Training Guidance

Advancing PDMP-EHR Integration Project

PDMP-EHR Integration Toolkit

CDC

ONC
Office of the National Coordinator for Health Information Technology

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The PDMP-EHR Integration Toolkit was developed based on lessons learned by the Accenture team through collaborations with PDMP-EHR integration technical demonstration sites and Clinical Decision Support Proofs-of-Concept sites that participated in the Advancing PDMP-EHR Integration Project from 2018 - 2021. The PDMP-EHR Integration Toolkit is supplemented by the Integration Framework.

The findings and conclusions in this document are those of the authors and do not necessarily represent the official position of, the Centers for Disease Control and Prevention/the Agency for Toxic Substances and Disease Registry, the Office of the National Coordinator for Health Information Technology, or the other organizations involved, nor does the mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

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Purpose

The Training Guidance translates learnings from the Office of the National Coordinator for Health Information Technology/Centers for Disease Control and Prevention (ONC/CDC) Advancing Prescription Drug Monitoring Program – Electronic Health Record (PDMP-EHR) Integration Project into general training and end-user adoption tips for health care systems undergoing PDMP-EHR integration. The primary audience for this document is health care system project teams tasked with implementing PDMP-EHR integration. This document offers guidance for effective and efficient end-user adoption, communication, and training methods.

This document was developed to address questions commonly raised during the ONC/CDC Advancing PDMP-EHR Integration Project and is one of several documents within the PDMP-EHR Integration Toolkit created under the project.

Introduction

This document provides training and user adoption guidance collected from the health care system participants in the Advancing PDMP-EHR Integration Project. These insights are broadly applicable to health care systems of all sizes and practice settings.

Successful implementation of PDMP-EHR integration must account for the people, processes, and technology impacts of the new functionalities on end users.

Access to integrated PDMP data within the EHR introduces changes to existing clinical workflows for many health care systems. These workflow changes are often considered more efficient and intuitive than previous workflows that required logging into the state PDMP portal or reviewing printed reports. However, any change can be disruptive. Therefore, health care system administrators should proactively train and support their personnel to ease the transition.

Training plans should consider the health care system's size, range of services, and clinician workload. Planning training logistics in advance and sending targeted communications will help to maximize user participation in training and integration adoption. Even if the new features are intuitive and straightforward, training and communications on the changes will help ensure that clinicians understand how to use the integrated reports. Training offers the end users an opportunity to raise questions or provide feedback, increasing the likelihood of using the features correctly. Conducted in collaboration with the state PDMP, integration training also offers health care systems an opportunity to review any applicable state PDMP mandates with clinicians.

This Training Guidance contains suggestions on practices that can promote user adoption and a suggested training methodology. The training methodology is broken down into component pieces, starting by identifying the training audience and ending with the coordination of a training feedback mechanism. The Appendices contain a training template providing content suggestions and examples.

Enact Adoption Initiatives

Identify Integration Champions

Health care systems are encouraged to identify and appoint Champions who provide support for the integration's end users and promote facility-wide adoption. A Champion's primary role is to facilitate the project alongside their colleagues to achieve buy-in. A Champion should not provide technical support but rather generate enthusiasm for the integration and advocate for the integration's goals on a part-time, as-needed basis. If relevant, health care systems may request that the Champion participate in key meetings throughout the integration's planning and training phases.

As a liaison between the project team and integration end users, a Champion can report feedback to the project team and technical staff. Champions may also be involved in the integration roll-out and communications. Physicians engaged in integration implementation or technology-savvy physicians will likely be early adopters and, therefore, good Champions.

Characteristics of a strong integration Champion include:

Figure 1. Key Characteristics of an Integration Champion

It is important to note that Champions may have concerns about the integration's impacts, but they should be receptive to identifying solutions with the project team.

Integration Champions may include, but are not limited to:

- A health care system's CMO
- An IT or pharmacy department lead
- Physician Informaticists
- Tech-savvy physicians
- Clinicians interested in reducing workflow burden

Collaborate with the State PDMP and Vendors

Establishing a strong relationship with your state PDMP is valuable in facilitating end-user adoption. The state PDMP is cognizant of state PDMP legislation and is a knowledgeable resource for integration. They may have pre-existing materials prepared for integration information sessions and could support health care system training. If the state PDMP agrees to join the training effort at your facility, it would be beneficial for them to answer end-user questions on prescribing rules and compliance with state legislation. They can either participate in or lead PDMP information sessions and training at your facility. Throughout this process, communicate with your state PDMP to enable knowledge and resource sharing. This can potentially eliminate the need to create new materials and helps to harness strong practices from previous integrations within the state.

Training materials can include both the PDMP and health care system branding to denote the partnership to end users. Also, consider collaborating with your state PDMP to facilitate a clinician continuing education (CE) credit course to incentivize adoption. Incorporating state PDMP regulations into training materials can help to maintain or increase compliance with those regulations.

Note, consider contacting the EHR vendor and/or integration vendor at this phase. Like the state PDMP, vendors may possess pre-existing training materials, such as demonstration videos or job aids, which will simplify your facility's training implementation.

Develop Training Plan

Identifying the Training Audience

Several groups will be impacted by the integration and should receive training on the new functionality. These groups may include:

- Physicians
- Other prescribing clinicians, as determined by state law (Physician's Assistants, Nurse Practitioners, etc.)
- Delegates (for applicable states)
- Information Technology staff
- Technical support staff
- Practice managers
- Internal training staff
- Project administrators

Each health care system should consider who will be impacted by their respective integration. Note, the health care system's Information Technology department is critical to the integration's development, testing, and maintenance phases.

After compiling a list of impacted groups, project teams should discuss the following questions. The answers will inform the training's content and may help determine the appropriate training delivery method.

- Are they already familiar with the state PDMP web portal?
- Do they use it frequently or infrequently?
- Are they already registered with the PDMP?
- Are they familiar with the policies for PDMP report usage applicable in your state/health care system?
- What level of change will they experience?
- Do they have previous experiences with similar changes? If so, were they positive or negative? Why?
- How does the integration benefit each group? The benefits of improved patient care and reducing clinician burden should be key themes conveyed throughout communications with clinical user groups.
- Are there any financial or non-financial costs to particular groups? If so, address them in communications with this group. Ideally, communication should highlight how the benefits outweigh the costs.

    - For example, though this integration requires workflow enhancements and therefore presents a learning curve, the speed and simplicity of the integrated workflow will produce long-term efficiencies.
- Delegates may not have the ability to access patient prescription histories in the integrated EHR (depending on state and system authorizations for integrated report access). Delegates may have accessed the reports on the web portal in the past on behalf of clinicians, but that is often not allowed within the EHR. This change may cause confusion for both delegates and clinicians.
- Health care systems should highlight the benefits of this streamlined workflow. For example, the integration enables time savings for both clinicians and delegates by allowing clinicians direct access to the report within the EHR.
    - Specify which functionalities remain and are replaced by the integration (i.e., reassure user groups that they will not lose previously existing functionality, such as access to the web portal, if applicable).

Identifying an Appropriate Training Delivery Method

Training can be implemented through several delivery methods. Health care systems should choose the most efficient method based on the health care system's size and range of services. Different communication mechanisms should be used depending on the audience and messaging content. Consider the following questions when determining an ideal training delivery method.

- Will your audience be likely to read an email or a printed document? Or would they be more likely to absorb updates shared verbally via instructor-led training?
- How will training best be provided to accommodate clinician schedules?
- If you plan to roll out the training communication via email, do you have a clear list of who should receive it to ensure all users receive correspondence?
- Do your state regulations or PDMP require or suggest that a certain type of training be delivered to the users?

After considering these questions, explore training delivery modes. Some ideas include:

- An educational website that contains a video demonstration of the integration, job aids, and a FAQ section.
- A video
    - A recorded demonstration of how to access and use the integrated PDMP report within the EHR
    - A dialogue between clinicians explaining the integration and how to use it
- Tip Sheets
    - Email this document and/or hang them in commonly used areas around the health care system or use them as a conversation starter in meetings.
- In-person information sessions/webinars (live or pre-recorded)
    - These are best accompanied by a visual or demonstration so people can see where they will access the integration and what it will look like.
    - Give clinicians a handout to revisit on their own if needed, such as a tip sheet.

    - It would be helpful to have a PDMP representative there to answer questions regarding the PDMP.
- Interactive online training modules
    - This may include an interactive activity, a series of videos, quiz questions, etc.
    - Consider offering clinicians incentives to participate, such as Continuing Education credits.
    - Coordinate with the state PDMP and health care system to co-create the training modules.

These methods can be combined depending on clinicians' needs. Refer to Appendix B for further information on developing training documents.

Establish Training Outreach Strategy

Health care systems are encouraged to consider their training audience's workload and communication preferences when determining the timing and frequency of training messaging and implementation. The following suggestions address establishing an ideal communications and training cadence for end users:

- Do not surprise clinicians with the new integration. Announce the implementation and disseminate correspondence with ample time before Go-Live to give clinicians a chance to prepare.
- Large health care systems should send a training announcement email and initiate a Go-Live communications campaign as a practical way to emphasize the purpose of integration while providing training tips and Go-Live reminders.
    - At a minimum, this campaign should encompass a Go-Live reminder schedule, pertinent messaging mediums, scenario-based messaging (e.g., actual go-live dates and go-live delays), and who will disseminate the Go-Live correspondence. Identifying relevant supplementary information to accompany the Go-Live messaging (e.g., post-integration job aids) is also a strong practice.
- Streamline communication methods to ensure timely and productive engagement.
    - Target information to each audience's needs at a given point in the project.
    - Communicate with clinicians via a medium they use most often. If they do not check their email frequently, try communicating messages through an internal messaging portal to avoid email overload.
    - Look for opportunities to integrate project communication into existing communication channels such as newsletters or standing staff meetings. This allows the embedding of messages into the fabric of everyday work life.
- Offer clinicians ample lead time for requested actions. For example, if possible, distribute announcements and invitations at least two weeks prior to training.

Health care systems may want to share information on the upcoming integration with end users in meetings preceding training sessions. These meetings can serve as an early introduction to the integration and allow impacted groups to mentally prepare for the change rather than react to the change. Early notifications encourage adoption among end users. Repurposing previously established clinician meetings is an efficient way to host these information sessions.

Note: It is important to keep a record of the clinicians who received training and those who have not to ensure proper adoption, use of the integration, and legal compliance with state policies.

Create Training Content

When development training materials, tailor the content to end-user needs. Training should encompass workflow changes and new integration functionalities, and provide guidance on common issues, questions, or potential user concerns. Training materials should provide detailed guidance for any aspects of the integration that are significant changes from the existing workflow. Training also provides an opportunity to address compliance concerns and PDMP use requirements. For a training document sample template, please refer to Appendix B, which contains examples from previously integrated health care systems in partnership with their respective state PDMPs.

Topics to consider addressing within training materials includes:

- The purpose of PDMP-EHR integration and why it is beneficial
- The audience's role in the integration
- The impact of the integrated features on the existing workflow
- Explanations of when and how to access the PDMP web portal
- Data that can be accessed, e.g., state and interstate data
- Authorized users, including delegates
- Expectations for use
- Screenshots and explanations of how and where the integration will appear in the EHR
- Potential error/warning messages and how to respond to or address them
- Plans for "Go-Live"
- Explanation of what reports are generated related to clinician use of the PDMP
- Feedback protocols for design considerations
- Frequently Asked Questions (FAQ) section for anticipated questions and clinician concerns
- State PDMP and vendor content recommendations
- Resources where users can learn more about EHR-PDMP integration
    - ONC has published a webpage on PDMP-EHR integration with reports demonstrating the impact of integration in numerous health care systems

Coordinate a Feedback Mechanism

Health care systems should establish a single point of contact (a person or an office) to oversee clinician feedback and inquiries before Go-Live. This point of contact should administer user feedback surveys and answer inquiries (calls or emails) regarding the PDMP-EHR integration. For inquiries, provide a telephone number or email address that routes to a help desk, IT Director, integration project manager or champion, your health care system's CTO, or a liaison at the state PDMP.

Keep communication bidirectional and invite feedback by establishing a clear feedback channel.

For example, should clinicians reach out via email, phone, or in-person? Who can they contact if they have questions after business hours?

For consistency purposes, if your health care system has implemented previous upgrades to your respective EHR system or PDMP, the person in charge of disseminating correspondence or training for those changes may be well suited to this role for the PDMP-EHR integration. In those situations, where did clinicians send feedback? How was feedback routed to the development team? Integration should remain consistent with successful sources and methods used for previous EHR change implementations.

Smaller and larger health care systems will likely differ in their approach to the clinician feedback mechanism. Larger health care systems need more standardized and streamlined feedback approaches, whereas smaller health care systems can use more informal channels to gather feedback. For larger health care systems that may see a large volume of feedback, creating a website populated with frequently asked questions, explanations of the integrated PDMP-EHR system, a detailed tutorial on accessing the PDMP, and a place to submit further questions may be optimal. For smaller health care systems, in-person training and one-on-one conversations may suffice.

Creating a feasible feedback system before Go-Live will provide your health care system with a sustainable approach to maintenance after implementation.

Appendix A

Tip Sheet for Small and Large Health Care Systems

For Smaller Health Care Systems

For smaller health care systems, the following suggestions offer practical training methods:

- Provide incentivized, in-person clinician training (information sessions, focus groups, etc.).
- Orchestrate one-on-one clinician meetings to review the PDMP-EHR integration.
- Allow direct communication between clinicians and the development team.
- Post physical tip sheets around the facility.

For Larger Health Care Systems

For larger health care systems, the following suggestions offer practical training methods:

- Establish an email communications strategy (announcements, updates, sharing additional resources, etc.).
- Provide incentivized webinars and calls (information sessions, remote work, focus groups, feedback sessions, etc.).
- Build an internal educational webpage and/or training module.
- Host departmental meetings to disseminate training resources.
- Contact pre-existing training teams within the health care system to facilitate integration training.
- Display posters/infographics in common areas (high-level messages about integration, reminders about key dates and meetings, etc.).

Larger health care systems may need to use a combination of methods to reach all their clinicians.

Appendix B

Training Documentation Development Tips

The following tips are suggestions for creating a training document:

1. Provide a workflow tutorial: explain what the new workflow to access the PDMP report will be in the integrated EHR
    a. Divide each new workflow "click" into a separate step.
    b. Include descriptions for every step in the workflow.
    c. Include screenshots (if possible) of every step in the workflow underneath each description.
    d. Demonstrate the workflow from start to finish. If different workflows are relevant to different audience members, demonstrate each workflow.
    e. Include boxes and arrows around each new pop-up or dashboard that appears in the screenshots when navigating through the integrated PDMP-EHR.
2. If you can, define any error messages that would appear during a PDMP query (i.e., connection error, patient matching error, etc.) This will help alleviate clinician confusion.
3. Clarify any headers that appear with the PDMP data. For instance, if there is a data table with one column header titled "Refills," explain if those are refills authorized or the number of refills remaining for the patient.
4. If your state has different prescribing requirements for different health care departments, consider making a department-specific guide that details the department's prescribing.
5. Where applicable, include or cite any relevant state compliance laws, including state legal requirements for the use of the PDMP.

Suggested Training Document Content

A training template is below with guidance on how to populate each section and sample verbiage developed for a Utah-based health care system. Health care systems can use this example to inform their training materials. To use this template, insert relevant text and screenshots where applicable and adjust the wording and order to resemble the proper workflow. Delete the bolded text after populating the template with your health care system's information and disseminate the document to your intended audience.

PDMP-EHR Integration Training Document Example

PDMP Overview

Use this section to provide information on your state's PDMP. Begin with a definition of the PDMP and include relevant state legislation that created the PDMP or requires use of the PDMP for prescribing. You may follow with an explanation of who may access the PDMP and any relevant state legislature, if applicable. Also use this section to explain the integration's goal of simplifying the prescribing process by querying the PDMP within your health care system's EHR. Include your health care system's integration goals, explicitly stating any goals related to compliance with state PDMP statutes. See example below:

Utah's Controlled Substance Database (CSD) is a home-grown prescription drug monitoring program (PDMP), statutorily created on January 1, 1995. Utah's legislature mandates that prescribers check the CSD before initially prescribing a Schedule II or III opioid and periodically thereafter if repeatedly prescribing such opioid (UT Code 58-37f-304(2)). The CSD is administered by the Department of Commerce, Division of Occupational and Professional Licensing to support clinical decision-making in prescribing controlled substances. The program goal is to reduce the overall use of benzodiazepines and opioids in the state of Utah.

Why PDMP Workflow Integration?

Use this section to explain the integration's goal of simplifying the prescribing process by querying the PDMP within your health care system's EHR. Include your health care system's integration goals, explicitly stating any goals related to compliance with state PDMP statutes. See example below:

PDMP integration is designed to minimize the effort required to access the state's PDMP.

Rather than requiring the clinician to open a separate browser, log in and manually locate and review patient data in the PDMP web portal, integration allows the clinician to query the PDMP from the patient profile in the EHR with just a few clicks.

Who Can See the PDMP Dispensation Data?

Use this section to highlight statutes that dictate who can use the PDMP or your health care system's guidance on who can access the PDMP. See example below:

Individuals who meet certain criteria may access the PDMP, including, but not limited to, prescribers (physicians, dentists, advanced practice registered nurses, physician assistants, optometrists, veterinarians, residents, etc.), dispensers, law enforcement officers, researchers, managed care organization employees, and probation officers.

For more information about access criteria, please refer to **[insert name and link to relevant PDMP legislature]**.

How to Perform the Query

Include a description or diagram of your health care system's workflow for accessing the PDMP through the EHR. Include screenshots of the process, a link to a video navigating the integration, or a detailed list of the necessary steps for accessing the PDMP. See example below:

There are a number of ways to navigate to the PDMP report, but this workflow follows one example in particular.

Step 1:

Begin with the patient profile in the electronic health records platform.

[Insert screenshot of desired starting screen.]

Step 2:

Navigate to the **[insert name of starting tab]** tab.

[Insert screenshot of desired tab.]

Step 3:

Select the **[insert name of starting tab]** tab. A page should appear titled **[insert page title]**.

[Insert the information that the new page will include. See example below.]

This page may have the querying history of the patient and any notes provided on the patient's medication history.

[Insert screenshot of the relevant page.]

Step 4:

There is a **[insert description and placement of the PDMP access button].** Select it to access the PDMP.

[Insert screenshot of the relevant page.]

[The following steps should provide additional details on navigating the PDMP data. Health care systems should be as detailed as possible in their descriptions of each step associated with navigating the PDMP data, describing the PDMP data, and noting any alerts or tools that the PDMP may provide for clinical decision-making. Health care systems should also include screenshots to illustrate each action.]

Step 5:

To exit this page, **[insert exit details here].**

[Insert screenshot of the placement of an exit button or the exit page.]

Error Messages

You can use this section to explain any error messages that may populate in a PDMP query. See example below:

You may receive the following error message:

[Insert possible error message here. See below for an example.]

If the patient is not found or the patient does not have any dispensed controlled substance prescriptions within the past 12 months, a "No data available in table" message will display.

If you would like to validate this error message, navigate to the web portal and run the query again.

Should a connection error or any other error messages populate, please screenshot the message and send it to **[Insert point of contact].** After submitting the message, please re-run the query via the web portal.

If You Have Questions?

Use this section to provide the number to a help desk or IT Director that clinicians can direct their questions to. Be sure to provide a backup resource for after-hours assistance.

You can also include a list of Frequently Asked Questions (FAQ), with questions you anticipate your users might have, such as:

- **Can I still use my delegate?**
- **Will my compliance be tracked?**
- **Does integration include interstate data?**
- **Am I required to use this?**
- **When do I use the web portal and not the integration?**

This section can also contain other helpful links to PDMP, EHR, or integration resources related to your health care system's integration. See example below:

If you have further questions about the PDMP-EHR integrated tool, please contact:

- Health care system's Help Desk number
- Health care system's IT department number or extension
- Health care system's IT email

Or refer to the following websites for more information:

- Health care system's IT website
- PDMP web portal
- Link to state's PDMP legislation