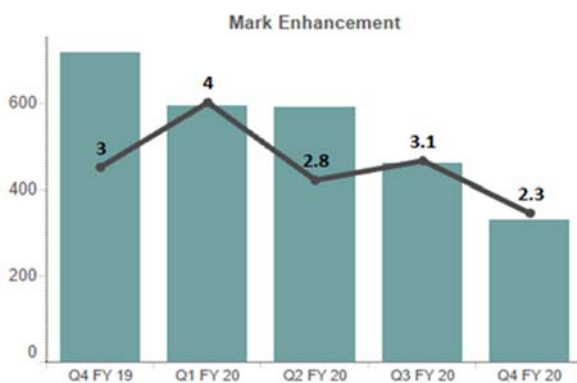
2.3.12 Within Firearms there has been investment in additional capacity in conjunction with new management within this area that has had a real impact on performance in this area. Whilst the caseload has not yet reduced to the

full target of 62 there has been a significant reduction since Q2 with a quarter on quarter downward trend which will continue into phase 2.



2.3.13 Most notably the age of the casework in this area has reduced by over 2 months since Q1 of 19/20. The backlog recovery work in this area will continue into phase 2 where the full benefits of the investment will be realised as ongoing work reaches completion.

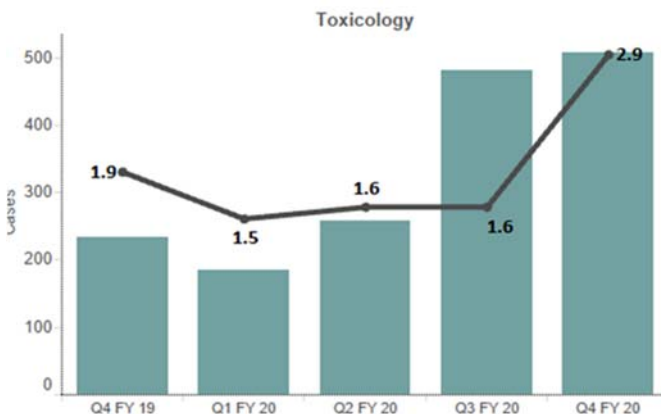
2.3.14 Within Mark Enhancement (MEL) there has been investment in increased capacity and also rationalisation from delivery at four sites to two sites during phase 1. This new operating model was introduced with minimal impact on staff and has resulted in far more effective case management. The caseload in MEL has nearly halved during this period with a reduction in the age of cases from 4 months in Q1 to 2.3 months in Q4.



2.3.15 There is additional work to be undertaken in MEL during phase 2 to further improve timeliness however much of the full improvement will be delivered within the new operating model project which will change this area of forensic delivery considerably.

2.3.15 Within Toxicology investment has been made to develop, validate and implement a drugs driving toxicology service to support the implementation of the new legislation in Scotland. This was completed on target and was a

huge achievement for Forensic Services culminating in a recommendation for accreditation by the United Kingdom Accreditation Service.



2.3.16 In addition to the new drugs driving service significant process improvement, investment in new technology and accommodation has resulted in a reduction in the number of non drugs driving cases and an improvement in the timeliness of provision of results. The impact of increasing demand for drugs driving cases will be monitored into phase 2 alongside further investment planned in this area of Forensic Services.

2.3.17 In addition to these specific areas around 20 operational improvement projects have been ongoing within Forensic Services throughout this period in particular the following;

Operational Improvement Project	Summary
Scene Examination Accreditation	Preparation work has been undertaken to achieve a successful pre-accreditation visit to the Edinburgh Laboratory
Centralised processing of DNA reference samples	Significant method development and validation work has been undertaken to allow DNA reference samples to be processed in the most cost effective manner. To be implemented in phase 2.
Paperless Tenprint Office	Preparatory work has been undertaken to allow the process of taking Tenprints in custody to be a fully electronic process. Full implementation during phase 2.
Introduction of Time Recording	Purchase of software, full development of specification and

	implementation of hardware has been completed, ready for implementation in the early part of phase 2, this will provide vital information on how long different activities take within casework and on other activity.
Introduction of new Management Reporting through the use of Advanced Analytics software	Purchase and implementation of new software allowing the introduction of improved and more robust management information
Drugs Strategy	A project to allow the reporting of real time drugs intelligence to Police Scotland which requires networking of instruments, new software and enhanced management information through the use of heat mapping – phased implementation across phase 2

2.4 Demonstrating Value

2.4.1 During phase 1 there has been a lot of activity across all projects to ensure that the value of forensic science is maximised. Value can be broadly looked at in two different ways, ensuring the value in how limited resources are being utilised to support the justice system and then also in considering how this value can be quantified.

2.4.2 Across a range of activities there has been work undertaken to minimise failure demand – which can be summarised as work that is being undertaken that does not add any value to the justice system, be that to provide evidence to support a prosecution or to eliminate a potential suspect from an investigation.

2.4.3 The work that has been completed in phase 1, and continues into phase 2 to further develop the role of the Forensic Services element of the Joint National Forensic Gateway will continue to implement new practices that ensure the most effective use of the limited resources within each specialist area of Forensic Science. This will be further supported through the introduction of the revised Memorandum of Understanding which will be implemented in July 2020.

2.4.5 A workshop was undertaken in the autumn of 2018 which considered a number of opportunities to consider and quantify the value of forensic science within the justice system. This is a complex undertaking and an initial proposal was presented to the Forensic Committee following this meeting.

However this work will be progressed further in phase 2 to ensure that there is a more articulate understanding of the value of science in investigations and prosecutions and further align this to the delivery of the strategic outcomes of partners. This will be considered further through the refresh of the FS2026 strategy during 2020/21.

3. FINANCIAL IMPLICATIONS

3.1. There are no additional financial implications associated with this paper other than those previously approved as part of the 18/19 and 19/20 budget.

4. PERSONNEL IMPLICATIONS

4.1. There are no direct personnel implications associated with this paper.

5. LEGAL IMPLICATIONS

5.1. There are no legal implications associated with this paper.

6. REPUTATIONAL IMPLICATIONS

6.1. There may be long term reputational implications associated with this paper should the Forensic Services not meet the expectations as set out in the Forensic 2026 Strategy.

6.2. The FS 2026 work is behind schedule due to a lack of resource which could have a reputational impact in the short term and longer term implications.

7. SOCIAL IMPLICATIONS

7.1. There are no direct social implications associated with this paper.

8. COMMUNITY IMPACT

8.1. There may be longer term community impact implications associated with this paper should the Forensic Services not meet the expectations as set out in the Forensic 2026 Strategy.

9. EQUALITIES IMPLICATIONS

9.1. There are no equality implications associated with this paper.

10. ENVIRONMENT IMPLICATIONS

10.1. There are no environmental implications associated with this paper.

RECOMMENDATIONS

Members are requested to note:

- The benefits realised during phase one delivery of the Forensic 2026 strategy