Reportable Conditions Knowledge Management System (RCKMS) Jurisdiction Administrator User Guide

Version 1.0
August 18, 2017

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Revision History

Version	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	Antonio DaSilva	08/18/2017			

1 Introduction

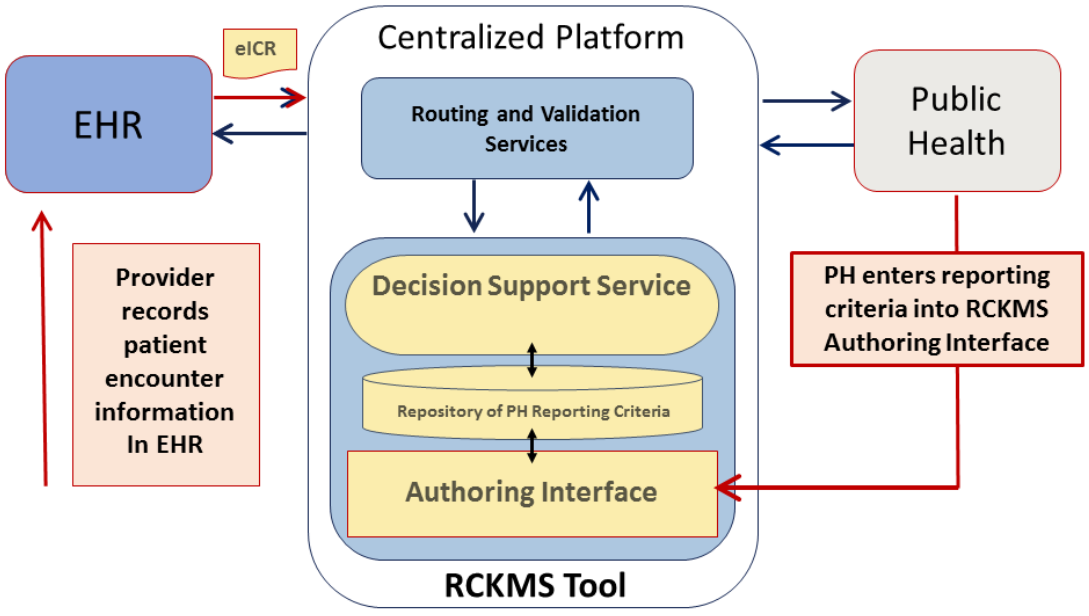
The User Guide documents the procedures for using the Reportable Conditions Knowledge Management System (RCKMS). The intended audience are Jurisdiction Administrators and other Public Health Agency (PHA) stakeholders interested in working with the application.

The RCKMS is a tool developed to enhance surveillance by providing comprehensive information to clinicians, labs and reporters about the "who, what, where, when, why and how "of case reporting with the aim of delivering information from providers on potential cases to state and local public health as a service of the broader infrastructure for electronic case reporting (ECR).

The RCKMS application has two main parts, the authoring interface and a Decision Support Service (DSS). The authoring interface is the portal where information about reporting criteria gets entered, stored, and processed. To ease the burden of entering the criteria, the authoring interface also comes pre-populated with the reporting specifications and the PHAs can either use these defaults or change them to meet their needs.

The second part of the tool is a Decision Support Service that providers can query to determine if the case should be reported and if so to where. It is linked to a provider's Electronic Health Record (EHR) system and after the patient visits the provider, the encounter information is recorded in the EHR. If the EHR detects information that suggests a suspected case, the EHR will call RCKMS decision support, which will then provide the determination of reportability.

To use the tool, the user opens the RCKMS web site and after sign-in, selects the condition they want to work with. The application is pre-populated with default reporting criteria that you can use as-is or can customize as required.



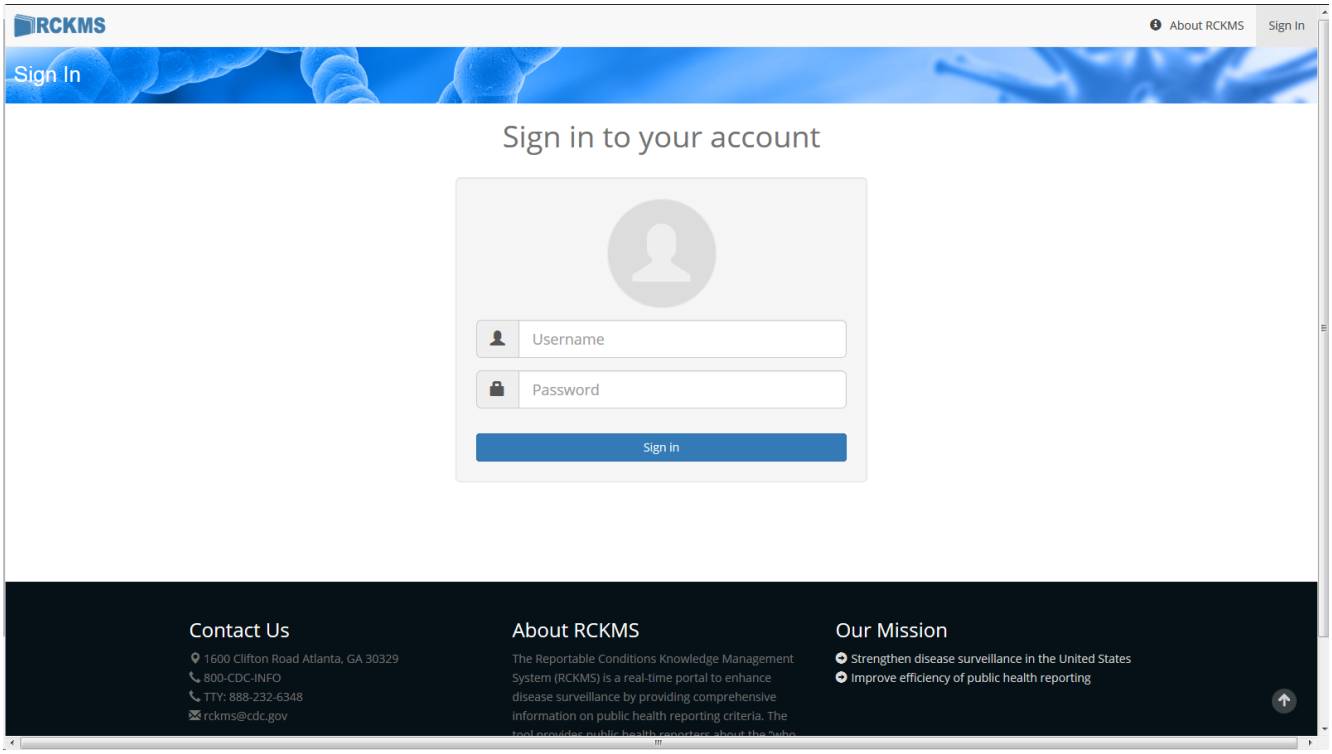
Once the criteria is entered and saved, it is stored in a repository linked to the Decision Support Service. The RCKMS also supports testing and once you enter and save criteria you can run test cases against them to ensure they are correct.

On the provider end, once the patient visits a provider and their encounter information is recorded, the EHR initiates generation of an electronic initial case report following detection of information suggesting a suspected case.

That message is sent to the AIMS platform and queued for decision processing. The AIMS platform calls the RCKMS Decision Support Service, which provides the determination of reportability and returns a Reportability Response.

1.1 Navigating the RCKMS Application

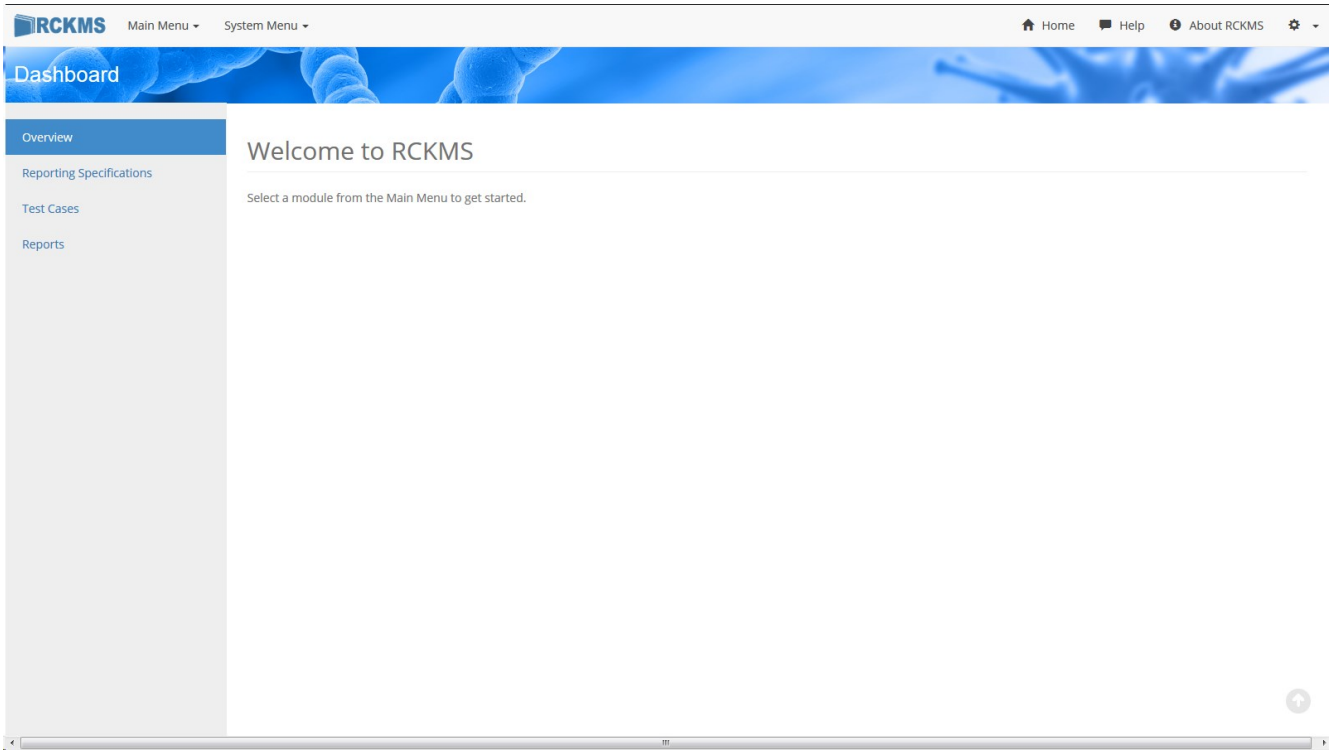
You sign-in to the application with the user name and password provided to you by the RCKMS administrator. The URL for the RCKMS training and demonstration instance is https://demo-rckms.hln.com/bootstrap-training/. To sign-in to the RCKMS application, enter your user name and password and click **Sign-in**. The *Home* page displays.



1.1.1 Home page

The *Home* page serves as the landing page for the application following successful sign-in.

You access the Jurisdiction Administrator functionality by selecting the link you want in the side navigation menu. You can also access additional functionality by means of the options on the menu bar.



The following table displays the options on the page.

Item	Description
Menu bar	Displays options for accessing the RCKMS modules. **Item** / **Description** Main Menu — Click to display the options for Jurisdiction Administrator tasks. System Menu — Click to display the options for RCKMS Administrator tasks. ***Note. This option displays only for RCKMS Administrators and is not available for Jurisdiction Administrators.*** Home — Click to display the *Home* page. Help — Click to display help. About RCKMS — Click to display the *About* page and general information on the RCKMS application. Account — Click to display information about the current session and to sign-out of the application.
Overview	Header for side navigation menu options.
Reporting Specifications	Click to display the *Reporting Specification* page.

Item	Description
Test Cases	Click to display the *Test Cases* page.
Reports	Click to display the *Reports* page.

2 Working with Reporting Specifications

By default, RCKMS displays all conditions identified as reportable by your PHA. You can manage the set of reporting specifications for the conditions supported in your jurisdiction using the *Reporting Specifications* module.

You can perform the following tasks:

- Search and display reporting specifications for the available conditions. To search for a reporting specification, refer to *Section 2.1, Searching for Reporting Specifications.*
- Add and edit reporting specifications.
    - Work with condition detail information by viewing and editing basic information about the reporting specification using the *Details* tab. To work with reporting specification details, refer to *Section 2.3, Editing Details Information.*
    - Work with reporting criteria and logic set information by adding and editing the reporting specification's reporting criteria and logic sets using the *Criteria/Logic Sets* tab. To work with criteria and logic set information, refer to *Section 2.4,*
    - *Adding and Editing Logic Set* Information and *Section 2.5, Adding and Editing Criteria Information*.
    - Work with the specification by adding reporting timeframe information and indicating if the criteria for a logic set is Sufficient, Necessary or Optional using the Specification tab. To work with reporting timeframe and rules logic information, refer to *Section 2.6*, *Adding and Editing Specification Information*.
    - Work with internal links and reference information by adding and editing supporting text, links to web sites and other documents using the *Internal References* tab option. To work with internal reference information, refer to *Section 2.7, Adding and Editing Internal Reference Information*.
    - Work with external reference information by adding and editing supporting text, links to web sites and other documents using the *External References* tab option. To work with external reference information, refer to *Section 2.8, Adding and Editing External Reference Information*.
- Delete an existing reporting specification. To delete a reporting specification, refer to *Section 2.3.1, Deleting Reporting Specifications*.
- Save changes to reporting specifications. To save a reporting specification, refer to *Section 2.9, Saving Changes to the Reporting Specification.*
- Deploy reporting specifications. To deploy a reporting specification, refer to *Section 2.10, Deploying the Reporting Specification.*

2.1 Searching for Reporting Specifications

You can search and display reporting specifications for the available conditions. By default, the *Reporting Specification* page displays all conditions identified as reportable by your PHA.

You can use the *Search* text box in the *Reporting Specification* page to search for the condition you want. If the reporting specification you want is not available, you can add a reporting specification for the condition you want.

To add a reporting specification refer to *Section 2.2*, *Adding Reporting Specifications*.

Perform the following steps:

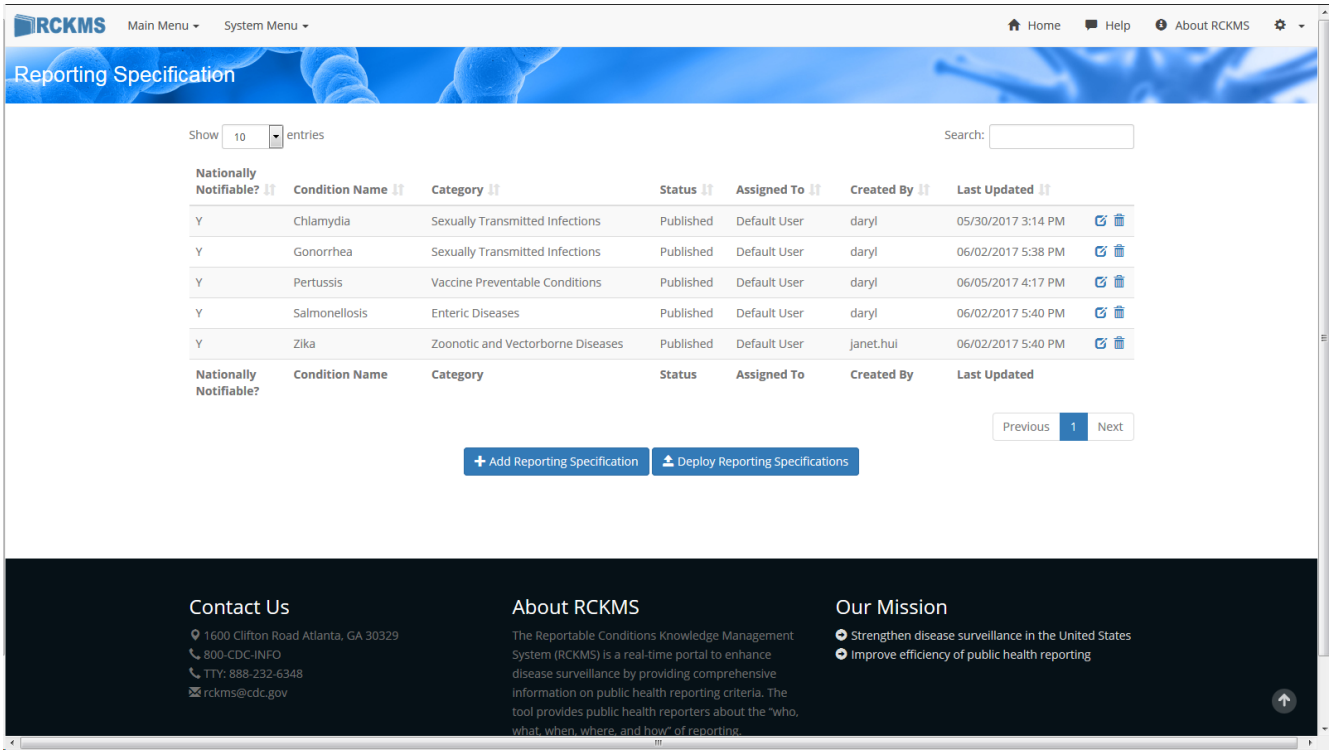
1. Do one of the following:
   - Click **Reporting Specifications** in the left navigation menu on the *Home* page. The *Reporting Specification* page displays all conditions identified as reportable by your PHA.
   - Click **Main Menu** in the menu bar at the top of the page and choose **Reporting Specifications**. The *Reporting Specification* page displays all conditions identified as reportable by your PHA.
2. Click **Search** and type the text you want. The search results display in the table. You can also clear any existing text in the *Search* text box to reset the search results and run your search again.

From here you can add a new reporting specification, edit an existing reporting specification, or delete the specification you want.

To add a new reporting specification, refer to *Section 2.2, Adding Reporting Specifications*. To edit an existing reporting specification, refer to *Section 2.3, Editing Details Information*. To delete a reporting specification, refer to *Section 2.3.1, Deleting Reporting Specifications*.

2.1.1 Reporting Specification page

The *Reporting Specification* page displays all conditions identified as reportable by your PHA by default.



The *Reporting Specification* page also displays the *Search* text box at the top right and the search results in the table beneath. As you enter text in the *Search* box, the table displays items matching your query.

The results of the previous search persist on the page so long as the query text remains in the *Search* text box. Clear the *Search* text box to reset the list of default conditions.

Note that only those conditions set up in RCKMS with a reporting specification are available through the *Search* option.

The following table details the options on the page.

Item	Description
Show entries	Click drop-down and choose the number of items to display in the grid.
Search	Type the text you want and the search results display in the table. Clear existing text to reset the search results.

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Reportable Conditions table</td><td>The Reportable Conditions table includes the following columns.
<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Nationally Notifiable?</td><td>Indicates a Nationally Notifiable condition.</td></tr>
<tr><td>Condition Name</td><td>The condition name.</td></tr>
<tr><td>Category</td><td>The disease category organizing the condition options. Options include Bloodborne, Enteric, Vaccine-Preventable Conditions and Zoonotic and Vectorborne Diseases, among others.</td></tr>
<tr><td>Status</td><td>The status of the reporting specification for the selected condition. Options include Active (Published), In Progress, Waiting for Verifications, Waiting to be Published and Retired.</td></tr>
<tr><td>Assigned To</td><td>The administrator to whom the reporting specification for the selected condition is assigned for review.</td></tr>
<tr><td>Created By</td><td>The username of the person who initially added the reporting specification for the selected condition.</td></tr>
<tr><td>Last Updated</td><td>The last update date indicating the date the item was last saved.</td></tr>
<tr><td>Edit</td><td>Click to edit the selected item.</td></tr>
<tr><td>Delete</td><td>Click to delete the selected item.</td></tr>
</table></td></tr>
<tr><td>Add Reporting Specification</td><td>Click to display the Details tab on the New Reporting Specification page and add a reporting specification.</td></tr>
<tr><td>Deploy Reporting Specification</td><td>Click to deploy the reporting specification and make it “live” and available to engage provider data and decision support logic for delivery of Reportability Responses.</td></tr>
<tr><td>Previous</td><td>Click to navigate back through the list of items available.</td></tr>
<tr><td>Next</td><td>Click to navigate forward through the list of items available.</td></tr>
</table>

2.2 Adding Reporting Specifications

You can add a new reporting specification to your existing set of reporting specifications.

You use the **Add Reporting Specification** button under the table of search results in the *Reporting Specification* page to add a reporting specification for the condition you want.

Perform the following steps:

1. Do one of the following:
   - Click **Reporting Specifications** in the left navigation menu on the *Home* page. The *Reporting Specification* page displays.
   - Click **Main Menu** in the menu bar at the top of the page and choose **Reporting Specifications**. The *Reporting Specification* page displays.

2. Click **Add Reporting Specification** button. RCKMS displays the *New Reporting Specification* page and the contents of the *Details* tab. Note that this process may take some time to complete.
3. Click **Name** and choose the condition you want.
4. Click **Category** and choose the option you want.
5. Click **NNC Code** and type the Nationally Notifiable Event Code you want.
6. Click **Description** and type the description you want.
7. Click **Assigned To** and choose the option you want.
8. Do one or more of the following, depending on your PHA's reporting requirements:
    - Click **Care is provided in this jurisdiction** to receive reports for events where care is provided in your jurisdiction.
    - Click **Lab is** l**ocated in this jurisdiction** to receive reports for events where laboratory testing is performed in your jurisdiction.
    - Click **Patient is a resident of this jurisdiction** to receive reports for events where the patient resides in your jurisdiction.
9. Click **Status** and choose the option you want.
10. Click **Start Date** and type the date you want. Note that the *Start Date* must be greater than the date the condition is published.
11. Click **End Date** and type the date you want.
12. Click **Laboratory Required to Submit a Specimen** to indicate the laboratory is required to submit specimen information.
13. Do one of the following:
    - Click the tab you want to continue entering reporting specification information.
        i. Click **Criteria/Logic Sets** to edit and add logic set and criteria information. To work with criteria and logic set information, refer to *Section 2.4,*
        ii. *Adding and Editing Logic Set* Information and *Section 2.5, Adding and Editing Criteria Information*.
        iii. Click **Specifications** to edit and add Reporting Timeframe and decision logic information. To work with reporting timeframe and decision logic information, refer to *Section 2.6*, *Adding and Editing Specification Information*.
        iv. Click **Internal References** to edit and add internal links and reference information. To work with internal reference information, refer to *Section 2.7, Adding and Editing Internal Reference Information*.
        v. Click **External References** to edit and add external links and reference information. To work with external reference information, refer to *Section 2.8, Adding and Editing External Reference Information*.
        vi. Click **Details** to edit and add reporting specification detail information. To work with reporting specification details, refer to *Section 2.3, Editing Details Information*.
14. Do one of the following:
    - Click **Apply**. RCKMS saves your changes and keeps the window open.
    - Click **Save Reporting Specification**. RCKMS displays the *Reporting Specification* page and the date and time of the last update.

You can also click to **Close** to close the page.

Once you have entered the information in the *Details tab*, you can work through the remaining tabs on the *Reporting Specification* page and enter criteria and logic set information, as well as any internal and external references you want.

2.3 Editing Details Information

You can edit basic information about the reporting specification for the selected condition, such as name and status information, using the *Details* tab options on the *Reporting Specification* page.

Perform the following steps:

1. Do one of the following:
   - Click **Reporting Specifications** in the left navigation menu on the *Home* page. The *Reporting Specifications* page displays.
   - Click **Main Menu** in the menu bar at the top of the page and choose **Reporting Specifications**. The *Reporting Specification* page displays.
2. Click the **Edit** icon for the item you want in the table. The *Reporting Specification* page displays the contents of the *Details* tab.
3. Click **Name** and choose the condition you want.
4. Click **Category** and choose the option you want.
5. Click **NNC Code** and type the Nationally Notifiable Event Code you want.
6. Click **Description** and type the description you want.
7. Click **Assigned To** and choose the option you want.
8. Do one or more of the following, depending on your PHA's reporting requirements:
   - Click **Care is provided in this jurisdiction** to receive reports for events where care is provided in your jurisdiction.
   - Click **Lab is located in this jurisdiction** to receive reports for events where laboratory testing is performed in your jurisdiction.
   - Click **Patient is a resident of this jurisdiction** to receive reports for events where the patient resides in your jurisdiction.
9. Click **Status** and choose the option you want.
10. Click **Start Date** and type the date you want. Note that the *Start Date* must be greater than the date the condition is published.
11. Click **End Date** and type the date you want.
12. Click **Laboratory Required to Submit a Specimen** to indicate the laboratory is required to submit specimen information.
13. Do one of the following:
    - Click the tab you want to continue entering reporting specification information.
      i. Click **Criteria/Logic Sets** to edit and add logic set and criteria information. To work with criteria and logic set information, refer to *Section 2.4,*
      ii. *Adding and Editing Logic Set* Information and *Section 2.5, Adding and Editing Criteria Information*.

iii. Click **Specifications** to edit and add Reporting Timeframe and decision logic information. To work with reporting timeframe and decision logic information, refer to *Section 2.6, Adding and Editing Specification Information*.

iv. Click **Internal References** to edit and add internal links and reference information. To work with internal reference information, refer to *Section 2.7, Adding and Editing Internal Reference Information*.

v. Click **External References** to edit and add external links and reference information. To work with external reference information, refer to *Section 2.8, Adding and Editing External Reference Information*.

vi. Click **Details** to edit and add reporting specification detail information. To work with reporting specification details, refer to *Section 2.3, Editing Details Information*.

14. Do one of the following:
    - Click **Apply**. RCKMS saves your changes and keeps the window open.
    - Click **Save Reporting Specification**. RCKMS displays the *Reporting Specification* page and the date and time of the last update.

You can also click to **Close** to close the page.

2.3.1 Deleting Reporting Specifications

You can delete an existing reporting specification. You click the **Delete** icon to delete an existing reporting specification.

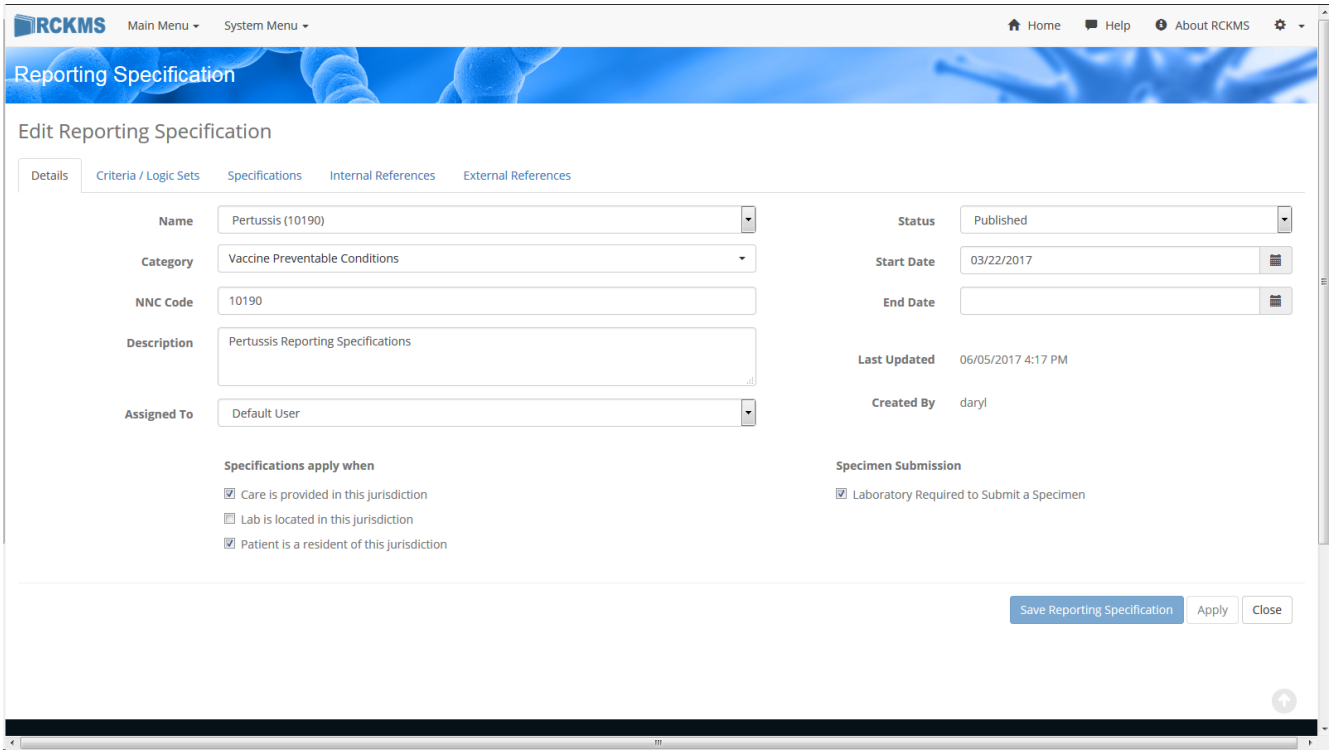
Perform the following steps:

1. Do one of the following:
   - Click **Reporting Specifications** in the left navigation menu on the *Home* page. The *Reporting Specification* page displays.
   - Click **Main Menu** in the menu bar at the top of the page and choose **Reporting Specifications**. The *Reporting Specification* page displays.
2. Click the **Delete** icon for the item you want. The application deletes the selected item and displays a confirmation message.

Important. Once you delete the reporting specification, the item is permanently removed and cannot be restored.

2.3.2 Details tab

The *Details* tab displays basic information about the reporting specification for the selected condition.



The *Details* tab displays status and effective date information, as well as the reporting preference options.

The following table details the options on the page.

Item	Description
Name	The descriptive name.
Category	The disease category organizing the condition. Options include Bloodborne, Enteric, Vaccine-Preventable Conditions and Zoonotic and Vectorborne Diseases, among others.
NNC Code	The nationally notifiable event code associated with the condition. This is only applicable if the condition is nationally notifiable.
Description	The description of the reporting specification for the selected condition.
Assigned To	The administrator to whom the reporting specification for the selected condition is assigned for review.
Status	The status of the reporting specification for the selected condition. Options include Active (Published), In Progress, Waiting for Verifications, Waiting to be Published and Retired.
Start Date	The start date on which the reporting specification for the selected condition is in effect. Click the **Calendar** button to display a calendar and choose the date you want.
End Date	The end date on which the reporting specification for the selected condition is in effect. Click the **Calendar** button to display a calendar and choose the date you want.
Last Updated	Date of last save.

Item	Description
Created By	User name of reporting specification creator.
Care provided in this jurisdiction?	Click to receive report for events where care is provided in your jurisdiction.
Lab is located in this Jurisdiction?	Click to receive report for events where laboratory testing is performed in your jurisdiction.
Patient resident of this jurisdiction?	Click to receive report for events where the patient resides in your jurisdiction.
Laboratory required to submit a specimen	Click to indicate the laboratory is required to submit a specimen.
Save Reporting Specification	Click to save the reporting specification and display the previous page.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

2.4 Adding and Editing Logic Set Information

You can add and edit the reporting specification's logic set information using the *Criteria/Logic Sets* tab options in the *Reporting Specification* page.

Logic sets indicate the type of reporter such as a lab or provider, when the provider is expected to report, and what is required of them for reporting. Used in combination with reporting criteria, logic sets express logical statements in machine-processable language following the S, N, O notation used in the position statements, where "S" indicates the criteria is Sufficient by itself to qualify the case for reporting, "N" indicates Necessary and "O" is Optional.

For more detail on the S, N, O notation, refer to *Section 2.6, Adding and Editing Specification Information*. For more detail on reporting criteria, refer to *Section 2.5, Adding and Editing Criteria Information*.

Perform the following steps:

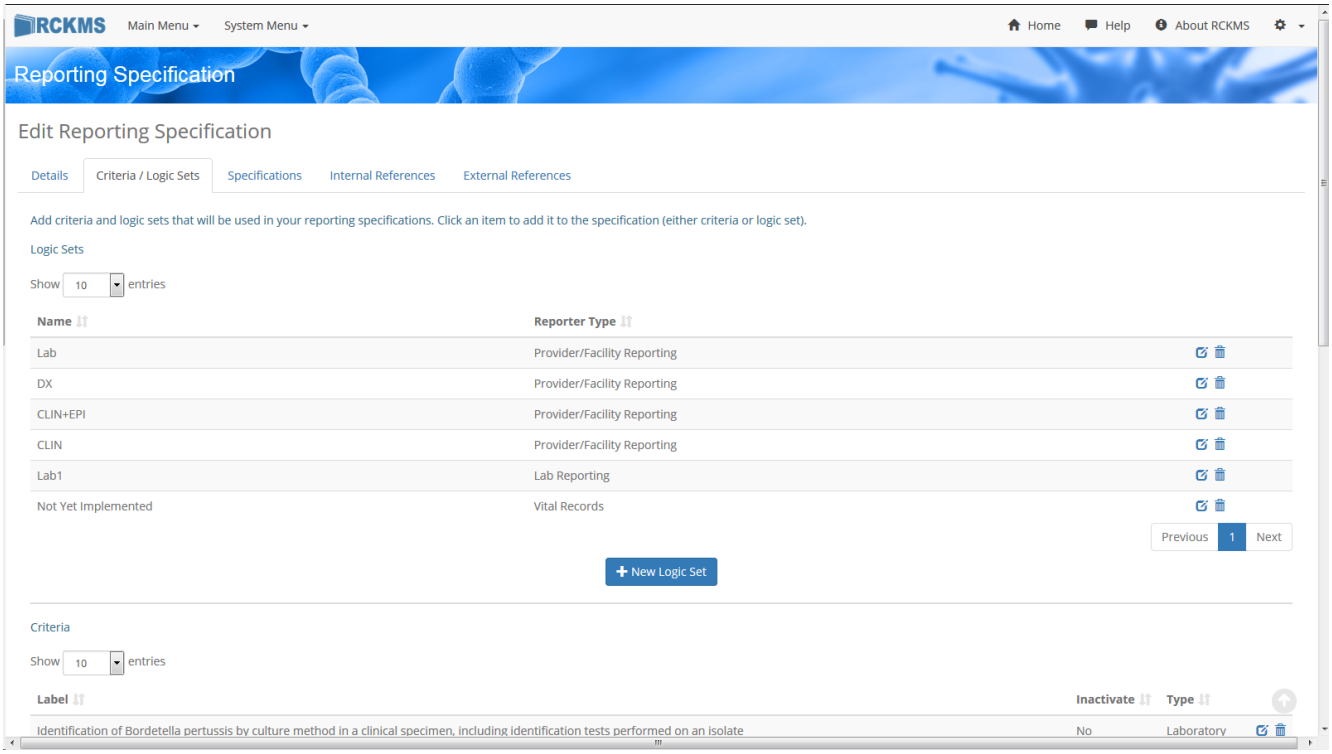
1. Click the **Criteria/Logic Sets** tab in the *Reporting Specification* page. RCKMS displays the contents of the *Criteria/Logic Sets* tab.
2. Do one of the following:
    - To edit a logic set, click the **Edit** icon for the logic set you want in the *Logic Sets* section. RCKMS displays the *Edit Logic Set* window.
    - To add a logic set, click the **New Logic Set** button in the *Logic Sets* section. RCKMS displays the *New Logic Set* window.
3. Click **Logic Set Name** and type the name you want.
4. Click **Reporter Type** and choose the reporter type you want.
5. Click **Description** and type the description you want.
6. Click the **Save Logic Sets** button. RCKMS saves the logic set information and displays the *Logic Sets* section of the *Criteria/Logic Set* tab.

You can also delete a logic set by clicking the **Delete** icon for the logic set you want. Note that once you delete a logic set, it cannot be recovered. When you delete a logic set, the logic set and the criteria it organizes no longer display in the *Specifications* tab.

As you add, edit and delete logic set information on the *Criteria/Logic Sets* tab, that information is updated in the *Specifications* tab. To work with logic sets and criteria in the *Specifications* tab, refer to *Section 2.6, Adding and Editing Specification Information*.

2.4.1 Criteria/Logic Sets tab – Logic Sets section

The *Logic Sets* section in the *Criteria/Logic Sets* tab in the *Reporting Specification* page displays the reporting specification's logic set information.

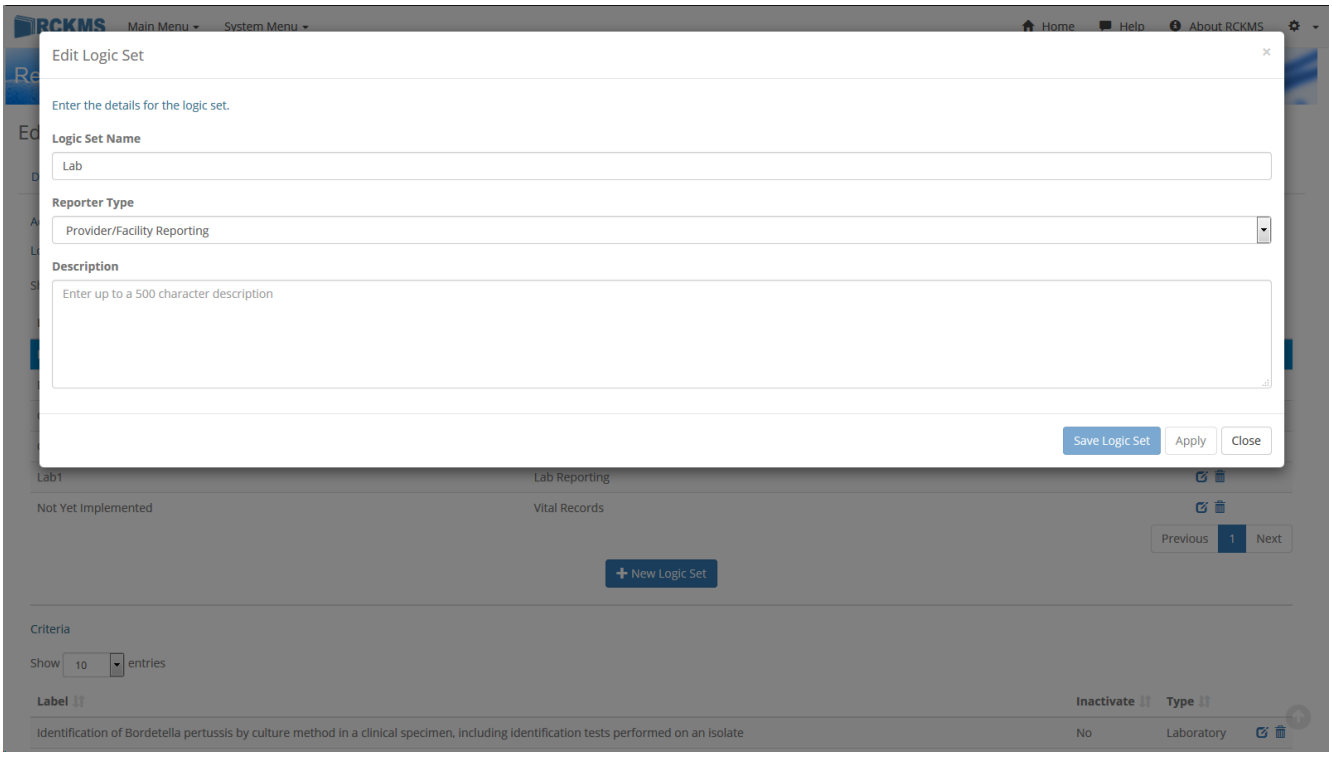


The following table details the options on the page.

Item	Description
Show entries	Click drop-down and choose the number of items to display in the grid.
Name	The logic set name.
Reporter Type	The reporter type associated with the logic set.
Edit	Click to edit the selected item.
Delete	Click to delete the selected item.
Previous	Click to navigate back through the list of items available.
Next	Click to navigate forward through the list of items available.
New Logic Set	Click to add a new logic set and display the *New Logic Set* window.

2.4.2 Logic Set window

The *Logic Set* window displays the options for adding and editing logic set information. You can add new logic sets or edit existing logic sets.



The following table details the options on the page.

Item	Description
Logic Set Name	The logic set name.
Reporter Type	The reporter type associated with the logic set. Options include Lab Reporting, Provider/Facility Reporting, and Vital Records.
Description	The description of the logic set.
Save Logic Set	Click to save the logic set.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

2.5 Adding and Editing Criteria Information

You can add and edit reporting criteria information using the *Criteria* options on the *Criteria/Logic Sets* tab in the *Reporting Specification* page.

You use the criteria options to capture information such as a diagnosis that can be input in a diagnosis field or captured in an active problem list. Each criterion is tied to logic that is supported by value sets. These are represented by means of criteria templates that provide pre-populated options used to create jurisdiction specific criteria using the options on the *Criteria* window. As you add and edit criteria information on the *Criteria/Logic Sets* tab that information is updated in the *Specifications* tab. For more detail on logic sets, refer to *Section 2.4,*

Adding and Editing Logic Set Information. Note the *Criteria Template*, *Criteria Label* and *Criteria Input* options are *read-only* when you are signed-in as a *Jurisdiction Administrator* or when editing existing criteria.

Perform the following steps:

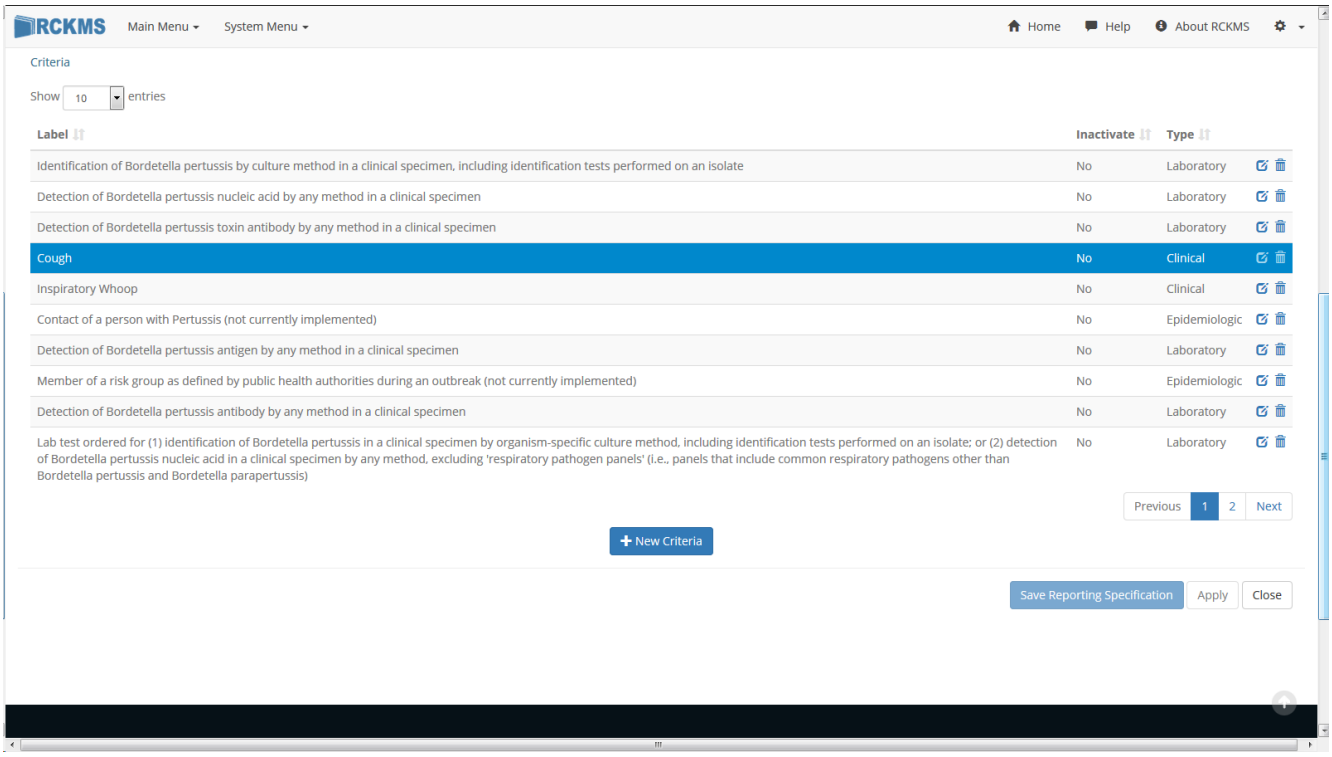
1. Press the **Page Down** key or scroll down in the *Criteria/Logic Sets* tab in the *Reporting Specification* page to display the *Criteria* section.
2. Do one of the following:
    - To edit a criterion, click the **Edit** icon for the criterion you want in the *Criteria* section. RCKMS displays the *Edit Criteria* window.
    - To add a criterion, click the **New Criteria** button in the *Criteria* section. RCKMS displays the *New Criteria* window.
3. Optionally, click **Inactivate** to inactivate the criteria. Inactivate removes criteria from display in the Specifications tab while keeping the information in the Logic Set/Criteria tab for you to restore later.
4. Click **Criteria Template** and choose the option you want. RCKMS displays the options at the bottom of the window. Note the *Criteria Template* options are *read-only* when you are signed-in as a *Jurisdiction Administrator* or when *editing* existing criteria.
5. Click **Criteria Label** and type the label you want. On selection of the *Criteria Template* option RCKMS displays sample text in the *Criteria Label* field. Note the *Criteria Label* options are *read-only* when you are signed-in as a *Jurisdiction Administrator*.
6. Add or edit the *Criteria Input* information you want. Note the *Criteria Input* options are *read-only* when you are signed-in as a *Jurisdiction Administrator*.
    - To add or edit *Criteria Input* information, click the drop-down for the criteria input (also known as “criteria predicates”) you want and choose the option you want.
    - You can also type the name you want in the text box to display and choose the input information.
7. Click the **Save Criteria** button. RCKMS saves the criteria information and displays the *Criteria* section of the *Criteria/Logic Set* tab in the *Reporting Specification* page.

You can also delete criteria by clicking the **Delete** icon for the criterion you want. Note that once you delete a criterion, it cannot be recovered. When you delete a criterion, the criterion and logic set organizing it no longer display in the *Specifications* tab.

As you add, edit and delete criteria information on the *Criteria/Logic Sets* tab, that information is updated in the *Specifications* tab. To work with criteria and logic sets in the *Specifications* tab, refer to *Section 2.6, Adding and Editing Specification Information*.

2.5.1 Criteria/Logic Sets tab – Criteria section

The *Criteria* section in the *Criteria/Logic Sets* tab in the *Reporting Specification* page displays the reporting specification's criteria information.

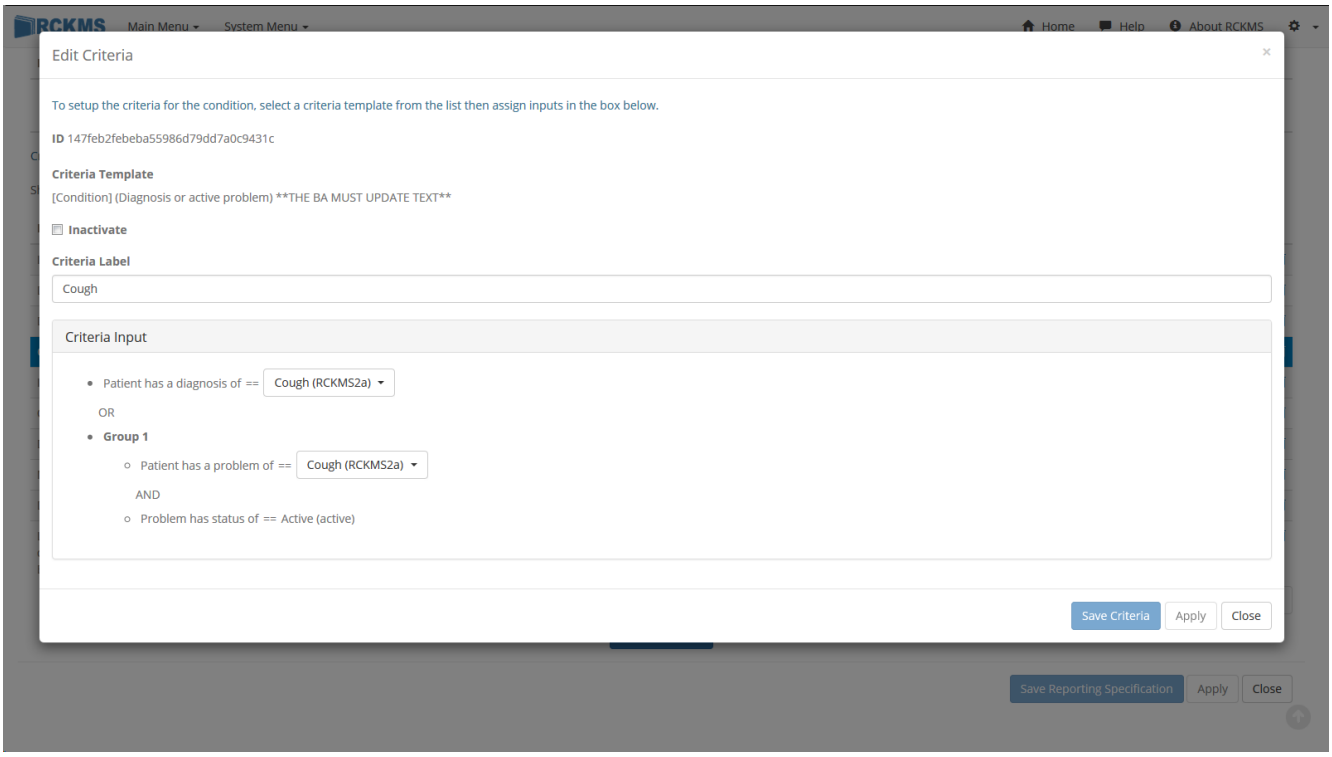


The following table details the options on the page.

Item	Description
Show entries	Click drop-down and choose the number of items to display in the grid.
Label	The criteria label.
Type	The criteria type. Options include Laboratory, Clinical, Epidemiologic and Demographic.
Inactivate	Indicates if the criteria is active or inactive.
Edit	Click to edit the selected item.
Delete	Click to delete the selected item.
Previous	Click to navigate back through the list of items available.
Next	Click to navigate forward through the list of items available.
New Criteria	Click to add a new criteria and display the *Criteria window*.
Save Reporting Specification	Click to save the reporting specification.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

2.5.2 Criteria window

The *Criteria* window displays the options for adding and editing reporting criteria information. You can add new criteria or edit existing criteria.



Note the *Criteria Template*, *Criteria Label* and *Criteria Input* options are read-only when you are signed-in as a Jurisdiction Administrator or when editing existing criteria.

The following table details the options on the page.

Item	Description
ID	A system-assigned unique identifier for the criterion. This field is read-only.
Criteria Template	The template of pre-populated options upon which the criteria is based. Click **Criteria Template** and choose the option you want. RCKMS displays the options at the bottom of the window. The *Criteria Template* options are *read-only* when you are signed-in as a *Jurisdiction Administrator* or when editing existing criteria.
Inactivate	Click to inactivate the selected criterion.
Criteria Label	The label identifying the criterion name. Click **Criteria Label** and type the label you want. On selection of the *Criteria Template* option RCKMS displays sample text in the *Criteria Label* field. The *Criteria Label* options are *read-only* when you are signed-in as a *Jurisdiction Administrator*.
Criteria Input	The values, codes and operators comprising the logic for the criterion. To add or edit *Criteria Input* information, click the drop-down for the criteria input (also known as “criteria predicates”) you want and choose the option you want. You can also type the name you want in the text box to display and choose the input information. The *Criteria Input* options are ***read-only*** when you are signed-in as a *Jurisdiction Administrator*.

Item	Description
Save Criteria	Click to save the criteria information.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

2.6 Adding and Editing Specification Information

You can add and edit reporting timeframe information and indicate if the criteria for a logic set is Sufficient, Necessary or Optional using the *Specifications* tab options in the *Reporting Specification* page.

For each logic set you can define a Reporting Timeframe. And for each criterion you can select reporting rules options indicating if a criterion is Sufficient, Necessary or Optional for reporting.

The reporting rules indicate one of the following:

Item	Description
Sufficient	Presence of this criteria alone indicates sufficient requirement for reporting. For example, three criteria each indicate *Sufficient*. If any one of the three criteria is met, then the user must report.
Necessary	Presence of this criteria with other criteria (either *Necessary* or *Optional*) is needed to meet the requirement for reporting. For example, three criteria each indicate *Necessary*. If all three criteria are met, then the user must report. If only one or two criteria are met, then the user does not report.
Optional	Within a group of Optional criteria, at least one *Optional* criteria is needed. *Optional* criteria must be paired with at least one *Necessary* criteria in order to meet the requirement for reporting. For example, Criteria 1 is *Necessary* and Criteria 2 and 3 are *Optional*. If Criteria 1 is met, AND either Criteria 2 or 3 (or both) is met, then the user must report. If only Criteria 2 and 3 are met, then the user does not report.

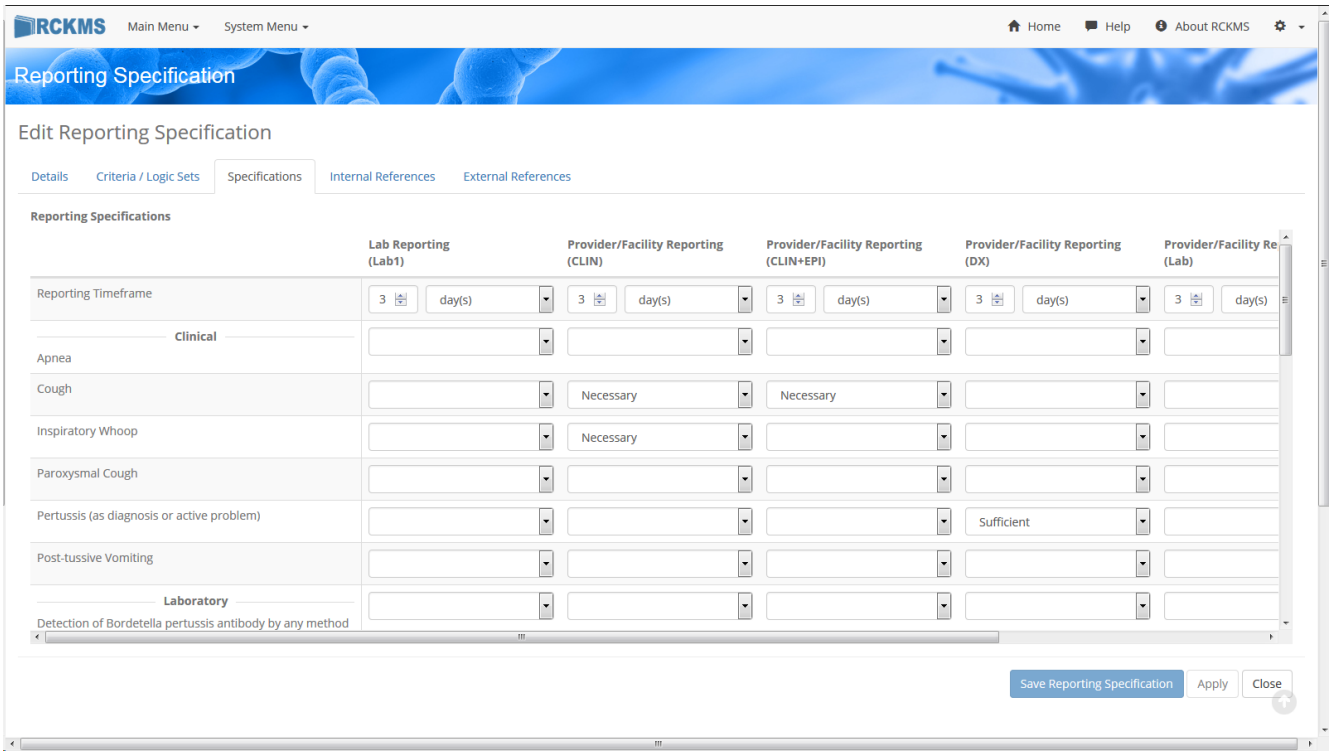
In short, *Sufficient* means that the criterion alone makes this reportable to the PHA. *Necessary* and *Optional* work together, with all *Necessary* criteria in addition to at least one *Optional* criteria required for reporting.

Perform the following steps:

1. Click the **Specifications** tab in the *Reporting Specification* page. RCKMS displays the contents of the *Specifications* tab.
2. Enter *Reporting Timeframe* information. To enter reporting timeframe information, perform the following steps:
    a. Click the *number* text box and type or choose the number you want for the logic set you want.
    b. Click the *unit* text box and choose the option you want.
3. Enter the *decision logic/reporting rules* option for the criterion and logic set you want. To enter decision logic/reporting rules options, click the drop-down corresponding to the criterion and logic set you want and choose the option you want. You can choose *Sufficient*, *Necessary* or *Optional*.

2.6.1 Specifications tab

The *Specifications* tab displays the criteria and logic sets rendered as a grid. It also displays options indicating the reporting timeframe and reporting rules options to indicate if the criteria are Sufficient, Necessary or Optional for reporting.



The following table details the options on the page.

Item	Description
Criteria	On the left hand side of the window, the criteria needed for reporting are arranged by group, such as clinical and laboratory. The criteria represent the narrative descriptions determining whether a case should be reported to public health.
Logic Sets	On the right are the logic set columns indicating when the indicated type of reporter such as a lab or provider would report and what is required for reporting using the Sufficient, Necessary, and Optional options.
Reporting Timeframe	The time required for reporting. Click the *number* text box and type or choose the number you want for the logic set you want. Click the *unit* text box and choose the option you want. Number refers to the count and Unit refers to the time element, such as days, weeks etc.
Reporting Rules	Click the reporting rules drop-down corresponding to the criterion and logic set you want and choose the option you want. You can choose Sufficient, Necessary or Optional.
Save Reporting Specification	Click to save the reporting specification and display the previous page.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

2.7 Adding and Editing Internal Reference Information

You can add and edit internal references to links and documents for use by the PHA (not sent to the reporter) using the *Internal References* tab options.

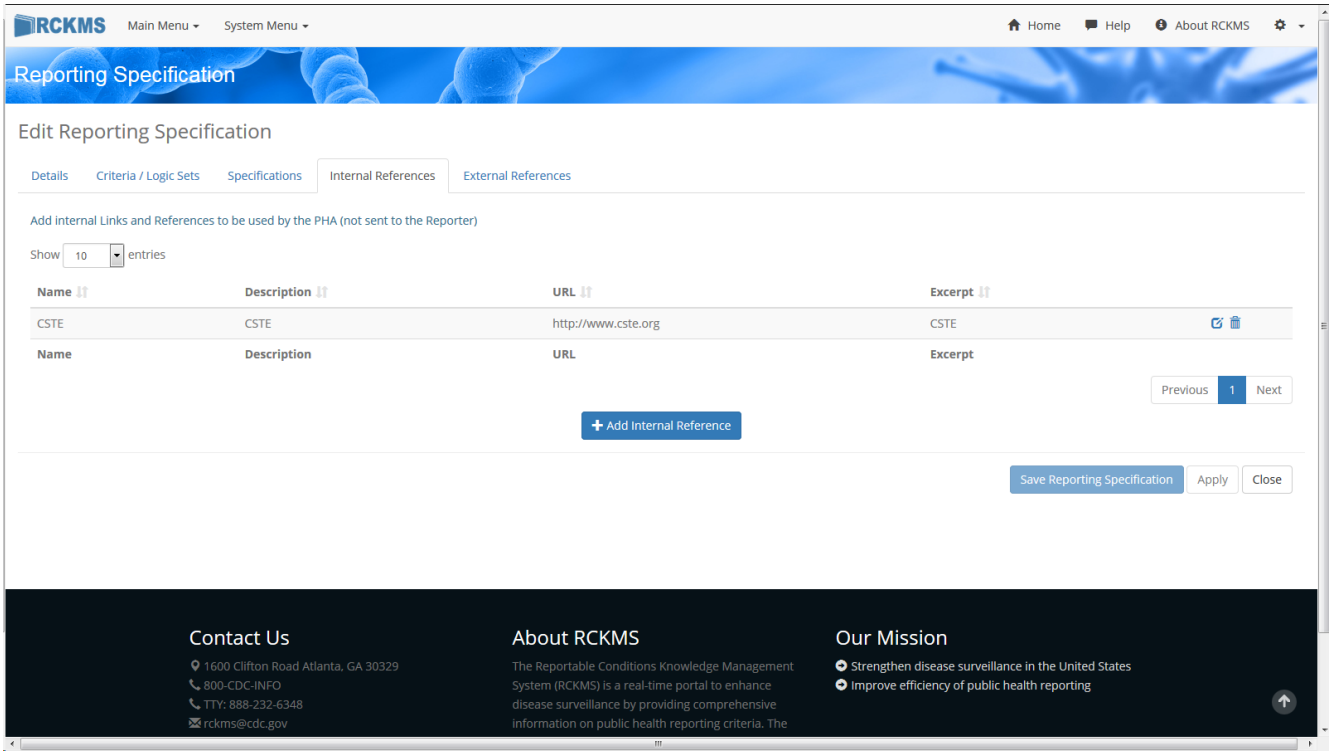
Perform the following steps:

1. Click the **Internal References** tab in the *Reporting Specification* page. RCKMS displays the contents of the *Internal References* tab.
2. Do the one of following:
    - To edit existing internal reference information, click the **Edit** icon for the item you want. RCKMS displays the *Edit Reference* window.
    - To add new internal reference information, click **Add Internal Reference** button. RCKMS displays the *New Reference* window.
3. Click **Name** and type the name you want.
4. Click **URL** and type the URL you want.
5. Click **URL Priority** and choose the option you want.
6. Click **URL Category** and choose the option you want.
7. Click **Description** and type the description you want.
8. Click **Excerpt** and type the excerpt you want.
9. Click the **Save Condition Reference** button. RCKMS saves your changes and displays the *Internal References* tab.

***Important. Internal reference items must be unique within the reporting specification and you cannot display the same reference item in both the Internal References and External References tabs*.**

2.7.1 Internal References tab

The *Internal References* tab displays information such as text, links to web sites, documents and other modes of information for use by the PHA.

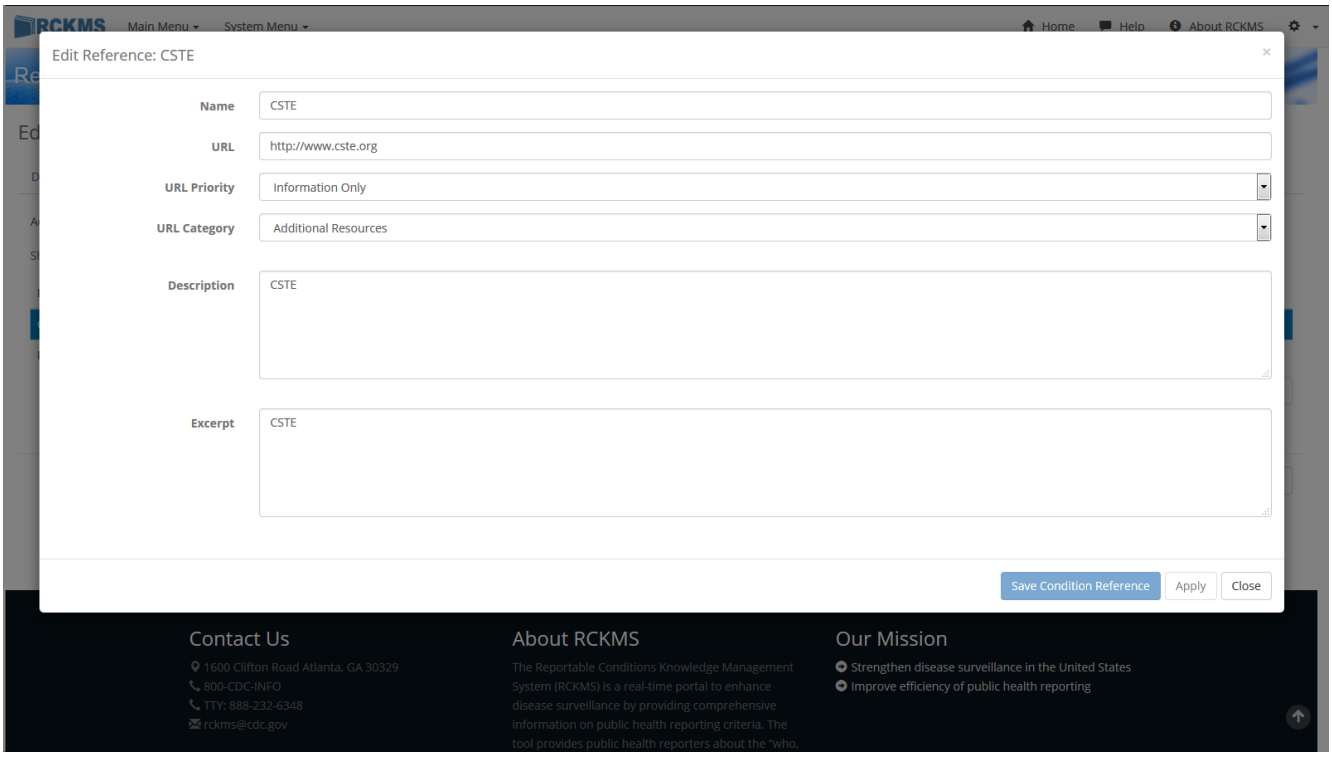


The following table details the options on the page.

Item	Description
Show entries	Click drop-down and choose the number of items to display in the grid.
Name	The name of the internal reference.
Description	The description of the internal reference.
URL	The URL for the internal reference.
Excerpt	An excerpt from the internal reference.
Edit	Click to edit the selected item.
Delete	Click to delete the selected item.
Previous	Click to navigate back through the list of items available.
Next	Click to navigate forward through the list of items available.
Add Internal Reference	Click to add a new internal reference and display the *New Reference window*.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

2.7.2 Reference window

The *Reference* window displays the details of the selected reference item, including name, URL, priority and category. You use the *Reference* window to add and edit reference information.



The following table details the options on the page.

Item	Description
Name	The name of the reference.
URL	The URL for the reference.
URL Priority	The priority of the URL for the internal reference. Options include Action Recommended, Action Required and Information Only.
URL Category	The category of the URL for the reference. Options include Laboratory Requirements, Reporting Requirements, and Specimen Submission Instructions, among others.
Description	The description of the reference.
Excerpt	An excerpt from the reference.
Save Condition Reference	Click to save the reference information.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

2.8 Adding and Editing External Reference Information

You can add and edit external references to links and documents to be sent to the reporter using the *External References* tab options.

You can order the display of external reference information on the Reportability Response by means of the *URL Priority* and *URL Category* options; first by priority and then by category.

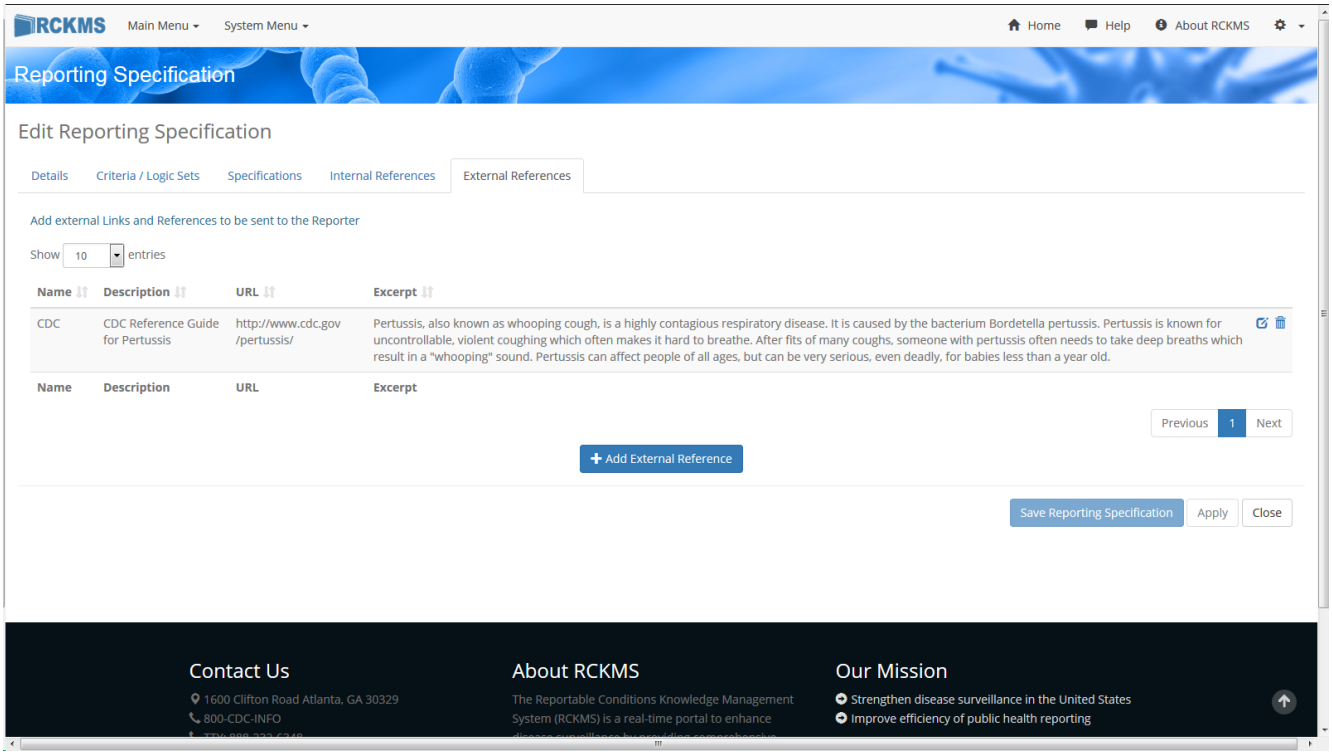
Perform the following steps:

1. Click the **External References** tab in the *Reporting Specifications* page. RCKMS displays the contents of the *External References* tab.
2. Do the one of following:
    - To edit existing external reference information, click the **Edit** icon for the item you want. RCKMS displays the *Edit Reference* window.
    - To add new external reference information, click **Add External Reference** button. RCKMS displays the *New Reference* window.
3. Click **Name** and type the name you want.
4. Click **URL** and type the URL you want.
5. Click **URL Priority** and choose the option you want. Note that the *URL Priority* option orders the display of reference information on the Reportability Response, first by priority and then by category.
6. Click **URL Category** and choose the option you want. Note that the *URL Category* option orders the display of reference information on the Reportability Response, first by priority and then by category.
7. Click **Description** and type the description you want.
8. Click **Excerpt** and type the excerpt you want.
9. Click the **Save Condition Reference** button. RCKMS saves your changes and the *External References* tab.

Important. External reference items must be unique within the reporting specification and you cannot display the same reference item in both the Internal References and External References tabs.

2.8.1 External References tab

The *External References* tab displays information such as text, links to web sites, documents and other modes of information that the PHA wants available to reporters.

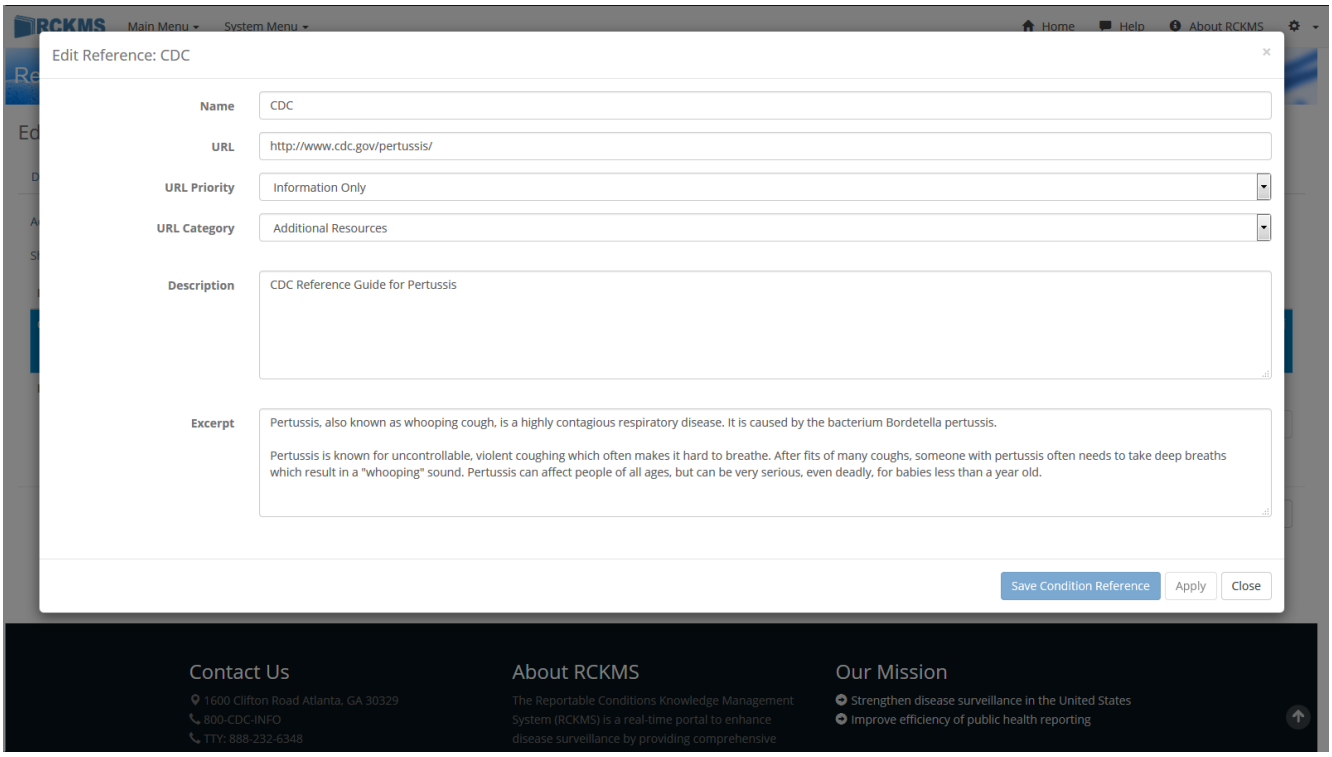


The following table details the options on the page.

Item	Description
Show entries	Click drop-down and choose the number of items to display in the grid.
Name	The name of the external reference.
Description	The description of the external reference.
URL	The URL for the external reference.
Excerpt	An excerpt from the external reference.
Edit	Click to edit the selected item.
Delete	Click to delete the selected item.
Previous	Click to navigate back through the list of items available.
Next	Click to navigate forward through the list of items available.
Add External Reference	Click to add a new external reference and display the *New Reference* window.
Save Reporting Specification	Click to save the reporting specification.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

2.8.2 Reference window

The *Reference* window displays the details of the selected reference item, including name, description and URL. You use the *Reference* window to add and edit reference information.



The following table details the options on the page.

Item	Description
Name	The name of the reference.
URL	The URL for the reference.
URL Priority	The priority of the URL for the reference. Options include Action Recommended, Action Required and Information Only. The *URL Priority* option orders the display of reference information on the Reportability Response, first by priority and then by category.
URL Category	The category organizing the URL for the reference. Options include Laboratory Requirements, Reporting Requirements, and Specimen Submission Instructions, among others. The *URL Category* option orders the display of reference information on the Reportability Response, first by priority and then by category.
Description	The description of the reference.
Excerpt	An excerpt from the reference.
Save Condition Reference	Click to save the reference information.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

2.9 Saving Changes to the Reporting Specification

When you are finished entering reporting specification information in the various tabs, click the **Save Reporting Specification** button. RCKMS saves your changes and displays the *Reporting Specification* page with the date and time of the last update.

To facilitate your workflow, RCKMS saves your changes within the working session. However, to save the information permanently and update the database, you must save the entirety of the reporting specification elements.

Note. RCKMS displays unsaved information using red text indicating that you must save the reporting specification in order to preserve your changes.

2.10 Deploying the Reporting Specification

Once you finalize and save your work on the reporting specification, you must deploy it to the Decision Support Service rules engine in order for RCKMS to run the reporting specifications rules logic and respond on receipt of a record if it is reportable.

Perform the following steps:

1. Do one of the following:
   - Click **Reporting Specifications** in the left navigation menu on the *Home* page. The *Reporting Specification* page displays.
   - Click **Main Menu** in the menu bar at the top of the page and choose **Reporting Specifications**. The *Reporting Specification* page displays.
2. Click the **Edit** icon for the condition you want on the *Reporting Specification* page. RCKMS displays the *Edit Reporting Specification* page and the contents of the *Details* tab.
3. Review all tabs for completeness and accuracy.
   - Click the tab you want to continue entering reporting specification information.
     i. Click **Criteria/Logic Sets** to edit and add logic set and criteria information. To work with criteria and logic set information, refer to *Section 2.4, Adding and Editing Logic Set Information* and *Section 2.5, Adding and Editing Criteria Information.*
     ii. Click **Specifications** to edit and add Reporting Timeframe and decision logic information. To work with reporting timeframe and decision logic information, refer to *Section 2.6, Adding and Editing Specification Information*.
     iii. Click **Internal References** to edit and add internal links and reference information. To work with internal reference information, refer to *Section 2.7, Adding and Editing Internal Reference Information*.
     iv. Click **External References** to edit and add external links and reference information. To work with external reference information, refer to *Section 2.8, Adding and Editing External Reference Information*.
     v. Click **Details** to edit and add reporting specification detail information. To work with reporting specification details, refer to *Section 2.3, Editing Details Information*.
4. Click **Status** in the *Details* tab and choose **Published**.

5. Do one of the following:
    - Click **Apply**. RCKMS saves your changes and keeps the window open.
    - Click **Save Reporting Specification**. RCKMS displays the *Reporting Specification* page and the date and time of the last update.
6. Click the **Deploy Reporting Specifications** button. RCKMS confirms the deployment.

Once you save and deploy the reporting specification, you can work with other parts of the RCKMS application. You can work with the Test Case module to run test cases and validate the criteria and rules logic, use the Reports module to run queries and display informational reports, as well as manage jurisdiction detail information using the Jurisdiction module.

To run test cases, refer to *Section 3, Running Test Cases and Viewing Results*. To enter queries and generate report output, refer to *Section 4, Generating Queries and Report Output*. To manage jurisdiction information, refer to *Section 5, Viewing and Editing Jurisdiction Information*.

3 Running Test Cases and Viewing Results

You can run a test case and view its results using the *Test Cases* page. When you run a test case, the application simulates receipt of a report and moves that information through the logic chain defined for the reporting specification's criteria, logic sets and rules options. A successful test case provides you confirmation that the criteria and rules for a given reporter provide the expected results.

You use the *Test Cases* options to confirm the criteria as Sufficient, Necessary and Optional based on rules for the selected reporter type as displayed in the *Specifications* tab. When you run a test case you are testing the logic set and rules for the reporting criteria associated with the selected reporter type. You can run the tests cases as presented or make changes to them to account for any jurisdiction-specific information.

For more detail on the Sufficient, Necessary and Optional notation, refer to *Section 2.6, Adding and Editing Specification Information*. For more detail on reporting criteria, refer to *Section 2.5, Adding and Editing Criteria Information*.

Perform the following steps:

1. Do one of the following:
   - Click **Test Cases** in the left navigation menu on the *Home* page. RCKMS displays the *Test Cases* page.
   - Click **Main Menu** in the menu bar at the top of the page and choose **Test Cases**. RCKMS displays the *Test Cases* page.
2. Click the **Reporting Specification** drop-down and choose the condition you want. RCKMS displays a list of the available test cases.
3. Do one of the following:
   - Click the **Run Test** icon for the test case you want. RCKMS runs the test case and displays the *Test Results* page, with the summary results at the top of the page.
   - Click the **Edit** icon for the test case you want. RCKMS displays the *Edit Test Case* page and the contents of the *Details* tab. Then, click the **Run Test** button. RCKMS runs the test case and displays the *Test Results* page, with the summary results at the top of the page.
4. Optionally, click the links for the test result detail information you want. These include *Jurisdiction Information*, *Test Subject*, *Test Inputs*, *Logs and Messages*, *Links and References*, *Input XML* and *Output XML*.
5. When you are finished, click the **Close** button. RCKMS displays the *Test Cases* page.

3.1 Adding and Editing Test Cases

You can add new test cases and edit existing test cases.

Perform the following steps:

1. Add or edit test case *Details* information.
   a. Do one of the following:

i. Click the **Edit** icon for the test case you want. RCKMS displays the *Edit Test Case* page and the contents of the *Details* tab.
ii. Click the **New Test Case** button. RCKMS displays the *New Test Case* page and the contents of the *Details* tab.

b. Click **Reporting Specifications** and choose the condition you want.
c. Click **Name** and type the name you want.
d. Click **Description** and type the description you want.
e. Click **Reporter Type** and choose the reporter type you want.
f. Optionally, click **Condition Expected to be Reportable** to indicate that the condition is expected to be reportable.
g. Optionally, click **Skip this test** to skip the test case execution.

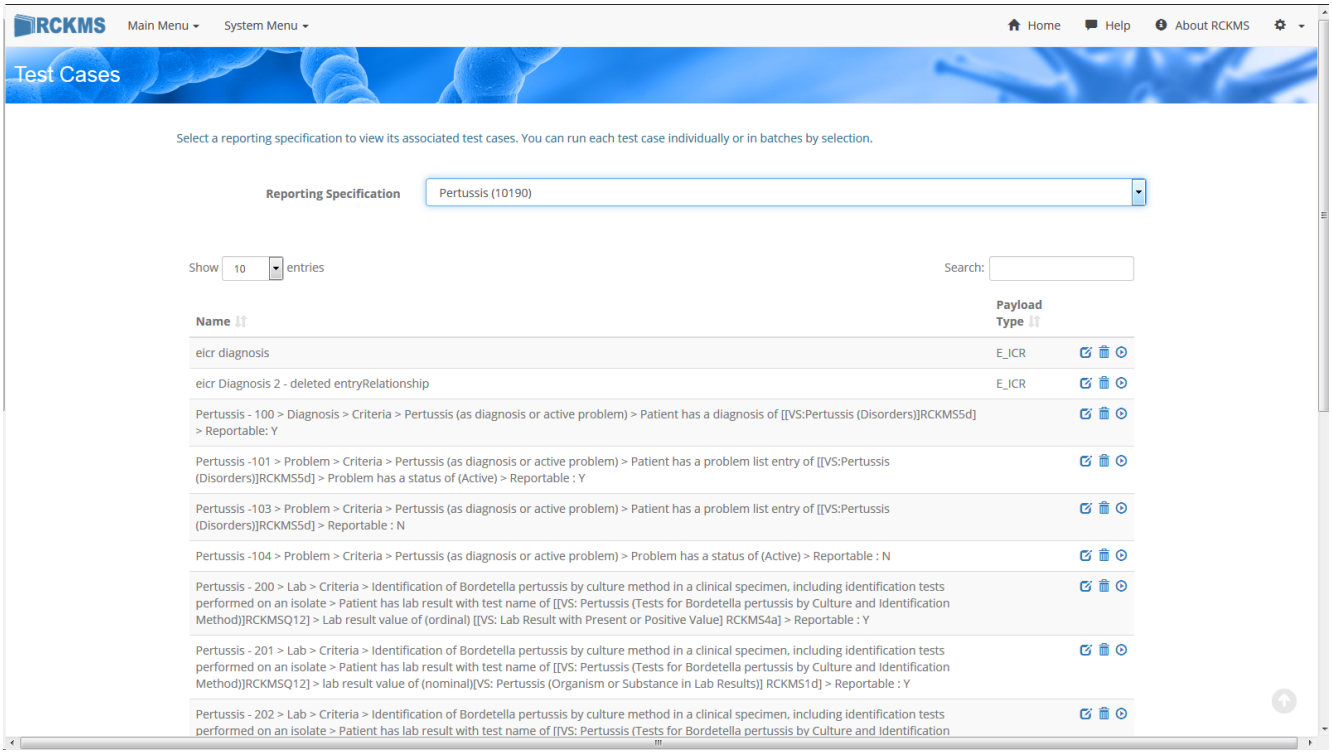
2. Add or edit Test Subject information.
   a. Click the **Test Subject** tab. RCKMS displays the contents of the *Test Subject* tab.
   b. Click **Gender** and choose the gender you want.
   c. Do one of the following:
      i. Click the **Offset-Based** radio button to indicate the age offset information. RCKMS displays the *Age Offset* field. Then, type the offset you want in years, months or days.
      ii. Do one of the following:
         a. Click the **Date-Based** radio button to enter birthdate or execution date information. You can click **Date of Birth** and type or choose the date you want.
         b. Click **Execution Date** and type or choose the date you want. The *Age at Execution* option is read-only and updates based on your entry.
3. Add or edit *Test Inputs* information.
   a. Click the **Test Inputs** tab. RCKMS displays the contents of the *Test Inputs* tab.
   b. Do one of the following:
      i. Click the **Criteria** radio button to specify the input source for the test case as criteria-based. RCKMS displays the criteria options in the *Test Case Inputs* section.
      ii. Click the **File** radio button to specify the input source for the test as file-based. RCKMS displays *Payload Type* options.
4. To work with *criteria-based* test case input, do the following:
   a. Click the **Criteria** radio button to specify the input source for the test case as criteria-based. RCKMS displays the criteria options in the *Test Case Inputs* section. ***Note. To work with file-based test case input, go to step 5 in these procedures.***
   b. Do one of the following:
      i. To edit criteria-based test case input, click the **Edit** icon for the criterion you want in the *Test Case Inputs* section. RCKMS displays the *Edit Criteria* window.
      ii. To add a new criterion, click the **Add Test Case Input button** in the *Test Case Inputs* section. RCKMS displays the *New Test Case Input* page.

c. Click **Criteria Template** and choose the option you want. RCKMS displays the *Criteria Input* options at the bottom of the window. Note that the Criteria Template options are read-only when editing existing criteria.
d. Click **Criteria Label** and type the label you want. Note that on selection of the *Criteria Template* option RCKMS displays sample text in the *Criteria Label* field.
e. Add or edit the *Criteria Input* information you want.
    i. To add or edit *Criteria Input* information, click the drop-down for the criteria input (also known as "criteria predicates") you want and choose the option you want.
    ii. You can also type the name you want in the text box to display and choose the input information.
f. Click the **Save Test Case Input** button. RCKMS saves the criteria information and displays the *Test Case Inputs* section of the *Test Inputs* tab.

5. To work with *file-based* test case input, do the following:
    a. Click the **File** radio button to specify the input source for the test as file-based. RCKMS displays *Payload Type* options. ***Note. To work with criteria-based test case input, go to step 4 in these procedures.***
    b. Do one of the following:
        i. Click **eICR** to work with eICR file-based input. RCKMS displays the *Browse* button.
        ii. Click **vMR** to work with vMR file-based input. RCKMS displays the *Browse* button.
    c. Click the **Browse** button and choose the file you want to upload from your computer.
6. Optionally, add or edit *Expected Criteria* information.
    a. Do one of the following:
        iii. To edit expected criteria, click the **Edit** icon for the criterion you want in the *Expected Criteria* section. RCKMS displays the *Edit Expected Criteria* window.
        iv. To add a new expected criterion, click the **New Expected Criteria** button in the *Expected Criteria* section. RCKMS displays the *New Expected Criteria* window.
    b. Click *Criteria Template* and choose the option you want.
    c. Click **Save Expected Criteria**. RCKMS saves the expected criteria and displays the *Expected Criteria* section on the *Test Inputs* tab.
7. Click the **Save Test Case** button. RCKMS saves the test case and displays the *Test Cases* page.

3.1.1 Test Cases page

The *Test Cases* page displays a grid with the available test cases for the reporting specification.

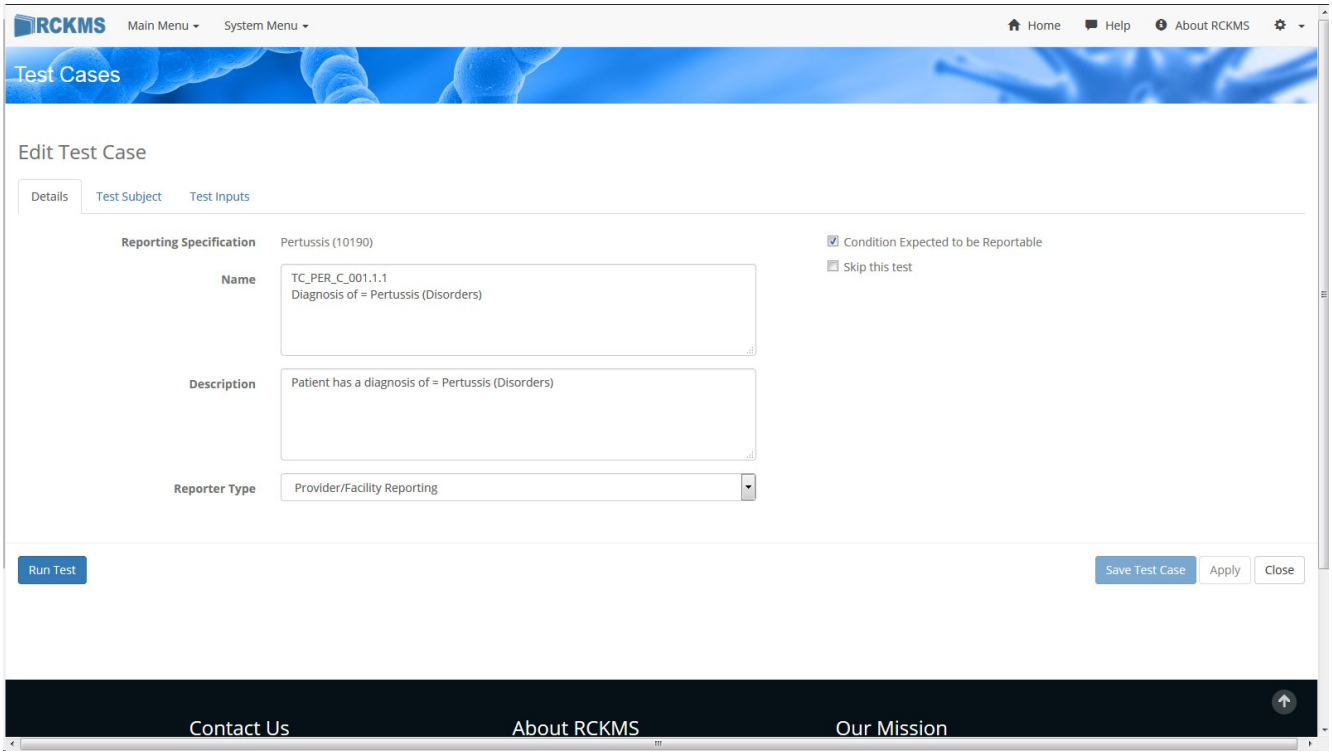


The following table details the options on the page.

Item	Description
Reporting Specifications	Click and choose the reporting specification for the condition you want.
Show entries	Click drop-down and choose the number of items to display in the grid.
Name	The test case name.
Payload Type	The payload type associated with the test case. Options include eICR and vMR.
Edit	Click to edit the selected item.
Delete	Click to delete the selected item.
Run Test	Click to run the test case.
Previous	Click to navigate back through the list of items available.
Next	Click to navigate forward through the list of items available.
Add Test Case	Click to add a new test case and display the *New Test Case* page.
Show entries	Click drop-down and choose the number of items to display in the grid.

3.1.2 Details tab

The test case *Details* tab displays detail information on the test case, including the reporting specification, the test case name and reporter type, as well as options for expected reportability and skipping test execution.

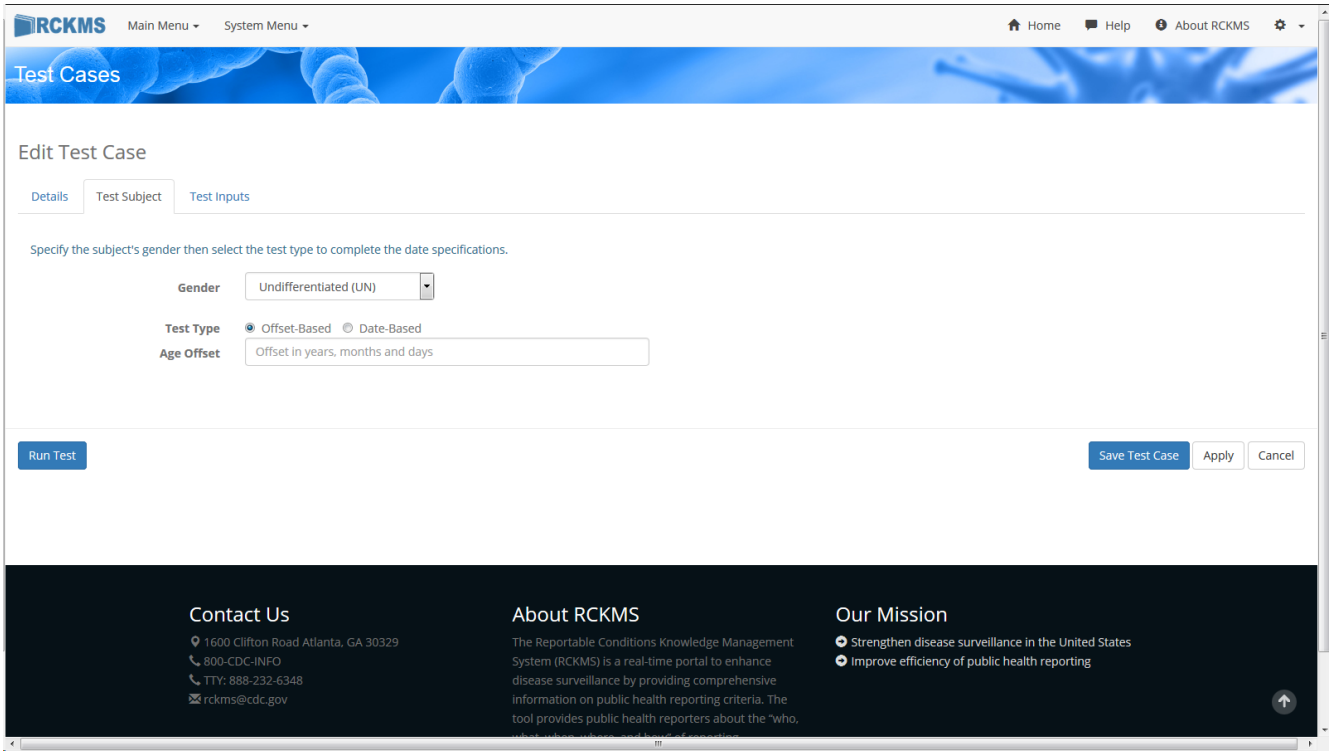


The following table details the options on the page.

Item	Description
Reporting Specification	The reporting specification associated with the test case. Click to choose the condition you want.
Name	The test case name.
Description	The test case description, such as the rules and criteria to be tested.
Reporter Type	The reporter type associated with the test case.
Condition Expected to be Reportable	Click to indicate the condition is expected to be reportable.
Skip this test	Click to skip test execution.
Run Test	Click to run the test case. The *Run Test* button displays after you save the test case.
Save Test Case	Click to save the test case and display the *Test Cases* page.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

3.1.3 Test Subject tab

The *Test Subject* tab displays the test subject's gender and test type information, along with options for specifying offset and date-based testing.

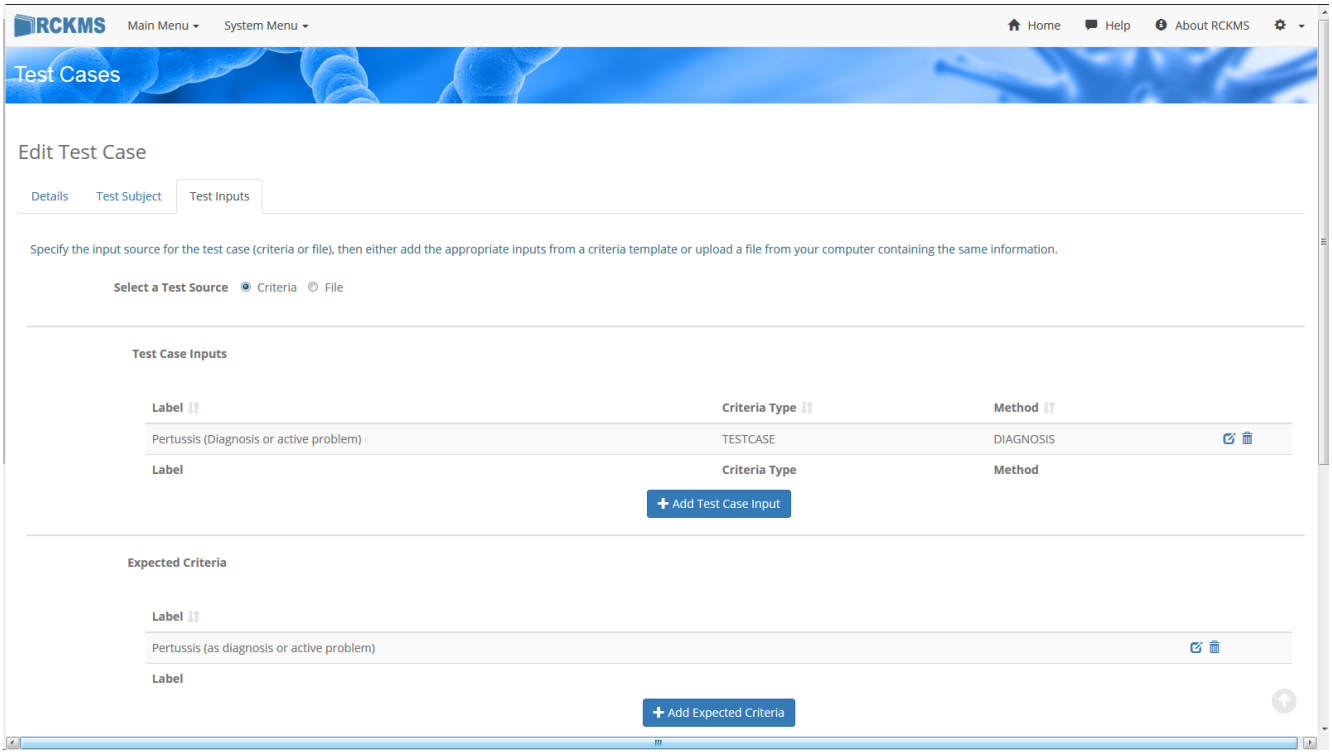


The following table details the options on the page.

Item	Description
Gender	The gender associated with the test case. Click and choose gender you want.
Offset Based	Click to indicate the test case is offset based on age criteria. On selection, RCKMS displays the *Age Offset* field.
Age Offset	Click and type the offset age.
Date-based	Click to indicate the test case is date-based according to date of birth and date of execution. On selection, RCKMS displays the *Date of Birth*, *Execution Date* and *Age at Execution* fields.
Date of Birth	The date of birth.
Execution Date	The date of execution.
Age at Execution	The age of execution for date-based testing.
Run Test	Click to run the test case. The *Run Test* button displays after you save the test case.
Save Test Case	Click to save the test case and display the *Test Cases* page.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

3.1.4 Test Inputs tab

The *Test Inputs* tab displays options for indicating reportability, test source and criteria detail information.



The *Test Inputs* tab enables you to specify the input source for the test case as either criteria or file-based. Depending on your selection, you can either add the appropriate inputs from a criteria template or upload a file from your computer containing the same information. You can also enter the criteria expected to fire on execution of the test case.

The following table details the options on the page.

Item	Description
Criteria	Indicates the test source is criteria-based. Click **Criteria** to indicate criteria-based testing. On selection, RCKMS displays the *Test Case Inputs* options you use to enter the criteria to be tested.
File	Indicates the test source is based on a file payload. Click **File** to indicate file-based testing. On selection, RCKMS displays the *Payload Type* options, eICR and vMR.
Payload Type	Indicates the file payload is eICR or vMR. Choose the option you want. On selection, RCKMS displays the *Browse* button. Click **Browse** to select the file you want.
Browse	Click and choose the file you want.

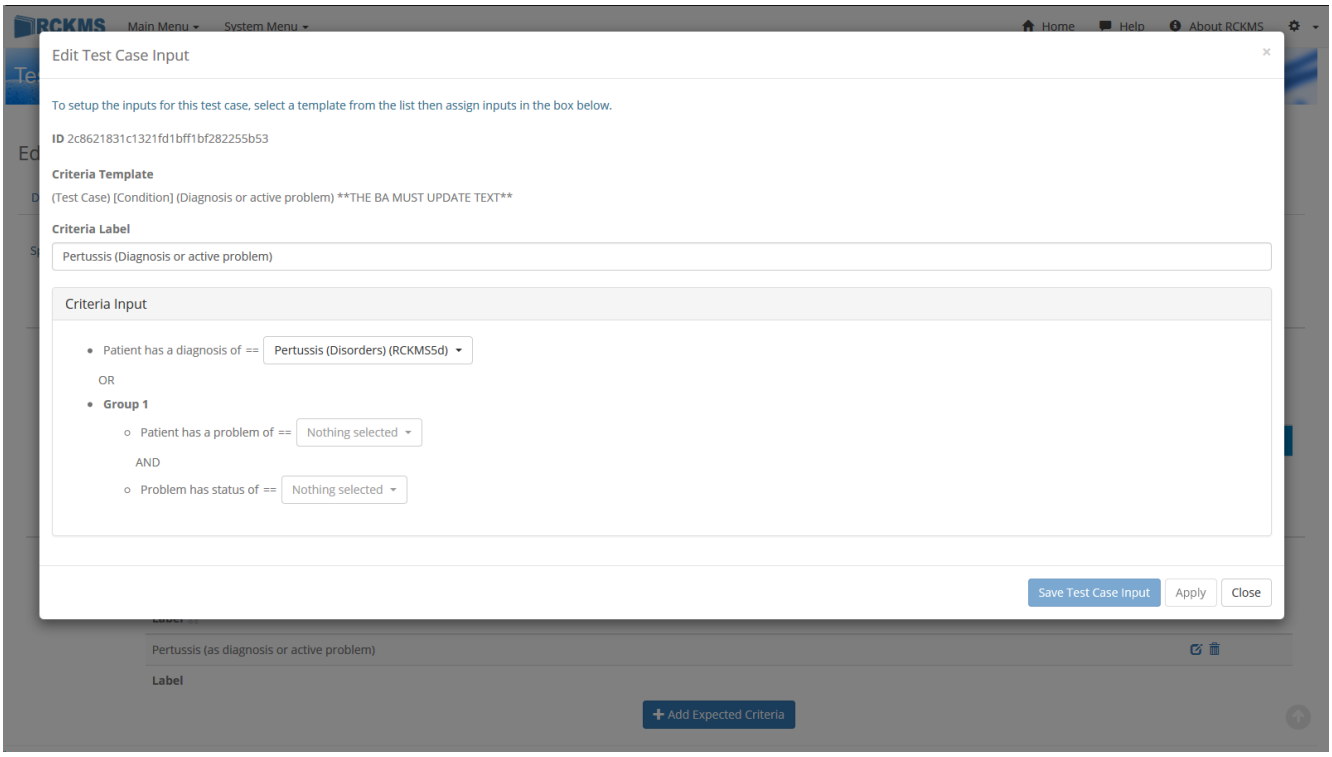
<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Test Case Inputs</td><td>Displays the reporting criteria information to be tested.

The Test Case Input table includes the following columns.
<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Label</td><td>The descriptive name of the reporting criteria to be tested.</td></tr>
<tr><td>Criteria Type</td><td>The criteria type.</td></tr>
<tr><td>Method</td><td>The test case method.</td></tr>
<tr><td>Edit</td><td>Click to edit the selected item.</td></tr>
<tr><td>Delete</td><td>Click to delete the selected item.</td></tr>
<tr><td>Add Test Case Input</td><td>Click to enter a new test case input and display the New Test Case Input page.</td></tr>
</table></td></tr>
<tr><td>Expected Criteria</td><td>Displays the expected criteria to fire on test execution.

The Expected Criteria table includes the following columns.
<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Label</td><td>The descriptive name of the expected criteria.</td></tr>
<tr><td>Edit</td><td>Click to edit the selected item.</td></tr>
<tr><td>Delete</td><td>Click to delete the selected item.</td></tr>
<tr><td>New Expected Criteria</td><td>Click to enter a new expected criteria and display the New Expected Criteria page.</td></tr>
</table></td></tr>
<tr><td>Run Test</td><td>Click to run the test case. The Run Test button displays after you save the test case.</td></tr>
<tr><td>Save Test Case</td><td>Click to save the test case and display the Test Cases page.</td></tr>
<tr><td>Apply</td><td>Click to save your changes and keep the window open.</td></tr>
<tr><td>Close</td><td>Click to close and display the previous page.</td></tr>
</table>

3.1.5 Test Case Input window

The *Test Case Input* window displays the options for adding and editing reporting criteria information to be tested. You can add test case input information or edit existing information.



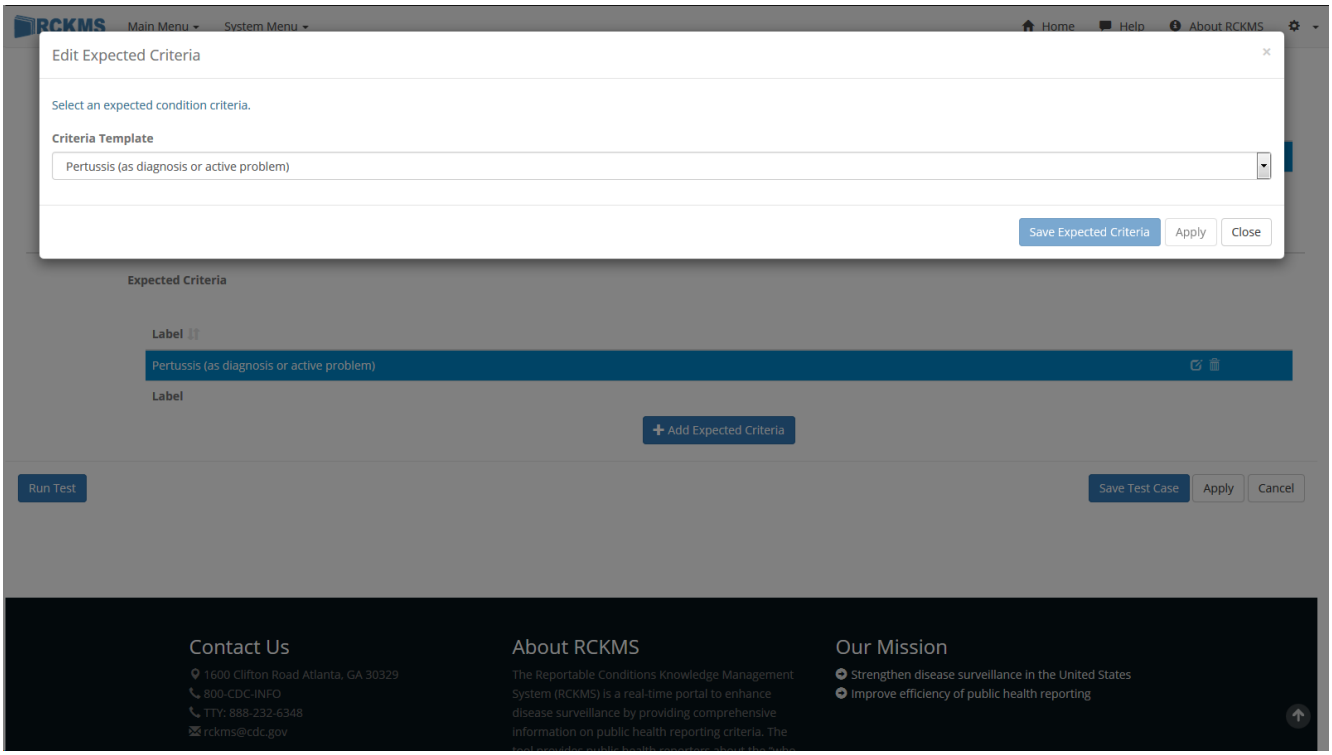
The selected criteria template information displays at the top of the page, followed by the criteria label. And at the bottom of the page, you can choose the criteria inputs associated with the criteria template and make changes to the available predicate information.

The following table details the options on the page.

Item	Description
ID	A system-assigned unique identifier for the criterion. This field is read-only.
Criteria Template	The template of pre-populated options upon which the criteria is based. Click **Criteria Template** and choose the option you want. RCKMS displays the options at the bottom of the window. Note the *Criteria Template* options are read-only when editing existing criteria.
Criteria Label	The label identifying the criterion name. Click **Criteria Label** and type the label you want. On selection of the *Criteria Template* option RCKMS displays sample text in the *Criteria Label* field.
Criteria Input	The values, codes and operators comprising the logic for the criterion. To add or edit *Criteria Input* information, click the drop-down for the criteria input (also known as “criteria predicates”) you want and choose the option you want. You can also type the name you want in the text box to display and choose the input information.
Save Test Case Input	Click to save the test case input information.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

3.1.6 Expected Criteria window

The *Expected Criteria* window displays options for selecting the expected condition criteria to fire on execution of the test case.

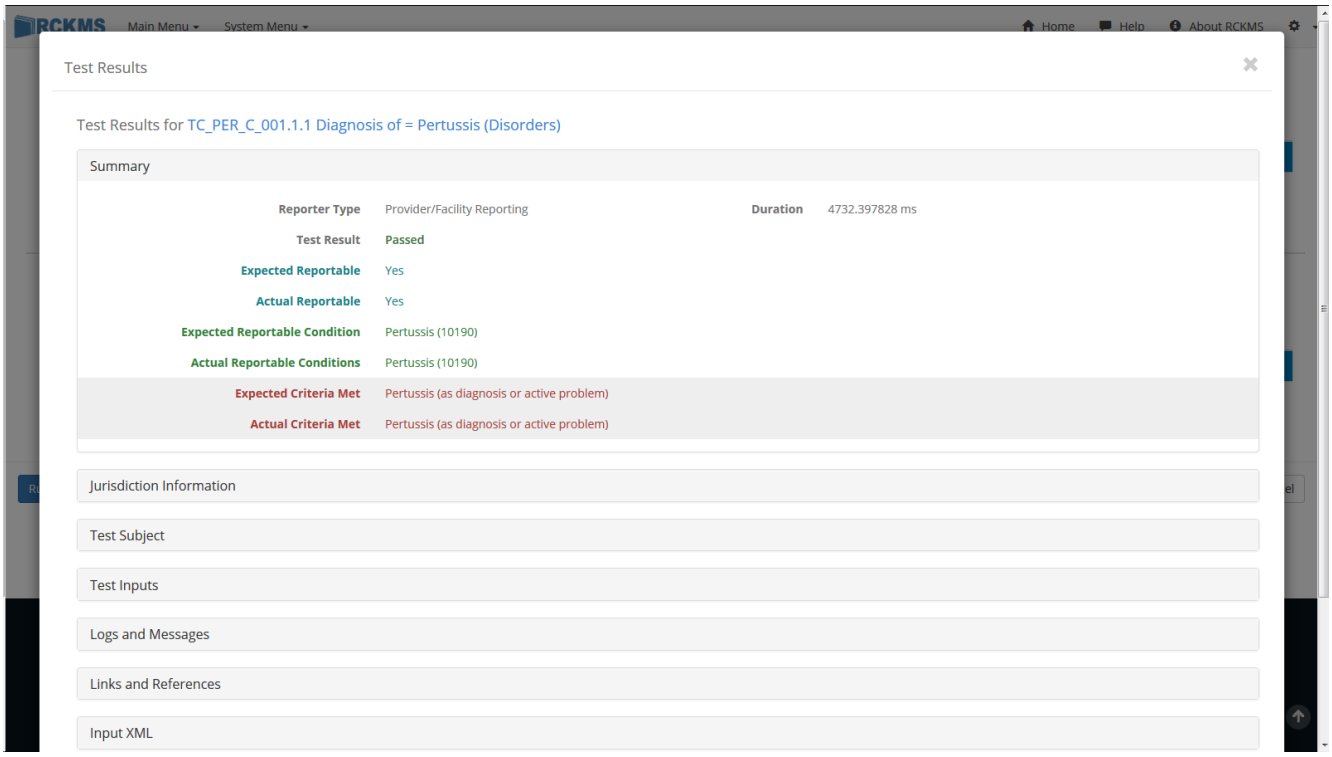


The following table details the options on the page.

Item	Description
Criteria Template	The template of pre-populated options upon which the criteria is based. Click **Criteria Template** and choose the option you want.
Save Expected Criteria	Click to save the test case input information.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

3.1.7 Test Results page

The *Test Results* page displays a summary of the results and options to display the test case details, including options for viewing and downloading XML representations of the test input and results output data.



You can click the link to expand the section you want and view its details. Click **Close** to close the *Test Results* page.

The *Test Results* page displays a summary of result information at the top of the page, followed by details on *Jurisdiction Information*, *Test Subject* and *Inputs, Logs and Messages*, and *Links and References* information. It also provides options for viewing and downloading the input and output XML files structuring the input and output data. You can click the link to expand the section you want and view its details. Click **Close** to close the *Test Results* page.

The test result compares the *Expected Reportable* information to that which you indicate as *Actual Reportable*. You indicate the *Expected Reportable* information using the *Condition Expected to be Reportable* option in the test case. The *Actual Reportable* information provides determination of whether the *Expected Reportable* Condition is reportable based on exercising the test input through all of a PHA's reporting specifications.

The results also display the *Expected Reportable Condition* which is set by selecting a condition under the *Reporting Specification* field in the test case. The results return the *Actual Reportable Conditions*, representing one or more conditions that are found to be reportable based on running the test input through all of a PHA's reporting specifications.

In addition, the test results display the *Expected Criteria Met*, which are set by selecting one or more criteria under *Expected Criteria* in the test case. Note that the *Expected Criteria Met* does not affect the test result

outcome. The *Actual Criteria Met* represents one or more criteria that are met based on running the test input through all of a PHA's reporting specifications. Note that the *Actual Criteria Met* does not affect the test result outcome.

The following table details the options on the page.

Item	Description
Reporter Type	The reporter type associated with the test case.
Test Result	The test result. The test result compares the *Expected Reportable* information to that you indicate as *Actual Reportable.*
Expected Reportable	The tested condition expected to be reportable. You indicate the *Expected Reportable* information using the *Condition Expected to be Reportable* option in the test case.
Actual Reportable	The tested condition as actually reported. It represents the determination of whether the *Expected Reportable* Condition is reportable based on exercising the test input through all of a PHA's reporting specifications.
Expected Reportable Condition	The expected reportable condition tested. You indicate the *Expected Reportable Condition* by selecting a condition under the *Reporting Specification* field in the test case.
Actual Reportable Condition	The expected reportable condition as tested. It represents one or more conditions that are found to be reportable based on running the test input through all of a PHA's reporting specifications.
Expected Criteria Met	The expected criteria tested. The *Expected Criteria Met* does not affect the test result outcome. You indicate the *Expected Criteria Met* by selecting one or more criteria under *Expected Criteria* in the test case.
Actual Criteria Met	The actual criteria as tested. It represents one or more criteria that are met based on running the test input through all of a PHA's reporting specifications. The *Actual Criteria Met* does not affect the test result outcome.
Duration	The test case execution time in milliseconds.
Jurisdiction Information	Click to display jurisdiction information.
Test Subject	Click to display test subject information.
Test Inputs	Click to display test source and expected criteria information.
Logs and Messages	Click to display messages generated during test case execution indicating reportability outcome following test case execution.
Links and References	Click to display link and message information associated with the reporting criteria.

Item	Description
Input XML	Click to display vMR XML input file contents representing the information and options submitted in the test case.
Output XML	Click to display vMR XML output file contents representing the information and options resulting from the test case execution.
Close	Click to close and display the previous page.

4 Generating Queries and Report Output

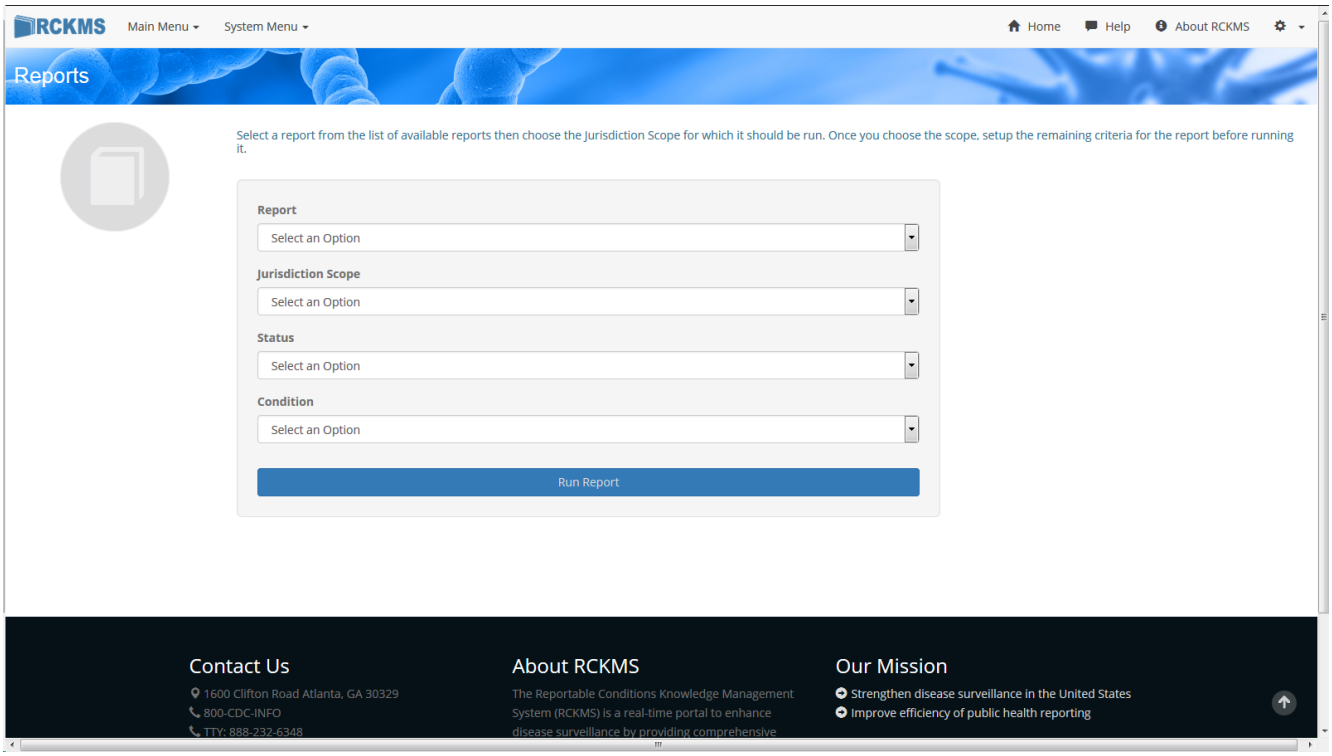
You can enter queries and generate report output using the *Reports* page. The Reports module provides a printable report or electronic file that contains the reporting specifications that were entered through the authoring tool.

Perform the following steps:

1. Do one of the following:
   - Click **Reports** in the navigation menu on the *Home* page. RCKMS displays the *Reports* page.
   - Click **Main Menu** in the menu bar at the top of the page and choose **Reports**. RCKMS displays the *Reports* page.
2. Click **Reports** and choose the option you want.
3. Click **Jurisdiction Scope** and choose the option you want. Selecting the *Jurisdiction* option displays the **Jurisdiction** drop-down. Click the option for the jurisdiction you want.
4. Click **Status** and choose the option you want.
5. Click **Condition** and choose the option you want.
6. Click the **Run Report** button. RCKMS displays the report output as a PDF document. Depending on your workstation's configuration, you may be prompted to save or open the file.

4.1 Reports page

The *Reports* page displays options for entering queries and viewing report output. You can choose the options you want and click **Run Report**.



The following table details the options on the page.

Item	Description
Report	Click to choose a summary or detailed report.
Jurisdiction Scope	Click to choose the jurisdiction to run the report. You can choose default to run a report for the default jurisdiction. Or you can click the *Jurisdiction* option and choose the jurisdiction you want. Clicking the *Jurisdiction* option displays the **Jurisdiction** drop-down.
Jurisdiction	Click the name of the jurisdiction you want. This option is hidden until you select *Jurisdiction* in the **Jurisdiction Scope** drop-down.
Status	Click to choose the status of the reporting specification.
Condition	Click to choose the condition you want.
Run Report	Click to run the query and display report output.

4.1.1 Summary Report

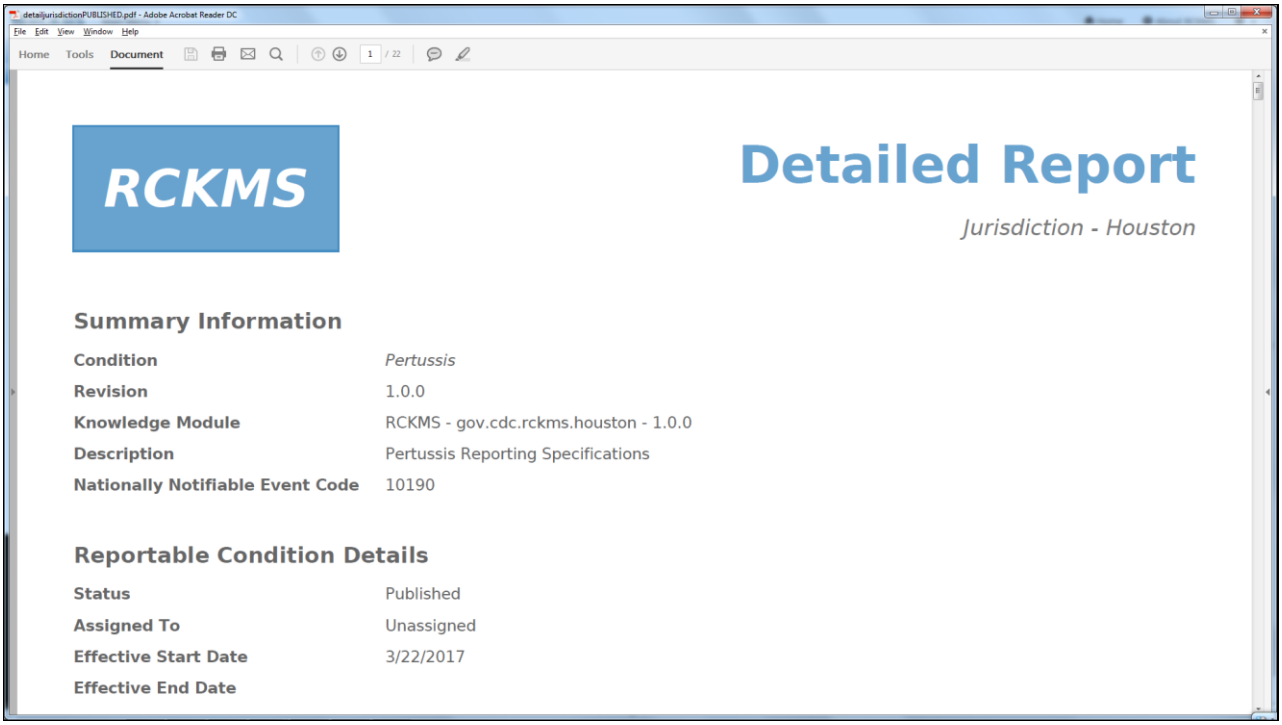
The *Summary Report* displays summary output of the reporting specification for the condition you select, along with instructions on how to read the reporting specifications and an explanation of the *Sufficient*, *Necessary* and *Optional* reporting rules.

The *Summary Report* provides a high-level overview of the reporting specifications. It describes the data entered into the reporting specifications table through the authoring tool's Reporting Specification module. The report includes how logics sets are related to a condition's criteria through the Sufficient, Necessary,

Optional rules. The last page of the report provides instructions on how to read the Reporting Specifications and provides definitions of the Sufficient, Necessary, and Optional rules.

4.1.2 Detailed Report

The *Detailed Report* displays detailed output of the reporting specification for the condition you select, along with instructions on how to read the reporting specifications and an explanation of the Sufficient, Necessary and Optional reporting rules.



Detailed Reports should be read paired with the *Summary Report*. The *Detailed Report* includes the detailed definitions of the criteria referenced in the *Summary Report* and list the value sets and underlying codes used by the criteria in the reporting specifications for your PHA.

5 Viewing and Editing Jurisdiction Information

You can view and edit information about your jurisdiction using the Jurisdiction module. You can work with detail information about your Public Health Agency, view the status of the conditions and reporting specifications, as well as ZIP codes and users assigned to your jurisdiction.

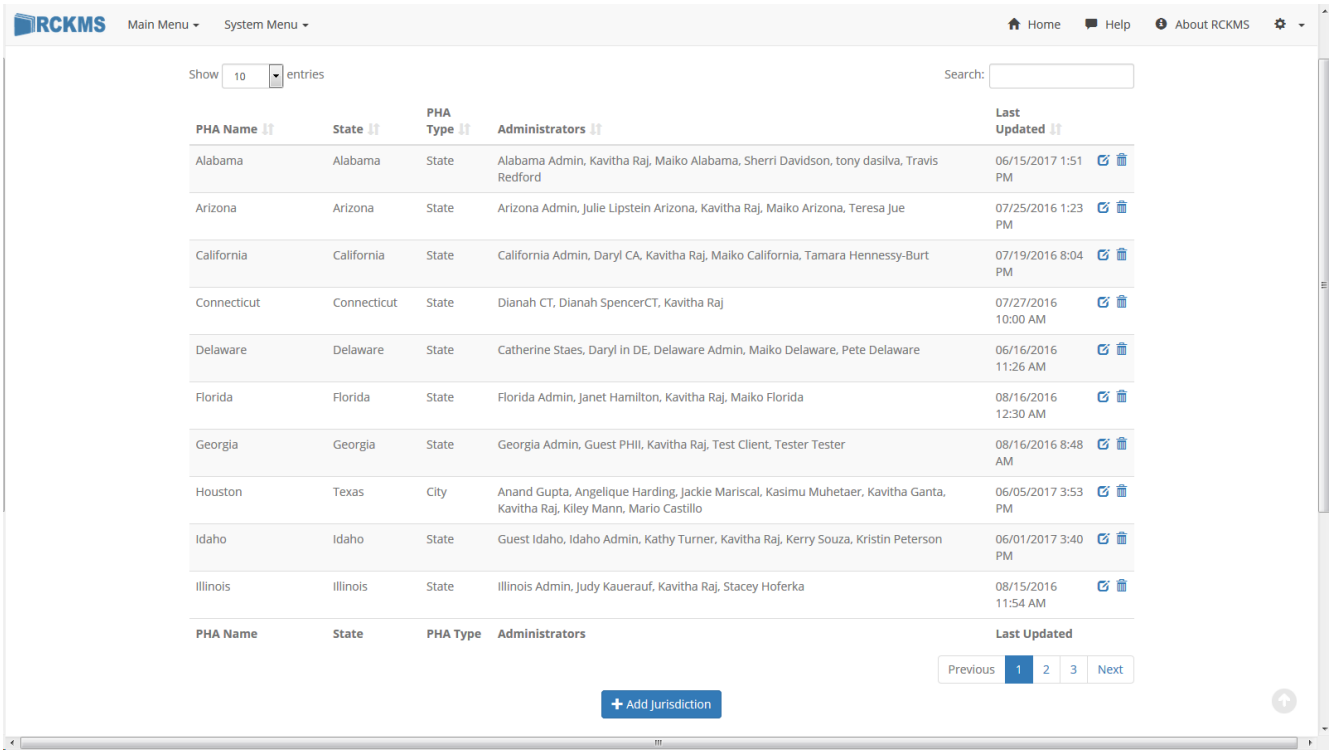
Perform the following steps:

1. Click **Main Menu** in the menu bar at the top of the page and choose **Jurisdictions**. The *Jurisdiction* page displays.
2. Click the **Edit** icon for the jurisdiction you want. RCKMS displays the *Jurisdiction* window and the contents of the *Public Health Agency Details* tab.
3. Do one of the following:
    - Click **Public Health Agency Details** to work with the PHA details. Options include, PHA Name and Type information, description and version information, as well as options for running alternate rules in the event rules don't exist for a selected condition and options for alternate routing of eICR and Reportability Response (RR) information.
    - Click **Conditions** to view the conditions and reporting specifications associated with your jurisdiction. Options include the name of the condition and the current status of the reporting specification.
    - Click **Zip Codes** to view the Zip codes included within your jurisdiction. Options include Zip Code, city, county and state.
    - Click **Users** to view the users within your jurisdiction. Options include the user name and email contact information.
4. Do one of the following:
    - Click **Apply**. RCKMS saves your changes and keeps the window open.
    - Click **Save Jurisdiction**. RCKMS displays the *Jurisdiction* page and the date and time of the last update.

You can also click to **Close** to close the page.

5.1.1 Jurisdiction page

The *Jurisdiction* page display a list of all available jurisdictions. You can click the **Edit** icon for the jurisdiction you want.



Note that Jurisdiction Administrators can only view and edit information for their jurisdiction and no other, while the RCKMS Administrator can view, edit and delete information for all jurisdictions.

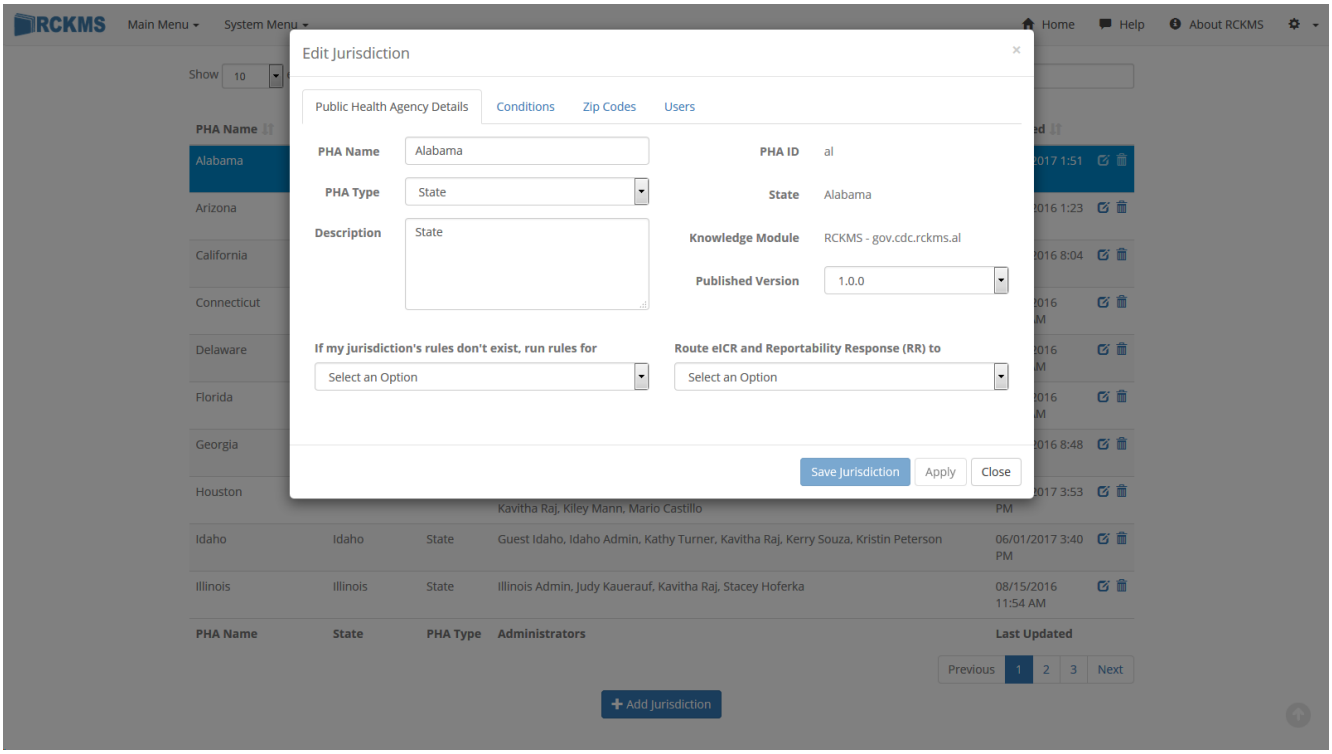
The following table details the options on the page.

Item	Description
Show entries	Click drop-down and choose the number of items to display in the grid.
PHA Name	The name of the jurisdiction/Public Health Agency.
State	The state of the jurisdiction/Public Health Agency.
PHA Type	The type of public health agency. Options include State, Parish, District, County, City and Borough.
Administrators	The users assigned jurisdiction administrator rights.
Last Update	The date and time of the last update.
Edit	Click to edit the selected item.
Delete	Click to delete the selected item.
Previous	Click to navigate back through the list of items available.
Next	Click to navigate forward through the list of items available.

Item	Description
Add Jurisdiction	Click to add a new jurisdiction. Only RCKMS Administrators can add a new jurisdiction and this option does not display for Jurisdiction Administrator users.

5.1.2 Jurisdiction window

You use the *Jurisdiction* window to work with detail information about your Public Health Agency. It provides tabs to view the conditions and reporting specifications associated with your PHA, as well as ZIP codes and users associated within your PHA.



The following table details the options on the page.

Item	Description
Public Health Agency Details	Click to work with the PHA details. Options include, PHA Name and Type information, description and version information, as well as options for running alternate rules in the event rules don't exist for a selected condition and options for alternate routing of eICR and Reportability Response (RR) information.
Conditions	Click to view the conditions and reporting specifications associated with your PHA. Options include the name of the condition and the current status of the reporting specification.

Item	Description
ZIP Codes	Click to view the ZIP codes included within your jurisdiction. Options include ZIP Code, City, County and State.
Users	Click to view the users within your PHA. Options include the user name and email contact information.
Save Jurisdiction	Click to save the jurisdiction information.
Apply	Click to save your changes and keep the window open.
Close	Click to close and display the previous page.

Glossary

A

Association of Public Health Laboratories (APHL)

A non-profit membership organization consisting of local, territorial, county and state public health laboratories; environmental, agricultural and veterinary laboratories; and corporations and individuals with an interest in public health and laboratory science.

APHL Informatics Messaging Service (AIMS)

A secure cloud-based environment that accelerates the implementation of health messaging by providing shared services to aid the transport, validation, translation and routing of electronic data.

Authoring Interface

The web portal where information about RCKMS reporting criteria is entered, stored, and processed. The authoring interface is pre-populated with reporting specifications and the public health agencies can either use these defaults or change them to meet their needs.

B

C

Codes

Numerical values (codes) and human-readable names (terms), drawn from standard vocabularies such as SNOMED CT, RxNorm, LOINC and ICD-10-CM. See also Value Set.

Council of State and Territorial Epidemiologists (CSTE)

A non-profit membership organization consisting of local, territorial, county and state public health epidemiologists representing multiple levels of public health practice. CSTE works to advance public health policy and epidemiologic capacity. It provides information, education, and developmental support of practicing epidemiologists, as well as expertise, technical advice and assistance for program and surveillance efforts to partner organizations and federal public health agencies such as the Centers for Disease Control and Prevention in a broad range of areas including occupational health, infectious diseases, environmental health, chronic diseases, injury control, maternal and child health.

Criteria Templates

The template of pre-populated options upon which the criteria is based. Each criterion is tied to logic that is supported by value sets and are represented by criteria templates.

Criteria

The narrative descriptions determining whether a case should be reported to public health. In the RCKMS application, you use the criteria options to capture information such as a diagnosis that can be input in a diagnosis field or captured in an active problem list. Each criterion is tied to logic that is supported by value sets and are represented by means of criteria templates that provide pre-populated options used to create jurisdiction specific criteria using the options on the Criteria window.

D

Decision Support Service (DSS)

A service linked to provider electronic health records system that providers can query to determine if a case should be reported and if so to where. The DSS uses the criteria and rules logic you entered using the RCKMS authoring interface to evaluate an eICR and determine reportability. After the patient visits the provider, the encounter information is recorded in the EHR. If the EHR detects information that suggests a suspected case, the EHR will call the DSS, which provides the Reportability Response.

Deploy

In the RCKMS application, the process by which a completed and saved reporting specification is made available to the Decision Support Service rules engine to run the rules logic and respond on receipt of a record and determine if it is reportable.

Determination of Reportability

The process of reviewing an initial core message against rules logic to assess if a case report should be sent to a jurisdiction based on the jurisdiction's reporting specifications. RCKMS centralizes this function in the Decision Support (DSS) shared service.

Default Content

The reporting specifications for each of the conditions pre-populated in the RCKMS and made available through the web site.

Details tab

The RCKMS application page that displays basic information about the reporting specification for the selected condition. It displays status and effective date information, as well as the reporting preference options.

Detailed Report

The RCKMS application page that displays detailed output of the reporting specification for the condition you select, along with instructions on how to read the reporting specifications and an explanation of the Sufficient, Necessary and Optional rules. Detailed Reports should be read paired with the Summary Report. The Detailed Report includes the detailed definitions of the criteria referenced in the Summary Report and list the value sets and underlying codes used by the criteria in the reporting specifications for your PHA.

Digital Bridge

An initiative supported by the Robert Wood Johnson Foundation and the deBeaumont Foundation and managed by the Public Health Informatics Institute and Deloitte to improve public health capacity by enhancing information exchange between health care and public health. Digital Bridge facilitates collaboration across public health, health care and health information technology design and implement a multi-jurisdictional approach to Electronic Case Reporting (eCR).

E

Electronic Case Reporting (eCR)

The electronic transmission of case reports from providers' electronic health records systems to public health agencies.

Electronic Health Record (EHR)

An electronic version of a patient's medical history, that is maintained by the provider over time, and may include all of the key administrative clinical data relevant to that persons care under a particular provider, including demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data and radiology reports.

Electronic Initial Case Report (eICR)

An initial case report made to public health containing sufficient data for public health agencies to initiate investigation or other appropriate public health activities that is automatically initiated by the EHR when patient data is matched against a series of public health reportable condition trigger codes. The eICR conveys core, initial case data to a PHA that may also lead to additional reporting or follow-up intended to confirm reportability, provide condition-specific or public health jurisdiction-specific reporting data, or support public health investigation, contact tracing, and/or countermeasure administration. The eICR serves as input to reportability evaluation to the Reportable Conditions Knowledge Management System (RCKMS) and also allows PHAs to communicate the reportability of a condition back to clinical care personnel.

Electronic Lab Report (ELR)

The electronic transmission of laboratory reports from laboratories to public health or between public health departments which identify reportable conditions. ELR improves the quality of laboratory report data received by public health by providing timely, accurate, complete, and consistent laboratory report information.

Expected Criteria window

The RCKMS application page that displays options for selecting the expected condition criteria to fire on execution of a test case.

External Reference

Information such as text, links to web sites, documents and other modes of information that the public health agency makes available to reporters.

External References tab

The RCKMS application page that displays information such as text, links to web sites, documents and other modes of information that the PHA wants available to reporters.

Extensible Markup Language (XML)

A markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.

F

G

H

Home page

The RCKMS application page that serves as the landing page for the application following successful sign-in.

I

Initial Case Message

A set of common data elements for all reportable conditions found in an EHR sent to public health when a trigger is present. Used by the Decision Support Service (DSS) to determine if case is reportable and also serves as early notification of case to the public health jurisdiction.

Initial Implementation

The minimum functional components needed to support public health case reporting that are extensible to a production system.

Internal Reference

Information such as text, links to web sites, documents and other modes of information for use by the public health agency.

Internal References tab

The RCKMS application page that displays information such as text, links to web sites, documents and other modes of information for use by the PHA.

J

Jurisdiction

The physical location bounding the public health agency's area of responsibility.

Jurisdiction Administrator

An RCKMS user enabled to view and edit information for the assigned jurisdiction and no other.

Jurisdiction page

The RCKMS application page that displays a list of all available jurisdictions.

Jurisdiction window

The RCKMS application page that displays detail information about the Public Health Agency and provides options to view the conditions and reporting specifications associated with the PHA, as well as associated ZIP codes and users within the PHA.

K

L

Logic sets

Logical statements expressed in machine-processable language that indicate when a given reporter type should report to public health and what is required of them for reporting. A logic set is translated into rules logic for use in determining reportability. Used in combination with reporting criteria, logic sets follow the "S, N, O"notation used in the CSTE position statements. "S"indicates the criteria by itself qualifies the case for reporting, where "N"indicates necessary and "O"is optional.

M

N

Necessary

As part of the S, N, O notation, Necessary is used in combination with logic sets to indicate that a criterion qualifies the case for reporting. Presence of this criteria with other criteria (either *Necessary* or *Optional*) is

needed to meet the requirement for reporting. For example, three criteria each indicate *Necessary*. If all three criteria are met, then the user must report. If only one or two criteria are met, then the user does not report.

O

Optional

As part of the S, N, O notation, Optional is used in combination with logic sets to indicate that a criterion qualifies the case for reporting. Within a group of Optional criteria, at least one *Optional* criteria is needed. *Optional* criteria must be paired with at least one *Necessary* criteria in order to meet the requirement for reporting. For example, Criteria 1 is *Necessary* and Criteria 2 and 3 are *Optional*. If Criteria 1 is met, AND either Criteria 2 or 3 (or both) is met, then the user must report. If only Criteria 2 and 3 are met, then the user does not report.

P

Position Statements

The narrative descriptions published by CSTE used as the source for the RCKMS default reporting specifications. The CSTE Position Statements' Section 6-A narratives and Table 6-B concerning case reporting are used to determine whether a case should be reported to public health. Position statements employ the "S, N, O"notation to indicate reportability, where "S"indicates the criteria by itself qualifies the case for reporting, where "N"indicates necessary and "O"is optional.

Public Health Agency (PHA)

The governmental body at the local, state, and federal level responsible for delivery of public health services.

Public Health Decision Support

A function that makes public health related determination in a manner similar to what is done by clinical decision support for the clinical setting. For RCKMS, this function is designed to accept an incoming message from a reporter and determine if a case report should be sent to public health.

Q

R

RCKMS Administrator

A RCKMS user enabled to view, edit and delete information for all jurisdictions, as well as perform other application administration tasks.

Reportable Condition Mapping Table (RCMT)

A table of mappings between reportable conditions and their associated LOINC laboratory tests and SNOMED results. The RCMT uses standards suggested for the meaningful use measure “reportable lab result reporting to public health”. In previous incarnations the RCMT was known as the “Dwyer tables”, “Sable tables”or Notifiable Condition Mapping Tables (NCMTs). RCMT helps identify incoming Health Level Seven International (HL7) ELR messages for reportable conditions and facilitates the routing of ELR messages to appropriate public health programs. Electronic health records (EHR) and decision support systems use RCMT to help identify patients who may have reportable conditions, triggering public health case reporting and ELR. It also facilitates the mapping of local laboratory test and result codes related to reportable conditions to standard vocabulary codes to support semantic interoperability.

Reportable Conditions Trigger Codes (RCTC)

Codes implemented in the health care system to match against encounter information and initiate an eICR. See Trigger Codes.

Reportability Response (RR)

A message generated by the RCKMS Decision Support Service (DSS) documenting if any condition(s) were found to be reportable, to which jurisdiction(s) reporting is required and additional information, such as contact information of the relevant PHA. See Decision Support Service.

Reporting Criteria

The narrative descriptions determining whether a case should be reported to public health that serve as the source for the RCKMS default reporting specifications. Reporting criteria are based on the CSTE Position Statements’ Section 6-A narratives and table 6-B concerning case reporting. In the RCKMS application, each criterion is tied to logic that is supported by the value sets. These are represented by means of criteria templates that provide pre-populated options used to create jurisdiction specific criteria.

Reference window

The RCKMS application page that displays the details of the selected reference item, including name, URL, priority and category. You use the Reference window to add and edit reference information.

Reports module

The RCKMS application pages that provide a printable report or electronic file that contains the reporting specifications that were entered through the authoring interface.

Reports page

The RCKMS application page that displays options for entering queries and viewing report output.

Reportable Conditions Management System (RCKMS)

A tool developed to enhance surveillance by providing comprehensive information to clinicians, labs and reporters about the “who, what, where, when, why and how”of case reporting with the aim of delivering information from providers on potential cases to state and local public health as a service of the broader infrastructure for electronic case reporting. The RCKMS application has two main parts, the authoring interface and a Decision Support Service. The authoring interface is the portal where information about reporting criteria gets entered, stored, and processed. The second part of the tool is a Decision Support Service that providers can query to determine if the case should be reported and if so to where. It is linked to a provider's EHR system and after the patient visits the provider, the encounter information is recorded in the EHR. If the EHR detects information that suggests a suspected case, the EHR will call RCKMS decision support, which will then provide the determination of reportability.

Reporting Specification

The criteria, value sets and logic sets representing each of the conditions pre-populated in the RCKMS tool based on the CSTE Position Statements narratives six A and tables six B and any jurisdiction-specific criteria. Reporting criteria describe the details of reporting a condition to a jurisdiction and include all criteria, value sets, logic sets and rules logic that specify when a reportability response is sent.

Reporting Specifications module

The RCKMS application pages that provide options for managing the set of reporting specifications for the conditions supported in a jurisdiction. The Reporting Specification module enables you to search and display reporting specifications for the available conditions, add and edit reporting specifications, view and edit basic information about the reporting specification, add and edit reporting criteria and logic sets, add reporting timeframe information and indicate criteria are Sufficient, Necessary or Optional, add and edit supporting text, links to web sites and other documents, delete reporting specification, save changes to reporting specifications, and deploy reporting specifications.

Reporting Specification page

The RCKMS application page that displays all conditions identified as reportable by the public health agency and provides options for searching and displaying reporting specifications, adding a new reporting specification, editing an existing reporting specification, or deleting a reporting specification.

Rules Logic

Interpretation of reporting criteria into computable rules to be used in a decision support tool.

S

S, N, O Notation

Used in combination with reporting criteria, S, N, O notation is used with logic sets to express whether a criterion is Sufficient, Necessary, or Optional to qualify the case for reporting. Sufficient means that the criterion alone makes this reportable to the PHA. Necessary and Optional work together, with all Necessary criteria in addition to at least one Optional criteria required for reporting.

Specifications tab

The RCKMS application page that displays the criteria and logic sets rendered as a grid. It also displays options indicating the reporting timeframe and reporting rules options to indicate if the criteria are Sufficient, Necessary or Optional for reporting.

Sufficient

As part of the S, N, O notation, Sufficient is used in combination with logic sets to indicate that a criterion qualifies the case for reporting. Presence of this criteria alone indicates sufficient requirement for reporting. For example, three criteria each indicate *Sufficient*. If any one of the three criteria is met, then the user must report.

Summary Report

The RCKMS application page that displays summary output of the reporting specification for the condition you select, along with instructions on how to read the reporting specifications and an explanation of the Sufficient, Necessary and Optional reporting rules. The Summary Report provides a high-level overview of the reporting specifications. It describes the data entered into the reporting specifications table through the authoring tool's Reporting Specification module. The report includes how logics sets are related to a condition's criteria through the Sufficient, Necessary, Optional rules. The last page of the report provides instructions on how to read the Reporting Specifications and provides definitions of the Sufficient, Necessary, and Optional rules.

T

Test Case

An RCKMS application routine used to test the logic set and rules for the reporting criteria associated with the selected reporter type. A test case confirms the criteria as Sufficient, Necessary and Optional based on rules for the selected reporter type as displayed in the *Specifications* tab. When you run a test case, the application simulates receipt of a report and moves that information through the logic chain defined for the reporting specification's criteria, logic sets and rules options. A successful test case provides confirmation that the criteria and rules for a given reporter provide the expected results.

Test Case module

The RCKMS application pages used to manage test case information and view test results. The Test Cases options confirm the criteria as Sufficient, Necessary and Optional based on rules for the selected reporter type as displayed in the Specifications tab. You can add new test cases and edit existing test cases.

Test Cases page

The RCKMS application page that displays a grid with the available test cases for the reporting specification.

(Test Case) Details tab

The RCKMS application page that displays detail information on the test case, including the reporting specification, the test case name and reporter type, as well as options for expected reportability and skipping test execution.

Test Inputs tab

The RCKMS application page that displays options for indicating reportability, test source and criteria detail information. The Test Inputs tab enables you to specify the input source for the test case as either criteria or file-based. Depending on your selection, you can either add the appropriate inputs from a criteria template or upload a file from your computer containing the same information. You can also enter the criteria expected to fire on execution of the test case.

Test Case Input window

The RCKMS application page that displays the options for adding and editing reporting criteria information to be tested. You can add test case input information or edit existing information.

Test Results page

The RCKMS application page that displays a summary of the results and options to display the test case details, including options for viewing and downloading XML representations of the test input and results output data. The Test Results page displays a summary of result information at the top of the page, followed by details on Jurisdiction Information, Test Subject and Inputs, Logs and Messages, and Links and References information. It also provides options for viewing and downloading the input and output XML files structuring the input and output data.

Test Subject tab

The RCKMS application page that displays the test subject's gender and test type information, along with options for specifying offset and date-based testing. The selected criteria template information displays at the top of the page, followed by the criteria label. And at the bottom of the page, you can choose the criteria inputs associated with the criteria template and make changes to the available predicate information.

Trigger Codes

Codes (LOINC, SNOMED, RXNorm, ICD-9/ICD-10) that when present in an EHR initiate the sending of an initial case message to public health. See Codes; Value Set.

U

V

Value Set

The numerical values (codes) and human-readable names (terms) drawn from standard vocabularies such as SNOMED CT , RxNorm, LOINC and ICD-10-CM which are used to define concepts used in clinical quality measures (e.g., patients with diabetes, clinical visit). (see https://vsac.nlm.nih.gov/)

W

X

XML

See Extensible Markup Language.

Y

Z

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