The National Institute of Standards and Technology (NIST) facilitated the development of this Seized Drugs Process Map through a collaboration between the NIST Forensic Science Research Program and the NIST administered Organization of Scientific Area Committees (OSAC) for Forensic Sciences (specifically OSAC’s Seized Drugs Subcommittee). Process mapping visually represents the critical steps and decision points of a workflow, allowing others to understand a process and its components more clearly and revealing areas of improvement. Process maps use standard symbols to describe each element in the process – e.g., inputs, outputs, decisions, and steps – making it easier to communicate a process than long-form documentation.

The Seized Drugs Process Map captures the decision-making and process flow details most frequently encountered in the discipline of seized drug examination and processing. It was developed by a diverse group of practitioners and is intended to reflect current practices within the field. The Seized Drugs Process Map depicts variations in practice that may be influenced by agency size, agency type (public vs private), agency policies, geographical location and jurisdiction. Certain processes represented in the map have a required sequence while other components may vary. For this reason, it is important to state that the OSAC Seized Drugs Subcommittee does not necessarily support or endorse (as best practices) all of the different steps and paths depicted in this process map.

Process Map Applications:

The Seized Drugs Process Map is intended to be used to help improve efficiencies while reducing errors, highlight gaps where further research or standardization would be beneficial, and assist with training new investigators. It may also be used to develop specific investigative policies and identify best practices.

Scope of the Seized Drugs Process Map:

The scope of the Seized Drugs process map is limited to core processes within the discipline of seized drugs; therefore, certain topics are omitted from this map such as morphological features of cannabis. These topics may covered in future process mapping exercises.
This process map provides a visual description and attempts to represent all reasonable variations of casework currently performed by controlled substance seized drug chemists. OSAC does not necessarily support or endorse (as best practices) all of the different steps and paths depicted in this process map.
1100 - Administrative Assessment (2 of 3)

FROM 1008/1012 Admin Assessment (1 of 3)
1102 Assign case to Analyst now?

1104 Self assign cases?

1106 Case assigned to analyst/FAP

1114 Does the submission proceed directly to vault?

1115 Is sampling needed?

1116 Transfer evidence to vault (in coordination with requestor as needed) and assign unique identifiers FAP

1152 Assign case now?

1154 Case assigned by supervisor/manager/short based on agency criteria or priority FAP

GO TO 1190 Admin Assessment (3 of 3)

GO TO 1100 Admin Assessment (1 of 3)

FROM 1014 Admin Assessment (3 of 3)
1110 Does the vault capacity need to be assessed? (i.e., a large/bulk seizure)?

1112 Assess vault storage capacity

1116 Is there adequate space for storage in vault?

1118 Communicate with requestor regarding capacity and sampling?

1120 Reject case due to discount status/missing evidence number and proceed FAP

1122 Communicate with requestor regarding sampling

1124 Can arrangements be made to meet visit at an alternative location/facility to collect sample from the bulk seizure?

1128 In assistance needed FAP (e.g., for sampling, weighting, logging, etc.)

1130 Advise requestor to return another time when there is vault space available?

1132 Communicate with requestor regarding capacity and sampling?

1134 Communicate with requestor regarding capacity for sampling

1136 Request personnel per communications

1140 Locate and approved personnel FAP

1142 Develop test plan (may be written or unwritten):
- Determine personnel needed
- Determine who will be performing tasks (e.g., caging, taking notes, documenting, etc.)
- Determine supplies needed (tainers, balance, large scale for fullgross weight, etc.)
- Develop and perform communications (e.g., storage personnel, between management/analyst and investigator/submitter)
- Determine case priority FAP
- Assess pre-assessment status
- Use knowledge and experience as necessary
- Verify submission
- Review submission if needed

1146 Is agency required to redact?

GO TO 1190 Admin Assessment (3 of 3)

RETURN TO 1002 Admin Assessment (1 of 3)

Technology Asset
- Laboratory Information Management Systems (LIMS)
- Record Management System (RMS)
- Joint Based Reporting (JBR)
- State Law Information Database
- Scanners
- Phones
- Computers
- Large/Quick Balance
- Coding tools

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1200 - Administrative Assessment (3 of 4)

1202 Evaluate proper packaging and sealing

1204 Are there any issues to be addressed (e.g., packaging, seals)?

1206 Can the issue be corrected/repaired?

1207 Conduct content inspection?

1208 Conduct internal content inspection?

1210 Has the issue been corrected/repaired?

1212 Has the issue been corrected/repaired?

1214 Is there additional evidence to proceed?

1216 Is there additional evidence to proceed?

1218 Submit evidence to analyst

1222 Initiate evidence receiving process per agency policy (PAP):
- Label with unique Case Identifier (if not already done)
- Label with unique Item designation for evidence (if not already done)
- Generate receipt and provide to submitting agency
- Ensure proper packaging and sealing
- Initiate Laboratory chain of custody
- Generate appropriate documentation PAP
- Enter case information into LMS
- Mark with biohazard sticker or other marking as needed
- Ensure proper storage and security of item(s)

1224 Assess case prioritization PAP (e.g.:
- Risk/priority request
- Person of interest in jail
- Court date set
- Some items already processed
- Grand jury
- Official priority based on agency mission
- An ongoing investigation
- Public safety or warrant
- Remark as a result from previous analysis

1226 Has case been assigned to analyst?

1230 Case self-assigned or assigned by supervisor/manager based on agency criteria/priority PAP

1232 Assess case prioritization PAP (e.g.:
- Assessed vault capacity
- Possible initial test plan
- Possible evidence sampling
- Case prioritization
- Evidence intake
- Case assignment
- Evidence transferred to vault
- Evidence items with unique identifiers
- Possible communications with customer

1320 Output

Technology Audit:
- Laboratory Information Management System (LIMS)
- Evidence tracking system
- Record Management System (RMS)
- Field Service Reporting (FSR)
- State law reference database
- Scanners
- Printers
- Computers
- Large flat bed balance
- Coring tools

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### Glossary of Terms and Definitions

#### Abbreviations:
- PAP: Per Agency/Laboratory Policy

#### Analytical Balance:
Balances designed with a draft shield and the sensitivity to measure small amounts of substance in the sub-milligram range.

#### Analytical Scheme: From SWGDRUG:
An analytical scheme shall be comprised of validated methods that are appropriate for the analyte.
- The combinations of methods chosen for a particular analytical scheme shall identify the specific drug of interest, preclude a false positive and minimize false negatives.
- For quantification the method should reliably determine the amount of analyte present.
- If validated methods are used from published literature or another laboratory's protocols, then the methods shall be verified within each laboratory.
- If non-routine validated methods are used, then the method shall be verified prior to use.
- Verification should, at a minimum, demonstrate that a representative set of reference materials has been carried through the process and yielded the expected results.

#### Bulky:
Taking up much space, typically inconveniently; too large for available storage accommodations.

#### Composite Weighing:
Weighing a representative, homogenized sample.

#### Drug Monograph:
Monograph is a written document of the study of a single item. Monographs can be created for individual drugs, or in some cases, classes of drugs. These monographs contain information that can be useful in identifying an individual drug.

#### Dry Weight Correction Factor:
A method sometimes used to account for moisture present in plant material. For example, this may be done to meet the statutory requirement of "0.3% on a dry weight basis"; it may be represented as a moisture percentage or a ratio of dry to wet mass.

#### Dynamic Weighing:
A dynamic weighing process involves placing a weighing vessel on a balance, taring the balance, and adding material immediately to the weighing vessel without removing it from the balance.

#### Extrapolation Weighing:
Estimating the weight of an entire amount based on the weight of a defined portion of the amount, assuming the properties throughout the entire amount are the same.

#### Inconclusive Results:
If testing indicates the presence of a substance that cannot be identified, the results may be reported as "Unable to identify," with the appropriate accompanying footnote:

- a. For insufficient amount of evidence: "Insufficient sample for identification"
- b. For insufficient instrumentation: "Due to limitations in instrumentation, the laboratory is unable to identify the compound in this exhibit at this time."
- c. For no reference standard or reference library available: "Due to unavailability of appropriate reference standard/reference libraries, the laboratory is unable to identify the compound in this exhibit at this time."
- d. For unsuitable evidence (e.g., decomposed plant material) for identification: "Due to the unsuitable condition of the evidence, the laboratory is unable to identify the substance.

#### Indications:
In cases where a specific compound or isomer cannot be confirmed, an analyst may report out class information, or in the case of isomers, list all possible isomers that might be present.

#### Large Top Loader (Bulky Balance):
A top load balance that can hold larger, bulky items.

#### Non-Statistical Sampling Plan:
A sampling technique used when the laboratory does not intend to report a conclusion about the whole population of a multi-item submission. Examples include pharmaceutical, composite, and single unit selection/arbitrary sampling.

#### Preliminary Results:
Results of a preliminary test, a test performed to help determine possible drug, drug type, or drug class but it is not specific enough of a test to positively identify it.

#### Presumptive ID:
Establishment of the possibility that a substance is present. For example, an analyst may know name and exact compound but don't have enough info to confirm.

#### Sampling Plan:
From ISO/IEC 17025-3125: 3.29S: A statistically valid approach to determine the number of sub-items that must be tested in order to make an inference about the whole population.

#### Sample Prep:
Any preparation needed in order to test the sample using a specific test:
- Extraction method
- Dissolution
- Derivatization
- Crystallization techniques for introducing sample into instrumentation

#### Static Weighing:
A static weighing process involves removal of the tared weighing vessel, filling with material, and then returning to the balance to obtain the net weight.

#### Statistical Sampling Plan:
A statistically valid approach to determine the number of sub-items that must be tested in order to make an inference about the whole population. Examples include hypergeometric and Bayesian methods.

#### Top Loader (Balance):
A balance with less sensitivity as the analytical balance with an open top. Used when precision of 0.01 grams is sufficient.

#### Uncertainty of Measurement:
An estimation of how closely (dispersion) an analytical technique can determine a measurement result such as weight or quantitation.

#### Weighing Event:
An instance when something is placed on the balance (i.e., empty weigh paper, weigh paper with substance, empty plastic bag, etc.).

### References:
1. https://www.swgdrug.org/approved.htm

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