# Reportable Conditions Knowledge Management System RCKMS AUTHORING TOOL USER GUIDE



The Reportable Conditions Knowledge Management System (ROMS) is a real-time portal to enhance o providing comprehensive information on public health reporting criteria. The tool provides public healt who, what when, where, and how of reporting

RCKMS is developed by CSTE in partnership with the CDC and HLN consulting 11

Watch the Video

#### THE NEED FOR RCKMS

Accurate, limity and complete reporting of reportable coordinant arguments on reporters taking commit and current information above reporting specifications. Currently, there is no angle place where reporting specifications can be accessed by healthcare responses. Reporting critical differ arrows state and local pendictions, and the information is other difficult for overs to locate and relegate. Additionally, the information is usually not in a format subable for machine processing.

Spring 2020 | Version 2.0

For Jurisdiction Administrators

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## 1 Introduction

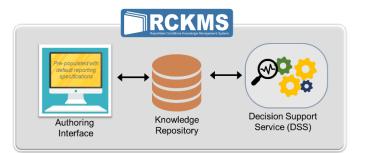
The user guide documents the procedures for using <u>RCKMS</u>. The intended audiences are <u>Jurisdiction</u> <u>Administrators</u> and other <u>Public Health Agency</u> (PHA) stakeholders interested in working with the application. This user guide is intended to be used with the <u>production environment</u> of the RCKMS Authoring Tool.

## 1.1 What is R-C-K-M-S?

RCKMS is a tool developed to enhance surveillance by providing comprehensive information to clinicians, labs, and reporters about the "who, what, where, when, and how" of case reporting, with the aim of delivering information about potential cases from providers to state and local public health as a service of the broader infrastructure for <u>electronic case reporting</u> (eCR). RCKMS is designed to improve the timeliness and accuracy of case reports received by public health, reduce the burden of reporting on providers, and help facilitate a move toward eCR.

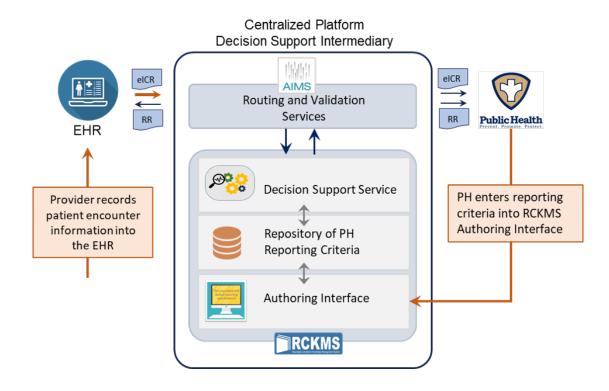
## **1.2 Components of RCKMS**

RCKMS is made up of the <u>Authoring Interface</u>, <u>Knowledge Repository</u>, and <u>Decision Support</u> <u>Service</u> (DSS). At a very high level, these three components work together to transform the cumbersome workflow of manual case reporting to a more automated and efficient workflow.



#### **RCKMS** has three components, as follows:

Authoring Interface	The Authoring Interface, also referred to as the Authoring Tool, is the centralized web portal that PHAs use to input, edit, and manage reporting <u>criteria</u> for their <u>jurisdiction</u> . To ease the burden of entering the criteria, the Authoring Interface comes pre-populated with <u>reporting specifications</u> , also referred to as " <u>default</u> <u>content</u> ." PHAs can either use these defaults, which are based on the <u>CSTE</u> <u>position statements</u> , or change them to meet their jurisdiction's reporting needs.
Knowledge Repository	The Knowledge Repository is a database containing all the data related to reporting specifications, both the default content and any customizations made by a PHA. When a PHA authors in the Authoring Interface, that information is stored here to be deployed to the Decision Support Service.
Decision Support Service	Providers can query the DSS to determine if a case should be reported and, if so, to which jurisdiction(s). It is linked to a provider's <u>electronic health record</u> (EHR). After the patient visits the provider, encounter information is recorded in the EHR. If the EHR detects information that suggests a potential case, the EHR will call the RCKMS DSS, which will then provide the <u>determination of reportability</u> .



The above diagram shows the flow of data from an EHR through RCKMS to the PHA. The steps are:

- When information in a patient's record in the provider EHR matches a <u>Reportable Conditions Trigger</u> <u>Code</u> (RCTC), an <u>electronic initial case report</u> (eICR) is automatically generated to begin the process of reporting to Public Health.
- 2. The eICR is sent to the DSS to determine reportability. This is done in two steps:
  - The DSS validates the RCTC and examines jurisdiction-specific reporting specifications.
  - Then, the DSS examines jurisdiction-specific reporting specifications to determine reportability.
- 3. When a match is found, the <u>APHL Informatics Messaging Service</u> (AIMS) routes the eICR and a <u>Reportability Response</u> (RR) to the PHA or agencies of interest. The RR is also sent back to the EHR.

## 2 Getting Started With Authoring



Getting started with navigating <u>RCKMS</u> can be facilitated by reviewing some introductory information. Review this section for an overview of RCKMS, as well as directions on how to access, log in, and navigate through the RCKMS <u>Authoring Interface</u>.

#### 2.1 Requesting Access

The first step to getting started is obtaining access to the RCKMS Authoring Tool. To obtain access to the RCKMS Authoring Tool, email the RCKMS team at <u>RCKMS@cste.org</u> to request a user account. In the body of the email, provide the following for each new user:

- Full name
- Email address
- Public health jurisdiction

## *Note:* In RCKMS, a user is referred to as a <u>Jurisdiction Administrator</u>. In this role, the user can view and edit information for their assigned jurisdiction.

Once a user account has been created for you for the <u>training</u> or <u>production environments</u>, you will receive separate emails for each environment with your username and login instructions. You will have 48 hours to log in and create a new password.

## User Access Tip

No word from RCKMS on your user credential and login instructions? – Check your spam folder.

#### 2.2 Supported Browsers



We recommend using Google Chrome or Mozilla Firefox to access RCKMS. Microsoft browsers like Internet Explorer and Microsoft Edge are not fully supported at this time.

#### 2.3 RCKMS Authoring Environments: Training and Production

There are two different environments of RCKMS that users can access, as follows:



**Training Environment:** Use the training environment of the RCKMS Authoring Interface to familiarize yourself with the tool and the authoring process, as well as learn how to use the newest RCKMS features. Keep the following in mind:

- There is no expectation to author every condition in the training environment. Feel free to select a few conditions to author as practice.
- The training environment is not intended to have the latest version, and it will have only a few conditions.

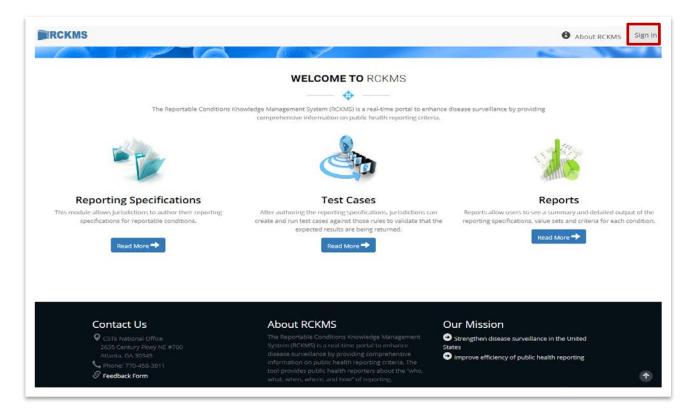


**Production Environment:** Use the production environment to author jurisdiction-specific reporting rules for conditions, test those rules, and publish them for <u>eCR</u> production use. The information published in the production environment populates the Knowledge Repository, and, therefore, must reflect your PHA's reporting rules.

### 2.4 Signing in and Navigating the RCKMS Application

To access the RCKMS production environment, visit <u>https://rckms-prod-authoring.aimsplatform.com/cat-rckms/</u>. You will see the *Welcome to RCKMS* page, as shown below.

The page displays links to pages with additional information about RCKMS and the *Sign In* page. To sign into the RCKMS application, click the **Sign In** link at the top right of the page.



After you click **Sign In**, you will be taken to the *Sign In* page. To sign in:

- 1. Enter the username provided to you by the <u>RCKMS Administrator</u> and your password. Click **Sign in**.
- New user? The first time you sign in, you will be required to create a new password. RCKMS displays the Password Reset page. Enter your username, current password, and new password. Click Update.
- 3. Once you successfully sign into RCKMS, the *Home* page displays.



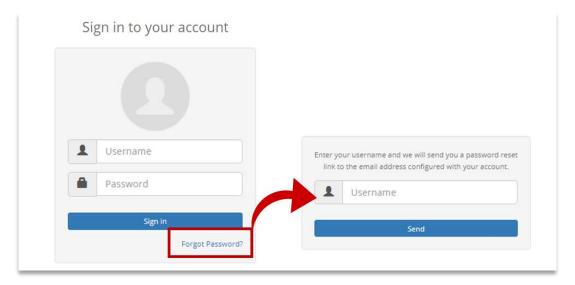
#### Password must include:

- At least eight characters
- At least one uppercase letter (A-Z)
- At least one lowercase letter (a-z)
- At least one numeric digit (0-9)
- At least one special character

#### 2.4.1 Password Reset

If you forget your password, to set a new password:

- 1. Click the **Forgot Password?** link below the **Sign in** button on the *Sign In* page.
- 2. When prompted, enter your username and click **Send**.
- 3. RCKMS will send an email with a link and instructions to reset your password. You will have 48 hours to log in and create a new password before the reset link expires.

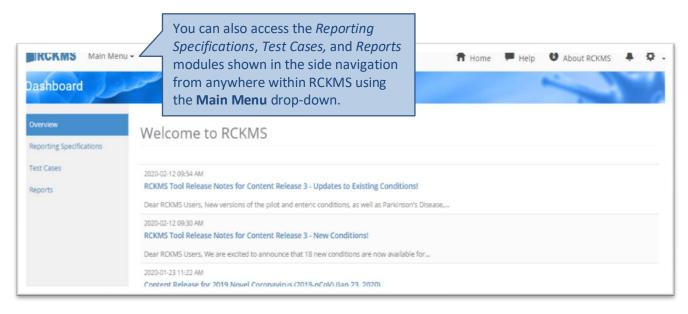


#### 2.4.2 Home Page

The Home page, also referred to as the Dashboard, is the RCKMS landing page following successful sign in.

Use the *Home* page to:

- View notifications sent from the RCKMS Administrator
- Navigate to different modules in the RCKMS tool via the links in the side navigation menu.
- Access additional functionality by selecting options on the top navigation pane or the **Main Menu** drop-down.



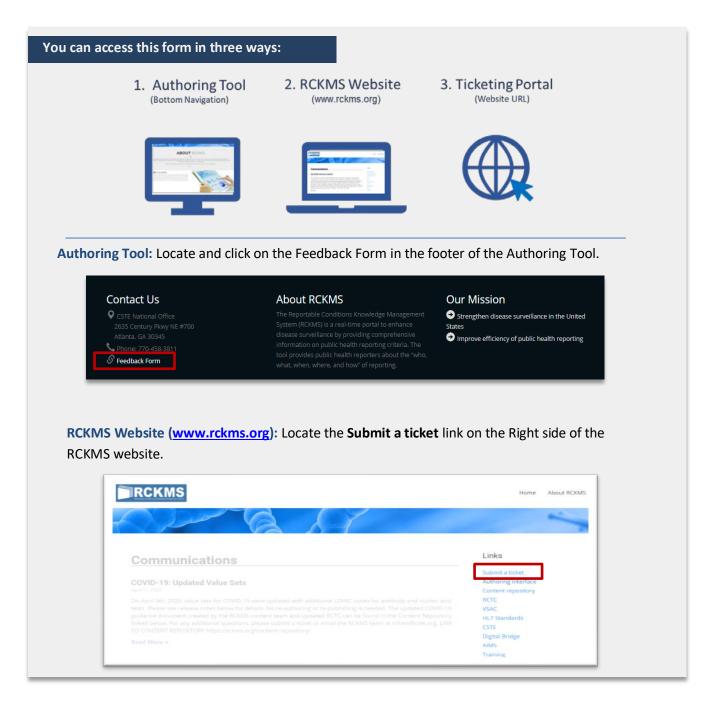
The icons in the following table represent the navigation options located on the page.

Item	Description
RCKMS logo	Click to display the Welcome to RCKMS page. This page contains a brief
	overview of the Reporting Specifications, Test Cases, and Reports modules,
	along with links to where you can find more information.
Main Menu	Drop-down that displays the options for Jurisdiction Administrator tasks.
f Home	Click to be taken to the <i>Home</i> page.
🗭 Help	Click to open the Jurisdiction Administrator User Guide.
About RCKMS	Click to display the About RCKMS page and general information about the
	RCKMS application.
Notification Bell	Click to display a detailed view of any messages from the RCKMS Administrator.
🔅 Cogwheel	Click to display information about the current session, view your user profile
	editor, change password, view jurisdiction inbox, and to sign out of the
	application.
Overview	Header for side navigation menu options.
<b>Reporting Specifications</b>	Click to display the <u>Reporting Specification</u> page.
Test Cases	Click to display the <u>Test Cases</u> page.
Reports	Click to display the <u>Reports</u> page.

#### 2.5 Submitting a Ticket

The RCKMS team is always available to provide support. Submit a ticket for any of the following:

- If you have general inquiries
- Training and authoring support, should you encounter any issues when working in any environment of the Authoring Tool, training modules, or the RCKMS website
- If you have feedback on the <u>default content</u> available in the Authoring Tool, or to request changes or additions to content before the next Content Release



	lback.		ing support and any general inquiry, re	
	KMS Ticket			
	1. Date of submission * must provide value		02-25-2020 Today M-D-Y	
	2. Submitter name * must provide value		Test Submitter	đ
	3. Submitter jurisdiction * must provide value		Not applicable	
	4. Submitter email		Test Submitter@PHA.org	
	* must provide value 6. Details * must provide value		I have a question about whether or r zip codes for my jurisdiction. [enter all relevant details]	not I should
				6
File #	utachments			
	7. Do you have any files to attach? * must provide value		No Yes	
		Submit		

Access the ticketing portal directly by entering the URL into your browser or by clicking on the link: https://redcap.vanderbilt.edu/surveys/?s=NAN8HMNACE.

### **3** Viewing and Editing Jurisdiction Information



Review this section to learn how to view, manage, and edit your jurisdiction's information using the *Jurisdictions* module. Information in this module generates the narrative in the <u>RR</u>, which is sent back to the reporter.

When you log into <u>RCKMS</u> for the first time, you should review and edit your jurisdiction information, as the information included here is important to ensuring that <u>elCRs</u> and RRs are routed correctly. In the *Jurisdictions* module, you can:

- Work with details and contact information for your PHA
- Review a list of RCKMS users within your jurisdiction
- View the status of authored conditions and reporting specifications for your jurisdiction
- View zip codes and users assigned to your jurisdiction

To access the *Jurisdictions* module, click **Main Menu** in the top navigation bar from any page and choose **Jurisdictions**.

#### 3.1 *Jurisdictions* Page

The *Jurisdictions* page displays basic information about your jurisdiction. The screenshot below shows jurisdiction information for a user from the New York City jurisdiction.

Show 10 🔹 en	tries			Search:	
PHA Name 👫	State 👔	PHA Type 👔	Administrators		Last Updated 🎼
New York City Department of Health and Mental Hygiene	Department of York Health and Mental		City     Happy Author, France Liberty, John Manhattan, Jane Brooklyn       PHA     Administrators	, 2019-06-19 02:22 PM Last Updated	
PHA Name					

Item	Description
Show entries	Click drop-down and choose the number of items to display in the grid.
PHA Name	The formal name of the jurisdiction/PHA.
State	The state of the jurisdiction/PHA.
РНА Туре	The type of PHA. Options include State, Parish, District, County, City, and Borough.
Administrators	The users' assigned <u>Jurisdiction Administrator</u> rights.
Last Update	The date and time the information in the module was last updated.
🗹 Edit	Click to view or edit jurisdiction information.
Previous	Click to navigate back through the list of items available.
Next	Click to navigate forward through the list of items available.
ll Sort	Click to sort the information in a column.

The following table details the options on the *Jurisdictions* page.

#### 3.1.1 Edit Jurisdiction Window

To view and edit your jurisdiction information, complete the following:

1. Click the **CEdit** icon next to your jurisdiction. RCKMS displays the *Edit Jurisdiction* window and the contents of the *Public Health Agency Details* tab.

Public Health A	gency Details	Conditions Zip Codes	Users Contact Informa	tion
PHA Name	California De	epartment of Public Health	PHA ID	са
РНА Туре	State	٣	State	California
Description			Knowledge Module	RCKMS - gov.cdc.rckms.ca
			Published Version	1.0.0
		li li		100
If my jurisdicti		t exist, run rules for	Route eICR and Reporta	
			Select an Option	
			Select an Option If a Routing Entity is not s entity.	bility Response (RR) to

Tab Description **Public Health** View and edit the PHA details. Options include PHA Name, Type (e.g., State, City, **Agency Details** County, etc.), 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 RR information. Currently, the "If my jurisdiction's rules don't exist, run rules for" field is not functional. *Note:* Most of the fields on this screen will be populated for you by the RCKMS Administrator, but you should still review this tab for accuracy. Conditions View the conditions associated with your jurisdiction, the name of the conditions, and the authoring status. While authoring reporting specifications occurs in a different module, this tab allows you to see a quick snapshot of all the conditions that your jurisdiction is working to author and their associated status. For more information on statuses, see Section 4.6, Reporting Specification Details tab. **Zip Codes** View or add zip codes included within your jurisdiction. Options include Zip Code, City, County, and State. This tab is especially important for jurisdictions whose zip codes may overlap each other, such as a state and city PHA. Section 3.1.2, Zip *Codes* provides additional details about populating this tab. Users View the users within your jurisdiction. This tab is for informational purposes only and provides a snapshot of the username, role, and email addresses for users in your jurisdiction. If you need to edit the list of users in your jurisdiction, please contact the RCKMS Administrator. Add contact information for your jurisdiction. The reporter and PHA will be Contact Information notified with this contact information via the RR. Section 3.1.3, Contact *Information* provides additional details about populating this tab.

From this window, you can work on any of the following:

- 2. After adding or editing information in any of the tabs in the *Edit Jurisdiction* window, do one of the following:
  - Click **Save Jurisdiction**. RCKMS displays the *Jurisdictions* page and the date and time of the last update.
  - Click **Apply**. RCKMS saves your changes and keeps the window open.
  - Click **Close** to close the page if you have not made any changes.

#### 3.1.2 Zip Codes

For local PHAs, use the *Zip Codes* tab to add zip codes that are included in your jurisdiction. RCKMS uses zip codes to identify cities or local jurisdictions and state codes to identify states to narrow down whose rules should be run. The Zip Codes tab provides the additional detail for matching the address fields in an eICR and

the address associated with a jurisdiction to determine which jurisdiction rules to run. If no zip codes are entered or a zip code does not match, then the jurisdiction's state code will run. Therefore, local PHAs should consider authoring zip codes as an important step when authoring your rules. If a case is legally reportable to a jurisdiction, but no zip codes were entered, then the state PHA's rules will be run.

If states or other local jurisdictions also wish to have cases from those zip codes evaluated against their rules, they can list those zip codes in their respective PHA *Zip Codes* tab. Multiple jurisdictions can list the same zip code. The routing of the report to a jurisdiction is based on the Routing Entity defined in the *Public Health Agency Details* tab.

*Note:* In most cases, ONLY local jurisdictions will need to input their zip codes. State jurisdictions do not need to input all zip codes for their state. For zip codes that overlap in multiple jurisdictions (e.g., state and local, etc.), then both jurisdictions should input the overlapping zip codes. To learn more about zip code use for your case, please contact an RCKMS team member at <u>RCKMS@cste.org</u>.

#### To add a new zip code, complete the following:

1. From the *Zip Codes* tab, click the **Add Jurisdiction Zip Code** button. RCKMS displays the *New Jurisdiction Zip Code* window.

New Jurisdiction Zip Code Zip Code City	Each individual zip code must be entered one at a time. If you have a lot of zip codes to add, contact the RCKMS team for assistance with importing the zip codes.
County	
State	Select an Option
	Save Jurisdiction Zip Code Apply Close

- 2. Enter the zip code, city, county, and state.
- 3. After entering information in each field, do one of the following:
  - Click **Save Jurisdiction Zip Code**. RCKMS displays the *Zip Codes* tab and the newly added zip code.
  - Click **Apply**. RCKMS saves your changes and keeps the window open.
  - Click **Close** to close the page if you have not made any changes.

Item	Description			
Zip Code	Type the zip code for the designated area.			
City	Enter a city for the selected zip code.			
County	Enter a county for the selected zip code.			
State	Select a state from the drop-down for the selected zip code.			
Save Jurisdiction Zip Code	Click to save the jurisdiction zip code.			
Apply	Click to save your changes and keep the window open.			
Close	Click to cancel your changes, or close if you have not made any changes			
	and display the previous page.			

The following table details the options in the New Jurisdiction Zip Code window.

#### 3.1.3 Contact Information

Use the Contact Information window to author contact information for your PHA. You can add information for the <u>Rules Authoring Agency</u>, <u>Responsible Agency</u>, and/or <u>Routing Entity</u>. The Contact Information is populated in the RR.

Rules Authoring Agency	PHA that enters the reporting rules into RCKMS. An Authoring Agency could author rules on behalf of another agency (e.g., a state authoring rules for a local agency).
Responsible Agency	PHA to which reporting is required based on the patient's address or where the care was provided.
Routing Entity	PHA that receives the eICR and RR. The Routing Entity is defined when you set up your PHA details on the <i>Edit Jurisdiction</i> page using the "Route eICR and Reportability Response to" field (see <u>Section 3.1.1, Edit</u> <u>Jurisdiction window</u> ).

To add new contact information, complete the following:

1. From the *Contact Information* tab, click the **Add Contact Information** button. RCKMS displays the *New Contact Information* window.

Use for	<ul> <li>Rules Authoring Agency</li> <li>Responsible Agency</li> <li>Routing Entity</li> <li>The same contact information can be used for multiple entities.</li> </ul>
Description	
Street Address	
City	
State	Select an Option
Zip Code	
Phone Number	
Email	
Fax Number	

- 2. Select which contact information you would like to add for the Rules Authoring Agency, Responsible Agency, and/or Routing Entity.
- 3. Enter a description of the agency, such as name or type.
- 4. Enter the street address, city, state, zip code, phone number, email, and/or fax number for the agency.
- 5. After entering information in each field, do one of the following:
  - Click **Save Contact Information**. RCKMS displays the *Contact Information* tab and the newly added contact information.
  - Click **Apply**. RCKMS saves your changes and keeps the window open.
  - Click **Close** to close the page if you have not made any changes.

Item	Description
Use For	Click the box next to Rules Authoring Agency, Responsible Agency, and/or
	Routing Entity to assign contact information to that agency. The contact
	information can be assigned to one or more of these agencies.
Description	Type a description for the contact information.
Street Address	Enter the street address for the selected agency.
City	Enter a city for the selected agency.
State Select a state from the drop-down for the selected agency.	
Zip Code	Enter a zip code for the selected agency.
Phone Number	Enter a phone number for the selected agency.
Email	Enter an email address for the selected agency.
Fax Number	Enter a fax number for the selected agency.
Save Contact Information	Click to save the contact information.
Apply	Click to save your changes and keep the window open.
Close	Click to cancel your changes, or close if you have not made any changes and
	display the previous page.

The following table details the options in the *New Contact Information* window.

### 4 **Reporting Specifications**



Review this section to learn how to import and author <u>reporting specifications</u> for your <u>jurisdiction</u> using the *Reporting Specifications* module. The information in this module is stored in the Knowledge Repository and used by the <u>DSS</u> to determine what is reportable in your jurisdiction.

The <u>RCKMS</u> tool is pre-populated with default reporting specifications. These are developed by the RCKMS Content Team, made up of experienced epidemiologists and terminologists, and are largely based on reporting <u>criteria</u> in the <u>CSTE Position Statements</u>. Jurisdictions may adopt a default reporting specification as-is or customize it to meet any of their unique reporting requirements.

The RCKMS Content Team works with the <u>RCKMS Administrators</u> to release new conditions for authoring in the tool, or update existing conditions with new content. As you prepare to author reporting specifications, you may want to review the documents supporting the current content release. These can be found in the <u>RCKMS Content Repository</u>, a collection of condition-specific reference materials for the conditions you may be authoring. The <u>Content Repository</u> includes default reporting specification documents, <u>Value Sets</u>, and the <u>RCTC</u>.

When a jurisdiction publishes reporting specifications in the <u>Authoring Interface</u>, that information is stored in the Knowledge Repository. When an <u>eICR</u> is received, the DSS examines the jurisdiction-specific rules in the Knowledge Repository to determine if the case is reportable.

#### 4.1 Working With Reporting Specifications

You can manage the set of reporting specifications for the conditions supported in your jurisdiction using the *Reporting Specifications* module.

In the *Reporting Specifications* module, you can:

- Search for and display reporting specifications
- Import and edit reporting specifications, including:
  - o Details about the condition
  - o Reporting criteria, logic set information, and reporting time frame information
  - o Internal links and reference information
  - o <u>External reference</u> information
- Delete an existing reporting specification
- Save changes to reporting specifications
- Publish reporting specifications

#### 4.2 Searching for Reporting Specifications

The Reporting Specification page displays all conditions imported by your PHA.

Show 10 V	entries					iearch:	
Specification Added?	Nationally Notifiable? 4	Specification Name 🎼	Version 🕼	Category 🕼	Status 🏨	Last Updated []	
0	N	2019 novel coronavirus (2019 nCov)	1.0 Release 20200123	Respiratory Conditions (Infectious)	Retired from Production	2020-03-16 01:58 PM	6 🖻 🗳
0	Y	Acute Flaccid Myelitis	1.0 Release 20200110	Vaccine Preventable Conditions	In Progress	2020-03-04 06:24 PM	c î î
۲	Y	Campylobacteriosis	2.0 Release 20200110	Enteric Diseases	In Progress	2020-02-21 03:56 PM	cî î î
0	Y	Campylobacteriosis	1.0 Release 20190630	Enteric Diseases	Published to Production	2019-11-25 12:11 PM	6 🖻 🗳
0	Y	Chancroid	2.0 Release 20200110	Sexually Transmitted Infections	Published to Production	2020-03-13 03:48 PM	C 🕯 🕯
$\odot$	Y	Chlamydia	3.0 Release 20200110	Sexually Transmitted Infections	Published to Production	2020-03-17 07:12 PM	6 🖻 🕯
0	Y	Chlamydia	2.1 Release 20190630	Sexually Transmitted Infections	Retired from Production	2020-03-17 07:12 PM	c î î
0	Y	Chlamydia	1.0	Sexually Transmitted Infections	Retired from Production	2019-09-05 04:36 PM	6 🖻 🗳
$\odot$	Y	Chlamydia	2.0	Sexually Transmitted Infections	Retired from Production	2019-10-24 11:46 AM	6 🖻 🗳
$\odot$	Y	Chlamydia	Neg_Testing	Sexually Transmitted Infections	Retired from Test	2019-11-25 11:58 AM	6 🖻 🗳
Specification Added?	Nationally Notifiable?	Specification Name	Version	Category	Status	Last Updated	

To view and search for an already imported 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 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. As you enter text in the **Search** box, the table updates to display items matching your query. You can also clear any existing text in the *Search* text box to reset the search results and run your search again.

Show 10	entries		you can sea or status, as			Search: enteric	
Specification Added?	Nationally Notifiable? []	Specification Name 🏭	Version 11	Category	This shows the i	results of a	search
Ø	Y	Campylobacteriosis	2.0 Release 202001 <mark>1</mark> 0	Enteric Diseases	for reporting sp		
Ø	Y	Campylobacteriosis	1.0 Release 20190630	Enteric Diseases	Enteric Diseases	s category.	
Ø	Ŷ	Cholera	2.0 Release 202001 <mark>1</mark> 0	Enteric Diseases	In Progress	2020-02-21 02:40 PM	6 🖻 🗗
Ø	Y	Cholera	1.0 Release 20190630	Enteric Diseases	Published to Production	2019-11-20 05:52 PM	6 🖻 🖻
Ø	Ŷ	Cryptosporidiosis	2.0 Release 20200110	Enteric Diseases	In Progress	2020-02-21 01:22 PM	6 🖻 🖻
0	Y	Cryptosporidiosis	1.0 Release 20190630	Enteric Diseases	Published to Production	2019-10-31 12:57 PM	6 🖻 🖻
0	Y	Cyclosporiasis	2.0 Release 20200110	Enteric Diseases	In Progress	2020-02-21 01:58 PM	cî î î
$\odot$	¥.	Cyclosporiasis	1.1 Release 20190630	Enteric Diseases	Published to Production	2019-11-20 05:47 PM	6 🖻 💕
0	Y	Cyclosporiasis	1.0 Release 20190630	Enteric Diseases	Retired from Production	2019-10-24 11:55 AM	C â 降
$\odot$	Y	Giardiasis	2.0 Release 20200110	Enteric Diseases	In Progress	2020-02-21 02:28 PM	C 💼 📭
Specification Added?	Nationally Notifiable?	Specification Name	Version	Category	Status	Last Updated	

The following table details the options on the *Reporting Specification* 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.
Specification Added?	Indicates if the reporting specification logic sets and criteria have been
	added for the condition.
Nationally Notifiable?	Indicates whether the condition is nationally notifiable.
Specification Name	The name of the reporting specification.
Version	The version of the reporting specification.
Category	The disease category organizing the condition options. Options include
	Bloodborne Diseases, Enteric Diseases, Healthcare-Associated Infections
	(HAI), Injuries, Neurologic and Toxin-Mediated Conditions, Respiratory
	Conditions (Infectious), Sexually Transmitted Infections, Systemic
	Conditions, Toxic Effects of Non-Medicinal Substances, Vaccine
	Preventable Conditions, and Zoonotic and Vectorborne Diseases.
Status	The status of the reporting specification for the selected condition.
	Options include: Condition Details Only, In Progress, Assigned for Review,
	Ready for Test, Published to Test, Retired from Test, Ready for Production
	Use, Published to Production, and Retired from Production.
Last Updated	The last update date indicating the date and time the item was last saved.

Item	Description
🗹 Edit	Click to edit the selected item.
🛅 Delete	Click to delete the selected item.
Clone Specification	Click to clone the selected item.
ll Sort	Click to sort the information in each column.
Add Reporting Specification	Click to display the Details tab on the New Reporting Specification page
	and add a reporting specification.
Publish Reporting Specification	Click to publish the reporting specification and make it "live" and available
	to engage provider data and decision support logic for delivery of <u>RR</u> s. You
	can publish to Test or Production.
Previous	Click to navigate back through the list of items available.
Next	Click to navigate forward through the list of items available.

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

- To add a new reporting specification, refer to <u>Section 4.3, Adding Reporting Specifications</u>.
- To clone a reporting specification, refer to <u>Section 4.4, Cloning Reporting Specifications</u>.
- To delete a reporting specification, refer to <u>Section 4.5, Deleting Reporting Specifications</u>.
- To edit an existing reporting specification, refer to <u>Section 4.6, Reporting Specification Details tab</u>.

#### 4.3 Adding Reporting Specifications

You can import a reporting specification for a new condition, or for a new version of a condition that you have already authored.

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.

## Authoring Tip

Some Content Releases include new content for existing conditions. To utilize this new content, you will need to import the new version of the reporting specification.

#### To import a new 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 will display.
- 2. Click the **Add Reporting Specification** button. RCKMS displays the *Import Reporting Specification* pane.
- 3. Click the "Display reporting specifications previously imported" checkbox.

- 4. Click **Reporting Specification** and choose the reporting specification that you want. All reporting specifications, including those that have already been imported, populate.
- The Assign a Version field automatically populates with the release version and date of the reporting specification. You may edit this field with a version number defined by your jurisdiction. The version number must be unique.

select a default reporting specifi	cation to import (or reimport).			
Reporting Specification	Pertussis - 3.0 Release 20200110	•	Display reporting specifications previously imported	
Assign a Version	3.0 Release 20200110			

6. Click **Save Reporting Specification** and the *Details* tab of the *Edit Reporting Specification* page will display.

#### 4.4 Cloning Reporting Specifications

You can create a new version of an existing reporting specification using the **Clone** button. This clone will be an exact copy of the reporting specification that was previously authored.

## Authoring Tip

Cloning can be helpful if you already have a reporting specification published to production but want to work with rules (such as to test) without disturbing the <u>eCR</u> workflow or without committing to the changes.

To clone a reporting	specification,	perform the	following steps:
----------------------	----------------	-------------	------------------

1. Click the Clone button next to the reporting specification that you would like to clone. The *Clone Reporting Specifications* window will appear.

Reporting Specification sele	acted for cloning:	
Reporting	Pertussis - 3.0 Release 20200110	
Specification		
Assign a Version	3.0 Release 20200110	

- Reporting Specification is populated during the cloning process and is not editable. It consists of the name of the reporting specification and the original version number.
- 3. The **Assign a Version** field is editable and can be changed to adhere to the naming convention defined by your jurisdiction to track new versions of reporting specifications. Each version number for a reporting specification must be unique.
- 4. Click **Clone Reporting Specification**. The new copy of the reporting specification will be saved to your condition list.

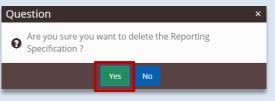
## Authoring Tip

Only one version of a given reporting specification can be published to production at a time. When a new version is published to production, the previous version will be automatically retired.

## 4.5 Deleting Reporting Specifications

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.
- Click Yes when the display question appears "Are you sure you want to delete the Reporting Specification?" The application deletes the selected item and displays a confirmation message.



Once you delete the reporting specification, the item is permanently removed and cannot be restored without re-importing.

## 4.6 Reporting Specification *Details* Tab

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

Name	Salmonellosis	Status	In Progress	
Condition Code	302231008 - Salmonella infection (disorder)	Version	3.0 Release 20200110	
Category	Enteric Diseases	Start Date		4
NNC Code	11000	End Date		
Description	200 characters max	Assigned To	Select an Option	
		Responsible Agency	Nothing selected	
Last Updated	2020-06-29 06:44 PM	Source Version	Default - 3.0 Release 20200110	
Created By	daryi			
	Specifications apply when	Specimen Subr	nission	
	Care is provided in this jurisdiction	Laboratory R	equired to Submit a Specimen	
	Lab is located in this jurisdiction			
	Patient is a resident of this jurisdiction			

The following table details the options on the *Details* tab.

Item Name	Description
Name	The descriptive name of the condition.
Condition Code	The SNOMED code and name pertaining to the condition.
Category	The disease category organizing the condition options. Options include
	Bloodborne Diseases, Enteric Diseases, Healthcare-Associated Infections (HAI),
	Injuries, Neurologic and Toxin-Mediated Conditions, Respiratory Conditions
	(Infectious), Sexually Transmitted Infections, Systemic Conditions, Toxic Effects
	of Non-Medicinal Substances, Vaccine Preventable Conditions, and Zoonotic
	and Vectorborne Diseases.
NNC Code	The nationally notifiable event code associated with the condition. This is
	applicable only if the condition is nationally notifiable.
Description	The description of the reporting specification for the selected condition.
Status	The status of the reporting specification for the selected condition. Options
	include: Conditions Details Only, In Progress, Assigned for Review, Ready for
	Test, Published to Test, Retired from Test, Ready for Production Use, Published
	to Production, and Retired from Production
Version	The version number assigned to the reporting specification.
Start Date	The start date on which the reporting specification for the selected condition is
	in effect. Click the ${}^{ar{ar{ar{ar{B}}}}}$ 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 ${}^{ar{ar{ar{ar{B}}}}}$ Calendar button to display a calendar and choose the
	date you want.

Item Name	Description				
Assigned To	The jurisdictional author to whom the reporting specification for the selected				
	condition is assigned for review. This is optional.				
Responsible	Responsible Agency is the PHA to which reporting is <i>legally required</i> based on				
Agency	the patient's residence or where care was delivered.				
Last Updated	Date of last save.				
Created By	User name of reporting specification creator.				
Specifications	Care provided in this jurisdiction				
apply when	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.				
Specimen	Laboratory required to submit a specimen				
Submission	Click to indicate the laboratory is required to submit a specimen.				
Save Reporting	Click to save the reporting specification and display the previous page.				
Specification					
Apply	Click to save your changes and keep the window open.				
Close	Click to close and display the previous page.				

#### To view and edit details about the condition, perform the following steps:

1. Click the **C** Edit icon for the reporting specification that you wish to view or edit. The *Details* tab of the *Edit Reporting Specification* window appears.

rting Specific				
Reporting Spe				
s Criteria / Logic S	ets Specifications Internal References External References			
Name	Pertussis	Status	Published to Production	
Condition Code	27836007 - Pertussis (disorder)	Version	3.0 Release 20200110	Œ
Category	Vaccine Preventable Conditions	Start Date		
NNC Code	10190	End Date		
Description	Pertussis Reporting Specifications	Assigned To	Select an Option	
		Responsible Agency	Local Public Health Agency	
Last Updated	2020-03-22 04:14 PM	Source Version	Default - 3.0 Release 20200110	
Created By	daryl			
	Specifications apply when	Specimen Submit	sion	
	Care is provided in this jurisdiction	Laboratory Rec	uired to Submit a Specimen	
	Lab is located in this jurisdiction			
	Patient is a resident of this jurisdiction			

- 2. Click **Description** and type the description you want.
- 3. For the **Specifications Apply When** field, do one or more of the following, depending on your PHA's reporting requirements:

The Name, Condition Code, Category, and NNC Code fields are defined by the RCKMS Team and are automatically populated during the import process.

Care is provided in this jurisdiction	Select to receive reports for events where care is provided in your jurisdiction. This means that if the facility address in the eICR matches your PHA's jurisdiction, and your rules are met, then you will receive the report.
Lab is located in this jurisdiction	Select to receive reports for events where laboratory testing is performed in your jurisdiction. This is currently not implemented, as the laboratory address is not included in the eICR.
Patient is a resident of this jurisdiction	Select to receive reports for events where the patient resides in your jurisdiction. This means that if the patient address in the eICR matches your PHA's jurisdiction, and your rules are met, then you will receive the report.



When an eICR is received, the DSS searches the Knowledge Repository for an address match by:

- Checking the eICR to see if the zip code in the patient address field or the facility address field matches a zip code associated with a PHA in RCKMS. If one is found, it runs that PHA's rules. If more than one PHA have the same zip code associated, then rules for all PHAs that are found will be run. If the zip code does not match, then the eICR will be checked for the state code.
- If the state code in the patient address field or the facility address field matches the state code associated with a PHA in RCKMS, then that PHA's rules will be run.
- 4. Click **Status** and choose the option you want. When a condition is imported, the default Status is "In Progress," meaning authoring of the condition is in progress. The status options are dependent upon where the reporting specification is in the workflow. The table below shows the available statuses and their descriptions:

Status	Description			
New reporting specification	New reporting specifications			
In Progress	The default status upon importing a new reporting specification.			
Assigned for Review	Used to indicate when a condition is under review before publishing to the next step. This status is for internal jurisdiction reference only and the user will not be notified of their assignment.			
Ready for Test	Use this status to designate that the reporting specification is ready to be published to test.			

Retired from Test	This status is automatically applied when a newer version of the reporting specification is imported.	
Reporting specifications that have been published to test		
Published to Test	This is the default status upon publishing to test.	
Ready for Production	Use this status to designate that the reporting specification is ready to be published to production.	
Retired from Test	This status is automatically applied when a newer version of the reporting specification is imported.	
Reporting specifications that have been published to production		
Published to Production	This is the default status upon publishing to production.	
Retired from Production	This status is automatically applied when a newer version of the reporting specification is imported.	

- 5. Click Version to change the version number. The initial version number is defined by the RCKMS Administrator, but you can change this to follow your jurisdiction's naming convention.
- 6. Click **Start Date** and type the date you want. Note that the *Start Date* must be greater than the date the condition is published.
- 7. Click End Date and type the date you want.
- 8. Click Assigned To and choose the option you want.
- 9. Click Responsible Agency and choose the PHA that you want. It defaults to your jurisdiction. The Responsible Agency is the PHA to which reporting is *legally required* based on the patient's residence or where care was provided. The Responsible Agency is included in the RR. If the jurisdiction selects "Local Agency" as the Responsible Agency, this indicates that reporting to the Local Agency is required to meet legal mandates for reporting. RCKMS will include "Local Agency" in the RR, but derivation of the Local Agency is outside the scope of the RCKMS tool.

### \_ Authoring Tip

The <u>Start Date and End Date</u> fields are optional and for informational use only. Jurisdictions may use these fields to convey information about the reporting specification to other authors.

Assigned To fields are optional and for internal use only. Users will not be automatically notified when they are assigned to a condition.

- 10. Click Laboratory Required to Submit a Specimen to indicate the laboratory is required to submit specimen information. Currently, this feature is purely informational. When selected, an External Reference should be included to provider reporters with specimen submission instructions for their laboratories. The reference will be included in the RR.
- 11. To continue authoring the reporting specification, do one of the following:
  - a. Click the **Criteria/Logic Sets** tab to edit and add logic set and criteria information. To work with criteria and logic set information, refer to Section 4.8, Adding and Editing Logic Set Information and Section 4.9, Activating and Inactivating Criteria Information.

- b. Click the **Specifications** tab to edit and add reporting time frame and reporting criteria information. To work with reporting time frame and decision logic information, refer to *Section 4.7, Adding and Editing Specification Information*.
- c. Click the **Internal References** tab to edit and add internal links and reference information. To work with <u>internal reference</u> information, refer to <u>Section 4.10, Internal References tab</u>.
- Click the External References tab to edit and add external links and reference information. To work with external reference information, refer to <u>Section 4.11, External</u> <u>References tab</u>.

## Authoring Tip

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.

- 12. Do one of the following:
  - a. Click **Save Reporting Specification**. RCKMS displays the *Reporting Specification* page and the date and time of the last update.
  - b. Click Apply. RCKMS saves your changes and keeps the window open.
  - c. Click **Close** to close the page if you have made no changes.

## 4.7 Adding and Editing Specification Information

The *Specifications* tab displays the criteria and logic sets rendered as a grid. Use the *Specifications* tab of the *Edit Reporting Specification* page to add and edit the reporting time frame for each logic set and indicate if the criteria in a logic set is <u>Sufficient</u>, <u>Necessary</u>, or <u>Optional</u> for reporting to your jurisdiction.

Notation	Description	Example
Sufficient "S"	Presence of this criterion alone indicates sufficient requirement for reporting.	Three criteria each indicate <i>Sufficient</i> . If any one of the three criteria is met, then the user must report.
Necessary "N"	Presence of this criterion with other criteria (either <i>Necessary</i> or <i>Optional</i> ) is needed to meet the requirement for reporting.	Three criteria each indicate <i>Necessary</i> . 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 "O"	Within a group of Optional criteria, at least one <i>Optional</i> criterion is needed. <i>Optional</i> criteria must be paired with at least one <i>Necessary</i> criterion to meet the requirement for reporting.	Criterion 1 is <i>Necessary</i> and criteria 2 and 3 are <i>Optional</i> . If criterion 1 is met, AND either criterion 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.

The reporting rules indicate the following:

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

#### Perform the following steps to add or edit specification information:

1. Click the **Specifications** tab in the *Edit Reporting Specification* page. RCKMS displays the contents of the *Specifications* tab.

AX			-
Internal References External Referen	ces		
Lab Reporting (Lab Reporting)	Provider/Facility Reporting (CLIN)	Provider/Facility Reporting (CLIN+EPI)	Provider/Facility Reporting (DEM+CLIN)
1 day(s) •	1 day(s)	day(s)	day(s)
-			Necessary
T	Necessary	Necessary •	Necessary
	Optional	Optional	Optional
	Optional	Optional	Optional
		•	
	Optional	Optional	Optional
-		•	
	Lab Reporting (Lab Reporting)	Lab Reporting (Lab Reporting (CLIN) 1 day(5) v 1 day(5) v v v v v v v v v v optional v v optional v v optional v	Lab Reporting (Lab Reporting)     Provider/Facility Reporting (CLIN)     Provider/Facility Reporting (CLIN+EPI)       1     day(s)     1     day(s)     1       1     day(s)     1     day(s)     1       V     V     V     V       V     V     V     V       V     V     V     V       V     V     V     V       V     Optional     V     Optional       V     V     V     V       V     Optional     V     Optional

- 2. Enter the Reporting Time Frame as defined by your jurisdiction's reporting rules. This field is informational only.
  - 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 from the drop-down.
- 3. For each logic set, select the appropriate reporting rules option for each criterion. When you import a reporting specification, the criteria and logic sets will be populated based on the default reporting specification. You may edit these if they differ from your jurisdiction's reporting rules.
  - a. Click the drop-down corresponding to the criterion and logic set you want and choose the option you want: *Sufficient, Necessary,* or *Optional.*

ltem	Description
Criteria	On the left-hand side of the window, the criteria needed for reporting are
	arranged by category, 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 notations.
Reporting Time Frame	The time required for reporting. Click the <i>number</i> text box and type or
	choose the number you want for the logic set you want. Click the <i>unit</i> 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 cancel your changes, or close if you have not made any changes
	and display the previous page.

The following table details the options on the *Specifications* tab.

#### 4.8 Adding and Editing Logic Set Information

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

Logic sets are sets of statements that indicate:

- The type of reporter, such as a lab or provider
- When the reporter is expected to report
- What is required of them for reporting

A logic set is translated into <u>rules logic</u> for use in determining reportability. Used in combination with reporting criteria, logic sets express logical statements in machine-processable language following the <u>S, N, O notation</u> used in the Position Statements:

- "S" indicates the criterion is SUFFICIENT by itself to qualify the case for reporting
- "N" indicates that all "N" criteria in the same column are NECESSARY to report a case
- "O" indicates that, within a group of OPTIONAL criteria, at least one of the "O" is required to report a case

For more information on the S, N, O notation, refer to <u>Section 4.7, Adding and Editing Specification</u> <u>Information</u>. For more information on reporting criteria, refer to <u>Section 4.9, Activating and Inactivating</u> <u>Criteria Information</u>. To add or edit criteria and logic sets, perform the following steps:

1. Click the **Criteria/Logic Sets** tab in the *Edit Reporting Specification* page. RCKMS displays the contents of the *Criteria/Logic Sets* tab.

TRCKMS Main Menu -	ft	Home 📕 Help	B About	t RCKMS	¢.
Reporting Specification	$\mathbb{C}$				
Edit Reporting Specification					
Details Criteria / Logic Sets Specifications Internal References	External References				
Add criteria and logic sets that will be used in your reporting specifications. Cli Logic Sets Show 10 • Intries	ck an item to add it to the specification (either criteria or logic set).				
Name 🕼	Reporter Type 🥼				
CLN+EPI	Provider/Facility Reporting		C í	Ì	
DX	Provider/Facility Reporting		c í	Ì	
LAB	Provider/Facility Reporting		C í	Ì	
Lab Reporting	Lab Reporting		C í	Ì	
Not Yet implemented	Vital Records		C i	Ì	
	+ New Logic Set			Previous 1	Next
Criteria					
Show 10 • entries					
Label 👫		Ina	activate 🔢	Туре 📗	
Abdominal cramps		No		Clinical	C
Campylobacteriosis (as a diagnosis or active problem)		No		Clinical	Ø
Death certificate lists Campylobacteriosis as a cause of death or a significant	condition contributing to death (Not Yet Implemented)	No		Vital Records	Ø

#### 2. Do one of the following:

• To edit a logic set's name, reporter type, or description, click the **C** Edit icon for the logic set you want in the *Logic Sets* section. RCKMS displays the *Edit Logic Set* window.

Edit Logic Set	×
Enter the details for the logic set.	
Logic Set Name	
Dx	
Reporter Type	
Provider/Facility Reporting	· · · · · · · · · · · · · · · · · · ·
Description	
Enter up to a 500 character description	
	Save Logic Set Apply Close

• To add a logic set, click the **New Logic Set** button in the *Logic Sets* section. RCKMS displays the *New Logic Set* window. You may want to add a new logic set if your jurisdiction's reporting rules are different from the default.

New Logic Set	×
Enter the details for the logic set.	
Logic Set Name	
Name	
Reporter Type	
Select an Option	
Description	
Enter up to a 500 character description	
	Save Logic Set Apply Close

- 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. 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 <u>Section 4.7</u>, <u>Adding and Editing Specification Information</u>.

## Authoring Tip

Once you delete a logic set, it cannot be recovered.

#### 4.8.1 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 logic set options on the *Criteria/Logic Sets* tab.

Reporting Specification		
Edit Reporting Specification		
Details Criteria / Logic Sets Specifications Internal R	eferences External References	
Add otheria and logic sets that will be used in your reporting spec	fications. Click an item to add it to the specification (either criteria	or logic set).
Legic Sets		
Show to entries		
Name 13	Reporter Type []	
CLIN	Provider/Facility Reporting	6 🗎
CLIN+EPI	Provider/Facility Reporting	6 8
DEM+CLIN	Provider/Facility Reporting	c 🗊
DX	Provider/Facility Reporting	6 🗇
IAB	Provider/Facility Reporting	C 💼
Lab Reporting	Lab Reporting	C 💼
Not Yet Implemented	Vital Records	6 🗎
		Previous 1 Next
	+ New Logic Set	

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.
ll Sort	Click to sort the information in each column.

#### 4.8.2 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. For example, if your jurisdiction's reporting rules differ from the default, you may want to add a new logic set.

New Logic Set	×
Enter the details for the logic set.	
Logic Set Name	
CLIN	
Reporter Type	
Provider/Facility Reporting	~
Description	
Enter up to a 500 character description	
	Save Logic Set Apply Close

ltem	Description
Logic Set Name	The logic set name. This should be descriptive of the criteria that are included in the logic set. For example, a logic set that contains both Clinical and Epidemiologic criteria may be named "CLIN+EPI."
Reporter Type	The reporter type associated with the logic set. Options include Lab Reporting, Provider/Facility Reporting, and Vital Records.
	<ul> <li>Lab Reporting focuses on information received from standalone labs (e.g., Quest, LabCorp etc.). Currently, Lab Reporting is not functional in RCKMS. Because RCKMS is not receiving information from these labs, the data entered under this Reporter Type will not trigger a case to be reportable. This is planned for a future release.</li> <li>Provider/Facility Reporting refers to information received from lab tests or results from hospitals or doctors' offices. Provider/Facility Reporting is functional. RCKMS will receive information from Provider/Facility <u>EHRs</u> and will run the rules authored under this Reporter Type to determine if a case is reportable to your jurisdiction.</li> </ul>
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 cancel your changes, or close if you have not made any changes and display the previous page.

The following table details the options on the *New Logic Set* window.

## 4.9 Activating and Inactivating Criteria Information

The *Criteria* section of the *Criteria/Logic Sets* tab shows all criteria associated with a reportable condition, as defined by the CSTE Position Statement and the default reporting specification. By default, all criteria associated with a condition are set to active, which means they are displayed in the *Specifications* tab.

You can activate and inactivate criteria information using the *Criteria* section of the *Criteria/Logic Sets* tab in the *Edit Reporting Specification* page. As you activate and inactivate criteria information on the *Criteria/Logic Sets* tab, that information is updated in the *Specifications* tab. If you do not use certain criteria in your jurisdiction, you may want to inactivate those criteria, making the list of criteria in the *Specifications* tab more manageable and relevant to your jurisdiction. To work with criteria and logic sets in the *Specifications* tab, refer to <u>Section 4.7, Adding and Editing Specification Information</u>.

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 <u>criteria templates</u> that provide pre-populated options used to create jurisdiction-specific criteria using the options on the *Criteria* window. For more detail on logic sets, refer to <u>Section 4.8, Adding</u> and Editing Logic Set Information.

## 📃 Authoring Tip

To request a new criterion for a particular condition, submit a ticket to the RCKMS Team.

To activate or inactivate criteria, perform the following steps:

- 1. Scroll down in the *Criteria/Logic Sets* tab in the *Reporting Specification* page to display the *Criteria* section.
- 2. Click the **C** Edit icon for the criterion you wish to activate or inactivate. The Edit Criteria window appears.

To setup the criteria for the condition, select a criteria template from the list then assign inputs in the box below. ID a6ee3aee81d27a37571db8013f46acfd Criteria Template Patient Age [operator] [number] [units] **THE BA MUST UPDATE TEXT** Inactivate Criteria Label Age < 1 year Criteria Input • Patient age is < Number: 1 Units: year(s) (y)	Edit Criteria ×
Criteria Template Patient Age (operator) [number] [units] **THE BA MUST UPDATE TEXT**  Inactivate Criteria Label Age < 1 year Criteria Input Patient age is < Number: 1 Units: year(s) (y)	To setup the criteria for the condition, select a criteria template from the list then assign inputs in the box below.
Patient Age (operator) [number] [units] **THE BA MUST UPDATE TEXT**  Inactivate Criteria Label Age < 1 year Criteria Input  Patient age is < Number: 1 Units: year(s) (y)	ID a6ee3aee81d27a375714b8013f46acfd
Inactivate Criteria Label Age < 1 year Criteria Input  Patient age is < Number: 1 Units: year(s) (y)	Criteria Template
Criteria Label Age < 1 year Criteria Input  Patient age is < Number: 1 Units: year(s) (y)	Patient Age [operator] [number] [units] **THE BA MUST UPDATE TEXT**
Age < 1 year	Inactivate
Criteria Input  Patient age Is < Number: 1 Units: year(s) (y)	
Patient age is < Number: 1 Units: year(s) (y)	Age < 1 year
	Criteria Input
	Patient age is < Number: 1 Units: year(s) (y)
save Criena Appiy Close	Save Criteria Apply Close

- 3. Click the **Inactivate** checkbox to inactivate the criterion. Inactivating removes criteria from display in the *Specifications* tab, while keeping the information in the *Criteria/Logic Sets* tab for you to restore later.
- 4. Click the **Save Criteria** button. RCKMS saves the criterion information and displays the *Criteria* section of the *Criteria/Logic Sets* tab in the *Reporting Specification* page.

#### 4.9.1 Criteria/Logic Sets Tab - Criteria Section

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

RCKMS Main Menu -	A Home	Help 0	About RCKMS	\$
how 10 • entries				
label 1		Inactivate 👫	Туре⊥⊺	
Contact of a person with Pertussis (not currently implemented)		No	Epidemiologic	(
Age < 18 months		Yes	Demographic	0
Age < 1 year		Yes	Demographic	(
Vember of a risk group as defined by public health authorities during an outbreak (not currently implemented)		No	Epidemiologic	(
Detection of Bordetella pertussis toxin antibody by any method in a clinical specimen		No	Laboratory	(
Pertussis (as diagnosis or active problem)		No	Clinical	0
Inspiratory Whoop		No	Clinical	0
Detection of Bordetella pertussis antigen by any method in a clinical specimen		Yes	Laboratory	0
Detection of Bordetella pertussis nucleic acid by any method in a clinical specimen		No	Laboratory	0
Identification of Bordetella pertussis by culture method in a clinical specimen, including identification tests performed on an isolate		No	Laboratory	C
		Previous	1 2 3 N	Vex
	Save Repo	rting Specification	Apply Cl	lose

ltem	Description
Show entries	Click drop-down and choose the number of items to display in the grid.
Label	The criteria label.
Туре	The criteria type. Options include Laboratory, Clinical, Epidemiologic, and Demographic.
Inactivate	Indicates if the criteria are active or inactive.
🗹 Edit	Click to edit 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.
Save Reporting Specification	Click to save the reporting specification.
Apply	Click to save your changes and keep the window open.
Close	Click to cancel your changes, or close if you have not made any changes and
	display the previous page.
🖺 Sort	Click to sort the information in each column.

The following table details the criteria options on the *Criteria label* page.

### 4.9.2 Criteria Window

The *Criteria* window displays the options for activating and inactivating reporting criteria information.

tup the criteria for the condition, select a criteria template from the list then assign inputs in the box below.
f15560be5bbf65ba0335e1c90fd45b
ria Template
ittion] (Diagnosis or active problem) **THE BA MUST UPDATE TEXT**
activate
ria Label
h (any duration)
iteria Input
<ul> <li>Patient has a diagnosis of == Cough (SYMP002)</li> </ul>
OR
• Group 1
<ul> <li>Patient has a problem of == Cough (SYMP002)</li> </ul>
AND     Problem has status of == Active (active)
<ul> <li>Monetuling stars of an event of entire (etrice)</li> </ul>
Save Criteria Apply Clos

#### The following table details the options on the *Edit Criteria* window.

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 are based.
	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. The Criteria Label options are
	<i>read-only</i> when you are signed in as a Jurisdiction Administrator.

Item	Description
Criteria Input	The values, standard codes, and operators comprising the logic for the
	criterion. The Criteria Input options are read-only when you are signed in
	as a Jurisdiction Administrator.
Save Criteria	Click to save criteria information.
Apply	Click to save your changes and keep the window open.
Close	Click to cancel your changes, or close if you have not made any changes and display the previous page.

# 4.10 Internal References Tab

The *Internal References* tab displays information, such as text, links to websites, documents, and other modes of information for use by the PHA. This could be used to share specific information with an internal department within the PHA, such as the HIV department or Infectious Diseases team.

# Authoring Tip

Internal References are not sent to the reporter in the RR.

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lit Rep	orting Specificat	ion				
etails	Criteria / Logic Sets Sp	ecifications Internal References	External Reference	s		
ld internal	I Links and References to be	e used by the PHA (not sent to the Repo	orter)			
IOW 10	▼ entries			Search:		
lame 🕼	Description 🕼	URL 1		Excerpt	File(s) 🗐	
IDHHS	Whooping Cough (Pertussis) in Michigan	http://www.michigan.gov/mdhhs/0, 73971_4911_4914-240419,00.htm		Pertussis is a respiratory illness that is easily spread by coughing and sneezing. The disease starts like the common cold, with runny nose or congestion, sneezing, and mild cough or fever.	Ø	© f
lame	Description	URL		Excerpt	File(s)	
ame						
vame					Previous 1	Next
varne				+ Add Internal Reference	Previous 1	Next

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.
Files	The "paperclip" icon indicates a file is attached to the internal reference. It
	can be downloaded from the Edit Internal Reference screen.
🗹 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 <i>New Reference</i> window.
Save Reporting Specification	Click to save the reference information and return to previous page.
Apply	Click to save your changes and keep the window open.

The following table details the options on the *Internal References* page.

Item	Description
Close	Click to cancel your changes, or close if you have not made any changes and
	display the previous page.
📕 Sort	Click to sort the information in each column.

## 4.10.1 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.

Name	Disease reporting		
URL	http://www.cdc.gov/disease-reporting		
Priority	Select an Option		
Category	Select an Option		
Description	Disease reporting		
Excerpt	Enabling public health		
	File Name 11	File Type II	Download
Add Reference Files	File Name 1		
Add Reference Files		No data available in table	Download

The following table details the options on the *Edit Reference* window.

ltem	Description
Name	The name of the reference.
URL	The URL for the reference.
Priority	The priority of the internal reference. Options include Immediate action required, Immediate action requested, Action required, Action requested, Information only.
Category	The category of the reference. Options include Outbreak- or Cluster related, Additional reporting needs, Additional detection and/or laboratory testing needs, Treatment and/or prevention, PHA Contact Information, Additional Resources.
Description	The description of the reference.
Excerpt	An excerpt from the reference.
Add Reference Files	The fields related to an internal reference file.
File Name	The name of the reference file attached.
File Type	The format of the reference file attached.
Download	The arrow icon can be clicked to download the attached reference file.
🗹 Edit	Click to edit the selected item.
🛅 Delete	Click to delete the selected item.
Add Reference File	The button used to add additional internal reference files.
Save Condition Reference	Click to save the reference information.

Item	Description
Apply	Click to save your changes and keep the window open.
Cancel/Close	Click to cancel your changes, or close if you have not made any changes and display the previous page.

#### 4.10.2 Add and Edit Internal References

To add and edit Internal References, perform the following steps:

1. Click the **Internal References** tab in the *Edit Reporting Specification* page. RCKMS displays the contents of the *Internal References* tab.

RCKMS Main Menu -	ft Home	Help 🕄 About RCKMS 🐥
eporting Specification		
dit Reporting Specification		
Details Criteria / Logic Sets Specifications Inter	nal References External References	
dd internal Links and References to be used by the PHA (no	t sent to the Reporter)	
how 10 • entries		Search:
Name 🕴 Description 👫 URL 👔	Excerpt 1	File(s)
CDC CDC Reference http://www.cdc.gov/pertussi Reference Guide for Guide for Pertussis Pertussis	Pertussis, also known as whooping cough, is a highly contagious respiratory disease. It i Bordetella pertussis. Pertussis is known for uncontrollable, violent coughing which ofter After fits of many coughs, someone with pertussis often needs to take deep breaths wh sound. Pertussis can affect people of all ages, but can be very serious, even deadly, for b	n makes it hard to breathe. Nch result in a "whooping"
Name Description URL	Excerpt	File(s)
		Previous 1 Ne
	+ Add Internal Reference	

- 2. Do the one of following:
  - To edit existing internal reference information, click the **GEdit** 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.

Name	CDC Reference Guide for Pertussi	5		
URL	http://www.cdc.gov/pertussis			
Priority	Information only			•
Category	Additional Resources			
Description	CDC Reference Guide for Pertussi	s		
Excerpt	uncontrollable, violent coughing v	g cough. Is a highly contagious respiratory disease. It i which often makes it hard to breathe. After fits of many tussis can affect people of all ages, but can be very ser	coughs, someone with pertussis often needs to ta	tussis is known for ce deep breaths which
Add Reference Files	File Name	File Type	Download	
		No data available in	table	
	File Name	File Type + Add Reference	Download	

- 3. Click Name and type the name you want.
- 4. Click **URL** and type the URL you want.
- 5. Click **Priority** and choose the option you want from the drop-down list.
- 6. Click **Category** and choose the option you want from the drop-down list.
- 7. Click **Description** and type the description you want.
- 8. Click **Excerpt** and type the excerpt you want.
- Optional Click Add Reference File and use Chose File button to upload a New Reference File. Click the Save Reference File button to return to the previous screen. Or use Apply to stay on the New Reference File screen.

10. Click the Save Condition Reference button. RCKMS saves your

Authoring Tip

Internal reference items should be unique within the reporting specification.

changes and displays the *Internal References* tab. Or click **Apply** and remain on the New Reference or Edit Reference screen.

# 4.11 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. For example, in the screenshot below, the author has included information about reporting of chlamydia to the local health office along with a link to the *Chlamydia* page on the CDC website. Some common uses for External References are:

- Links to the condition on the CDC website or on the PHA website
- Contact information for the PHA

# Authoring Tip

External references are sent back to the reporter in the RR.

At a minimum, jurisdictions should add condition-specific contact information

- Treatment recommendations
- Additional reporting requirements to local health departments

Main Menu -		A Home	🗭 Help	6 About	RCKMS	<b>*</b> \$
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ria / Logic Sets Specifications Inte	rnal References External References					
s and References to be sent to the Reporte	eri					
entries				Search:		
Description 1	URL 11				Excerpt	T
Public Health Agency Contact Information Phone: 775-400-0333 Fax: 775-684-5999	http://dpbh.nv.gov/Programs/OPHIE/Put _Home/	lic_Health_Infor	matics_and_Ep	oidemiology		c i
CDC COVID-19 webpage	https://www.cdc.gov/coronavirus/2019-r	cov/index.html				C î
Description	URL				Excerpt	
					Previous	1 Next
	+ Add External Reference					
			Save Report	ing Specificati	on Appl	y Close
	pecification         ng Specification         ia / Logic Sets       Specifications         ia and References to be sent to the Reporter         entries         Description II         Public Health Agency Contact         Information Phone: 775-400-0333 Fax:         775-684-5999         CDC COVID-19 webpage	pecification         is / Logic Sets       Specifications         is and References to be sent to the Reporter         entries         Description         Public Health Agency Contact         Information Phone: 775-684-5999         CDC COVID-19 webpage         https://www.cdc.gov/coronavirus/2019-n         Description       URL	pecification         ia / Logic Sets       Specifications         ia / Logic Sets       Specifications         is and References to be sent to the Reporter         entries         Description II       URL II         Public Health Agency Contact       http://dpbh.nv.gov/Programs/OPHIE/Public_Health_Infor         Information Phone: 775-684-5999       Ltps://www.cdc.gov/coronavirus/2019-ncov/index.html         Description       URL	pecification         ia / Logic Sets       Specifications         ia / Logic Sets       Specifications         is and References to be sent to the Reporter         entries         Description          URL            Public Health Agency Contact       http://dpbh.nv.gov/Programs/OPHIE/Public_Health_Informatics_and_Eff         Information Prone: 775-6400-0333 Fax:	pecification         ia / Logic Sets       Specifications         internal References       External References         Pescription II       URL II         Public Health Agency Contact Information Phone: 775-400-0333 Fax:       http://dpbh.nv.gov/Programs/OPHIE/Public,Health_Informatics_and_Epidemiology Home/         775-684-5999       https://www.cdc.gov/coronavirus/2019-ncov/index.html         Description       URL	pecification         ia / Logic Sets       Specifications         ia / Logic Sets       Specifications         is and References to be sent to the Reporter         entries       Search:         Description          URL            Public Health Agency Contact       http://dpbh.nv.gov/Programs/OPHIE/Public_Health_Informatics_and_Epidemiology         Information Phone: 775-684-5999       Lttp://dpbh.nv.gov/coronavirus/2019-ncov/index.html         CDC COVID-19 webpage       https://www.cdc.gov/coronavirus/2019-ncov/index.html         Pervious       + Add External Reference

The following table details the options on the External References tab.

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 <i>New Reference</i> window.
Save Reporting Specification	Click to save the reporting specification.
Apply	Click to save your changes and keep the window open.
Close	Click to cancel your changes, or close if you have not made any changes
15	and display the previous page.
🚛 Sort	Click to sort the information in each column.

# 4.11.1 *Reference* Window

The *Reference* window displays the details of the selected reference item, including name, description, and URL. Use the *Reference* window to add and edit reference information, which is sent back to the reporter in the RR.

Edit Reference: Ageno	y Contact Information	×
Name	Agency Contact Information	
URL	http://dpbh.nv.gov/Programs/OPHIE/Public_Health_Informatics_and_EpidemiologyHome/	
Priority	Information only	~
Category	PHA Contact Information	~
Description	Public Health Agency Contact Information Phone: 775-400-0333 Fax: 775-684-5999	
Excerpt	Enter up to a 500 character description	
		//
	Save Condition Reference Apply	Close

The following table details the options on the *Edit Reference* window.

ltem	Description					
Name	The name of the reference.					
URL	The URL for the reference.					
Priority	The priority of the URL for the reference. Options include Immediate					
	Action Required, Immediate Action Requested, Action Required, Action					
	Requested, Information Only.					
Category	The category organizing the reference. Options include Outbreak- or					
	Cluster related, Additional reporting needs, Additional detection and/or					
	laboratory testing needs, Treatment and/or prevention, PHA Contact					
	Information, and Additional Resources. The Category option orders the					
	display of reference information in the RR.					
Description	The description of the reference.					
Excerpt	An excerpt from the reference. Excerpts are not included in the RR.					
Save Condition Reference	Click to save the reference information.					
Apply	Click to save your changes and keep the window open.					
Close	Click to cancel your changes, or close if you have not made any changes					
	and display the previous page.					

#### 4.11.2 Adding and Editing External Reference Information

To add or edit an External Reference, perform the following steps:

1. Click the **External References** tab in the *Edit Reporting Specification* page. RCKMS displays the contents of the *External References* tab.

		lain Menu 🗸		A Home	🗭 Help	About	RCKMS	<u>ه</u> ه
	Reporting Sp	ecification						-
	Edit Reportin	g Specification						
	Add external Links a Show 10 ver	and References to be sent to the Reporter				Search:		
PHA Contact information	Agency Contact Information	Description II Public Health Agency Contact Information Phone: 775-400-0333 Fax: 775-684-5999	URL    http://dpbh.nv.gov/Programs/OPHIE/Pu _Home/	ublic_Health_Infor	matics_and_Ep	idemiology	Excerpt	6
	CDC COVID-19 website	CDC COVID-19 webpage	https://www.cdc.gov/coronavirus/2019-	ncov/index.html				C: 💼
	Name	Description	URL				Excerpt	
			+ Add External Reference				Previous	1 Next
					Save Reportin	g Specificatio	Apply	Cancel

- 2. Do the one of following:
  - To edit existing external reference information, click the *É***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.

Edit Reference: Local Healt	h Office Directory
Name	Local Health Office Directory
URL	https://www.cdc.gov/std/chlamydia/default.htm
Priority	Information only
Category	Additional Resources
Description	Local Health Department Contact Information
Excerpt	Please contact your local health office for additional reporting requirements. According to the California regulations reporting is required with seven calendar days of identification. Reporting to the Public Health Agency is based on the patient home address.
	Save Condition Reference Apply Close

- 3. Click Name and type the name you want.
- 4. Click **URL** and type the URL you want.
- 5. Click **Priority** and choose the option you want. The Priority options indicate the urgency of the information or any expected actions.
- 6. Click **Category** and choose the option you want. The Category option orders the display of reference information on the RR.
- 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.

# 4.12 Saving Changes to the Reporting Specification

Although RCKMS saves your changes within a working session, to save information permanently and update the database, you must save the entire reporting specification. To do so:

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

*Note: RCKMS displays unsaved information using red text to indicate that you must save the reporting specification to preserve your changes.* 

# 4.13 Publishing the Reporting Specification

Once you finalize and save your work on the reporting specification, you must <u>publish</u> it to the DSS rules engine for RCKMS to run the reporting specifications rules logic and respond on receipt of a record if it is reportable. Authoring rules to final production status is a two-step process. After the rules have been authored for a condition, the tool requires the rules to be first published to the testing environment and then to production status. Publishing to test is a necessary step even if you decide not to test your authored condition.

### 4.13.1 Steps to Publish to Test

To publish to test, complete the following steps:

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

# Authoring Tip

External reference items should be unique within the reporting specification. 2. Click the **C** Edit icon for the condition you want to publish on the *Reporting Specification* page. RCKMS displays the *Edit Reporting Specification* page and the contents of the *Details* tab.

eporting	Specificatio	m V					
iow 10 🗸	entries					Search:	
pecification	Nationally Notifiable? 🗐	Specification Name	Version 👫	Category	Status 🚹	Last Updated 🎵	
0	Y	2019 novel coronavirus (2019 nCov)	1.0 Release 20200123	Respiratory Conditions (Infectious)	Published to Production	2020-05-22 09:07 AM	c 💼 🕯
$\odot$	Y	Chlamydia	3.0 Release 20200110	Sexually Transmitted Infections	In Progress	2020-06-18 03:23 PM	C 🖻 🕯
0	Y	COVID-19	5.0 Release 20200415	Respiratory Conditions (Infectious)	Ready for Test	2020-06-18 12:29 PM	<b>()</b> 🛍 🗎
0	Y	Pertussis	3.0 Release 20200110	Vaccine Preventable Conditions	Published to Test	2020-04-09 09:54 AM	C 🖻 🗎
$\odot$	Y	Salmonellosis	3.0 Release 20200110	Enteric Diseases	In Progress	2020-06-29 06:44 PM	c 🖻 🕯
pecification dded?	Nationally Notifiable?	Specification Name	Version	Category	Status	Last Updated	
						Previous	1 Next

- This is a good time to review all tabs for completeness and accuracy. Click through the tabs to verify the following:
  - Click Criteria/Logic Sets to edit and add logic set and criteria information. For more information, refer to <u>Section 4.8,</u> <u>Adding and Editing Logic Set Information</u> and <u>Section 4.9,</u> <u>Activating and Inactivating Criteria Information</u>.

# Authoring Tip

Publishing to test allows users to run <u>test cases</u> against their authored rules to verify that test cases return the expected results before publishing to production.

- Click **Specifications** to edit and add reporting time frame and decision logic information. For more information, refer to <u>Section 4.7, Adding and Editing Specification Information</u>.
- Click Internal References to edit and add internal links and reference information. For more information, refer to <u>Section 4.10, Internal References tab</u>.
- Click External References to edit and add external links and reference information. For more information, refer to *Section 4.11, External References tab*.
- Click **Details** to edit and add reporting specification detail information. For more information, refer to <u>Section 4.6, Reporting Specification Details tab</u>.
- 4. Click the Status drop-down in the Details tab and choose Ready for Test.

*Note:* You can change the status to Assigned for Review prior to publishing to test to indicate that the condition needs further review before publishing to the next step. This status is for internal jurisdiction reference only.

Reporting Specifi	cation		
Edit Reporting Sp	ecification		
Details Criteria / Logic	iets Specifications Internal References External References		
Namo	Chlamydia	Status	Ready for Test
Condition Code	105629000 - Chlamydial infection (disorder)	Version	Assigned for Review
Category	Sexually Transmitted Infections	Start Date	In Progress
NNC Code	10274	End Date	Ready for Test Retired from Test
Description	200 characters max	Assigned To	Select an Option
		Responsible Agency	Local Public Health Agency
Last Updated	2020-06-18 03:23 PM	Source Version	Default - 3.0 Release 20200110
Created By		Jource relation	MEMORY - 200 REPORT COLOUTIO
	Specifications apply when	Specimen Submis	sion
	Care is provided in this jurisdiction	Laboratory Requ	ired to Submit a Specimen
	Lab is located in this jurisdiction		

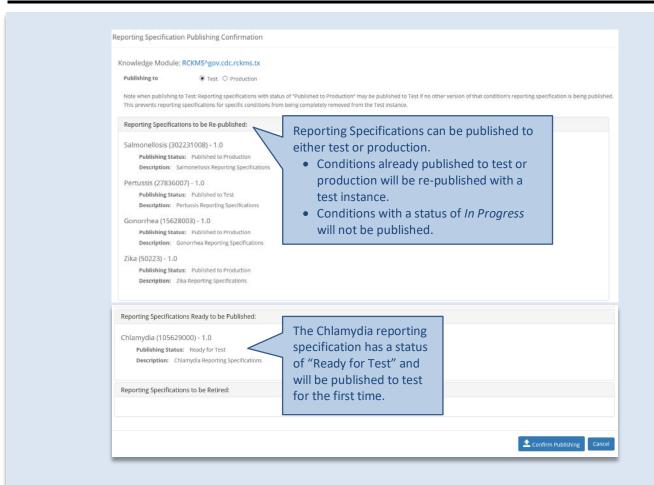
- 5. Click **Save Reporting Specification**. RCKMS displays the *Reporting Specification* page and the date and time of the last update. The status is also updated to **Ready for Test**.
- 6. Click the **Publish Reporting Specifications** button. RCKMS displays the *Reporting Specification Publishing Confirmation* window.



- 7. Click the **Test** radio button. There will be three sections to review in the confirmation window:
  - Reporting Specifications to be Re-published
  - Reporting Specifications Ready to be Published
  - Reporting Specifications to be Retired

Please review all three sections to confirm the reporting specifications that will be Re-published, Published, and Retired.

*Note:* Any specification in a "Published" status will also be "Re-published" during the publishing to test process, unless there is a new version of a specification that is already published to test.



- 8. Click the Confirm Publishing button to publish all listed reporting specifications.
- 9. The *Publishing Results* page will display with a list of the reporting specifications that were just published.
- Click Close to exit the Publishing Results page and return to the Reporting Specifications page.
   For those conditions that were just published to test for the first time, their status will now be "Published to Test."

*Note:* Refer to <u>Section 5, Testing Options</u> for an overview of testing options and instructions on how to test your published reporting specifications.

#### 4.13.2 Steps to Publish to Production

To publish to production, complete the following steps:

- 1. To start to navigate to publish to production, you need to access the *Reporting Specification* page. If you have just published reporting specifications to test, you are already in the correct place. If not, you can do so via either of these two options:
  - From the *Home* page, click **Reporting Specifications** in the left navigation menu. The *Reporting Specification* page displays.

- From any page in the tool, 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. If you have not done so already, this is a good time to review all tabs for completeness and accuracy. Click through the tabs to verify the following:
  - a. Click **Criteria/Logic Sets** to edit and add logic set and criteria information. For more information, refer to <u>Section 4.8, Adding and Editing Logic Set Information</u> and <u>Section 4.9, Activating and Inactivating Criteria Information</u>.
  - b. Click **Specifications** to edit and add reporting time frame and decision logic information. For more information, refer to *Section 4.7, Adding and Editing Specification Information*.
  - c. Click **Internal References** to edit and add internal links and reference information. For more information, refer to <u>Section 4.10, Internal References tab</u>.
  - d. Click **External References** to edit and add external links and reference information. For more information, refer to <u>Section 4.11, External References tab</u>.
  - e. Click **Details** to edit and add reporting specification detail information. For more information, refer to <u>Section 4.6, Reporting Specification Details tab</u>.
- 4. Click the **Status** drop-down in the *Details* tab and choose Ready for Production Use. This option will be available only after you have published the reporting specification to test.

Edit Reporting Spe	ification			
Details Criteria / Logic Se				
Name	Chlamydia	Status	Published to Test	
Condition Code	105629000 - Chlamydial infection (disorder)	Version	Published to Test	
Category	Sexually Transmitted Infections	Start Date	Ready for Production Use	
NNC Code	10274	End Date	Retired from Test	
Description	200 characters max	Assigned To	Select an Option	
		Responsible Agency	Local Public Health Agency	÷
Last Updated	2020-06-30 10:40 PM	Source Version	Default - 3.0 Release 20200110	
Created By	daryl			
	Specifications apply when	Specimen Submiss	ion	
	Care is provided in this jurisdiction	🗹 Laboratory Requ	ired to Submit a Specimen	
	Lab is located in this jurisdiction     Patient is a resident of this jurisdiction			
	Padericis a residenciar di s jurisdiculari			
			Save Reporting Specification App	oly Close

- 5. Click **Save Reporting Specification**. RCKMS displays the *Reporting Specification* page and the date and time of the last update. The status will be updated to Ready for Production Use.
- 6. Click the **Publish Reporting Specifications** button. RCKMS prompts you to confirm the publishing. There will be three sections on this confirmation:
  - Reporting Specifications to be Re-published
  - Reporting Specifications Ready to be Published
  - Reporting Specifications to be Retired



7. Click the **Production** radio button. Please review all three sections to confirm the reporting specifications that will be Re-published, Published, and Retired.

# 🛄 Authoring Tip

Reporting specifications can be published either to test or production. Conditions with a status of *Ready for Production Use* should be published to production. This signifies the readiness of your reporting specifications to be used for eCR activities.

*Note:* Any specification in a "Published" status that may have been modified will be "Re-published" with the new changes during the publishing process.

nowledge Module: RCKMS^gov.cdc.rckms.gu	
Reporting Specifications to be Re-published:	
2019 novel coronavirus (2019 nCov) (186747009) - Publishing Status: Published to Production Description:	- 1.0 Release 20200123
Reporting Specifications Ready to be Published:	The Chlamydia reporting specification
Chlamydia (105629000) - 3.0 Release 20200110 Publishing Status: Ready for Production Use Description:	has a status of "Ready for Production Use" and will be published to production for the first time.
Reporting Specifications to be Retired:	

- 8. Click the **Confirm Publishing** button to publish all listed reporting specifications.
- 9. The *Publishing Results* page displays with a list of the reporting specifications that were just published.
- 10. Click **Close** to exit the *Publishing Results* page.

Once you save and publish the reporting specification, you can work with the following modules:

- Use one of the available testing options to run test cases and validate the criteria and rules logic. For details, refer to <u>Section 5, Testing Options</u>.
- Use the *Reports* module to run queries and display informational reports. For details, refer to <u>Section</u> <u>6, Reports Module</u>.
- Manage jurisdiction detail information using the <u>Jurisdictions module</u>. For details, refer to <u>Section 3</u>, <u>Viewing and Editing Jurisdiction Information</u>.

# 5 Testing Options



There are two tools available in <u>RCKMS</u> for testing your reporting rules: The Test Case Manager and Shared Service Submission Tool. Review this section to learn about the differences between the tools, how to add and edit <u>test cases</u> in each tool, and how to run test cases and interpret results in each tool.

You can use both the Test Case Manager and Shared Service Submission Tool to verify that your authored rules are working correctly and that the RCKMS output is populating as you would expect. There are, however, several important differences between these two tools, as described below. An example follows for additional context.

#### **Test Case Manager**

- Tests <u>rules logic</u> only for your <u>jurisdiction</u>. Does not test which jurisdiction's rules are being used.
- Supports both <u>criteria</u>-based test cases and <u>eICR</u> files.
- Test cases are saved, creating a test case bank that can be rerun over time.

#### Shared Service Submission Tool

- Tests rules logic and will determine which jurisdiction's rules should be used, based on address.
- Supports elCR files.
- Test cases are not saved.

# 5.1 Test Using the Test Case Manager

You can run a test case and view its results using the *Test Cases* page. Keep in mind the following:

- The test cases defined here are saved for reuse. However, the results of the testing are not saved within RCKMS.
- When you run a test case, the application simulates receipt of a report and moves that information through the logic chain defined for your jurisdiction <u>reporting specification's</u> criteria, <u>logic sets</u>, and rules options. For more detail on reporting criteria, refer to <u>Section 4.9</u>, <u>Activating and Inactivating</u> <u>Criteria Information</u>.
- A successful test case provides you with confirmation that the criteria authored as <u>Sufficient</u>, <u>Necessary</u>, and <u>Optional</u> and the rules for a given reporter type provide the expected results. For more details on the Sufficient, Necessary, and Optional notations, refer to <u>Section 4.7</u>, <u>Adding and Editing</u> <u>Specification Information</u>.
- Test cases run through the Test Case Manager always execute against your jurisdiction's reporting specifications, regardless of the patient or provider address.

You can use the Test Case Manager to test specific criterion, such as diagnosis or positive lab results, or whole files, such as a sample eICR or <u>Virtual Medical Record</u> (vMR) file.

*Note:* For some conditions, the RCKMS tool has pre-populated test cases. Some of the default test cases may be out of date due to

# **\_\_\_** Testing Tip

To learn how to add new test cases, see <u>Section 5.2, Adding and Editing Test</u> <u>Cases in Test Case Manager</u>. version updates. However, you can run these test cases, but the reportability outcome may vary. Default test cases can be executed as is or customized to account for any jurisdiction-specific reporting requirements.

To run a te	est cas	e and v	iew the res	ults, perl	form th	he fol	llowing	g steps						
1. Acces	s the	Test Cas	<u>es module</u> v	via one o	of the fo	ollowi	ing:							
• Fr	rom th	e Home	page, click	Test Cas	ses in th	the lef	ft navig	gation	menu.	RCKMS	displays	the T	est Co	ases
pa	age.													
• Fr	rom ar	ny page	in the tool,	click <b>Ma</b> i	in Men	<b>nu</b> in t	the me	enu ba	r at the	top of	the page	e and o	choos	e
Те	est Ca	ses. RCK	MS displays	s the <i>Tes</i>	t Cases	s page	e.							
R	CKMS	Main Menu 👻							🔒 Home	🗭 Help	About RC	.KMS 🌲	φ.	
Das	hboard	Ø Jurisdictio	ns		Y						-			
		C Reporting												
Oven	orting Specific	Test Cases	5	RCKMS										
	Cases	Reports												
Repo	orts	🕑 Shared Se	rvice Submission Tool	ifications for Co	OVID-19 Availa	ilable for Re-	e-authoring (M	March 16, 202	0)					
			Dear RCKMS Users, A ne	ew version of the CC	OVID-19 reportin	ting specificati	ations has been	released. Plea	se see					
			2020-02-12 09:54 AM RCKMS Tool Release N	lotes for Content	Release 3 - Up	Jpdates to Ex	Existing Condit	tions!						
			Dear RCKMS Users, New	versions of the pilo	ot and enteric co	conditions, as	as well as Parkir	nson's Disease						

 Click the Reporting Specification drop-down and choose the condition you want to test. RCKMS displays a list of the available test cases, if any. See <u>Section 5.2, Adding and Editing Test Cases in Test</u> <u>Case Manager</u> for instructions on adding new test cases.

*Note:* You can use the Search text box in the Test Cases page to search for the test case you want. 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.

Test Cases		ART			-	
Select a reportir	ng specification to view its ass	sociated test cases. Run a test case by clicking	on the 'Run' icon or click 'Edit' to view the Test Car	se details.		
	Reporting Specification	Chlamydia: 3.0 Release 20200110 - Publish	ed to Test		)	•
Show 10	• entries			Search: diag	vosis	
Name 11				Payloa Type 🛛		
		hlamydial cervicitis, urethritis, and Lymphogra Infection (Disorders (Cervicitis Urethritis LGVI)	anuloma Venereum (as a diagnosis or active probl > RCKM51b] Reportable: Y	lem) >	6 🛢 💿	
	entry of [ [VS: Chlamydia trac		uuloma Venereum (as a diagnosis or active proble itis LGV]) JRCKMS1bJ > Problem has a status of (A		<b>c</b> î 0	
Chlamydia -		nlamydial cervicitis, urethritis, and Lymphograr chomatis infection (Disorders [Cervicitis Urethr	uloma Venereum (as a diagnosis or active proble itis LGV]) [RCKMS1b] > Reportable : N	:m) >	6 🗊 📀	
Problem list	camboul face cananalon nac					

- 3. Click the **O**Run Test icon for the test case you want to run. RCKMS runs the test case and displays the *Test Results* page, with the summary results at the top of the page.
- 4. Optionally, review the results in the *Test Results* page by clicking 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*.

Test Results for Chlamydia - 100 > Diagnos	s > Criteria > Chlamydial cervicitis, urethritis	s, and Lymphogranuloma Venereum (as a diagnosis or active pro	blem) > Di
of [VS: Chlamydia trachomatis Infection (D	sorders [Cervicitis Urethritis LGV]) > RCKMS	1b] Reportable: Y	
Summary			
Reporter Type	Provider/Facility Reporting	Duration 15875.023069 ms	
Test Result	Passed		
Expected Reportable	Yes		
Actual Reportable	Yes		
Expected Reportable Condition	Chlamydia		
Actual Reportable Condition	Chlamydia		
Expected Criteria Met	Chlamydial cervicitis and urethritis, and lymphogranul	oma venereum (as diagnosis or active problem)	
Actual Criteria Met	Chlamydial cervicitis and urethritis, and lymphogranul	oma venereum (as diagnosis or active problem)	
Test Subject			
Test Inputs			
Logs and Messages			
Logs and Messages			
Links and References			

5. When you are finished reviewing the results, click the **Close** button. RCKMS returns to the *Test Cases* page.

# 5.2 Adding and Editing Test Cases in Test Case Manager

If the pre-populated test cases do not meet your needs, you may add a new test case or edit an existing one. This section describes the steps necessary for adding and editing test cases.

To 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:
    - Click the **C Edit** icon for the test case you want to edit. RCKMS displays the *Edit Test Case* page and the contents of the *Details* tab.
    - Click the Add Test Case button to add a new test case. RCKMS displays the *New Test Case* page and the contents of the *Details* tab.

Cases			
est Case			
Test Subject Test Input	ts		
Reporting Specification	Hepatitis C Virus Infection - 3.0 Release 20200110	Skip this test	
Name	TC_HCV_C_001.1.1 Diagnosis of = Hepatitis C Infection (Disorders)		
Description	TC_HCV_C_001.1.1 Patient has a diagnosis of = Hepatitis C Infection (Disorders)		
Condition Expected to be Reportable			
Reporter Type	Provider/Facility Reporting	•	

- b. Click **Reporting Specifications** and choose the condition you want. Note that the *Reporting Specification* field is active only when you create a new test case. This field is read-only when editing an existing test case.
- c. Click **Name** and type the name you want. This should follow naming conventions established by your organization for new test cases. For example, you may want to include the condition name, test case number, criteria being tested and the expected outcome.
- d. Click **Description** and type the description you want.
- e. Click a **Condition Expected to be Reportable** radio button to indicate that the test case is expected to return one of the following results:
  - Reportable **Yes** radio button
  - May be Reportable May be reportable radio button
  - Not Reportable **No** radio button
- f. Click **Reporter Type** and choose the reporter type that matches the criteria you want to test. For example, if you are testing a diagnosis, the Reporter Type would be Provider/Facility Reporting. For lab criteria, the Reporter Type would be Lab Reporting.
- g. Click the **Skip this test** checkbox to skip the test case execution.

#### *Note:* This checkbox is not functional at this time.

# 🛄 Authoring Tip

May be reportable refers to age-related cases where the age criterion is missing. Without the age information, RCKMS cannot determine whether the case is reportable or not, so it returns a "May be Reportable" response with the reason included.

- 2. Add or edit Test Subject information.
  - a. Click the **Test Subject** tab. RCKMS displays the contents of the *Test Subject* tab.

TRCKMS Main Menu -	A Home	🗭 Help	About RCKMS		¢.
Test Cases					
Edit Test Case Details Test Subject Test Inputs Specify the subject's gender then select the test type to complete the date specifications.					
Gender Female (F)					
Test Type   Offset-Based  Date-Based  Age Offset  36y					
Run Test			Save Test Case	Apply	Close

- b. Click Gender and choose the gender you want. Options include male, female, and undifferentiated.
- c. Do one of the following:
  - 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.
  - Click the **Date-Based** radio button to enter birthdate and execution date information. You can click Date of **Birth** and type or choose the date you want. 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.

# **J** Authoring Tip

Offset-based: Allows you to enter an exact age for the test subject.

**Date-based:** Calculates the subject age based on the date of birth and the date the test case is executed.

- 3. Add or edit Test Inputs information.
  - a. Click the **Test Inputs** tab. RCKMS displays the contents of the *Test Inputs* tab. There are two types of test inputs: Criteria-based and file-based.
    - Criteria-based: Tests a specific criterion or multiple criteria that you authored in the reporting specification.
    - File-based: If you have a sample eICR with the information that you want to test, you can upload it using the file-based option.
  - b. To work with *criteria-based* test case inputs, do the following:
    - i. Click the Criteria radio button to specify the input source for the test case as criteriabased. RCKMS displays the criteria options in the Test Case Inputs section.

RCKMS	Main Menu 🗸	ft Home	Help 🚯 About	RCKMS 🐥 🌣 -
st Cases	p a la		-	
lit Test Ca	ise			
Details Test :	Subject Test Inputs			
	source for the test case (criteria or file), then either add the appropriate inputs from a criteria t a Test Source  © Criteria  © File	template or upload a file from your compu	iter containing the same infor	rmation.
Tes	st Case Inputs			
	Label 🕴	Criteria Type 🕼	Method 👫	
	Hepatitis C Infection (as a diagnosis or active problem)	TESTCASE	DIAGNOSIS	C î
	Label 🕇 Add Te	Criteria Type	Method	
Exp	ected Criteria			
	Label 🕼			
	Hepatitis C Virus Infection (as a diagnosis or active problem)		)	c 💼
	Label 🕇 Add Exp	pected Criteria		

- ii. Complete one of the following:
  - 1. To edit criteria-based test case input, click the *C* **Edit** icon for the criterion you want in the *Test Case Inputs* section. RCKMS displays the *Edit Criteria* window.
  - 2. 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.
- iii. Click Criteria Template and choose the option you want. RCKMS displays the Criteria Input options at the bottom of the window. The Criteria Template refers to the type of criteria you are intending to test (e.g., Diagnosis, Lab Test Results). Note that the Criteria Template options are read-only when editing existing criteria.
- iv. 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.
- v. Add or edit the *Criteria Input* information you want.
  - 1. 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.
  - 2. You can also type the name you want in the text box to display and choose the input information.
- vi. Click the **Save Test Case Input** button. RCKMS saves the criteria information and displays the *Test Case Inputs* section of the *Test Inputs* tab.
- c. To work with *file-based* test case input, do the following:
  - i. Click the **File** radio button to specify the input source for the test as file-based. RCKMS displays *Payload Type* options.

dit Test Ca	ase	
Details Test	Subject Test inputs	
Specify the input	source for the test case (criteria or file), then either add the appropriate inputs from a criteria template or upload a file from your comp	uter containing the same information.
Select	ta Test Source ◎ Criteria ⊛ File Payload Type ⊛ elCR ◎ vMR	
	Upload a File Choose File No file chosen	
	Select a file to upload from your computer.	
Exp	vected Criteria	
	Label	
	Hepatitis C Virus Infection (as a diagnosis or active problem)	C m
	Add Expected Criteria	
Run Test II.	Click the <b>eICR</b> radio button to work with an eICR file-base	•
_	Click the <b>vMR</b> radio button to work with a vMR file-basec Click the <b>Choose File</b> button and choose the file you	ed input.
ii. iii. iv.	Click the <b>vMR</b> radio button to work with a vMR file-based Click the <b>Choose File</b> button and choose the file you want to upload from your computer.	ed input. I input.
ii. iii. iv. d. O	Click the <b>vMR</b> radio button to work with a vMR file-based Click the <b>Choose File</b> button and choose the file you want to upload from your computer. ptionally, add or edit <i>Expected Criteria</i> information. The	ed input. I input. Authoring Tip For file options, we recommen
ii. iii. iv. d. O <i>E</i> >	Click the <b>vMR</b> radio button to work with a vMR file-based Click the <b>Choose File</b> button and choose the file you want to upload from your computer. ptionally, add or edit <i>Expected Criteria</i> information. The <i>spected Criteria</i> can be used to double check that the test	ed input. I input.
ii. iii. iv. d. O <i>E</i> >	Click the <b>vMR</b> radio button to work with a vMR file-based Click the <b>Choose File</b> button and choose the file you want to upload from your computer. ptionally, add or edit <i>Expected Criteria</i> information. The <i>spected Criteria</i> can be used to double check that the test ase passes based on the criteria that you expect.	ed input. I input. Descriptions and the second seco
ii. iii. iv. d. O <i>Ex</i> ca	Click the <b>vMR</b> radio button to work with a vMR file-based Click the <b>Choose File</b> button and choose the file you want to upload from your computer. ptionally, add or edit <i>Expected Criteria</i> information. The <i>spected Criteria</i> can be used to double check that the test ase passes based on the criteria that you expect. Do one of the following:	ed input. I input. Descriptions and the second seco
ii. iii. iv. d. O <i>Ex</i> ca	<ul> <li>Click the <b>vMR</b> radio button to work with a vMR file-based.</li> <li>Click the <b>Choose File</b> button and choose the file you want to upload from your computer.</li> <li>ptionally, add or edit <i>Expected Criteria</i> information. The <i>spected Criteria</i> can be used to double check that the test ase passes based on the criteria that you expect.</li> <li>Do one of the following:</li> <li>To edit expected criteria, click the Citeria icon for</li> </ul>	ed input. I input. Descriptions and the second seco
ii. iii. iv. d. O <i>Ex</i> ca	<ul> <li>Click the <b>vMR</b> radio button to work with a vMR file-based Click the <b>Choose File</b> button and choose the file you want to upload from your computer.</li> <li>ptionally, add or edit <i>Expected Criteria</i> information. The <i>spected Criteria</i> can be used to double check that the test ase passes based on the criteria that you expect.</li> <li>Do one of the following:</li> <li>To edit expected criteria, click the <b>Citeria</b> information for the criterion you want in the <i>Expected Criteria</i></li> </ul>	ed input. Input. Descriptions in the second
ii. iii. iv. d. O <i>Ex</i> ca	<ul> <li>Click the <b>vMR</b> radio button to work with a vMR file-based Click the <b>Choose File</b> button and choose the file you want to upload from your computer.</li> <li>ptionally, add or edit <i>Expected Criteria</i> information. The <i>expected Criteria</i> can be used to double check that the test ase passes based on the criteria that you expect.</li> <li>Do one of the following:</li> <li>To edit expected criteria, click the <b>C Edit</b> icon for the criterion you want in the <i>Expected Criteria</i> was section. RCKMS displays the <i>Edit Expected Criteria</i> was section.</li> </ul>	ed input. I input. Define the options, we recomment users test with eICR files. If your interesting in learning more ab testing tools, contact the RCKM at <u>RCKMS@cste.org</u> .
ii. iii. iv. d. O <i>Ex</i> ca	<ul> <li>Click the <b>vMR</b> radio button to work with a vMR file-based Click the <b>Choose File</b> button and choose the file you want to upload from your computer.</li> <li>ptionally, add or edit <i>Expected Criteria</i> information. The <i>spected Criteria</i> can be used to double check that the test ase passes based on the criteria that you expect.</li> <li>Do one of the following:</li> <li>To edit expected criteria, click the <b>Criteria</b> is for the criterion you want in the <i>Expected Criteria</i> section. RCKMS displays the <i>Edit Expected Criteria</i> w</li> <li>To add a new expected criterion, click the <b>New Expe</b></li> </ul>	ed input. I input. For file options, we recommen users test with eICR files. If you interesting in learning more ab testing tools, contact the RCKM at <u>RCKMS@cste.org</u> .
ii. iii. iv. d. O <i>Ex</i> ca i.	<ul> <li>Click the VMR radio button to work with a vMR file-based Click the Choose File button and choose the file you want to upload from your computer.</li> <li>ptionally, add or edit <i>Expected Criteria</i> information. The <i>expected Criteria</i> can be used to double check that the test ase passes based on the criteria that you expect.</li> <li>Do one of the following:</li> <li>To edit expected criteria, click the <b>Étit</b> icon for the criterion you want in the <i>Expected Criteria</i> section. RCKMS displays the <i>Edit Expected Criteria</i> w</li> <li>To add a new expected criterion, click the New Expected Criteria section. RCKMS displays the New Expected Criteria</li> </ul>	ed input. I input. For file options, we recommen users test with eICR files. If you interesting in learning more ab testing tools, contact the RCKM at <u>RCKMS@cste.org</u> .
ii. iii. iv. d. O <i>Ex</i> ca	<ul> <li>Click the VMR radio button to work with a vMR file-based Click the Choose File button and choose the file you want to upload from your computer.</li> <li>ptionally, add or edit <i>Expected Criteria</i> information. The <i>spected Criteria</i> can be used to double check that the test ase passes based on the criteria that you expect. Do one of the following:</li> <li>To edit expected criteria, click the <b>Citeria</b> icon for the criterion you want in the <i>Expected Criteria</i> section. RCKMS displays the <i>Edit Expected Criteria</i> w</li> <li>To add a new expected criterion, click the New Expected Criteria</li> </ul>	ed input. Input. Descriptions of the options, we recomment users test with eICR files. If you interesting in learning more ab testing tools, contact the RCKM at <u>RCKMS@cste.org</u> . indow. cted Criteria button in the <i>Expected Criteria</i> window.

# 5.2.1 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. You can hover your mouse over these options for more details. MR Im • 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 results display what you chose as the criteria expected to be reportable and the criteria that is found to actually be reportable:

- You indicate the *Expected Reportable* information using the *Condition Expected to be Reportable* options in the test case.
- The Actual Reportable information indicates if the test case resulted in a <u>determination of</u> <u>reportability</u>.

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 <u>PHA's</u> 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.
- 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. It may or may not match the criteria

The *Expected Criteria Met* and the *Actual Criteria Met* are informational only and do not affect the test result outcome.

*Expected to be met.* If the *expected and actual* do not match, then the reporting specifications should be examined to determine the reason for the mismatch and if the mismatch can be explained.

st Results				
est Results for TC_PER_C_001.1.1 Diagnos	is of - Pertussis (Disorders)			
Summary				
Reporter Type	Provider/Facility Reporting	Duration	4732.397828 ms	
Test Result	Passed			
Expected Reportable	Yes			
Actual Reportable	Ves			
Expected Reportable Condition	Pertussis (10190)			
Actual Reportable Conditions	Pertussis (10190)			
Expected Criteria Met	Pertussis (as diagnosis or active problem)			
Actual Criteria Met	Pertussis (as diagnosis or active problem)			
Jurisdiction Information				
Test Subject				
Test inputs				
Logs and Messages				
Links and References				
Input XML				

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	This specifies if the test case is 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 test case evaluation of actual reportability. 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	The reportable condition that was expected to be found. You indicate the
Condition	Expected Reportable Condition by selecting a condition under the Reporting
	Specification field in the test case.
Actual Reportable	The actual reportable condition met. It represents one or more conditions that
Condition	are found to be reportable based on running the test input through all of a PHA's
	reporting specifications.
Expected Criteria Met	The criteria that was expected to be met. The Expected Criteria Met does not
	affect the test result outcome. It is the criteria you expect to be met when the
	test case is run.
Actual Criteria Met	The actual criteria that is met. 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.
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.

The following table details the options on the *Test Results* window.

# 5.3 Testing Using the Shared Service Submission Tool

Similar to the file testing capability in the Test Case Manager tool, the Shared Service Submission Tool allows you to test reporting specifications with an input file. Keep in mind the following:

- When you run the Shared Service Submission Tool, 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, as determined by the routing information in the uploaded test file.
- A successful test case provides you with confirmation that the criteria and rules for a given reporter type provide the expected results.

• When a test case file is run using the Shared Service Submission Tool, it assesses the address information in the file to determine the jurisdiction whose rules should be run.

You can use the Shared Service Submission Tool to confirm the reporting criteria as Sufficient, Necessary, and Optional based on rules for the applicable 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 applicable reporter type. You can run the test cases to account for any jurisdiction-specific information contained in the uploaded file. The Shared Service Submission Tool:

# Authoring Tip

See <u>Section 3.1.2, Zip Codes</u> for additional details on how the match between eICR address fields and the zip codes associated with a jurisdiction are used to determine the jurisdictional rules to be run.

- Matches the patient address zip code in the eICR to zip codes associated with PHAs in RCKMS. If a match is found, that jurisdiction's rules are run. If no match is found, the patient address state code is used to do the match.
- Matches the facility address zip code in the eICR to zip codes associated with PHAs in RCKMS. If a match is found, that jurisdiction's rules are run. If no match is found, the facility address state code is used to do the match.
- If a condition is identified when the jurisdiction's rules are run, then the Shared Service Submission Tool checks the *Specifications Apply When* settings associated with the reporting specification for the condition.
  - If the patient's address was in the jurisdiction and *Specifications Apply When* setting was to report if the *Patient is a Resident of the Jurisdiction*, then the report would be sent to the jurisdiction.
  - If the facility address was in the jurisdiction and the *Specifications Apply When* setting was to report if *Care was Provided in the Jurisdiction*, then the report would be sent to the jurisdiction.

#### To run a test case using the Shared Service Submission Tool, perform the following steps:

1. Click **Main Menu** drop-down in the menu bar at the top of the page and choose **Shared Service Submission Tool**. RCKMS displays the *Shared Service Submission Tool* page.

vMR 🔍 elCR	
ubmission Time	
Jpload a File No file chosen	

- Select an Environment radio button and choose the environment you want. When testing an eICR for a reporting specification, you should always select the production environment.
- Select a Payload Type radio button and choose the type of file you will be uploading. RCKMS allows you to pick either vMR or eICR payload types. To evaluate an eICR, be sure to select the eICR payload type.
- Select the Submission Time you would like the file to be run through the Shared Service Submission Tool. RCKMS allows you to enter a date, but the file will still be run when you click Run Message.
- 5. Click the **Choose File** button to select a file to upload. RCKMS allows you to upload a vMR or eICR file. The file you upload should correspond to the Payload Type that you selected.
- 6. When finished, click the Run Message button. RCKMS displays the Shared Service Results page.

# 5.4 Shared Service Results

When you click **Run Message** in the Shared Service Submission Tool, RCKMS processes the message and displays the *Shared Service Results* page. There are three sections on the *Shared Service Results* page: *Input* section, *Response Details* section, and the *Jurisdiction Information* section. Each section is described in detail below.

# 5.4.1 Input Section

The *Input* section of the *Shared Service Results* page lists information about the Observation, Encounter, and Problem, which is pulled from the input file. A sample input is shown in the screenshot below, but the fields may vary depending on what is included in the input file.

There are buttons at the bottom of the section to download three files:

- CDS Input: The sample eICR used for testing
- **RCKMS Input:** Primarily used for internal testing by the RCKMS Team
- **RCKMS Output:** Contains the determination of reportability from RCKMS and is used to generate the <u>RR</u>. Most of this information is also displayed in the *Shared Service Results* window.

Shared Service Results	×
Input	
ObservationResult	
Event Time: low - 20140101 high - 20140101	
Observation Value Concept: Female - F - 2.16.840.1.113883.5.1	
Observation Focus: Sex Assigned At Birth - 76689-9 - 2.16.840.1.113883.6.1	
EncounterEvent	
Encounter Event Time: low - 20160104 high - 20160104	
Encounter Type: Office outpatient visit 15 minutes - 99213 - 2.16.840.1.113883.6.12	
Problem	
Problem Code: Whooping respiration (finding) - 60537006 - 2.16.840.1.113883.6.96	
Problem Status: active - 2.16.840.1.113883.3.1937.98.5.8	
Body Sites	
Problem Effective Time: low - 20160104 high - 20160104	
Download CDS Input Download RCKMS Input Download RCKMS Output	

# 📕 Authoring Tip

We recommend that users test with eICR files. If you are interested in learning more about vMR testing tools, contact the RCKMS Team at <u>RCKMS@cste.org</u>.

#### 5.4.2 Response Details Section

The Response Details section displays information about the message processing. Keep in mind the following:

- This section alerts you if the <u>DSS</u> ran successfully and which jurisdiction's reporting specifications were run.
- The Response Code is displayed and the value of "200" indicates the message was successfully processed. If you see any other code, you should open a ticket to get help from the <u>RCKMS</u> <u>Administrator</u>. The Request Date indicates the date the message was submitted to run.

Response Details	
Messages	<ul> <li>OpenCDS invocation ran successfully for knowledge module RCKMS^gov.cdc.rckms.ut^1.0.0.</li> <li>Service request completed successfully.</li> </ul>
Response Code	200
Request Date	2018-05-08Z

## 5.4.3 Jurisdiction Information Section

The *Jurisdiction Information* section has a summary area and five additional sections, which are described in more detail below:

- Reportable Conditions
- Logic Sets
- Criteria
- Links and References
- Output

In the summary area at the top of the *Jurisdiction Information* section, the following fields are displayed:

- Rules run for: Jurisdiction whose rules were run
- Service Response Code: A response code of "200" indicates that the message was successfully processed
- Message: Whether the test ran successfully, and for which jurisdiction
- Location Relevance: Identifies which address or addresses (patient and/or provider) matched to the jurisdiction
- Authoring Agency: Agency that authored the rules that were run. An Authoring Agency could have authored rules on behalf of another agency (e.g., a state authoring rules for a local agency).
- **Routing Entity:** Agency that receives the elCR and RR. This is defined during setup, on the *Edit Jurisdiction* page using the **Route elCR and Reportability Response to** field.

Jurisdiction Information	
Rules run for	Utah Department of Health (ut)
Service Response Code	200
Message	Jurisdiction request completed successfully for ut
Location Relevance	Both patient home address and provider facility address (RRVS7)
Authoring Agency	Utah Department of Health (ut)
Routing Entity	Utah Department of Health (ut)

#### 5.4.3.1 Reportable Conditions

The Reportable Conditions area lists:

- Condition Name: Name of the reportable condition
- Condition Code: SNOMED code for the reportable condition
- **NNC Number:** Nationally Notifiable Condition number. A unique five-digit numerical code assigned to each notifiable disease or condition. This field will be blank for conditions that are not nationally notifiable.
- **Reporting Time Frame:** Reporting time frame authored in the *Specifications* tab of the Reporting Specification
- Specification ID: Auto-generated ID for the authored Reporting Specification
- Reportable: Specifies whether the case was Reportable or May Be Reportable
- Responsible Agency: PHA to which reporting is legally required

Reportable Conditions	
Condition Name	Pertussis
Condition Code	27836007 - Pertussis (disorder) - 2.16.840.1.113883.6.96
NNC	10190
Reporting Time Frame	3 Day(s)
Specification ID	35aac448e5cb5bb3f3521920bb3ca694
Reportable	YES
Responsible Agency	Utah (ut)

### 5.4.3.2 Logic Sets

For the logic set that determined reportability for the condition listed in the Reportable Conditions area, the Logic Sets area lists:

- ID: Auto-generated ID for the applicable logic set
- Name: Name of the logic set that determined reportability
- **Reporter Type:** Reporter type for the logic set authored in the *Specifications* tab of the Reporting Specification

• **Reporting Time Frame:** Reporting time frame authored in the *Specifications* tab of the Reporting Specification

Logic Sets	
ID	d54b4914deb63b7729e29ec6f37f9b5e
Name	DX
Reporter Type	Provider/Facility Reporting
Reporting Time Frame	3 Day(s)

### 5.4.3.3 Criteria

For the criteria used to determine reportability of the condition listed in the Reportable Conditions area, the Criteria area lists:

- **Relationship ID:** Auto-generated ID for the relationship between the reportable condition and the criteria
- Criteria ID: Auto-generated ID for the criterion
- Name: Name of the criterion that determined reportability
- Criteria Type: Type (e.g., Clinical, Laboratory, Demographic) of criteria that determined reportability

<u>Criteria</u>	
Relationship ID	9ef2756b1dbec1bf14265966902c9222
Criteria ID	9ef2756b1dbec1bf14265966902c9222
Name	Pertussis (as diagnosis or active problem)
Criteria Type	Clinical

#### 5.4.3.4 Links and References

For the reporting specification for a condition, the Links and References area lists the following fields. The ID is an auto-generated field for the reference. All other fields are defined by the author in the <u>External References</u> tab of the Reporting Specification.

- ID
- Name
- Description
- URL
- Priority
- Category
- Excerpts of Internal and External References



External References are also included in the RR. The Name and Excerpt fields are for internal use only and will not appear in the RR. Multiple references are ordered by Category.

Links and References	
ID	eb5b50988fbb549de12430332a61dfd1
Name	CDC
Description	CDC Reference Guide for Pertussis
URL	http://www.cdc.gov/pertussis/
Priority	Information only
Category	Additional resources
Excerpt	Pertussis, also known as whooping cough, is a highly contagious respiratory disease. It is caused by the bacterium Bordetella pertussis. Pertussis is known for uncontrollable, violent coughing which often makes it hard to breathe. After fits of many coughs, someone with pertussis often needs to take deep breaths which result in a "whooping" sound. Pertussis can affect people of all ages, but can be very serious, even deadly, for babies less than a year old.

### 5.4.3.5 Output

The Output area shows more details about Observation Results, including:

- Logic Sets
- Criteria
- Diagnosis (if applicable)

<u>Output</u>	Download CDS Output			
Obser	rvationResult			
Event Time: low - 20151225000000.000+0000 high - 20151225000000.000+0000				
	Observation Value Concept: Female - F - 2.16.840.1.113883.5.1			
	Observation Focus: Sex Assi	gned At Birth - 76689-9 - 2.16.840.1.113883.6.1		
Obser	rvationResult			
		Sales - 159606005 - 2.16.840.1.113883.6.96		
	Observation Focus: Employr	nent detail - 364703007 - 2.16.840.1.113883.6.96		
Encou	unterEvent			
		20160104000000.000+0000 high - 20160104000000.000+0000		
	Encounter Type: Office outpatient visit 15 minutes - 99213 - 2.16.840.1.113883.6.12			
	ObservationResult			
_		H_DischargeDisposition_HL7_2x - 2.16.840.1.113883.3.1829.11.4.3.		
Encou	InterEvent			
		2016010400000.000+0000 high - 20160104000000.000+0000		
		atient visit 15 minutes - 99213 - 2.16.840.1.113883.6.12		
	Problem			
		avirus infection, unspecified - B34.2 - 2.16.840.1.113883.6.90		
		leted - 2.16.840.1.113883.3.1937.98.5.8		
	Body Sites	: low - 2016010400000.000+0000		
	0			
Problem Effective Time: low - 20160104000000.000+0000 high - 20160104000000.000+000				
	Rules run for	Georgia Department of Public Health (ga)		
	Service Response Code	200		
Message Jurisdiction request completed successfully fo		Jurisdiction request completed successfully for ga		
	Location Relevance Patient home address (RRVS5)			
	Authoring Agency Georgia Department of Public Health (ga)			
	Routing Entity	Georgia Department of Public Health (ga)		

It also displays a button that enables you to download the CDS Output, the vMR output from the DSS that gets transformed into the RCKMS Output.

Within the RCKMS Output, there is a field labeled Location Relevance. Location Relevance describes which location's rules (facility address, patient address, lab address) were used to determine that the case was reportable. Jurisdiction Administrators can set where they would like to receive reports from in the Condition Details tab. For more information, refer to <u>Section</u> <u>4.6, Reporting Specification Details</u> <u>tab</u>.

# 📃 Authoring Tip

We recommend downloading the CDS Output only if you are familiar with vMR files.

# 6 *Reports* Module



There are two reports currently available in <u>RCKMS</u> for viewing information related to <u>jurisdictions</u> and <u>reporting specifications</u>: The <u>Authoring Status report</u> and the <u>Condition</u> <u>Details report</u>. Review this section to learn about the information provided in each report and how to run the reports.

You can enter queries and generate reports using the *Reports* module. The *Reports* module provides a printable report or electronic file that contains information about the jurisdiction details and reporting specifications that were entered through the <u>Authoring Interface</u>.

The *Reports* module displays options for available reports. You can hover over the name of the report to see what the report includes. Clicking on a report allows you to enter queries, view the report, and export the report.

<b>RCKMS</b> Main Menu -	🕇 Home 🔎	Help	About RCKMS	\$	•
Reports	SY.				
	A				
Select a Report to Generate					
Authoring Status					
Condition Details					
					_

The Authoring Status report is a Jurisdiction Report containing:

- Public Health Agency Details
- Condition List
- Zip Codes
- Contact Information
- <u>Responsible Agency</u> by Condition
- External Links and References by Condition

The Condition Details report is available for both Default and Jurisdiction Reporting Specifications. It includes:

- Condition Details
- Reporting Specification Status
- Reporting Preferences
- Links and References
- Logic Set Details
- <u>Criteria</u> List
- Concept and Value Sets

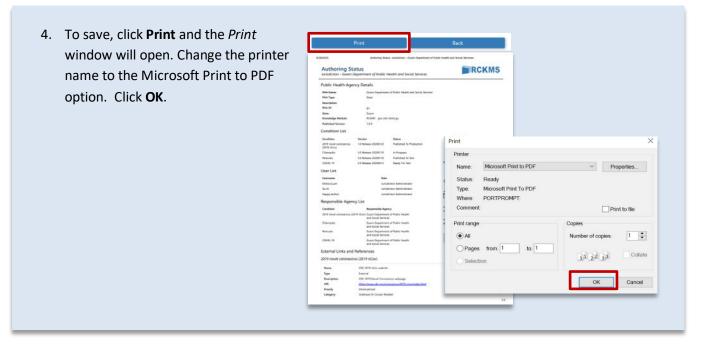
# 6.1 Authoring Status Report

The Authoring Status Report displays a summary output of all information related to your jurisdiction. You may want to run this report to see a summary of the conditions your jurisdiction is authoring and their status, users in your jurisdiction, jurisdiction contact information, and <u>External References</u> for each condition.

## To run the Authoring Status report, perform the following steps:

- 1. Access the *Reports* module by doing one of the following:
  - Click **Reports** in the left navigation menu on the *Home* page. RCKMS displays the *Reports* page.
  - Click the **Main Menu** drop-down at the top of the page and choose Reports. RCKMS displays the *Reports* page.
- 2. Click the Authoring Status button. The report will run automatically for your jurisdiction.

Authoring S	Select a Report to Generate Authoring Status Condition Details		
3. Click the <b>Export</b> <b>Report</b> button to generate a document that can be printed or saved as a PDF.	Reports Selected Report Type: Authoring Status California Department of Public. X V California Department of Public Health Back Export	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	Heip O About RCKMS



# 6.2 Condition Details Report

The Condition Details Report displays a detailed output of the reporting specification for the jurisdiction and condition you select, and listings of the <u>Sufficient</u>, <u>Necessary</u>, and <u>Optional</u> reporting rules. You may run this report for the default or for any jurisdiction that has authored in RCKMS. This report is useful for:

- Reviewing the default reporting specification
- Seeing a summary of your jurisdiction's reporting specifications
- Viewing how other jurisdictions have authored conditions

To run the Condition Details report, perform the following steps:
Access the *Reports* module by doing one of the following:

Click Reports in the left navigation menu on the *Home* page. RCKMS displays the *Reports* page.
Click the Main Menu drop-down at the top of the page and choose Reports. RCKMS displays the *Reports* page.

Click the Conditions Details button.

Selected Report Type: Condition Details

Alabama Department of Public Health

American Samoa Arizona Department of Health Services Arkansas Department of Health

Back Next

A Home

Alaska Department of Health and Social Services

Default

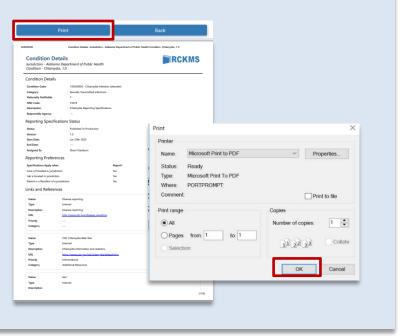
- 3. Select the jurisdiction whose reporting specification you want to view and then click Next. You can also select "Default" to view the default reporting specification for all conditions available for authoring.
- 4. Select a condition from the drop-down list. The list will include only specifications that a jurisdiction has imported for authoring. The report will automatically be generated when you select a condition.

RCKMS Main Menu -

5. Click the **Export Report** button to generate a document that can be printed or saved as a PDF.



6. To save, click **Print** and the *Print* window will open. Change the printer name to the Microsoft Print to PDF option. Click OK.



# Glossary

# **APHL Informatics Messaging Service (AIMS)**

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

## Association of Public Health Laboratories (APHL)

An organization that works to strengthen laboratory systems serving the public's health in the United States and globally. APHL represents state and local governmental health laboratories in the United States. Its members, known as "public health laboratories," monitor, detect, and respond to health threats.

## Authoring Interface

The centralized web portal that PHAs use to input, edit, and manage reporting criteria for their jurisdiction. The Authoring Interface comes pre-populated with default reporting specifications based on CSTE position statements as is designed to meet HL7 standards. Each PHA can either use the default content as-is or customize it to meet their needs.

## Authoring Status Report

The Authoring Status Report displays a summary output of all information related to your jurisdiction. This generates a Jurisdiction Report that includes PHA details, condition list, zip codes, contact information, user list, responsible agency by condition, and external links and references by condition.

### **Condition Details Report**

The Condition Details Report displays detailed output of the reporting specification for the jurisdiction and condition you select, and listings of the Sufficient, Necessary, and Optional reporting rules. You may run this report for the default or for any jurisdiction that has authored in RCKMS. The Condition Details Report also generates reporting specification status, reporting preferences, links and references, logic set details, criteria list, and concept and value sets.

### **Content Repository**

A collection of condition-specific reference materials for the conditions you may be authoring. The Content Repository includes default reporting specifications, Value Sets, and the RCTC.

# Council of State and Territorial Epidemiologists (CSTE)

A nonprofit 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, and maternal and child health.

### Criteria

The narrative descriptions that determine 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.

### **Criteria Templates**

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

## **Decision Support Service (DSS)**

A service linked to provider EHR systems that is used to conduct a 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 <u>RR</u>.

## **Default Content**

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

## **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 DSS.

# Electronic Case Reporting (eCR)

The electronic transmission of case reports from providers' EHR systems to Public Health.

### **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 person's 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 PHAs 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 RCTCs. 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 RCKMS and also allows PHAs to communicate the reportability of a condition back to clinical care personnel through the RR.

### **External Reference**

Information, such as text, links to websites, documents, and other modes of information that the PHA makes available to reporters.

#### **Internal Reference**

Information, such as text, links to websites, documents, and other modes of information for use by the PHA.

#### Jurisdiction

The physical location bounding the PHA's area of responsibility.

#### **Jurisdiction Administrator**

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

#### **Jurisdictions Module**

The RCKMS application pages displaying detailed information about your jurisdiction, including the PHA details, status of the supported conditions and reporting specifications, as well as zip codes and users.

#### **Knowledge Repository**

A database containing all the data related to reporting specifications, both the default content, and any customizations made by a PHA. When a PHA authors in the Authoring Interface, those data are stored here to be deployed to the DSS.

#### 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 criterion by itself qualifies the case for reporting, where "N" indicates necessary and "O" is optional.

#### May be Reportable

May be reportable refers to age-related cases where the age criterion is missing. Without the age information, RCKMS cannot determine whether or not the case is reportable, so it returns a "May be Reportable" response with the reason included.

#### 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 criterion 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

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* criterion is needed. *Optional* criteria must be paired with at least one *Necessary* criterion to meet the requirement for reporting. For example, criterion 1 is *Necessary* and criteria 2 and 3 are *Optional*. If criterion 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.

### **Position Statements**

The narrative descriptions published by CSTE used as the source for the RCKMS default reporting specifications. The CSTE Position Statements' Section VI-A narratives and Table VI 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 criterion by itself qualifies the case for reporting, where "N" indicates necessary and "O" is optional.

#### **Production Environment**

Use the production environment to author jurisdiction-specific reporting rules for conditions, test those rules, and publish them for eCR production use. The information published in the production environment populates the Knowledge Repository and, therefore, must reflect your PHA's reporting rules.

#### Public Health Agency (PHA)

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

#### Publish

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

#### **RCKMS Administrator**

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

### **Reportability Response (RR)**

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

### Reportable Conditions Knowledge 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 eCR. The RCKMS application has three main parts: the Authoring Interface, the Knowledge Repository, and the DSS.

### Reportable Conditions Trigger Codes (RCTC)

Codes implemented in the EHR system to match against encounter information and initiate an eICR. See <u>Trigger Codes</u>.

### **Reporting Criteria**

The narrative descriptions that determine whether a case should be reported to Public Health, which serve as the source for the RCKMS default reporting specifications. Reporting criteria are based on the CSTE Position Statements' Section VI-A narratives and Table VI 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.

#### **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 Section VI-A narratives and Table VI and any jurisdiction-specific criteria. Reporting specifications describe the details of reporting a condition to a jurisdiction and include all criteria, Value Sets, logic sets, and rules logic that specify when an RR 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 Specifications* 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 time frame information and indicate criteria are Sufficient, Necessary, or Optional; add and edit supporting text, links to web sites, and other documents; delete reporting specifications; save changes to reporting specifications; and publish reporting specifications.

#### **Reports Module**

The RCKMS application pages that provide a printable report or electronic file that contains information about the jurisdiction details and reporting specifications that were entered through the Authoring interface.

#### **Responsible Agency**

The description of the PHA to which reporting is legally required.

#### **Routing Entity**

The PHA that receives the eICR and RR. The routing entity is defined when you set up your PHA details on the *Edit Jurisdiction* page using the "Route eICR and Reportability Response to" field.

#### **Rules Authoring Agency**

The PHA that enters the reporting rules into RCKMS. An authoring agency could author rules on behalf of another agency (e.g., a state authoring rules for a local agency).

### **Rules Logic**

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

#### S, N, O Notation

Used in combination with reporting criteria, S, N, O notations are 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.

### Standard Codes

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

## 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 criterion 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.

### 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 authored 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 Cases 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.

#### **Training Environment**

Use the training environment of the RCKMS Authoring Interface to familiarize yourself with the tool and the authoring process, as well as learn how to use the newest RCKMS features.

### **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 <u>Standard Codes</u>; <u>Value Set</u>.

### 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 <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>)

### Virtual Medical Record (vMR)

A simplified, standardized EHR data model sponsored by HL7 and designed to support interfacing to clinical decision support (CDS) systems. vMR is compatible with Service-oriented Architecture (SOA) of CDS.

### XML

Extensible Markup Language (XML) is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.