

OFFICE OF THE ATTORNEY GENERAL  
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Sexual Assault Forensic Evidence Tracking Database  
Annual Report to the Legislature  
Calendar Year 2019



DIVISION OF LAW ENFORCEMENT  
BUREAU OF FORENSIC SERVICES

## Executive Summary

### Reporting Requirement

The California Department of Justice (Department) created the Sexual Assault Forensic Evidence Tracking (SAFE-T) database to track the statewide collection and processing of victim sexual assault evidence (SAE) kits. In California, 46 of 58 counties send their SAE kits to the Department's crime laboratories for processing. The other twelve counties<sup>1</sup> maintain their own local crime laboratories and process their own SAE kits. Law enforcement agencies (LEAs) that investigate cases involving SAE kits, and public crime laboratories that analyze this evidence, enter the SAE kit information into the SAFE-T database. This database allows LEAs to log and track the status of SAE kits collected from victims of sexual assault.

Penal Code section 680.3, subdivision (e), requires the Department to submit an annual report to the Legislature summarizing the data entered into the SAFE-T database during the preceding calendar year. This second annual report includes information collected from incidents that occurred from January 1 through December 31, 2019.

### Background

The Department created the SAFE-T database in 2015 in an effort to collect data regarding the status of victim SAE kits in the possession of LEAs and crime laboratories. From its inception in 2015 through the end of 2017, LEAs and crime laboratories were encouraged, but not mandated, to enter their SAE kit data into the SAFE-T database. Public and legislative interest in clearing reported backlogs of untested SAE kits led to the 2017 passage of Assembly Bill 41, which added section 680.3 to the Penal Code to mandate reporting in the SAFE-T database of all victim SAE kits collected as of January 1, 2018.

The SAE kit status information collected in the SAFE-T database and summarized in this report is as follows:

- An information record for each SAE kit, which must be created within 120 days of collection;
- The date biological evidence samples from an SAE kit are submitted to a crime laboratory for DNA analysis or the reason for not submitting samples to a laboratory;
- Whether an SAE kit generates a potentially probative DNA profile<sup>2</sup>; and
- The reason(s) a kit submitted to a laboratory is not tested within 120 days, and every 120 days thereafter until testing is complete.

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<sup>1</sup> These counties are Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Kern, Los Angeles, Orange, Sacramento, San Bernardino, San Diego and Ventura.

<sup>2</sup> A DNA profile that may help to identify a perpetrator in a criminal investigation.

## Definitions

Terms and acronyms used in this report include:

*Sexual Assault Evidence Kit* – SAE kit, as used in this report, refers to evidence collected by a medical facility that conducts a sexual assault examination. The standard victim SAE kit consists of multiple body swabs that may contain the perpetrator’s DNA, a reference buccal swab from the victim’s cheek, and other potential evidence such as the victim’s underwear and fingernail scrapings.

*Rapid DNA Service (RADS)* – A Department-specific rapid DNA testing program available to the 46 counties in the Department’s service area. Through this program, the Department trains medical staff to assemble a RADS kit, which contains selected swab samples that would have otherwise been included in the standard SAE kit. The medical staff sends the RADS kit directly to one of the Department’s crime laboratories for expedited DNA testing. Most of the 46 counties served by the Department’s laboratories participate in the RADS program, although rural medical facilities in participating counties, located far from large population centers, are not always equipped to collect RADS kits. In those cases, the LEA may submit the entire standard SAE kit to the Department’s crime laboratory for analysis. The laboratory will triage the kit in RADS-fashion and add the selected swabs to the laboratory’s RADS analysis workflow.

Similar rapid testing programs may also exist under different names in the twelve California counties that have their own local crime laboratories.

*RADS or “Mini” Kit* – A RADS kit generally contains up to three of the most probative evidence swabs from the standard SAE kit and a DNA reference swab from the victim. Medical staff package these samples separately from the standard SAE kit and send them directly to a crime laboratory for expedited DNA testing. Typically, the selected evidence swabs are the ones most likely to contain the perpetrator’s DNA based on the case history. As sexual assault evidence is commonly a mixture of body fluids from both the victim and the perpetrator, a DNA reference swab from the victim is also included to aid with the interpretation of any DNA mixtures.

The standard SAE kit, which contains all of the remaining swabs and evidence samples, is sent to the LEA rather than the crime lab. If a RADS analysis yields no probative results, or an evidence sample yields insufficient foreign DNA for testing, the standard SAE kit may need to be submitted to the crime lab for additional testing.

For the purpose of this report, similar rapid testing kits collected by local agencies outside of the Department’s RADS program are referred to as “mini kits.”

*Combined DNA Index System (CODIS)* – CODIS is the Federal Bureau of Investigation’s (FBI) program and software used to store and search perpetrator DNA profiles developed from forensic evidence against the DNA profiles of qualifying convicted offenders and arrestees. CODIS comprises Local DNA Index System (LDIS), State DNA Index System (SDIS), and National DNA Index System (NDIS) databases. The three main criminal indices in CODIS are the Forensic

Index, which contains perpetrator DNA profiles developed from forensic evidence, the Convicted Offender Index, and the Arrestee Index<sup>3</sup>. DNA profiles may be uploaded as far as the LDIS, the SDIS, and the NDIS, provided they meet the criteria for each level and index.

Once uploaded, the DNA profiles in the three criminal indices are regularly searched against each other to identify potential matches. To link forensic evidence to a known convicted offender or arrestee, the Forensic Index is searched against the Convicted Offender Index and the Arrestee Index. The Forensic Index is also searched against itself to link evidence from different crimes to the same perpetrator (referred to as case-to-case hits).

Access to CODIS is strictly limited to law enforcement crime laboratories that comply with the requirements set forth in the Federal DNA Identification Act (42 U.S.C. 14132(c)). Private vendor laboratories do not have access to CODIS. A private DNA laboratory may analyze evidence and develop DNA profiles, but a CODIS laboratory has to assume ownership of a DNA profile for it to be uploaded to CODIS.

*Local DNA Index System (LDIS)* – An LDIS is a local CODIS DNA database that feeds into the state’s SDIS. An LDIS laboratory is a local crime laboratory that participates in CODIS and uploads the perpetrator DNA profiles from forensic evidence submitted by their LEAs. Although some DNA profiles may be held at the LDIS level, most evidence DNA profiles entered into an LDIS laboratory’s database are also uploaded to the SDIS database. Because local policies may differ from state or federal rules, some DNA profiles in an LDIS database may not be eligible for inclusion in SDIS and/or NDIS.

*State DNA Index System (SDIS)* – An SDIS is a state-level CODIS DNA database that feeds into NDIS. It includes all of the SDIS-qualifying DNA profiles uploaded from that state’s LDIS laboratories, as well as those uploaded directly by the state (SDIS) laboratory. An SDIS laboratory is a state crime laboratory that administers CODIS for the local crime laboratories in that state and is responsible for ensuring statewide compliance with state and federal CODIS requirements. In California, the SDIS laboratory is at the California Department of Justice, Bureau of Forensic Services, Jan Bashinski DNA Laboratory in Richmond.

*National DNA Index System (NDIS)* – NDIS is the national CODIS DNA database that is maintained by the FBI. It contains qualifying DNA profiles uploaded by local, state, and federal crime laboratories. DNA profiles uploaded from an SDIS are regularly searched against appropriate indices in NDIS.

*Record* – A single database record for a victim SAE kit, created in the SAFE-T database.

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<sup>3</sup> CODIS also contains non-criminal and specialty indices; however, for the purpose of this report, the term CODIS refers to the three criminal indices.

*Profile* – A DNA profile is a set of DNA markers that reflects an individual’s genetic makeup and can be used to distinguish between different individuals. A DNA profile may be uploaded to CODIS if it meets specific eligibility requirements.

## 2019 SAFE-T Report

This report contains statistics on the progress and status of victim SAE kits collected from incidents occurring in California between January 1, 2019 and December 31, 2019. The data for this report was extracted from SAFE-T on May 1, 2020. Any activity relating to 2019 SAE kits after May 1, 2020 is not captured in this report.

### 2019 Victim Sexual Assault Evidence Kits: Status and Location

Every SAFE-T record is expected to contain current information on the status and the location of each individual SAE kit. Authorized users from LEAs and public crime laboratories may update a SAFE-T record at different points throughout the process.

This section provides an overview of the reported status and location of all **7,224** records from 2019, as of May 1, 2020 (see Figure 1):

- DNA analysis had been completed for **6,080** kits
- **446** kits had been received by an LEA but not submitted to a laboratory<sup>4</sup>
- **147** kits were in transit from an LEA to a laboratory<sup>5</sup>
- **136** kits had been received by a crime laboratory but had not yet been analyzed
- **144** kits were undergoing DNA analysis
- LEAs or crime laboratories had determined that **271** kits would not be analyzed for DNA<sup>6</sup>

### Reported Status of 2019 SAE Kits as of May 1, 2020

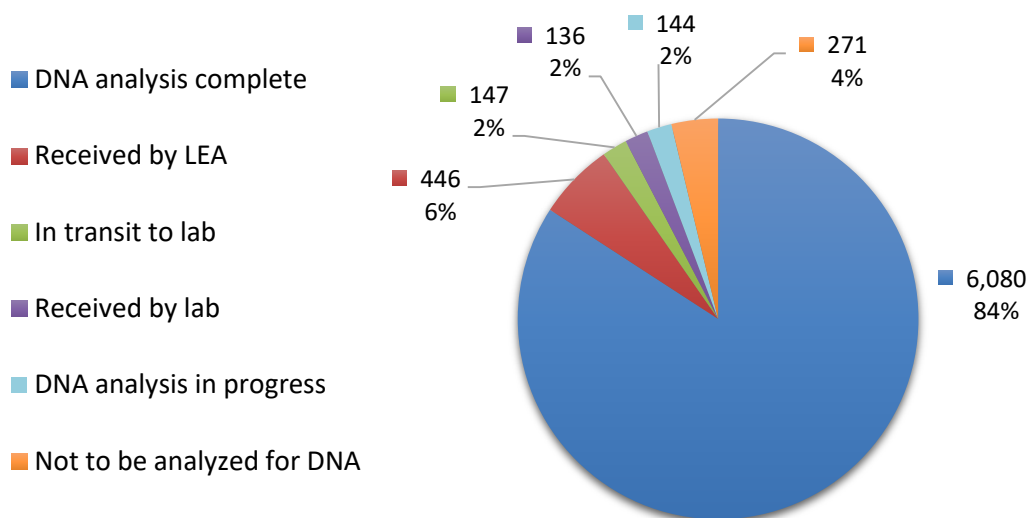


Figure 1. Point-in-Time Status of 2019 Victim SAE Kits as of May 1, 2020.

<sup>4</sup> See Figure 2 (page 7) for the reasons kits that had been received by an LEA were not submitted to a laboratory.

<sup>5</sup> These kits were marked sent to a laboratory by the LEA but had not yet been marked received by the laboratory.

<sup>6</sup> See Figure 3 (page 8) for the reasons kits that had been submitted to a laboratory were not analyzed for DNA.

## Records Created in SAFE-T

LEAs and crime laboratories generated **7,224** new SAE kit records in SAFE-T with incident dates between January 1, 2019 and December 31, 2019. Ninety-five percent (**95%**) of these were entered into the SAFE-T database within 120 days of the date the SAE kit was collected as required by Penal Code section 680.3, subdivision (a). This indicates improved compliance from 2018, when eighty-eight percent (**88%**) of records were created within 120 days of collection.

## Kit Locations and Crime Laboratory Submission

As of May 1, 2020, **6,778** (94%) of the **7,224** total kits had been sent to a crime lab and **446** kits (6%) had been retained by an LEA. Of the 6,778 kits sent for laboratory analysis, **99** kits (1%) were sent from one CODIS LDIS lab to a secondary LDIS lab and **182** kits (3%) were sent by a LDIS lab to a private vendor lab. RADS/mini kits constituted **1,661** (25%) of the kits submitted to laboratories; the records for **148** kits did not specify whether they were standard kits or RADS/mini kits.

## Kits Not Submitted to Lab

There are many reasons why law enforcement may choose not to submit a SAE kit for laboratory analysis. The reasons **446** SAE kits were not submitted to a laboratory are summarized as follows (see Figure 2):

### *The victim was not pursuing prosecution (124 kits)*

This category includes kits that LEAs chose not to submit to a laboratory because the victim declined to pursue prosecution (**72** kits), remained anonymous pursuant to the federal Violence Against Women Act (VAWA)<sup>7</sup> (**35** kits), recanted (**12** kits) or could not be located (**5** kits).

### *The investigation did not support testing (93 kits)*

Kits in this category were not submitted to a laboratory because investigators could not substantiate that a crime had occurred (**45** kits), the allegations were determined to be unfounded (**34** kits), or there was insufficient evidence that a crime occurred (**14** kits).

## Reasons SAE Kits Not Sent to Lab

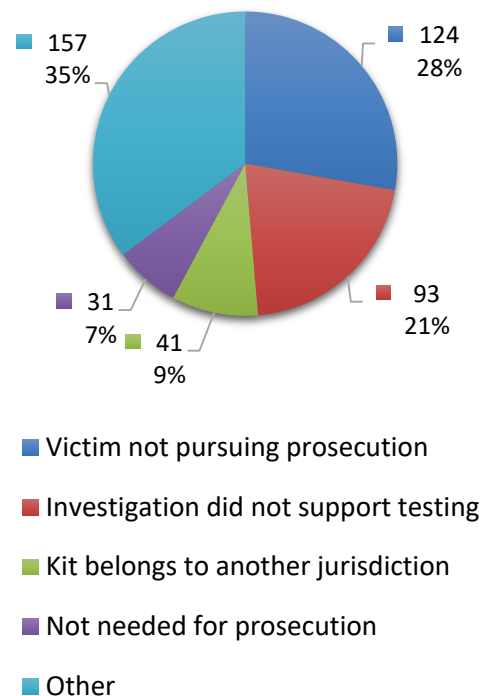


Figure 2. Reasons SAE Kits Were Not Sent to a Lab.

<sup>7</sup> Among its provisions, VAWA affords sexual assault victims the right to obtain a medical examination and to have forensic evidence collected without being required to immediately, or ever, report the sexual assault to law enforcement or pursue prosecution. Kits collected from victims who wish to remain anonymous may be retained by the medical facilities that collected them or submitted to LEAs or crime laboratories.

### *The kit belongs to another jurisdiction (41 kits)*

If a victim undergoes a sexual assault examination in a jurisdiction other than the one where the alleged assault occurred, a LEA that does not have jurisdiction over the case may receive the kit and take a courtesy report. That LEA may then hold the kit in its inventory until the jurisdictional agency takes possession. A total of **41** kits had not been submitted to a laboratory because they were pending transfer to the correct jurisdiction.

### *Testing was not needed for prosecution (31 kits)*

LEAs reported **19** kits that had not been submitted to a laboratory because a known suspect had claimed the interaction was consensual, and another **12** kits that were not tested because the suspect had already confessed or pled guilty.

### *Other reasons (157 kits)*

The LEA entry screen in the SAFE-T database provides options to designate the reason a kit is not submitted to a crime laboratory. If none of the listed reasons apply, the agency may select “Other” and provide an optional explanation. This was the case for **128** kits that were not submitted to a laboratory. “Other” explanations commonly noted in SAFE-T may be broadly summarized as:

- The case is pending investigation/assignment or is being actively investigated
- The identity of the suspect is not in question
- Other evidence was tested
- The case was rejected by the District Attorney
- The kit is unsuitable for testing

In addition, **one** kit was no longer linked to an investigation, and no reason was given for not submitting **28** kits to a laboratory.

### *Kits Analyzed for DNA*

The status of the DNA analysis was reported for **6,495** of the 6,778 kits sent to a crime laboratory: **6,080** kits had been tested for DNA, **144** kits were undergoing testing, and **271** kits were not going to be tested. Reasons provided for the **271** kits that were received by a lab, but not analyzed, include: the kit screened<sup>8</sup> negative<sup>9</sup> (**141**), the LEA requested the

### **Reasons SAE Kits Not Tested for DNA**

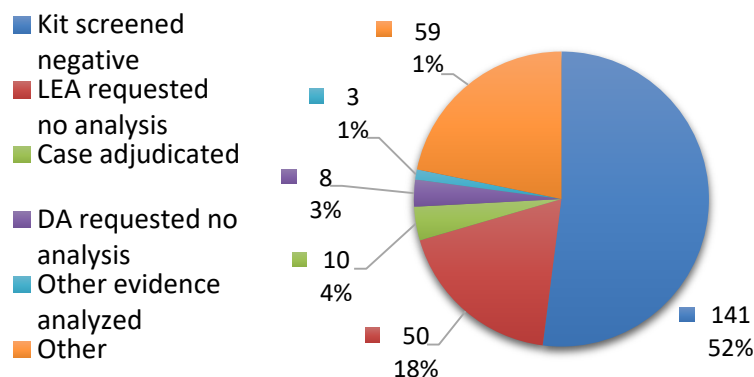


Figure 3. Reasons SAE Kits Were Not Tested for DNA.

<sup>8</sup> “Screening” usually refers to biological screening for the components of semen when the case history indicates a male perpetrator; this may not involve DNA analysis.

<sup>9</sup> No DNA typing was conducted in these instances because the samples screened negative for semen or no male DNA was detected at DNA quantitation.



kit not be analyzed (**50**), the District Attorney requested the kit not be analyzed (**8**), the case was adjudicated (**10**), other evidence was analyzed (**3**), or “Other” (**59**) (see Figure 3).

### CODIS Profiles Generated

Of the 6,080 SAE kits for which crime laboratories completed DNA analysis, **2,766** yielded potentially probative DNA profiles that were uploaded to CODIS. Out of those 2,766 records, **1,455** indicated a CODIS search outcome, i.e., whether or not there was a DNA hit to an “offender/arrestee.” An offender/ arrestee hit was reported for **782** of those 1,455 records, which accounts for 51 percent of the total kits for which a CODIS search outcome was reported in the SAFE-T database (see Figure 4).

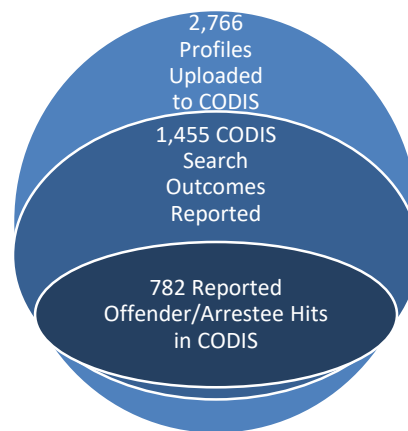


Figure 4. CODIS Uploads to Reported CODIS Hits.

### Kits Without CODIS Profiles

The analysis of a kit does not always yield a DNA profile suitable for uploading to CODIS. The data from 2019 showed that no CODIS profiles were obtained from **3,314** kit analyses. Reasons were provided in **2,532** of these cases (see Figure 5).

The most frequently-cited reasons were that the analysis did not proceed past the DNA quantitation step because no male<sup>10</sup> DNA was detected (**1,052**), there was insufficient foreign DNA for CODIS upload (**710**) or no DNA foreign to the victim was detected (**391**). One (**1**) specimen was too degraded to yield a DNA profile, **103** kits had a complex mixture of DNA from two or more individuals that was not suitable for upload to CODIS, and **275** were marked “Other.”

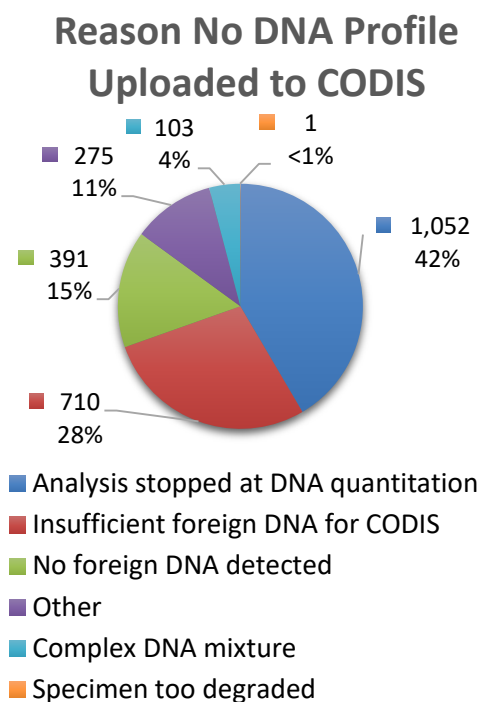


Figure 5. Reason No DNA Profile Uploaded to CODIS.

<sup>10</sup> DNA quantitation is performed to determine the quantity of DNA recovered from an evidence sample. DNA quantitation results will also indicate the presence of male DNA and the relative proportions of male to female DNA. For cases involving male perpetrators and female victims, the evidence swabs collected from the victim may contain a mixture of DNA from the male perpetrator and the female victim. Analysis may be stopped if no male DNA is detected at DNA quantitation. In cases of male-on-male and female-on-female assault, samples go through DNA analysis to look for DNA foreign to the victim.

## Sexual Assault Evidence Kits: Processing Times

Penal Code section 680, subdivision (b)(7) sets timelines for the processing of DNA evidence in sexual assault cases. These timelines were recommendations through the end of 2019 and became mandates on January 1, 2020. During the 2019 calendar year, LEAs were encouraged to either submit SAE kits to crime laboratories within 20 days of booking the kits into evidence or ensure that their crime lab has a rapid turnaround DNA program in place. Crime laboratories were encouraged to process SAE kits for DNA within 120 days of receipt or send the kit to another laboratory as soon as possible, but no later than 30 days after receipt. This section discusses the duration between various milestones.

See Table 1 (page 12) and Figure 7 (page 12) for descriptive statistics for process durations and Figure 8 (page 13) for an illustration of the SAE kit lifecycle.

*Duration from the incident to the medical exam.* All of the **7,224** kit records with 2019 incident dates include both the incident and medical exam dates. For **5,325** kits (74%), the alleged assault incident and the medical exam took place on the **same or following day**. The interval between the incident and medical exam was **two days** for **798** kits (11%) and **three days** for **458** kits (6%). As time elapses between the incident and the collection of sexual assault forensic evidence, the chances of obtaining the perpetrator's DNA diminish rapidly. The recorded medical exam date for **643** kits (9%) was **more than three days** after the date of the incident.

*Duration from the medical exam to the LEA's receipt of the kit.* The SAFE-T records for **5,239** kits had both recorded medical exam dates and LEA receipt dates. Four kits were excluded from analysis because the reported date of receipt by the LEA preceded the exam date. SAE kits typically arrived at an LEA within **one day** of the medical exam.

*Duration from the medical exam to the receipt of the kit by the crime lab.* There were **6,630** kits that included both the medical exam date and the date the kit was received by the first lab. For five kits, the recorded lab receipt date preceded the medical exam date; therefore, these kits were excluded from analysis. The median duration for the remaining **6,625** kits, including RADS kits, from the date of the medical exam to the date the kit was received by the laboratory was **five** days after the completion of the victim's medical exam.

*Duration from the lab's receipt of the kit to upload of a DNA profile to CODIS.* All but one of the **2,766** kits that yielded CODIS-eligible profiles had both the date received by the first laboratory and the date uploaded to CODIS. Three of the CODIS-eligible profiles had CODIS upload dates that preceded the kit receipt date and were therefore removed from analysis. From initial receipt of the remaining **2,762** kits, it took a lab a median of **82** days to develop a CODIS-eligible DNA profile from an SAE kit sample and upload it to CODIS.

*Duration from the medical exam to the release of the DNA report.* There were **6,079** kit records that included both the date of the medical exam and the date the DNA report was released.

The median duration of the overall process, from the date of the medical exam to the laboratory’s release of a DNA report, was **87** days (see Figure 6).

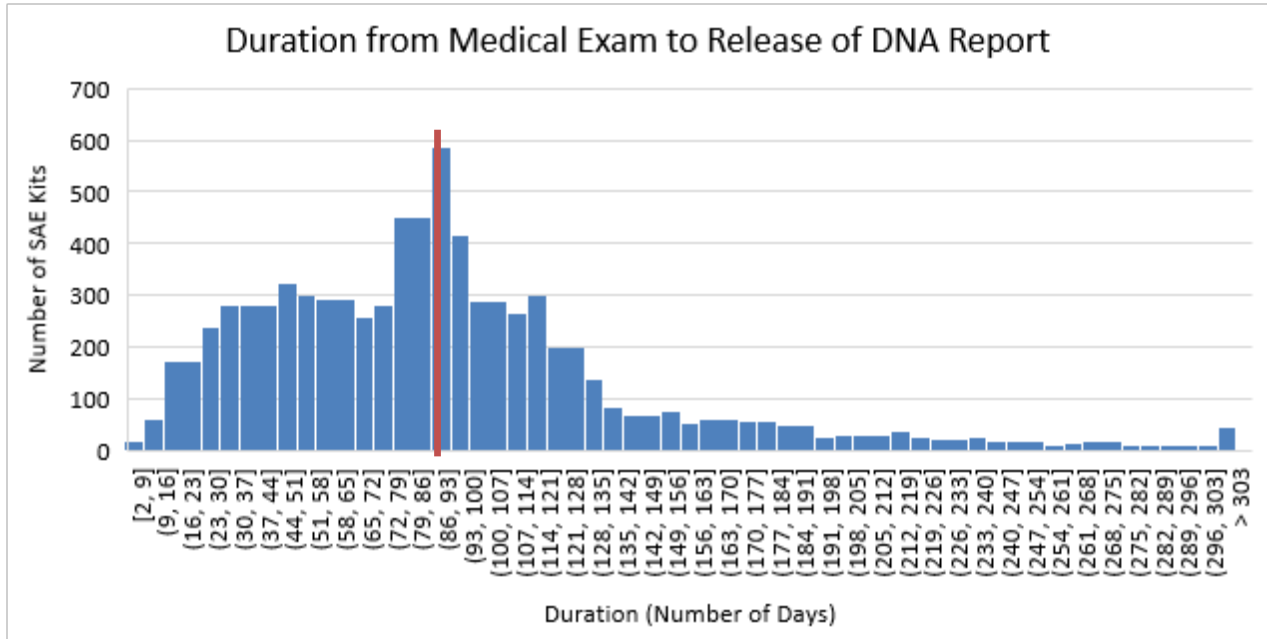


Figure 6. Histogram of Duration from Medical Exam to DNA Report Release.

## Duration of Sexual Assault Evidence Kit Processes, in Days

Process	Number of Records	Median	Mode	Mean	Standard Deviation	Min	Max
Incident to Medical Exam	7,224	1	0	2	11	0	370
Medical Exam to LEA	5,235	1	0	4	13	0	258
LEA to Send to Lab	3,816	3	0	12	31	0	399
Sent by LEA to Lab Receipt	3,423	0	0	6	19	0	275
Medical Exam to Lab Receipt	6,625	5	2	15	31	0	408
Lab Receipt to CODIS Upload	2,762	82	87	81	50	0	433
Lab Receipt to DNA Report	6,079	77	85	79	49	0	446
Medical Exam to DNA Report	6,079	87	89	93	55	2	450

Table 1. Duration of Sexual Assault Evidence Kit Processes, in Days.

## Year-to-Year Comparison of Median Durations, in Days

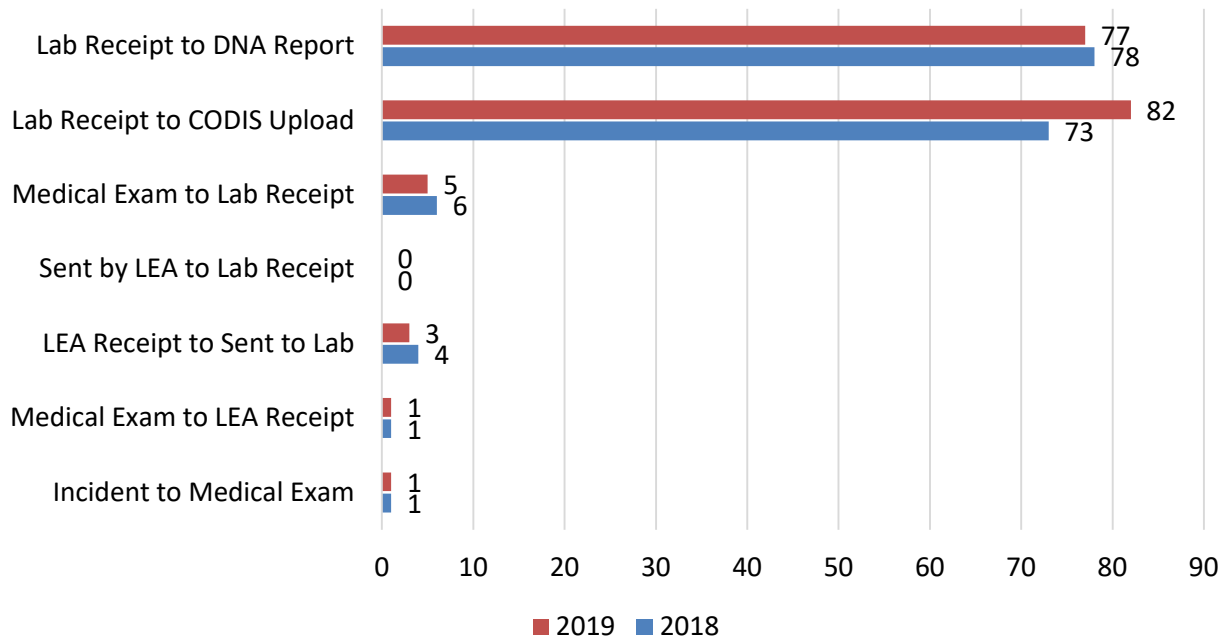


Figure 7. Year-to-Year Comparison of Median Durations, in Days.

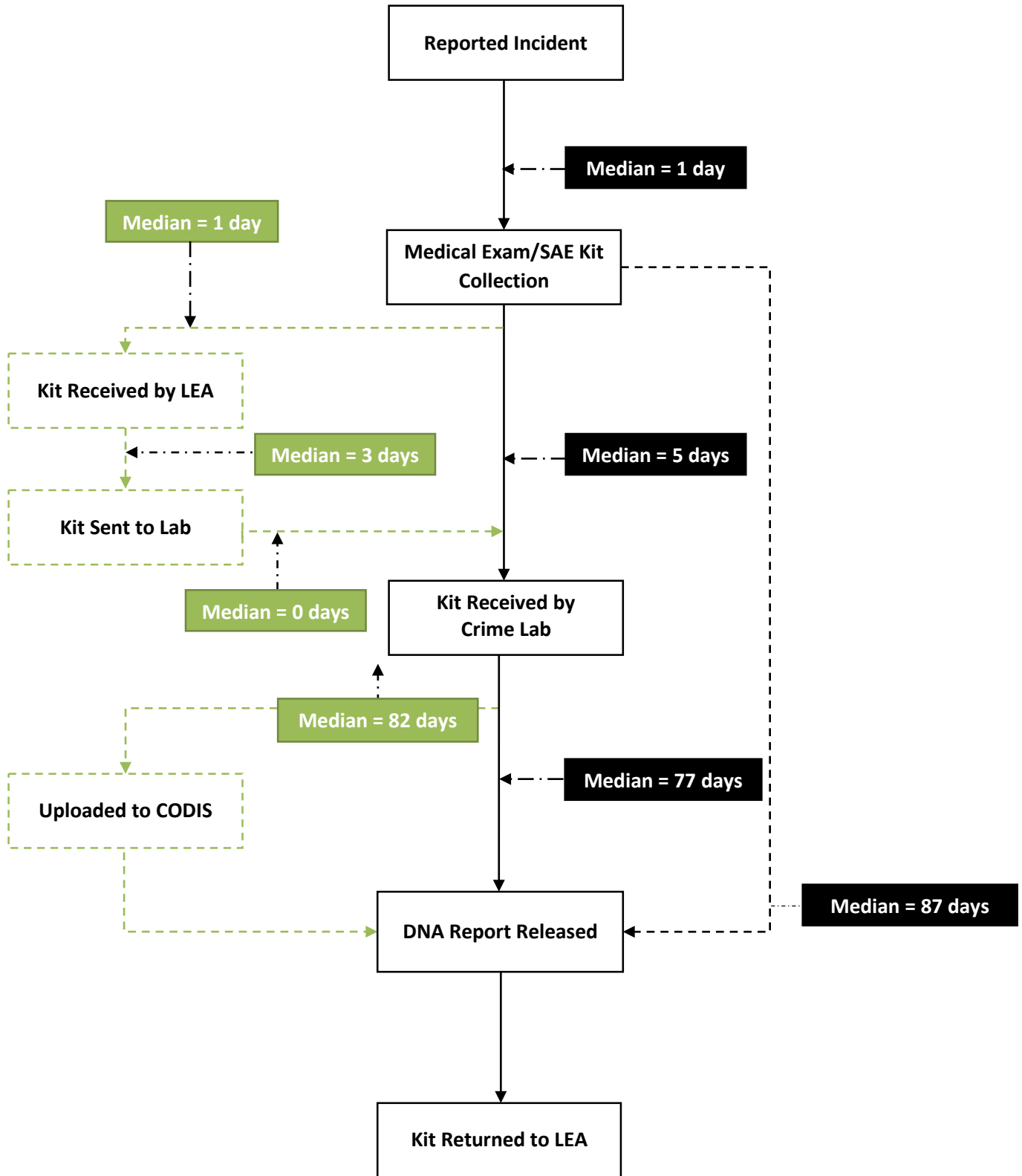


Figure 8. Lifecycle of SAE Kit with Typical Duration in Median Days.