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SHARED INTERNAL AUDIT SERVICE

INTERNAL AUDIT REPORT

**A REPORT FOR
THE CUMBRIA OFFICE
OF
THE POLICE & CRIME COMMISSIONER**

A REPORT ON

Data Quality: Crime & Incident Recording

Draft Report Issued: 11th December 2012
Final Report Issued: 19th December 2012

1.0 INTRODUCTION

- 1.1 In November 2012 Internal Audit undertook a review of recorded crime data, as part of the 2012/13 internal audit plan.
- 1.2 The Police Authority requested that Internal Audit review a sample of headline and exception measures included in the Policing Plan for 2011/12 and validate the systems used to produce the data. This is to provide assurance over the systems for 2012/13.
- 1.3 There are two types of measures highlighted in the Policing Plan:
 - Headline Measures – aligned to priorities and focusing on outcomes for communities to deliver a safer and stronger Cumbria.
 - Exception Measures – which ensure consistent performance standards across the range of policing activities. Exceptions are based on comparative performance plus significant trends OR an acceptable performance range.
- 1.4 Five measures (headline and exception) were highlighted as potential areas for review. The measures were prioritised for auditing by the Chair of the Governance Committee and Treasurer. Sanction detection was chosen for review first and this audit was undertaken in September 2012. Recorded crime was selected for review next.
- 1.5 Recorded crime is included as a headline measure in the Policing Plan and Performance Management Framework 2012/13 and was an exception measure in the 2011/12 Policing Plan.
- 1.6 The contacts for this review were:-
 - Peter Berry – Force Crime Registrar
 - Samantha Barratt – Management Information Officer
 - Sue Ivison – Crime / Incident Evaluator
 - Louise Mandale – System Administrator
 - Stephanie Stables – Performance Consultant
 - Anne-Marie Cade – Policy & Performance Officer

2.0 SCOPE

- 2.1 The scope of the audit was as follows:
 - Document system(s) for collating and recording crimes and consider their appropriateness.
 - Ascertain where the data is input (HQ or Territorial Policing Areas). If the data is input locally consider variations between Territorial Policing Areas.
 - Ascertain whether there is any internal checking of the data
 - Test a sample of recorded crimes to ensure they have been categorised and recorded correctly.
 - Consider whether there are any grey areas within the definitions and, if so, who determines the categorisation of a crime.
 - Conclude on the overall robustness and accuracy of the data.

3.0 SUMMARY

3.1 EVALUATION

- 3.1.1 The evaluation of controls is based on testing carried out at the time of the review. Internal Audit assesses the controls operating in each area under review as 'good', 'satisfactory', 'fair' or 'weak'. This assessment is based on the number and grading of recommendations made.
- 3.1.2 The overall evaluation for the controls operated in this area is **fair**.

3.2 CONCLUSION

- 3.2.1 The Constabulary's has experienced a difficult period of staff reductions and efficiency savings to address the required budget savings. As part of this process data quality assurance systems have been streamlined this year with some reduction in resources and changes to roles. This is a risk to data quality.
- 3.2.2 Six months into the year data quality standards are shown to have declined indicating that the risk to data quality has not been effectively managed. The revised quality assurance process for crime and incident data is not adequate to ensure good quality data.
- 3.2.3 The Constabulary is aware of the data quality issues highlighted by the Force Crime Registrar's audit of crime and incident data undertaken in June 2012 and has put an improvement plan in place to address these. One of these actions is to perform a follow up review in November 2012 and this was underway at the time of this review.
- 3.2.4 There is a need for the data quality risk to be re-assessed in light of recent reviews of crime and incident data and managed according to the Constabulary's risk appetite. Ongoing monitoring will be required to assess the effectiveness of quality assurance arrangements and adjustments made accordingly to secure an acceptable level of data quality.

3.1 RECOMMENDATIONS

- 3.3.1 The recommendations made in this report are graded in accordance with their perceived importance. The grading falls into the following categories:
- Grade 1: Major recommendation that indicates a fundamental control weakness that must be addressed.
 - Grade 2: Recommendation which should be addressed in order to establish a satisfactory level of internal control.
 - Grade 3: Minor recommendation made to improve the system under review.
- 3.3.2 Recommendations are included to this report as Appendix A – Summary of Recommendations and Action Plan (for the attention of Cumbria Constabulary).

4 DETAILED FINDINGS & RECOMMENDATIONS

4.1 Crime and Incident Recording

- 4.1.1 Cumbria Constabulary is required to make savings from its budget amounting to £18.7m by 2014/15. Part of the Constabulary's response to the budget cuts has been to conduct a programme of reviews to identify efficiency savings. A review of Crime Management Units has been undertaken. The review identified that savings could be made by reducing the bureaucracy and simplifying the processes around crime management. Consequently the function has been centralised, with the creation of one constabulary-wide team based in HQ. This team is responsible for supporting and auditing the crime management and recording process across the force.
- 4.1.2 Previously Area Crime Desks based in the Basic Commend Units (BCU's) managed incident logs on STORM (System for Tasking & Operational Resource Management) on a daily basis, performing real-time data quality checks. The Area Crime Desks exercised a level of control over the quality of data entering STORM and the SLEUTH (crime recording system shared with Lancashire Police) through their detailed knowledge of Home Office guidance on crime and incident recording. However the units were centralised in April 2012 and this control has been removed thus heightening the risk of poor quality crime and incident data. There are a number of compensating controls in place as detailed below.
- 4.1.3 Newly recruited Police Officers receive a full days training on national crime recording as part of their initial training programme. This is followed up with a more in-depth course a year later. The Central Crime Management Unit (CCMU) provides this training which is designed to improve data quality by reducing the risk of incident and crime recording errors and interpretation issues. Detailed handouts are provided to delegates in areas such as the National Standards for Incident Recording, Sanction Detection and National Crime Recording Standards. Ultimately all officers have a responsibility for data quality and the training helps to reinforce these data quality expectations and responsibilities. The emphasis is on 'getting it right first time' and securing data quality as part of the normal operational activity of the force rather than relying on data quality assurance systems and subsequent amendments. The Crime Management Unit makes it clear to course delegates that it provides ongoing support and advice to officers on the crime recording process to ensure that crime and incident data is recorded accurately, consistently, completely and in accordance with Home Office requirements.
- 4.1.4 The STORM and Sleuth systems also have certain built in controls to reduce the scope for human error, missing data and inaccurate data. These controls include mandatory fields, drop down lists and access security levels. For instance the incident codes and crime classifications are selected from drop down lists of clear options.
- 4.1.5 The Crime Management Unit has sight of all initial crime details and is responsible for prioritising and allocating crimes for investigation. The Unit is therefore able to conduct an initial data quality review against Home Office standards and identify any crime recording issues at an early stage. Thereafter there is a newly established system of crime management in place whereby line managers monitor progress with

recorded crimes and ensure Sleuth is updated accordingly. This quality assurance process is referred to as the Central Crime Management Unit process and is clearly documented within the crime management intranet site. A flowchart is used to document the new process with additional narrative to explain changes of roles. There is also a copy of the power point training presentation given to officers to explain the new process. The onus is placed on operational officers and their line managers to record, investigate and detect crime and to adequately document actions and decisions within crime reports.

- 4.1.6 There is a specific case management module within Sleuth called CaseMan that is utilised during the quality assurance process. Procedures highlight the various quality assurance checks that should be made at each stage. Sergeants are responsible for ensuring that investigation details are completed to an acceptable standard and all detections meet with Home Office Counting Rules / Guidance. However each crime report must receive a final quality assurance check by an Inspector. Evidence of active case management within Sleuth was noted during the previous data quality audit review undertaken in September 2012. The action logs within CaseMan demonstrate that supervisors do monitor case progress and bring any issues to the attention of officers allocated to each case. Examples cited during the audit include a reminder to add suspect details to the offender section of the crime report and a reminder to update the crime with disposal information.

4.2 External Data Quality Checking

- 4.2.1 The HMIC reviewed Cumbria Constabulary's crime and incident data in March 2011. The review addressed both the quality and management arrangements in place to ensure standards are maintained and improved. The review highlighted five areas for improvement and the Constabulary identified actions to address each. These actions were reported to Cumbria Police Authority's Crime and Performance Committee in May 2012, with further progress reported to the September meeting.
- 4.2.2 It was reported that the areas for improvement were largely addressed through the new crime management structure (including new processes, responsibilities and supporting documentation) that was implemented in April 2012.

4.3 Internal Data Quality Checking

- 4.3.1 The Information Management Unit (within Strategic Development) extracts crime data from Sleuth on a monthly basis for reporting purposes, in accordance with an established timetable. A series of established queries is used to extract the required data from the database. The data automatically populates a performance crime dashboard on the intranet and a Home Office reporting template, CRIMSEC 3. Formulae are established within the dashboard to calculate performance measures in accordance with current Home Office Counting Rules For Recorded Crime. A sample of 20 figures was selected from the July 2012 dashboard for manual recalculation. Tests confirm that dashboard formulae are accurate.
- 4.3.2 The crime statistics dashboard on the force intranet presents crime data by category and by geography. Then within these workbooks there are filter facilities enabling further comparison and analysis by period. For each crime category the workbooks

display the number of recorded crimes in the selected period, the number of detections, the rate of detection and the percentage change since the earlier comparable period. All employees have access to the dashboard via the intranet and are encouraged to raise any issues or discrepancies in the data with the Information Management Unit.

- 4.3.3 The welcome message on the dashboard home screen clearly states that whilst tests have been performed on workbooks, any identified problems should be reported to the Information Management Section. Similarly any anomalies in the CRIMSEC 3 report are queried with the Constabulary. These are further data quality checks of crime data.
- 4.3.4 The dashboard provides users with a full list of crime classifications and a link to the Home Office Counting Rules for further details about crime classifications and counting rules. This additional material is readily available to Police Officers for reference to provide further clarity in respect of crime recording.
- 4.3.5 Crime data is scrutinised by Strategic Development each month to ensure accuracy, completeness and reliability. Any exceptions are discussed fully and followed up. The Sergeant from the Crime Management Unit is part of this scrutiny process and can feedback any relevant data quality issues to his unit or territorial policing areas as necessary.
- 4.3.6 The Crime Management Unit is responsible for auditing the accuracy of crime and incident data. The Home Office has published a Data Quality Audit Manual to support and guide this process. The Force Crime Registrar performs a self audit of crime and incident recording on a periodic basis utilising this guidance material. The last audit was undertaken in June 2012. Whilst retrospective in focus any issues arising from the audits are reported to senior officers for action. They are followed up by the Crime Management Unit through an established monitoring routine to ensure they are fully addressed and this helps to ensure data quality standards are maintained.
- 4.3.7 Following the audit of crime and incident recording undertaken in June 2012 a report was submitted to Chief Officer Group and to the Police Authority's Crime & Performance Committee. Nine categories of crime were examined against National Crime Recording Standards to ascertain how incidents were closed, if they were closed correctly and the reasons for non compliance. The report shows that compliance rates across the various categories ranged from 64% to 94% with an overall rate of 82%. The standard Home Office scoring system for data quality audits is as follows:-

POOR	FAIR	GOOD	EXCELLENT
79.9% and below of case files comply	between 80% & 89.9% of case files comply	between 90% & 94.9% of case files comply	95% and above of case files comply

Under the above scoring system the overall result of 82% would be judged as fair. The Force Crime Registrar explained that the constabulary has always achieved a score of more than 90% (good) in previous reviews of crime and incident data. The results highlight a clear decline in the quality of crime and incident data. An improvement plan was agreed to improve compliance rates that included a follow up review in November 2012. This follow up review was underway at the time of our audit visit.

4.4 Audit Testing

4.4.1 Reference was made to Home Office data quality auditing guidance when selecting the sample for review and determining the tests undertaken. The following nine crime categories were examined:-

- Burglary
- Criminal Damage
- Vehicle Crime
- Violent Crime
- Disturbance
- Acquisitive Crime
- Domestic Crime
- Hate Crime
- Sexual Offences

Reports were requested of incidents in the above categories, split by Territorial Policing Area (TPA) in reverse chronological order from and including 31st October 2012. It was agreed with the Force Crime Registrar that the latest incident in each of the crime categories would be selected from each territorial policing area for scrutiny. A further three 'no criming' incidents were selected for examination. This gave an overall sample of 30 incidents for review

4.4.2 The STORM log and where appropriate the Sleuth record in respect of each incident in the audit sample was examined to ascertain the following:-

- a) The incident was correctly closed as a crime, or not a crime in compliance with National Crime Recording Standards and Home Office Counting Rules and the correct closing code was used.
- b) To establish if all relevant incidents recorded on the command and control system have been transferred correctly to the crime recording system and classified correctly.
- c) To determine the reasons for non compliance.

4.4.3 Audit tests confirmed that in the majority of cases there is clear cross referencing between incident logs and crime reports and the correct closing codes and crime classifications are used. Where a crime report is generated the incident log generally states that a crime has been committed and a crime report will be generated. However a number of specific queries are raised relating to the quality of crime and incident recording as detailed below by crime category:-

Vehicles

4.4.4 National Standards for Incident Recording requires that *'the force receiving an incident report is responsible for recording the details and if the incident started in their area they will have primacy and ownership of the incident'*. There was one instance in the sample where a visitor to Cumbria reported a theft from his vehicle that occurred in Cumbria but he was told to report the incident to his local police station in West Yorkshire. A crime report was not raised and a crime number was not obtained from West Yorkshire Police.

Sexual Offences

- 4.4.5 There were two incidents in this category that were closed on non crime codes and crime reports were not generated. However neither incident log provides an explanation for reaching this decision. Guidance requires that if there has been an allegation of a crime or report of a potential crime, and a crime isn't submitted, then the log has to provide enough information to explain why there wasn't a crime.

Hate Crime

- 4.4.6 No issues raised.

Acquisitive Crime

- 4.4.7 One incident in this category related to a vehicle leaving a filling station without paying for fuel. The incident was closed on a non crime code for civil dispute which is reasonable. However issues are raised regarding the quality of the incident log. There are no driver details in the log, there is no evidence of follow up to ensure the driver subsequently paid for the fuel and there is no conclusion to support the decision to close the incident on a non crime code.

Burglary

- 4.4.8 An incident log records a burglary having been committed and three suspects being arrested. The incident is correctly closed on a crime code for burglary (dwelling). However a crime report failed to be generated within 72 hours of the incident being reported. A crime report had still not been generated at the time of the audit review (three weeks after the incident had occurred).

Criminal Damage

- 4.4.9 No issues raised.

Domestic

- 4.4.10 An incident log records a caller reporting a smashed window and disturbance at his home. Officers attended the scene and the offender (caller's ex partner) admitted smashing the window and agreed to pay for the damage. The incident was closed on a non crime code for domestic incident and a crime report was not generated. A reasonable explanation for not generating a crime report was not provided in the incident log.

Disturbance

- 4.4.11 No issues raised.

Violence

- 4.4.12 One incident in this category related to an assault where there was a witness but the officer concluded that no crime had occurred. The incident was closed on a non crime code for ASB-Nuisance and a crime report was not generated. There is inadequate reasoning in the incident log to support this decision.
- 4.5.13 A second incident in this category related to violence affecting four potential victims but a crime report relating to only one victim. The log shows insufficient evidence of enquiries being made with the other victims to establish if further crimes had been committed. One of the potential victims is logged as contacting the police and asking to make a statement but there is no evidence that this was followed up.

4.4.14 In total queries were raised in respect of 8 of the 27 incidents reviewed (30%). Under the Home Office scoring system for data quality audits this score would generate a judgement of **poor**. The reasons for non compliance are summarised as follows:-

- Told victim to report to another force (1 incident).
- Failure to input the crime report to Sleuth within the 72 hours of the incident being reported (1 incident).
- Insufficient information on the log to establish no crime (4 incidents).
- Insufficient enquiries made to negate or confirm the crime (2 incidents).

4.4.15 The results of this internal audit review and the Force Crime Registrar’s audit in June 2012 show that the streamlining of data quality assurance systems and reduced resources this year have had an adverse impact on the quality of crime and incident data. Data quality standards have declined despite the revised data quality assurance arrangements put in place. Accurate, reliable and robust management information is fundamental to decision making at a local and national level. For instance the force needs an accurate picture of the extent and location of crime in areas to make plans to best achieve outcomes for victims and their communities. Poor quality data can lead to poor victim care, extended investigation periods, decline in disposals against recorded crimes and ultimately low public satisfaction.

4.4.16 Internal audit acknowledges that an improvement plan was put in place in address the data quality weaknesses highlighted by the Force Crime Registrar’s audit in June 2012 and a follow up review by the Force Crime Registrar is currently underway. There is a for need ongoing monitoring to assess the effectiveness of quality assurance arrangements and make adjustments to secure data quality improvements.

RECOMMENDATIONS		
Ref	Recommendation	Grade
R1	Ongoing monitoring is required to assess the effectiveness of quality assurance arrangements and make reasonable adjustments to secure an acceptable level of data quality.	1

No Criming

4.4.17 In order for a crime to be subsequently ‘no crimed’ one of the following Home Office criteria must be met:-

1. the crime was committed outside the jurisdiction of the force,
2. additional verifiable information has been made available following the initial decision to record the incident as a crime which determines that no notifiable crime has been committed,
3. the crime constitutes part of a crime already recorded,
4. the incident has been recorded as a crime in error,
5. where the recorded crime is under Class 53C or 53D only and there is clear auditable information that shows that the offender has been dealt with outside this jurisdiction for the recorded crime. Only a Designated Decision Maker can authorize a no crime in these circumstances.

4.4.18 Tests confirmed that the three ‘no crimes’ examined met the above criteria and had been authorised correctly in accordance with procedure. Two of the crimes were duplicates, thus satisfying criterion 3. Comparison of the crime reports confirmed this

with details and incident reference numbers matching. The third crime met criterion 2. An officer within the Central Crime Management Unit provided an adequate explanation within the crime report after visiting the scene of the reported crime.

4.4.19 No criming figures provided by the Management Information Officer show that the rate of no criming has reduced this year. During 2011/12 5% of crime records were being no crimed. Since April 2012 this rate has dropped to 3% which indicates a more robust application of 'no criming' guidance.

4.5 Performance Reporting

4.5.1 Performance staff within Strategic Development use monthly crime data to prepare established performance reports. Monthly performance presentations are made to Chief Office Group and periodically to the Police Authority. The intention of the presentations is to report on progress against agreed performance measures.

4.5.2 Recent performance information provides a half yearly analysis of Cumbria Constabulary's position against the indicators in the Performance Management Framework 2012/13 for the period to September 2012. The information shows that the level of recorded crime continues to fall. A comparison of the period April to September 2012 with the same period in 2011/12 shows a 12% reduction in recorded crime. A comparison with most similar forces shows a crime reduction of 12% on average across the group. This provides some assurance that the fall in crime within Cumbria reflects the national trend.

4.5.3 The Performance Summary Table September 2012 includes a comment alongside the recorded crime headline measure to state that the internal review showed no evidence of non recording, thus emphasising the quality of recorded crime data. The detailed analysis goes on to say the following:

'Chief Officer Group are satisfied from results of the crime and incident review; research carried out in the Information Management System; and feedback from Extended Chief Officer Group members that internal processes are fine and that the Constabulary has actually seen a reduction in crime being reported.'

It should be reiterated that both this internal audit and the Force Crime registrar's review of crime and incident recording both highlight declining data quality standards which lowers the level of assurance that can be placed on the accuracy and quality of information reported. This heightens data quality risks as inaccurate and misleading data can lead to flawed decision making, wasted resources, poor services, failure to achieve targets, internal and external criticism and ultimately reputational damage. There is a need for data quality risks to be re-assessed in light of recent findings and managed according to the constabulary's risk appetite.

RECOMMENDATIONS		
Ref	Recommendation	Grade
R2	Data quality risks should be re-assessed and managed according to the Constabulary's risk appetite.	1

**CUMBRIA CONSTABULARY
CRIME & INCIDENT RECORDING**

**SUMMARY OF RECOMMENDATIONS & ACTION PLAN (J210025)
(FOR THE ATTENTION OF CUMBRIA CONSTABULARY)**

REPORT REF	RECOMMENDATION	GRADE	PERSON RESPONSIBLE (to be completed by client)	AGREED / INTENDED ACTION (to be completed by client)	IMPLEMENTATION DATE (to be completed by client)
R1	Ongoing monitoring is required to assess the effectiveness of quality assurance arrangements and make reasonable adjustments to secure an acceptable level of data quality.	1	Force Crime Registrar Peter Berry	Following publication of this report and an internal audit report, (Nov 2012) a further retrospective audit of data will be instigated by the Force Crime Registrar in Feb/March 2013 to measure data quality compliance. This audit together with the findings to date will inform and assist the on-going implementation of activities within the Constabulary Improvement plan for this area of business.	Feb/March 2013
R2	Data quality risks should be re-assessed and managed according to the Constabulary's risk appetite.	1	Force Crime Registrar Peter Berry	The results of the above action will inform how data quality is managed by the Constabulary in the future. This may result in maintaining current audit levels or a return to 'real time' audit in an effort to manage data quality more effectively.	Feb/March 2013

ACTION PLAN COMPLETED BY:	Peter Berry (Force Crime Registrar)	DATE:	18.12.12
ACTION PLAN APPROVED BY	Detective Chief Superintendent Iain Goulding	DATE:	19/12/12

