Technical Presentation

RxCHECK HUB

CDC/BJA RxCheck Hub Webinar
April 22, 2019
Presenters

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Department of Health
State of Washington

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IJIS Institute
Webinar Objectives

- RxCheck Hub Overview
- RxCheck Hub Technical Functionality
- Washington State Live Demo
  - Administrator’s Console
  - Auditing Capabilities
- Process for Connecting to RxCheck
  - MOUs
  - Software
  - Timelines
- Questions
What is the RxCheck Hub?

RxCheck is a fully operational hub that enables states to securely and efficiently share PDMP data.

RxCheck was developed with support from the U.S. Bureau of Justice Assistance (BJA), using the Prescription Monitoring Information Exchange (PMIX) National Architecture specifications.

RxCheck was designed with the involvement of state PDMP administrators, private industry, and the federal government.

The RxCheck system infrastructure has been tested and validated, and includes the latest design improvements to meet the needs of the state PDMPs.
RxCheck Governance Board

Alabama  California  New York  Wisconsin
Florida  Illinois  North Carolina  Wyoming
Kentucky  Maine  Oklahoma  Wisconsin
Maryland  Massachusetts  Pennsylvania  Wyoming
Massachusetts  Oklahoma  Utah  West Virginia
Utah  Vermont  Washington  Wyoming
Background

• Over the past year, BJA, in conjunction with the CDC and the RxCheck Governance Board, has been working with the IJIS team (Tetrus) to implement an interoperable infrastructure that enables states and authorized users to share prescription information.

• A number of pilot states and some EHR systems have been connected and those connections have been tested.
PDMP Infrastructure Architecture

Technical Architecture for PDMP Hub

Azure Government Cloud

RxCheck Hub
RxCheck Console

Sending State

State PDMP System
HIE / EHR Systems

NIEM Document
NCPDP Ver 10.6

State Service

Receiving State

State PDMP System
HIE / EHR Systems

NIEM Document
NCPDP Ver 10.6

State Service

Supports SOAP and RESTful Service Interface
Translation Done within the SRS Service
Process Flow for Connection to RxCheck Hub

1. Initiate Connection Activity
2. Conduct Initial Discovery Call with State
3. Identify and Finalize Implementation Strategy and Timelines
4. Conduct Implementation Activities
5. Test Connection to Test Environment
6. Move to Production Environment
Roles and Responsibilities

**IJIS/Tetrus responsibilities**
- IJIS/Tetrus will provide the State Routing Service (SRS) software with installation instructions
- IJIS/Tetrus will assist the State and/or the states vendor with installation and testing

**State responsibilities**
- Provide space for implementing the SRS software
- Install the software with help from the IJIS/Tetrus team
- Ensure that the firewall and other rules are configured to enable incoming and outgoing traffic
- Make any modifications required to connect its PDMP system to the SRS software
- Monitor the test to identify and resolve any issues that may arise
- Initially connect to the RxCheck Test Environment to ensure that the end-to-end connection is working correctly
- Monitor the migration to identify and resolve any issues
- Migrate to the RxCheck Production Environment once the end-to-end test is successful
RxCheck Hub Capabilities

Version 2.0

- Integration with HIE / EHR
- Auditing: requestor/submitter; date and time
- RxConsole supporting a central PKI database to manage public certificates
- Added security layer to access the SRS configuration by introducing API Key
- Ability for state to create and manage healthcare provider accounts operating within their state
- Notification framework
  - Resetting password onsite
  - Real-time notifications if site is down
- Java-based State Routing Service that can be deployed on multiple platforms
- Translation service built into Outbound SRS to transform NCPDP payload to NIEM
Integrated Data Sharing

- Owensboro Health and the Kentucky All Schedule Prescription Electronic Reporting (KASPER) system
- NCPDP Script v10.6
- Prescriber Workflow Integration
Query Triggering Events

• Daily job runs at 12:30am to trigger query for all scheduled patients for that same day
• When a patient is Checked In for an appointment scheduled and seen the same day
• When Telephone/Orders Only/Refill encounters are created/initiated
• When a hospital encounter is created (when a patient is admitted)
Washington State Demo
Hub Console
Screen Shots
### AUDIT EVENT LOGS

The image displays a web interface for viewing audit event logs. The interface includes a table with columns for `Id`, `Requesting Site`, `Disclosing Site`, `Requestor`, `Role`, `Request Datetime`, `Response Datetime`, and `Response Status`. The table contains data such as:

- **Requesting Site**: KY_OHI
- **Disclosing Site**: KY
- **Requestor**: John Walker, Daniel Warburton, Marshall Prunty, Corey Johnson, Francis Dufrayne
- **Role**: Physicians
- **Dates**: Various dates ranging from 03/20/2019 to 04/20/2019
- **Status**: Not Found, Provided

The interface also includes options for selecting site codes and date ranges, and buttons for filtering and exporting data.
<table>
<thead>
<tr>
<th>Taxonomy Code</th>
<th>Description</th>
<th>PMIX Role</th>
</tr>
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<tbody>
<tr>
<td>367H00000X</td>
<td>Anesthesiology Assistant</td>
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<tr>
<td>367A00000X</td>
<td>Certified Nurse Midwife</td>
<td></td>
</tr>
<tr>
<td>367S00000X</td>
<td>Certified Registered Nurse Anesthetist (CRNA)</td>
<td></td>
</tr>
<tr>
<td>3645X0204X</td>
<td>Certified Clinical Nurse Specialist</td>
<td>Advanced Practice RNs</td>
</tr>
<tr>
<td>3645X0200X</td>
<td>Certified Clinical Nurse Specialist</td>
<td>Advanced Practice RNs</td>
</tr>
<tr>
<td>3645X0106X</td>
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<td>Advanced Practice RNs</td>
</tr>
<tr>
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<td>Advanced Practice RNs</td>
</tr>
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<td>Advanced Practice RNs</td>
</tr>
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<td>Advanced Practice RNs</td>
</tr>
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<td>Advanced Practice RNs</td>
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</table>
PDMP MAINTENANCE
# Role Authorization for Sites

## Authorized roles for sites

**Connecticut - CT**

<table>
<thead>
<tr>
<th>Authorized Roles</th>
<th>Selected Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Practice RNs</td>
<td>Physicians</td>
</tr>
<tr>
<td>Physician Assistants</td>
<td>Prescribing Pharmacists</td>
</tr>
<tr>
<td>Dentists</td>
<td>Other Prescribers</td>
</tr>
<tr>
<td>Optometrists</td>
<td>Pharmacists</td>
</tr>
<tr>
<td>Psychologists</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>Naturopaths</td>
<td>Prescriber Delegates - Licensed</td>
</tr>
<tr>
<td>Homeopaths</td>
<td>Prescriber Delegates - Unlicensed</td>
</tr>
<tr>
<td>Veterinarians</td>
<td>Dispenser Delegates - Licensed</td>
</tr>
<tr>
<td>Interns</td>
<td>Dispenser Delegates - Unlicensed</td>
</tr>
<tr>
<td>Substance Abuse/Mental Health Professional</td>
<td></td>
</tr>
<tr>
<td>Other Non-Prescribers</td>
<td></td>
</tr>
<tr>
<td>Residents</td>
<td></td>
</tr>
</tbody>
</table>
### Authorized Sites

<table>
<thead>
<tr>
<th>Available Sites</th>
<th>Selected Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL - LL</td>
<td>Test Site TT - TT</td>
</tr>
<tr>
<td>Nevada - NV</td>
<td>Test Site RG - RG</td>
</tr>
<tr>
<td>Oklahoma - OK</td>
<td>Kentucky - KY</td>
</tr>
<tr>
<td></td>
<td>Illinois - IL</td>
</tr>
<tr>
<td></td>
<td>Test Site KK - KK</td>
</tr>
<tr>
<td></td>
<td>Utah - UT</td>
</tr>
<tr>
<td></td>
<td>Florida - FL</td>
</tr>
<tr>
<td></td>
<td>Washington - WA</td>
</tr>
<tr>
<td></td>
<td>Maryland - MD</td>
</tr>
<tr>
<td></td>
<td>Alabama - AL</td>
</tr>
<tr>
<td></td>
<td>Connecticut - CT</td>
</tr>
<tr>
<td></td>
<td>Wisconsin - WI</td>
</tr>
</tbody>
</table>

### Authorized Sub Sites

<table>
<thead>
<tr>
<th>Available Sub Sites</th>
<th>Selected Sub Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>test - GG_TES</td>
<td>Tetrus Health - GG_THL</td>
</tr>
</tbody>
</table>
SRS Configuration

Site Configuration

1. Site Unique Identifier / Description
2. SRS Outbound Sender Endpoint
3. RxCheck Hub Service Host Endpoint
4. SRS Inbound Sender Endpoint
5. Site PDMP Application Endpoint
6. SRS Certificate
Connecting to RxCheck
Where do I start?

A website serves as your “one stop shop” to support connecting to the RxCheck hub.

The URL is: https://coapresources.org/pdmp/RxCheck

On the site you can:
- Access all the FAQs
- Access all documents and technical specifications needed to connect
- Schedule and attend webinars or access recordings of webinars
- Schedule time to speak with the IJIS staff one-on-one
Resources including requesting TTA, registering for webinars, viewing FAQs, and more are available at
https://www.coapresources.org/PDMP/RxCheck
TTA Requests

The fields and the process marked with the * are required.

Agency*

Alabama Department of Public Health

Name*

Name

Title*

Title

Email*

Email

Phone Number*

Phone Number

TTA Type*

BJA Policy Question

Description of TTA Request*
# MILESTONES FOR CONNECTION

## TIME TO COMPLETE

| #1 | Download [MOU, SRS Installation and Configuration Documentation, Technical Specification, SRS Stable, SRS Patches, and SRS Development Build (beta)](http://example.com) | Immediate |
| #2 | Initiate internal processes for completing & authorizing MOU; Return signed MOU to [IJIS Institute](http://example.com) | Specific to State’s internal processes |
| #3 | Complete [pre-installation checklist](http://example.com); Return to the [IJIS Institute](http://example.com) | 2 Hours |
| #4 | Submit a request using the [PDMP TTA Request Form](http://example.com) for the RxCheck Console account set up. | 2 – hours |
| #5 | Begin internal network preparation as prescribed by the documentation. Begin implementing SOAP based service based on [SIP_WS_1.2_Trusted WSDL](http://example.com). | 2 – 6 Weeks |
| #6 | Submit a request using the [PDMP TTA Request Form](http://example.com) for install application and SRS configuration on the RxCheck console. | 2 Hours |
| #7 | Submit a request in the [PDMP TTA Request Form](http://example.com) to initiate Inbound & Outbound Testing. | 3 Hours |
| #8 | Connect State | |
Frequently Asked Questions (FAQs)

• Does the RxCheck hub or BJA/DOJ have access to my state’s data at any point in the transmission of data?
  – The RxCheck hub and, by extension, DOJ does not have access to your state’s data. Neither does the IJIS Institute. Each state maintains ownership and complete control over access to its PDMP data at each step of the process. Data is encrypted using x509 digital certificates to sign and encrypt messages. The message is encrypted at the source network before the message is submitted to the RxCheck hub. Only the receiving PDMP can decrypt the message.
Frequently Asked Questions (FAQs)

• What type of security audits does RxCheck complete, and how are those results made available?
  – There is an existing proposal to do an SOC2 compliance audit. The results will be made available to all states connected to RxCheck Hub

• What real-time audit trail functionality is available through RxCheck? Does it show what the requester accessed?
  – RxConsole provides authorized state administrators with real-time auditing capabilities to identify the requesting entity and the time of request. Since all data that passes through RxCheck Hub is encrypted, RxCheck cannot provide details on what was requested

• What available reports does RxCheck have?
  – The audit logs are available on RxConsole. Administrators can access these logs and export them as Excel documents
Frequently Asked Questions

• What level of load testing has been done on RxCheck? Any idea of the volume it is capable of handling?
  – The current RxCheck Hub version has been verified to support 120 transactions per second, with response latency of 2 seconds from PDMP application

• How does my state control which states can request its data or with which it shares data?
  – RxConsole provides authorized state administrators with the ability to control which states and which roles can request data
Questions
Grant Questions

CDC FAQs: https://www.cdc.gov/drugoverdose/pdf/CDC_OD2A_AwardConditionsFAQs_032819.pdf

CDC Email: overdosedata2action@cdc.gov

BJA FAQs: https://www.coapresources.org/PDMP/RxCheck

BJA Email: tara.kunkel@usdoj.gov
Contact Information

Email: rxcheckhub@pdmpassist.org
Website: https://www.coapresources.org/PDMP/RxCheck

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