

## An Garda Síochána

### Review of the Quality of PULSE Crime Data for 2022

Quality assurance of the recording<sup>1</sup> of crime data in An Garda Síochána is built around three main pillars:

- Primary collection of incident data is carried out by Incident Creation Representatives at the Garda Information Services Centre (GISC). Automated collection also takes place in certain instances from CAD and FCPS, and subsequent updates are carried out by GISC.
- GISC reviewers assess the quality of created incidents, highlighting issues requiring clarification or updates required by placing the incident on 'Reviewed Clarification' on PULSE. This requires the Garda member to contact GISC to resolve the issue before the incident is marked reviewed.
- The Performance Accountability Framework (PAF) includes PULSE crime incidents forming the basis for regular (at least weekly) operational performance reviews by local Garda management. Data quality issues are flagged back to GISC for review and amendment where appropriate.

The creation-review-PAF data cycle represents a “closed loop” process where incident data reported by Garda members goes through multiple checks including being presented back to local management for performance monitoring and operational decisions. The primary purpose of the recording of data on PULSE is to support the prevention, investigation and detection of Crime. The Central Statistics Office (CSO) produce and disseminate official statistics on recorded crimes, which are based on data recorded on PULSE by An Garda Síochána. In June 2023, An Garda Síochána commenced a review of PULSE data quality with respect to incidents reported in 2022. This review was carried out by GISC with the support of the Garda Síochána Analysis Service (GSAS), and it examines key aspects of data quality previously reviewed by the CSO, including:

- Classification of crimes in 'non-crime' incidents categories
- Crimes marked 'invalid' on PULSE
- Adherence to crime counting rules
- Misclassification of incident type
- Timely recording of PULSE crime incident records
- Detections
- Recorded crime victims

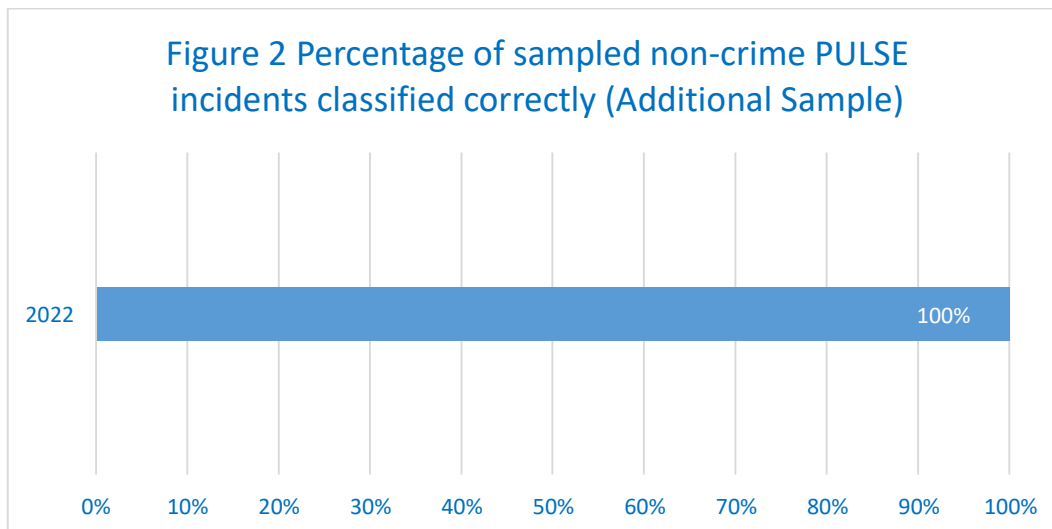
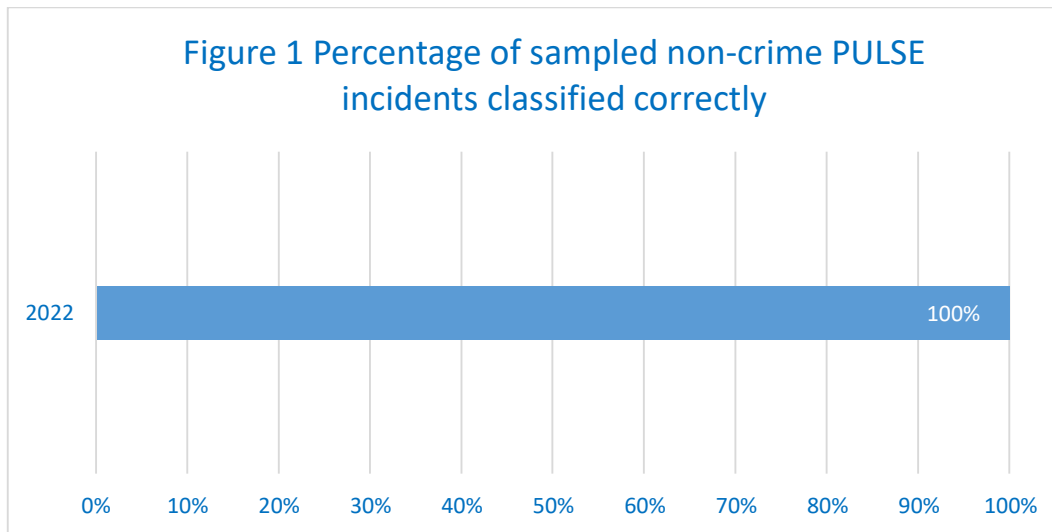
It is important to note that this review does not purport to be exactly the same as reviews undertaken by the CSO. It is acknowledged that methodologies used by An Garda Síochána in relation to each aspect of data quality reviewed may differ from those used by the CSO. Ongoing data quality reviews such as this, data quality metrics (An Garda Síochána Crime Incident Data Quality Metrics [Statistics - Garda](#)) together with our PULSE data quality framework are intended to inform users of crime statistics about the quality of the underlying PULSE data.

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<sup>1</sup> Information on how a crime is recorded is available in the 'Guide to How Crime is Recorded and Counted by An Garda Síochána', which is available at the following link: [Crime Reporting Document \(garda.ie\)](#)

### Classification of crimes in 'non-crime' incident categories

GISC sampled 200 non-crime PULSE incident records of three types reported in 2022: 'Attention and Complaints', 'Property Lost' and 'Domestic Dispute – no offence disclosed', and examined the Narrative and related data fields to assess whether the classification of the incident as a non-crime had been accounted for, either in the incident's description or by explicit statement that no offence had taken place. All of the 200 incidents reviewed (100%) were deemed to have been classified correctly. GISC also reviewed an additional sample of 50 non-crime PULSE incident records and all 50 incidents reviewed (100%) were deemed to have been classified correctly.

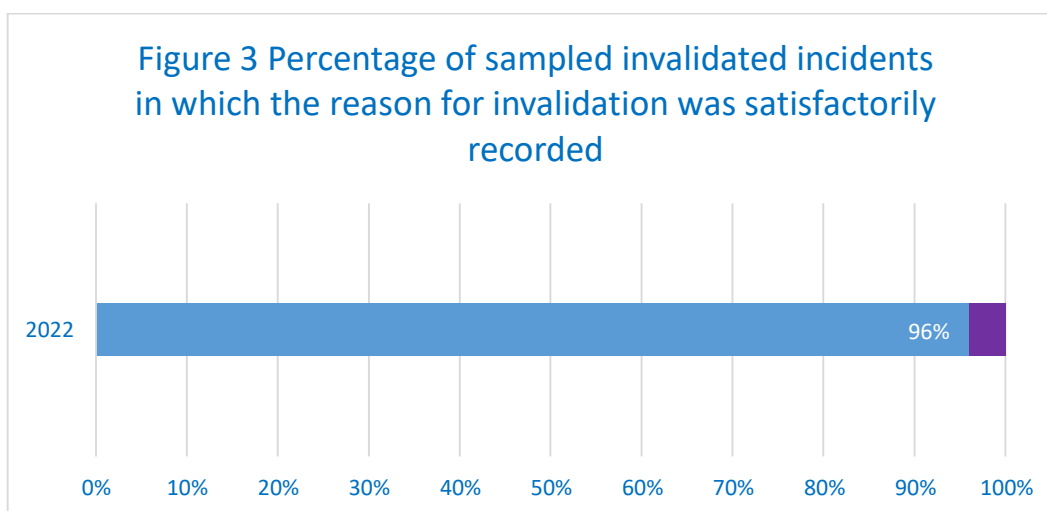


### Crimes marked 'invalid' on PULSE

GISC sampled 100 invalidated PULSE crime incidents reported in 2022 and checked the text of the Narrative and related data fields to assess whether the reason for invalidation had been recorded.

PULSE Release 7.7, deployed on 11/07/2021, introduced a requirement for PULSE users to record an invalidation reason by selecting one from a dropdown list. While this software update has enhanced data governance with respect to the invalidation of incidents, it is still necessary for PULSE users to include sufficient supporting details on the reason for the invalidation in the Narrative and related fields.

Of the 100 incidents reviewed by GISC, the reason for invalidation was satisfactorily recorded in 96 incidents (96%).



### Adherence to crime counting rules<sup>2</sup>

In 2018, GISC implemented a limited data quality check on sexual offences and fraud incidents to ensure the correct application of the crime counting rules.

In the autumn of 2022, an enhanced data quality process was put in place by GISC extending checks on the application of the crime counting rules to all crime categories. All cases created on PULSE from 1<sup>st</sup> July 2022 to 30<sup>th</sup> June 2023 have been reviewed to ensure the correct application of the crime counting rules. GISC will review all cases created since July 2022 on a quarterly basis to ensure correct application of the crime counting rules.

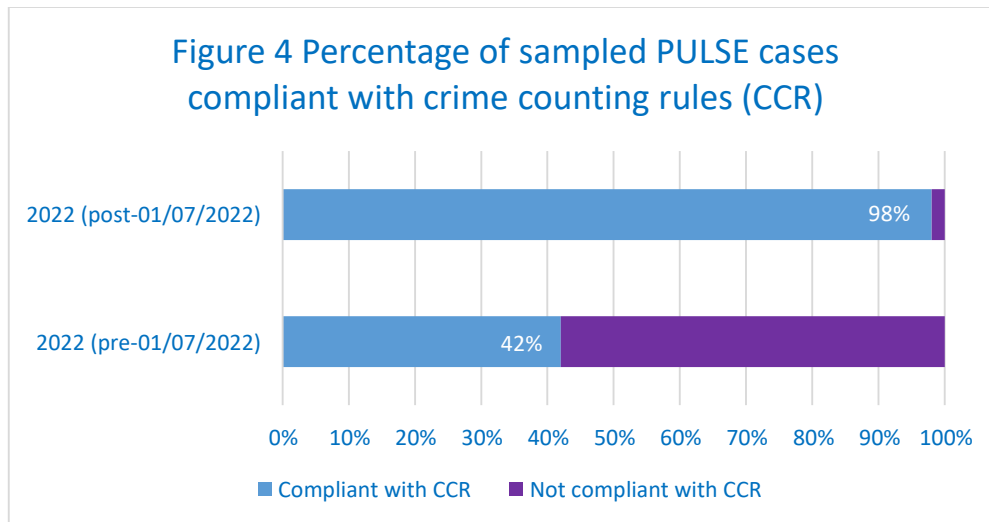
<sup>2</sup> There are specific rules governing the recording and counting of crime incidents which are set out in the 'Guide to How Crime is Recorded and Counted by An Garda Síochána', which is available at the following link: [Crime Reporting Document \(garda.ie\)](https://garda.ie/Reporting-Document)

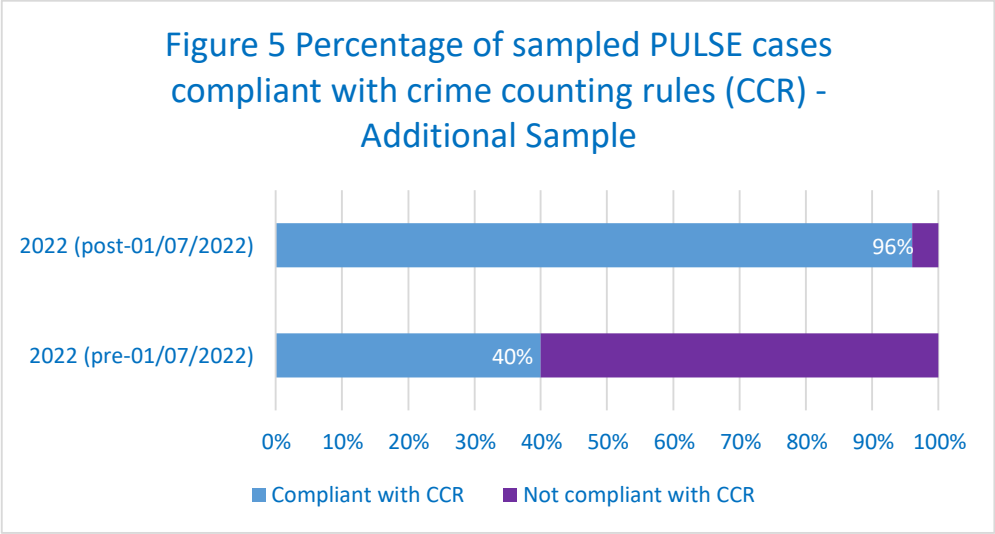
GISC sampled 100 non-primary incidents on PULSE reported in 2022 (50 incidents reported pre-01/07/22 and 50 incidents reported post-01/07/22), along with all associated primary or non-primary incidents, and examined each set (each PULSE case) of incidents together to consider compliance with the crime counting rules.

Of the 50 incidents that were checked that were reported pre-01/07/22, 21 PULSE cases (42%) were found to comply with the crime counting rules. Of the 50 incidents that were checked that were reported post-01/07/22, 49 PULSE cases (98%) were found to comply with the crime counting rules.

GISC also reviewed an additional sample of 100 non-primary incidents on PULSE reported in 2022 (another 50 incidents reported pre-01/07/22 and 50 incidents reported post-01/07/22), along with all associated primary or non-primary incidents, and examined each set (each PULSE case) of incidents together to consider compliance with the crime counting rules.

In this additional sample, of the 50 incidents that were checked that were reported pre-01/07/22, 20 PULSE cases (40%) were found to comply with the crime counting rules. Of the 50 incidents that were checked that were reported post-01/07/22, 48 PULSE cases (96%) were found to comply with the crime counting rules.





**Misclassification of incident type**

GISC sampled 50 PULSE incidents reported in 2022 in each of six crime incident types (total sample size of 300 incidents): ‘Theft (Other)’, ‘Sexual Assault’, ‘Public Order Offences’, ‘Possession of Offensive Weapon’, ‘Criminal Damage (Not by Fire)’, and ‘Assault Minor’. GISC considered the information contained in descriptive data fields to assess whether the incident classification was appropriate based on the information reviewed.

Of the 300 incidents checked, 289 incidents (96%) contained information in the descriptive data fields to confirm the classification was appropriate. The figures on sampled crime incidents found to be classified correctly broken down by incident type were as follows: 49 (98%) ‘Theft (Other)’ incidents, 46 (92%) ‘Sexual Assault’ incidents, 49 (98%) ‘Public Order Offences’ incidents, 49 (98%) ‘Possession of Offensive Weapon’ incidents, 50 (100%) ‘Criminal Damage (Not by Fire)’ incidents, and 46 (92%) ‘Assault Minor’ incidents.

GISC also reviewed two additional samples of ‘Sexual Assault’ and ‘Assault Minor’ incidents. Of the 10 additional ‘Sexual Assault’ incidents checked, all 10 incidents contained information in the descriptive data fields to confirm the classification was appropriate. Of the 10 additional ‘Assault Minor’ incidents checked, 9 incidents contained information in the descriptive data fields to confirm the classification was appropriate.

Figure 6 Percentage of sampled crime incidents classified correctly

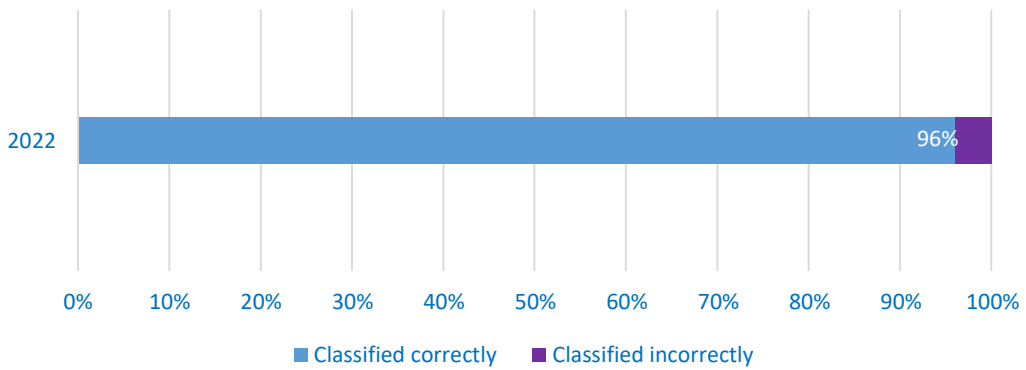
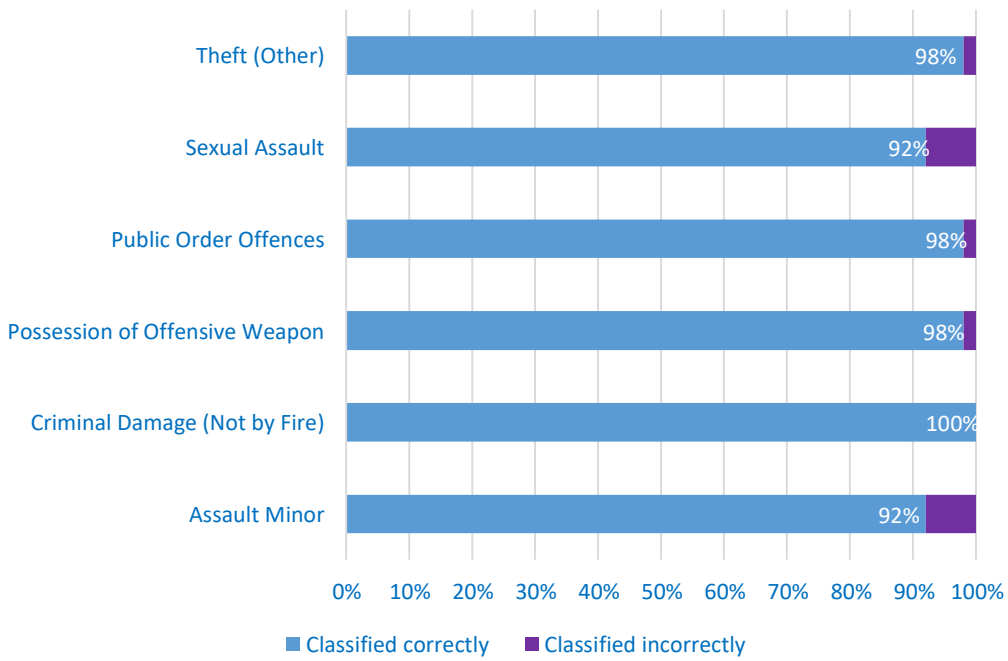
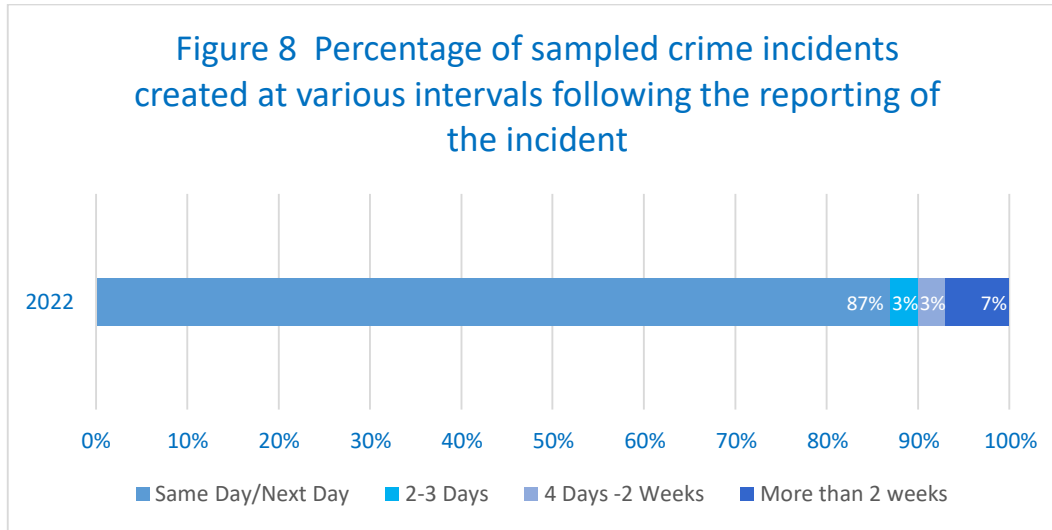


Figure 7 Percentage of sampled crime incidents classified correctly



### Timely recording of PULSE crime incident records

GSAS reviewed PULSE crime incidents reported in 2022 from a range of ICCS groups<sup>3</sup>. It was found that 87% of incidents were recorded on PULSE on the day on which they were reported or on the following day.



<sup>3</sup> Incidents extracted from the following ICCS groups: 01-Homicide Offences, 02-Sexual Offences, 03- Attempts/Threats to Murder, Assaults, Harassments and Related Offences, 04-Dangerous or Negligent Acts, 05- Kidnapping and Related Offences, 06-Robbery, Extortion and Hijacking Offences, 07-Burglary and Related Offences, 08-Theft and Related Offences, 09-Fraud, Deception and Related Offences, 10-Controlled Drug Offences, 11- Weapons and Explosives Offences, 12-Damage to Property and the Environment, 13-Public Order and other Social Code Offences, and 15-Offences against Government, Justice Procedures and Organisation of Crime. Please note that the crime counting rules were applied in this analysis. Note also that incidents arising from fixed charge penalty notices and invalidated incidents were excluded.

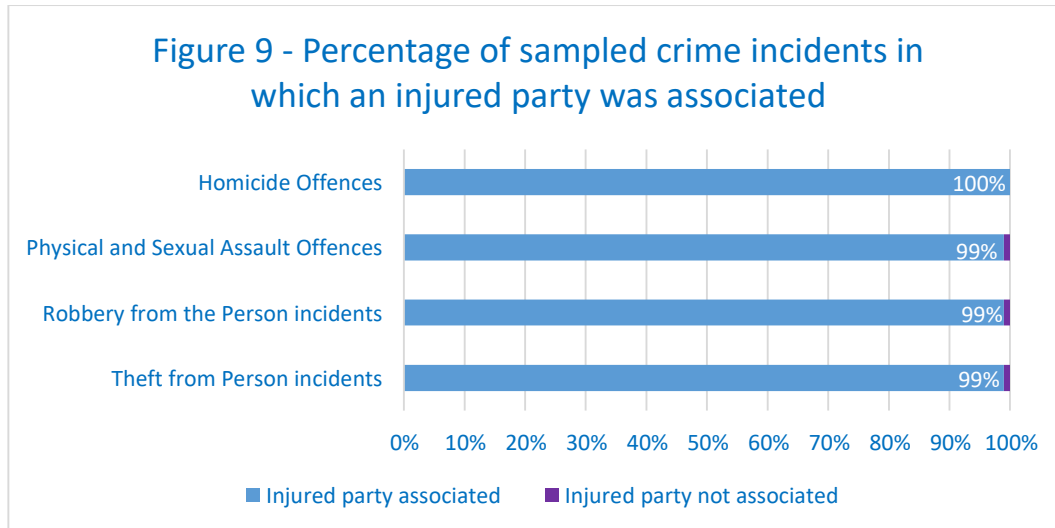
## Detections

GSAS reviewed PULSE data relating to incidents reported in 2022 with sanctions (including charges and summons). Various data fields within the incidents were reviewed against suspected offender data for coherence. It was found that:

- In almost 100% of cases, a valid charge or summons corresponded with an incident having been marked as 'Detected' or 'Resulted in Proceedings'.
- In 95% of cases, the year of the first valid charge or summons associated with a PULSE crime incident corresponded with the detection date year.
- In greater than 99% of cases, a valid charge or summons corresponded with the presence of a valid suspected offender record.
- In 99% of cases, a valid charge or summons corresponded with the detection status of a valid suspected offender record indicating that proceedings had commenced.

## Recorded crime victims

GSAS reviewed PULSE data relating to a number of incident types<sup>4</sup> reported in 2022 and examined the extent to which an 'injured party' had been recorded in the incidents. GSAS found that an injured party was associated with 100% of homicide offences, 99% of physical and sexual assault offences, 99% of Robbery from the Person incidents, and 99% of Theft from Person incidents. Related sex and date of birth data fields were also checked; the findings are set out in Figures 10 and 11 on page 9 of this report.



<sup>4</sup> As part of the review, a subset of incident types were extracted from requested crime groupings, including Homicide offences (Murder, Manslaughter and Dangerous Driving causing Death incidents), Physical Assault offences (Assault Minor and Assault Causing Harm incidents), Sexual Assault offences (Sexual Assault, Rape of a Female, Rape Section 4, Sexual Offence involving Mentally Impaired Person, Buggery and Aggravated Sexual Assault incidents), Robbery from the Person incidents and Theft from Person incidents. Incidents in which the IP is an organisation (rather than an individual) or a member of An Garda Síochána are excluded from this analysis.



Figure 10 - Percentage of sampled crime incidents in which the Date of Birth of the injured party appears complete

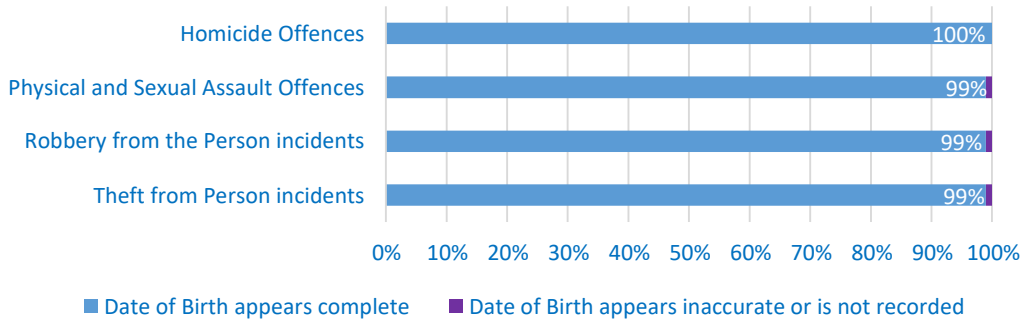
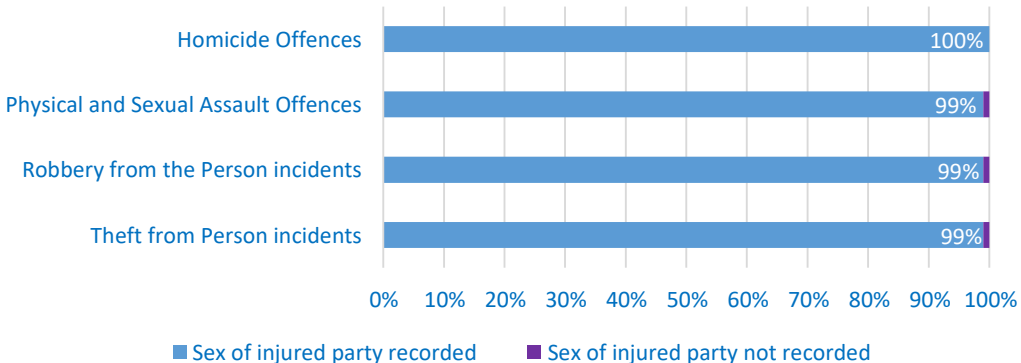


Figure 11 - Percentage of sampled crime incidents in which the sex of the injured party has been recorded



The publication of this review is another important milestone in the implementation of our data quality plan. An Garda Síochána is committed to cultivating an information-led service, using data and technology to drive efficiencies, effectiveness and decision making. The purpose of this review is to share additional information in relation to the quality of our data, inform users of crime statistics about the quality of the underlying PULSE data alongside demonstrating the effectiveness of our Data Quality Framework.