

Chapter 17: Death Clearance

Death Clearance is the process of linking death certificate records with the registry database in order to determine all deaths among registrants and to identify deaths from cancer among persons previously unknown to the registry.

When a death certificate record is loaded into SEER*DMS, it moves through the editing, screening, matching, and consolidating tasks of the workflow. If the record is not reportable, it is used for passive follow-up. If the record is reportable and matches an existing cancer/tumor/case (CTC) in the database, it is linked to that CTC and consolidated into the patient set data (this may be done in all automated processes or may require manual review of the patient or CTC match).

If the death certificate indicates a new reportable tumor, a CTC will be created to represent the case. The processing of cases identified by death certificates varies by registry as described in the *Overview of Death Clearance and SEER*DMS* section of this chapter. The CTC is created immediately in some registries while other registries wait to see if an abstract can be obtained.

Warning: The SEER*DMS Death Clearance Manager relies on the existence of an AFL for each reportable Death Certificate record. In some registries, AFLs were not created for all reportable death certificate records in SEER*DMS versions 1-7. Death certificates with a year of death less than or equal to 2009 may not have an AFL in the Connecticut, Detroit, and Hawaii registries. Use RPT-019A to track the processing of death certificate records that do not have AFLs (see the *Using the Death Clearance Summary Report* section of this chapter or contact SEER*DMS technical support for assistance).

In this chapter, you'll learn about

- Death Clearance Manager
- Overview of Death Clearance and SEER*DMS
- Completing Priority Tasks for Death Certificates
- Assigning Death Certificate AFLs to an Abstractor
- Creating Follow-back Letters and Hospital Listings
- Building DCO or MDO Cases
- Reports Related to Death Clearance
- Using the Death Clearance Summary Report (RPT-019A)

Death Clearance Manager

Requires system permission: *afl_manager*

SEER*DMS Death Clearance processes are based on Abstract Facility Leads (AFL). An AFL is a data structure containing meta-data (data about other data). Each AFL contains data about a single record. One AFL is created for each reportable death certificate record.

The status (open, closed) of the AFL indicates whether the case requires further investigation. The AFL result (abstracted, not a reportable case, etc) provides documentation related to the status.

Death Certificate AFLs are displayed in the Death Clearance Manager and are not displayed in the standard AFL Manager. You will use the Death Clearance Manager to create mail merge files for follow-back letters, to create listings with abstracting assignments, to convert death certificate records into death certificate only (DCO) cases, and to close AFLs for death certificates that do not require further attention. The following provides an overview of the data and features available in the Death Clearance Manager; specific instructions for death clearance activities are provided in subsequent sections of this chapter.

The data columns listed below are shown in the Death Clearance Manager. These fields are stored in the AFL. Many of these data items are also stored in the death certificate record. The value in the AFL is updated when the record is modified. However, the reverse is not true; a record field is not updated when its corresponding AFL field is modified. The only exception is that the record's reportability is updated when the AFL is closed and AFL result is "not a reportable cancer".

- **AFL ID** – A unique ID associated with each AFL.
- **Group ID** – An ID associated to a set of related AFLs, that is, AFLs that are to be processed in the same manner. Groups are created by registry staff in the Death Clearance Manager.
- **Rec ID** – The ID of the death certificate record.
- **Name** – The patient's first and last names are shown in separate columns.
- **SSN** – The patient's social security number.
- **DC File #** – The DC state file number provided on the death certificate.
- **Event Date** – The AFL event date. This field is set to the date of last contact on the death certificate record. It is auto-updated if the record date is modified.
- **State** – The state provided in the address at death on the death certificate record.
- **Site** – The site coded in the AFL. This will be the first reportable cause of death on the death certificate record. This field is an ICD-O-3 code. The cause of death on the death certificate is converted from an ICD to an ICD-O-3 code when the record is first loaded into SEER*DMS. The conversion logic is documented in the Morphology (Record) section of the Polishers help page.
- **Facility** – The AFL facility. This is originally set to a facility listed on the death certificate and stored in the death certificate record's Hospital Number field. The AFL facility is updated whenever the record's value is modified. However, you may change the facility in the AFL without affecting the death certificate record's facility fields.
- **DC Phys Lic** – The physician license number provided on the death certificate record.
- **Doctor 1** – The Doctor 1 facility on the AFL. When the AFL is created, the AFL Doctor 1 is assigned the value of Physician 3 on the death certificate record. The AFL Doctor 1 is updated whenever the record's physician is modified. However, you may change the value of AFL Doctor 1 without modifying the record.
- **Result** – The AFL Result is a code that is typically used to document the reason that an AFL was closed (abstracted, not a reportable cancer, etc). It is intended to be the "result of the investigation". The values allowed for the AFL Result field are described in *Chapter 21: Abstract Facility Leads*.
- **Status** – The status indicates whether or not the AFL requires attention (open or closed).
- **Task** – If the death certificate record is in the worklist, the task's assigned user will be listed. This column will be blank if the death certificate record is not in the worklist.

The Death Clearance Manager has a filter for each of the data columns that were described above and filters for several additional fields. Tips for using the filters are provided below. See Chapter 3: Using SEER*DMS for general instructions related to filters.

- **AFL ID, Record ID** – Use these filters to search for data based on a SEER*DMS ID. You may enter one ID or paste a list of IDs into these filters. In the Death Clearance Manager, you may use the Record ID filter to search by the death certificate's Record ID.
- **Import ID** – Use this filter to search for death certificate records that were loaded in a particular import. You may enter one Import ID or paste a list of IDs into the filter.
- **Linked Patient Set** – To find the AFLs for death certificate records that are linked to a patient set, set this filter to "Linked Patient Set is Not Missing". To find the AFLs for records that are not linked to a Patient Set, set the filter to "Linked Patient Set is Missing". If you know the Patient Set IDs then you may paste them into the filter.

- **Record Linked to CTC** - To find the AFLs for death certificate records that are linked to a CTC, set this filter to "Record Linked to CTC is Yes". To find the AFLs for records that are not linked to a CTC, set the filter to "Record Linked to CTC is No".
- **DC File #, State, SSN, Last Name, First Name, Birth Date, Event Date, Site, DC Phys License** – Use these filters to search for data based on these data items. For each filter, you will have the option of specifying a value, searching for records with a null value for the field ("is missing"), or searching for records with an unspecified value in the field ("is not missing").
- **Doctor 1** – Use this filter to search for data based on the AFL Doctor 1 field. This will typically have the same value as the record's physician 3 field. AFL Doctor 1 is updated whenever the record's physician is modified. However, you may change the value of AFL Doctor 1 without modifying the record.
- **Contact Method** – Use this filter to search for data based on the Contact Method for the AFL Doctor 1. The Contact Method is a field in the Contacts list.
- **Group ID** – To find AFLs that have not been assigned to a group, set this filter to "Group ID is Missing". To find AFLs assigned to a specific group, enter the Group ID in the filter.
- **Date Grouped** – Use this filter to search for data based on the date that the AFL was added to its current group.
- **Date Created** – Use this filter to search for data based on the date that the AFL was created.
- **Closed By** – Use this filter to search for data based on the user who closed the AFLs. If an AFL is auto-closed, Closed By will be set to "seerdmms". If an AFL is closed via mass change, Closed By will be set to the user who imported the mass change file.
- **Date Closed** – Use this filter to search for data based on the date the AFLs were closed.
- **Closing Record ID** – The ID of an abstract that matches the AFL. The AFL is closed and the Closing Record ID is set if SEER*DMS identifies an abstract record in the database that matches the AFL. Use the filter to search for closed AFLs that do not have a Closing Record ID by setting the Closing Record ID filter to "is Missing" and the Status filter to "is Closed".
- **Status, Result** – Use these filters to search for data based on AFL Status or AFL Result.
- **Processing Status** – The AFL Processing Status field can be used to track follow-back activities and letters. The use of this field is defined by registry policies and procedures.
- **Worklist Task User, Worklist Task Type** – It can be useful to know whether or not the death certificate is still in the worklist. If you are searching for records that are in some worklist task, set Worklist Task Type to "Is Not Missing". If you are searching for records that are not in a worklist task, set Worklist Task Type to "Is Missing". The two filters can also be used to find data based on the task user and specific task type.

Overview of Death Clearance and SEER*DMS

Each registry has a different policy related to death certificate processing. In some registries, a death certificate record for a new case is not used to create a CTC until all efforts to obtain an abstract are exhausted. Other registries fully process each death certificate record as it arrives; if the death certificate is for a new case then it is used to create a new CTC immediately.

*The automatic and manual steps in the SEER*DMS death clearance process:*

1. Import Death Certificate Records. The death data received from a state agency are loaded into SEER*DMS (see Chapter 5: Importing Data Files for more information).
2. Auto-screen the record for reportability. Each imported record enters the workflow. Once it moves through registry coding and edit checks, it is screened for reportability.
 - a. If the record is reportable, an AFL is created. The AFL auto-create rules differ for each registry and are documented on the AFL help page in SEER*DMS (see AFL Auto-create Rules). The processing continues with step 3.
 - b. If the record is not reportable, it is used for the purpose of follow-up and is not directly involved in the Death Clearance processes described in this chapter. Refer to Chapter 16: Follow-up to review the processing of non-reportable death certificates.
3. Auto-match the record against the database. Each reportable death certificate record moves to the automatic matching task in the workflow. The result of the auto-match determines the next step in the process, as described below.
 - a. Auto-match result = identified a patient set that is a perfect match. If the auto-match returns a single patient set with a match score of 1000, SEER*DMS will auto-link the record to the patient set, start the auto-consolidation process, and attempt to link the record to a CTC. The matching and auto-consolidation algorithms vary by registry. In most registries, a manual Match-Consolidate task is created if there are discrepancies between the record and patient set demographic fields (discrepancies or "auto-consolidation failures/errors" are documented in the Death Certificate section of the Auto-Consolidation help page). In a few registries, a manual Consolidate task is created (not recommended).
 - i. If more than one of the record's causes of death is reportable, the record is linked at the patient level. Note: In Connecticut's current configuration, an auto-consolidation failure is generated if the record contains 2 or more reportable causes of death or does not match a CTC. The death certificate record is not linked and a Match-Consolidate task is created. This workflow is useful if the registry prefers to review reportable death certificates soon after they are loaded.
 - ii. If the record has a single reportable cause of death, the record is matched against each CTC. SEER*DMS converts the cause of death to an ICD-O-3 site code for the purpose of matching. The record is linked to a CTC if the death certificate site matches the CTC primary site using a 3-character match. If the record does not match a single CTC then it will either be linked at the patient level; or the record will not be linked and a Match-Consolidate task will be created. (Note: The specific matching algorithm may include other fields such as year of diagnosis. Your registry's algorithm is documented at the top of the Death Certificate section of the Auto-Consolidation help page.)
 - b. Auto-match result = no matches. If there are no matches to review, the record will exit the workflow in registries that defer the building of patient sets. In other registries, the patient set will be built from the death certificate at the end of the Match-Consolidate task. When version 11.0 was released, the SEER*DMS registries used the following algorithms:

- i. Exit workflow if no matches. The death certificate record will be processed using the SEER*DMS Death Clearance Manager. Registries: Alaska Native, Cherokee Nation, Connecticut, Detroit, Georgia, Hawaii, Iowa, Louisiana, New Mexico, Utah.
 - ii. Build a patient set at the end of the manual match task. The user is given the option of building the patient set using the Death Certificate Only (DCO) defaults or the Medical Doctor Only (MDO) defaults. Other records, including abstracts, will be consolidated into the patient set as they are received. Registries: Seattle.
 - iii. Let the user decide whether the record should exit the workflow or be used to build the patient set. SEER*DMS also allows the registry to give the user the option of "build now" or "defer the build" at the end of the manual match task. The user would review the death certificate and determine whether the patient set should be built. No registry is using this algorithm at this time.
- c. Automatic match result = possible matches that need review. In all registries, a manual Match-Consolidate task is created if there are possible matches that need review. If the person completing the task selects matches, a Consolidate task will be created. If no matches are selected, registry policy will dictate whether the record exits the workflow or is used to create a patient set (as described in 3b, above).
4. Reduce Death Certificate Only (DCO) Cases. The goal is to link each reportable death certificate record to a CTC as a non-DCO case (a CTC with complete data; this would typically include data from an abstract). To achieve these goals for as many records as possible, complete the tasks listed below.
 - a. Complete priority worklist tasks for death certificates and tasks for abstracts that may match death certificates. Completing these tasks will yield some linkages and reduce efforts related to abstract requests and follow-back. Refer to the Completing Priority Tasks for Death Clearance section of this chapter for more detailed instructions.
 - b. Request abstracts. Use the Death Clearance Manager to identify cases for abstracting and assign those requests to abstractors. Once the abstracted data are received, load the abstract records into the system. SEER*DMS will match the imported abstract records against the AFLs and auto-close matching AFLs.
 - c. Create follow-back letters and listings. Use the Death Clearance Manager to create listings for hospitals or mail merge files for physician letters. Formatted reports and listings can be created by merging the files into a word-processing template or in external reports.
 5. Build DCO or MDO cases. If all data sources are exhausted and the only source of information about the cancer is from the death certificate, a CTC with limited information can be created from the remaining death certificate records. In SEER*DMS, you can build a CTC from a death certificate record that indicates a reportable cancer and does not match an existing CTC (see the Building DCO Cases section of this chapter).

Completing Priority Tasks for Death Clearance

Worklist tasks for death certificate records *with open AFLs* should be completed before requesting abstracts or creating follow-back letters. Nearly all manual tasks for reportable death certificate records will be Match-Consolidate or Consolidate Tasks because very few death certificate records require manual editing or screening. Take a minute to understand these concepts related to the death certificate match tasks:

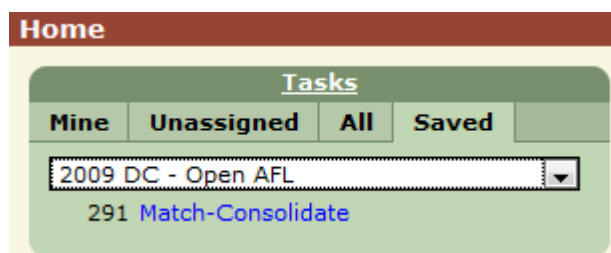
- A Match-Consolidate Task is created for a reportable death certificate when there is a possible match in the database that needs to be reviewed. This is important in terms of death clearance because the matching data may include an abstract. If it does, the abstract may be an unlinked record or it may be linked to a patient set that is a possible match.

- Open AFL – In terms of death clearance processing, the tasks for records with open AFLs are a higher priority than tasks for records with closed AFLs. A closed AFL would indicate that an abstract is no longer needed. It is likely that the AFL was closed because SEER*DMS auto-matched the AFL to an unlinked abstract that is already in your database. It is possible but less likely that a user manually closed the AFL after reviewing the data.

To create and save a worklist filter listing tasks for death certificate records with open AFLs:

1. Select **View > Worklist**.
2. Clear the User filter.
3. Set the following filters (there may be a saved filter in your registry with these settings):
 - a. **Data Type is Death Certificate (DC).**
 - b. **Event Date = year of death.** You can leave the day and month set to blank. Do not check the “include unknown” boxes.
 - c. **Open AFL is Yes.**
4. Click **Apply**.
5. Create and save a worklist filter:
 - a. Click **Save** to save the filter.
 - b. Give the filter a meaningful name, for example, “2010 DC with Open AFLs”. If other staff will be working on these tasks then save the filter for all users or users in a specific role.
6. Update this filter each time you import death certificate records for a new year.

The saved worklist filter will be available on the Saved tab of the home page.



Consolidating Death Certificate Records into Patient Sets

The following describes considerations specific to the consolidation of reportable death certificate records into an existing patient set.

1. If the death certificate record represents a new cancer for the patient and the policy in your registry is to wait for an abstract to create the CTC:
 - a. Link the record to the Patient Set at the patient level (“P”). Do not create a new CTC from this record at this time.
 - b. Consolidate the follow-up data into the patient set: vital status, date of last contact, causes of death, etc.
 - c. Because the record is not linked to a CTC, it will continue to be monitored via the Death Clearance manager. There will be an open AFL associated with the record. If an abstract cannot be obtained in time for submission, use the record to create a death certificate only CTC.

2. If the death certificate record represents a new cancer for the patient and your registry's policy is to build a CTC immediately:
 - a. Create a CTC from the death certificate.
 - b. Consolidate the demographic data into the patient set.
 - c. Visually edit the newly created CTC.
 - d. You will have the option of closing the AFL or leaving it open. Registry policy dictates whether the AFL should be closed.
3. If the death certificate data pertains to an existing CTC:
 - a. Link the record to the CTC.
 - b. Consolidate the follow-up and cancer data into the patient set and CTC.
 - c. AFL auto-close rules will be applied. These vary by registry and are documented in the Auto-close Rules – Patient Set is Saved section of the AFL help page. Typically, the AFL will close and this record will not require any further processing related to Death Clearance.

Assigning Death Certificate AFLs to an Abstractor

Use the Death Clearance Manager to create lists for abstracting and assign those requests to abstractors. Once the abstracted data are received, load the abstract records into the system. SEER*DMS will match the imported abstract records against the AFLs and auto-close matching AFLs.

Creating Follow-back Letters and Hospital Listings

Use the Death Clearance Manager to create listings for hospitals or mail merge files for physician letters. Formatted reports and listings can be created by merging the files into a wordprocessing template or with external reports.

Performing Death Clearance Follow-back

If an abstract is required but an appropriate facility could not be identified for the abstracting assignment, you should seek information to identify a facility or obtain additional data related to the case. Typically, this involves sending a letter and/or questionnaire to the physician who signed the death certificate. The letters and questionnaires are implemented in external reports; this implementation provides registry staff with complete control over the initial design and subsequent modifications.

To automatically create a letter addressed to a physician, the external report must be able to associate a physician in the Contacts List with data in the death certificate record. This involves matching a value in the record to the Contact List using the physician license number, National Provider ID (NPI), or other identifier. A physician letter cannot be generated if any of the following situations occurs:

1. The physician indicated on the death certificate did not match any entries in the Contacts List. This problem can be resolved by adding the physician to the Contacts List; or updating identifying fields used in the matching process (physician license number, NPI, etc.).
2. The physician field on the death certificate record was missing or unknown. If possible, review the image of the death certificate and attempt to identify the physician.

SEER*DMS provides a system report, RPT-019A, to identify death certificate records that are potential DCO cases. Physician information is included on this report. This report may be helpful

in identifying cases for follow-back. To automate the process as much as possible, review the report and resolve the issues described above, when possible.

When a response to the follow-back inquiry is received, the new information should be processed according to registry guidelines. If the information indicates that it is not a reportable case, modify the record and/or AFL accordingly. If you received data items that you would like to store in the database, you may enter the data into a patient set created from the death certificate record (as described in the *Building DCO Cases* section of this chapter).

Build DCO or MDO Cases

Requires system permission: `rec_build_cfo`

Once Death Clearance procedures have been completed, you may determine that one or more Death Certificate Records should be submitted to SEER or other sources as death certificate only (DCO) cases. Follow the instructions provided below to create a CTC from an individual record. Alternatively, use the Build DCO system task to create CTCs from a set of records (see *Chapter 27: System Administration* for instructions). Whether using the system task or the record editor, a record can only be used to create a DCO case if it is a reportable record, is not the source of an AFL that is closed, and is not in the worklist.

If the record is not linked to an existing patient set, a new patient set will be created. If the record is linked to a patient set but not to a CTC, a new CTC will be created within the patient set.

To build a DCO case from an unlinked death certificate record:

1. Open the record in the record editor.
2. Select **Build Patient Set** from the record menu. This menu item is only available if the record is unlinked and you have the `rec_build_dco` permission. If a patient set cannot be built from this record, an error message will be displayed at the top providing the reason (the record is either in the worklist or is the source of a closed AFL).
3. Click **OK** to confirm.
4. SEER*DMS will create an automated workflow task to create a patient set. When the task completes, a Visual Edit Patient Set task related to the new patient set will be assigned to you.

To build a DCO case from a record linked to a patient set:

1. Search the database for the death certificate record or its associated patient set. You may enter the Patient Set or Record ID into the quick search, or click **View > Patients** to use the Patient Lookup. (See Chapter 20: Searching for Patients and Records.)
2. Verify that the record is not already linked to a CTC. If it is linked at the patient level, you may proceed.
3. Click the ID of the record in the patient set navigation box.
4. Select **Move To > New CTC** from the record's menu.
5. SEER*DMS will create a new CTC; you may proceed with visual editing.

Reports Related to Death Clearance

SEER*DMS includes the following system reports related to DCO cases. If you require additional information regarding death certificate data, you may generate an external report. See *Chapter 24: Creating Reports and Extracting Data* and *SEER*DMS Data Dictionary* for more information.

Report ID	Title	Description
RPT-019A	Death Clearance Summary	A listing of all unlinked, reportable death certificate records. This report indicates the status of each record in terms of workflow activity and AFLs.
RPT-020A	Death Certificate Records that Require Follow-back	A list of the death certificate records that require follow-back; a parameter allows you to select only those for which follow-back letters cannot be auto-generated because of missing physician information.
RPT-068B	Frequency of Records for the Build DCOs System Task	Number of records, by facility, that will be built into DCO cases by the Build DCO System Task.
RPT-068C	Candidate Records for the Build DCO System Task	A list of the records that may be built into DCO cases. These are the records that would be used to build a CTC if you ran the Build DCO task.
RPT-119A	Death Certificate Only CTCs, by Year of Diagnosis	Frequencies and percentages of CTCs that are DCO by year of diagnosis. The early years can be collapsed into one year range (typically through 1972).
RPT-119B	Death Certificate Only CTCs by Source	List of the death certificate only CTCs in the patient set data. These are listed by source (facility, physician, or medical examiner).

Using the Death Clearance Summary Report (RPT-019A)

The Death Clearance Summary Report lists all reportable death certificate records that are not linked to a CTC. Use this report to monitor death certificate records which require processing. The report shows the status of the record in terms of its location in the workflow and AFLs. The following columns are displayed:

- **WT** – Worklist Task. If the death certificate record is the focus of a worklist task, the type of task will be indicated here. This column will be blank if the record has exited the workflow.
- **DC Record** – The Record ID of the death certificate record.
- **Patient ID** – If the record is linked to a Patient Set, the ID is listed. If this column is blank, the record is not linked to a Patient Set.
- **AFL** – ID of the AFL created by the death certificate record.
- **Closing Rec** – The ID of the record that closed the AFL. This would typically be an abstract record or a Short Health record. Other record types may close AFLs in some registries. Please consult your registry's workflow diagram for more information.
- **Name** – Patient name.
- **SSN** – Social Security Number.
- **DOB** – Date of birth.
- **DC #** - Death certificate number.
- **DOLC** – Date of death.
- **COD** – Primary cause of death.
- **FAC** – Facility coded on the death certificate record.

- **ST** – State of death.
- **Phys ID, Phys Name** – ID and name of the physician coded as Physician 3 (Doctor 1) on the death certificate record. Space limitations prevent these fields from being displayed if format is PDF; set the format to CSV to include these fields in the report.

It is recommended that you use CSV format for the report. This will allow you to sort and subset the results in Excel. In addition, you will be able to copy-and-paste Record IDs or AFL IDs into the Patient Lookup, AFL Manager, or Worklist filter.

Considerations when reviewing the Death Clearance Summary Report:

1. Review records where AFL is listed as closed and consider the following possibilities:
 - a. A Record ID is not listed in the Closing Rec column. This indicates that the AFL was closed manually. You should use the AFL Manager to find the AFL. Review the AFL Result field. If it was set to Abstracted when the AFL was closed, you should search to see if there is truly an abstract. Add a comment to the AFL to document your findings. If the death certificate is inappropriately designated as reportable, change the AFL Result to "Not a Reportable Cancer". The record's reportability status will be updated.
 - b. A Record ID is listed in the Closing Rec column. This indicates that an abstract record entered the workflow and closed the AFL associated with the death certificate record. The death certificate record is listed on this report because it is not linked to a CTC. However, it may be a matter of timing. The Abstract record may be in the workflow. The two records will be consolidated when the abstract's task is completed. Search for these abstracts in the Patient Lookup. A View link will be listed if the record is involved in a worklist task.
2. Review records where a Task type is listed in the WT (Worklist Task) column. These are death certificate records for the current reporting year with outstanding worklist tasks. These efforts are being monitored and tracked in the worklist. You have the option of excluding these from this report, if you wish.
3. Review records where AFL is listed as open. These records are being monitored and tracked via the AFL Manager. You have the option of excluding these records from the report, if you wish.
4. Review the records where AFL and WT columns are blank. These are reportable death certificate records which are not in the workflow and are not associated with an AFL. In some registries, AFLs were not created for all death certificate records in previous versions of SEER*DMS. Some death certificates with a year of death less than or equal to 2009 may not have an AFL in the Connecticut, Detroit, and Hawaii registries. You must generate follow-back reports and letters to obtain further information about these cases.